



This is a repository copy of *Reducing loneliness among migrant and ethnic minority people : a participatory evidence synthesis*.

White Rose Research Online URL for this paper:
<https://eprints.whiterose.ac.uk/164682/>

Version: Published Version

Article:

Salway, S. orcid.org/0000-0002-7688-5496, Such, E. orcid.org/0000-0003-2242-3357, Preston, L. orcid.org/0000-0001-7477-4517 et al. (4 more authors) (2020) Reducing loneliness among migrant and ethnic minority people : a participatory evidence synthesis. *Public Health Research*, 8 (10). pp. 1-245. ISSN 2050-4381

<https://doi.org/10.3310/phr08100>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Public Health Research

Volume 8 • Issue 10 • July 2020

ISSN 2050-4381

Reducing loneliness among migrant and ethnic minority people: a participatory evidence synthesis

Sarah Salway, Elizabeth Such, Louise Preston, Andrew Booth, Maria Zubair, Christina Victor and Raghu Raghavan



Reducing loneliness among migrant and ethnic minority people: a participatory evidence synthesis

Sarah Salway^{1*}, Elizabeth Such², Louise Preston²,
Andrew Booth², Maria Zubair³, Christina Victor⁴
and Raghu Raghavan⁵

¹Department of Sociological Studies, University of Sheffield, Sheffield, UK

²School of Health and Related Research, University of Sheffield, Sheffield, UK

³Faculty of Health, Psychology and Social Care, Manchester Metropolitan University, Manchester, UK

⁴College of Health and Life Sciences, Brunel University London, London, UK

⁵School of Nursing and Midwifery, De Montfort University, Leicester, UK

*Corresponding author

Declared competing interests of authors: none

Published July 2020

DOI: 10.3310/phr08100

This report should be referenced as follows:

Salway S, Such E, Preston L, Booth A, Zubair M, Victor C, Raghavan R. Reducing loneliness among migrant and ethnic minority people: a participatory evidence synthesis. *Public Health Res* 2020;**8**(10).

Public Health Research

ISSN 2050-4381 (Print)

ISSN 2050-439X (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full PHR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/phr. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the *Public Health Research* journal

Reports are published in *Public Health Research* (PHR) if (1) they have resulted from work for the PHR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Public Health Research* are termed 'systematic' when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health Research (NIHR), is the leading UK funder of public health research, evaluating public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health.

For more information about the PHR programme please visit the website: <https://www.nihr.ac.uk/explore-nihr/funding-programmes/public-health-research.htm>

This report

The research reported here is the product of an PHR Evidence Synthesis Centre, contracted to provide rapid evidence syntheses on issues of relevance to the health service, and to inform future PHR calls for new research around identified gaps in evidence. Other reviews by the Evidence Synthesis Centres are also available in the PHR journal.

The research reported in this issue of the journal was funded by the PHR programme as project number 16/08/44. The contractual start date was in October 2017. The final report began editorial review in August 2019 and was accepted for publication in October 2019. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2020. This work was produced by Salway *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).

Editor-in-Chief of *Public Health Research* and NIHR Journals Library

Professor Ken Stein Professor of Public Health, University of Exeter Medical School, UK

NIHR Journals Library Editors

Professor John Powell Chair of HTA and EME Editorial Board and Editor-in-Chief of HTA and EME journals. Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK, and Senior Clinical Researcher, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK

Professor Andrée Le May Chair of NIHR Journals Library Editorial Group (HS&DR, PGfAR, PHR journals) and Editor-in-Chief of HS&DR, PGfAR, PHR journals

Professor Matthias Beck Professor of Management, Cork University Business School, Department of Management and Marketing, University College Cork, Ireland

Dr Tessa Crilly Director, Crystal Blue Consulting Ltd, UK

Dr Eugenia Cronin Senior Scientific Advisor, Wessex Institute, UK

Dr Peter Davidson Consultant Advisor, Wessex Institute, University of Southampton, UK

Ms Tara Lamont Director, NIHR Dissemination Centre, UK

Dr Catriona McDaid Senior Research Fellow, York Trials Unit, Department of Health Sciences, University of York, UK

Professor William McGuire Professor of Child Health, Hull York Medical School, University of York, UK

Professor Geoffrey Meads Professor of Wellbeing Research, University of Winchester, UK

Professor John Norrie Chair in Medical Statistics, University of Edinburgh, UK

Professor James Raftery Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

Dr Rob Riemsma Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

Professor Helen Roberts Professor of Child Health Research, UCL Great Ormond Street Institute of Child Health, UK

Professor Jonathan Ross Professor of Sexual Health and HIV, University Hospital Birmingham, UK

Professor Helen Snooks Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Professor Ken Stein Professor of Public Health, University of Exeter Medical School, UK

Professor Jim Thornton Professor of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University of Nottingham, UK

Professor Martin Underwood Warwick Clinical Trials Unit, Warwick Medical School, University of Warwick, UK

Please visit the website for a list of editors: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: journals.library@nihr.ac.uk

Abstract

Reducing loneliness among migrant and ethnic minority people: a participatory evidence synthesis

Sarah Salway^{1*}, Elizabeth Such², Louise Preston², Andrew Booth², Maria Zubair³, Christina Victor⁴ and Raghu Raghavan⁵

¹Department of Sociological Studies, University of Sheffield, Sheffield, UK

²School of Health and Related Research, University of Sheffield, Sheffield, UK

³Faculty of Health, Psychology and Social Care, Manchester Metropolitan University, Manchester, UK

⁴College of Health and Life Sciences, Brunel University London, London, UK

⁵School of Nursing and Midwifery, De Montfort University, Leicester, UK

*Corresponding author s.salway@sheffield.ac.uk

Background: To date, there has been little research into the causes of, and solutions to, loneliness among migrant and ethnic minority people.

Objectives: The objectives were to synthesise available evidence and produce new insights relating to initiatives that aim to address loneliness among these populations, plus the logic, functioning and effects of such initiatives.

Data sources: Electronic database searches (MEDLINE, Applied Social Sciences Index and Abstracts and Social Science Citation Index via Web of Science – no date restrictions were applied), grey literature searches, and citation and reference searching were conducted. Data were generated via nine workshops with three consultation panels involving 34 public contributors, and one practitioner workshop involving 50 participants.

Review methods: Guided by 'systems thinking', a theory-driven synthesis was combined with an effectiveness review to integrate evidence on the nature and causes of loneliness, interventional types and programme theory, and intervention implementation and effectiveness.

Results: The theory review indicated that common conceptualisations of 'loneliness' can be usefully extended to recognise four proximate determinants when focusing on migrant and ethnic minority populations: positive social ties and interactions, negative social ties and interactions, self-worth, and appraisal of existing ties. A total of 170 interventions were included. A typology of eight interventions was developed. Detailed logic models were developed for three common types of intervention: befriending, shared-identity social support groups and intercultural encounters. The models for the first two types were generally well supported by empirical data; the third was more tentative. Evaluation of intervention processes and outcomes was limited by study content and quality. Evidence from 19 qualitative and six quantitative studies suggested that social support groups have a positive impact on dimensions of loneliness for participants. Evidence from nine qualitative and three quantitative studies suggested that befriending can have positive impacts on loneliness. However, inconsistent achievements of the befriending model meant that some initiatives were ineffective. Few studies on intercultural encounters reported relevant outcomes, although four provided some qualitative evidence and three provided quantitative evidence of improvement. Looking across intervention types, evidence suggests that initiatives targeting the proximate determinants – particularly boosting self-worth – are more effective than those that do not. No evidence was available on the long-term effects of any initiatives. UK intervention ($n = 41$) and

ABSTRACT

non-intervention ($n = 65$) studies, together with consultation panel workshop data, contributed to a narrative synthesis of system processes. Interlocking factors operating at individual, family, community, organisational and wider societal levels increase risk of loneliness, and undermine access to, and the impact of, interventions. Racism operates in various ways throughout the system to increase risk of loneliness.

Limitations: There was a lack of high-quality quantitative studies, and there were no studies with longer-term follow-up. UK evidence was very limited. Studies addressing upstream determinants operating at the community and societal levels did not link through to individual outcome measures. Some elements of the search approach may mean that relevant literature was overlooked.

Conclusions: Theory regarding the causes of loneliness, and functioning of interventions, among migrant and ethnic minority populations was usefully developed. Evidence of positive impact on loneliness was strongest for shared-identity social support groups. Quantitative evidence was inadequate. The UK evidence base was extremely limited.

Future work: UK research in this area is desperately needed. Co-production of interventional approaches with migrant and ethnic minority people and evaluation of existing community-based initiatives are priorities.

Study registration: This study is registered as PROSPERO CRD42017077378.

Funding: This project was funded by the National Institute for Health Research Public Health Research programme and will be published in full in *Public Health Research*; Vol. 8, No. 10. See the NIHR Journals Library website for further project information.

Contents

List of tables	xiii
List of figures	xv
List of boxes	xvii
List of supplementary material	xix
List of abbreviations	xxi
Plain English summary	xxiii
Scientific summary	xxv
Chapter 1 Introduction	1
Background	1
Rationale	2
Research objectives	2
Outline of the report	3
Chapter 2 Methods	5
Introduction	5
Review questions	5
Rationale for review methodology	5
Literature search methods	6
<i>Initial database searches (approach 1)</i>	6
<i>Review of prior reviews (approach 2)</i>	8
<i>Additional search techniques (approaches 3, 4, 5 and 6)</i>	8
<i>Grey literature identification (approach 7)</i>	8
Selection of included studies	9
Data extraction	9
Quality assessment	10
Quantitative synthesis	10
Theory development	10
Consultation panels	11
<i>Recruitment and participants</i>	11
<i>The management and ethos of the consultation panels</i>	12
<i>Structure and content of consultation panel sessions</i>	12
<i>Consultation panel contribution</i>	13
Adaptations to the review process	13
Final participatory workshop	13
Chapter 3 Identifying the theoretical scope of the project	15
Introduction	15
Loneliness and social isolation	15
<i>Concepts and definitions</i>	15

CONTENTS

Closely related concepts	16
<i>Social support</i>	16
<i>Social networks, social integration and acculturation</i>	20
<i>Sense of belonging and racism</i>	21
<i>Intercultural encounters</i>	22
Delineating the scope	22
<i>Outcomes of interest</i>	23
<i>A framework of the proximate determinants of loneliness</i>	23
<i>Potential strategies and solutions</i>	23
Chapter 4 A typology of interventional approaches	25
Introduction	25
<i>Overview of the range of interventional approaches</i>	26
Common interventional types	28
<i>Befriending</i>	28
<i>Shared-identity social support groups</i>	30
<i>Intercultural encounters</i>	31
Other intervention types	33
<i>Training or equipping focused</i>	33
<i>Psychotherapy</i>	33
<i>Meaningful activity focused</i>	34
<i>Volunteering</i>	35
<i>Light-touch psychological inputs</i>	35
<i>Other (individual)</i>	35
<i>Other (community, organisation or structural)</i>	36
Chapter 5 Intervention logics	37
Introduction	37
Befriending	38
Shared-identity social support groups	41
Intercultural encounters	43
Other interventions: hypothesised causal chains	46
<i>Training or equipping focused</i>	46
<i>Psychotherapy</i>	46
<i>Meaningful activity-focused</i>	46
<i>Volunteering</i>	47
<i>Light-touch psychological inputs</i>	47
Chapter 6 Intervention effects and outcomes	49
Introduction	49
Befriending	50
<i>Distinctive function 1: one-to-one tailored support</i>	51
<i>Additional function 2: equipping for context</i>	52
<i>Additional function 3: linking to support</i>	52
<i>Feedback loops</i>	53
<i>Second-order causal links and proximate determinants</i>	53
<i>Outcomes</i>	54
<i>Differential processes and outcomes</i>	55
<i>Achieving functions: what inputs are important?</i>	55
<i>Befriending: negative effects</i>	56

Shared-identity social support groups	57
<i>Distinctive function 1: safe reciprocal space</i>	57
<i>Additional function 2: buffering hostility</i>	59
<i>Additional function 3: equipping for context</i>	60
<i>Feedback loops</i>	60
<i>Second-order causal pathways and proximate determinants</i>	61
<i>Outcomes</i>	62
<i>Differential processes and outcomes</i>	62
<i>Achieving functions: what inputs are important?</i>	63
<i>Shared-identity social support groups: negative effects</i>	65
Intercultural encounters	65
<i>Distinctive function 1: meaningful interethnic contact</i>	65
<i>Additional function 2: myth-busting</i>	68
<i>Additional function 3: equipping for contact</i>	68
<i>Proximate determinants</i>	68
<i>Outcomes</i>	70
<i>Differential processes and outcomes</i>	70
<i>Achieving functions: what inputs are important?</i>	70
<i>Intercultural encounters: negative effects</i>	72
Qualitative evidence relating to causal pathways from other intervention types	72
<i>Pathways to increased positive social ties and interactions</i>	73
<i>Pathways to reduced negative social ties and interactions</i>	73
<i>Pathways to increased self-worth</i>	73
<i>Pathways to more positive appraisal of existing ties and interactions</i>	74
Revisiting the quantitative evaluations	74
<i>Hypothesis 1</i>	74
<i>Hypothesis 2</i>	75
<i>Hypothesis 3</i>	75
<i>Hypothesis 4</i>	76
<i>Hypothesis 5</i>	76
Health outcomes	76
Chapter 7 Understanding the wider 'system': risks for loneliness and factors influencing intended solutions	77
Introduction	77
Individual-level factors	77
<i>Self-confidence; self-worth</i>	77
<i>Ill-health and disability</i>	80
<i>Material resources</i>	81
<i>Awareness and familiarity</i>	81
<i>Individual needs and preferences for social relationships and contact</i>	81
<i>Faith and spirituality</i>	84
Family-level factors	84
<i>Loss of family ties and support</i>	84
<i>Families as sources of stress; negative social support</i>	85
<i>Competing demands and responsibilities</i>	86
<i>Stigma</i>	86
Neighbourhood and community-level factors	87
<i>Feeling unwelcome; interpersonal racial harassment</i>	87
<i>Neighbourliness</i>	88
<i>Community assets and geographies; natural spaces of encounter and connection</i>	89
<i>Transport</i>	90

CONTENTS

Organisational-level factors	90
<i>Alienating systems and processes</i>	90
<i>Staffing: skills, identities and behaviours</i>	91
Wider society; structural and cultural racism	93
<i>Dominant UK policy and media narratives</i>	93
<i>Ripple effects of 'remote' events</i>	93
Intersecting risks	93
Chapter 8 Current UK approaches and potential new directions	95
Introduction	95
Provision versus need	95
Towards a systems approach	97
<i>Targeting and tailoring</i>	97
<i>Signposting and referring</i>	97
<i>Embedding and diversifying</i>	99
<i>Engaging local people</i>	99
<i>Challenging aversion to ethnic-specific provision</i>	99
<i>Costs, resources and funding regimes</i>	99
Chapter 9 Limitations, implications and conclusions	101
Limitations of the research	101
<i>Searching and literature retrieved</i>	101
<i>Consultation panels</i>	101
Limitations of the evidence base	101
Implications for practice	102
<i>Conceptualising loneliness</i>	102
<i>Understanding interventions</i>	102
<i>Enhancing existing approaches</i>	103
<i>Wider system factors and opportunities for action</i>	104
Implications for research	105
Conclusions	105
Acknowledgements	107
References	109
Appendix 1 Search strategy examples	131
Appendix 2 Early logic models	135
Appendix 3 Consultation panel details: workshop 1	137
Appendix 4 Consultation panel details: workshop 2	139
Appendix 5 Examples of consultation panel workshop exercises	141
Appendix 6 Examples of visual outputs co-created with consultation panels	149
Appendix 7 Overview of interventions/initiatives in the three common types	151
Appendix 8 Overview of other interventions/initiatives	193

Appendix 9 Befriending: evaluative papers	217
Appendix 10 Shared-identity social support groups: evaluative papers	221
Appendix 11 Intercultural encounters: evaluative papers	229
Appendix 12 Quantitative papers assessing a relevant outcome measure, all intervention types	235

List of tables

TABLE 1 How the review methodology addresses the review questions	6
TABLE 2 Extraction criteria	10
TABLE 3 Commonality across measures of loneliness and related concepts	19
TABLE 4 Hypothesised proximate determinants and associated solutions to loneliness	24
TABLE 5 Typology of interventional approaches	26
TABLE 6 Population groups by intervention/initiative type	27
TABLE 7 Summary of evidence relating to causal chains and outcomes for 19 befriending interventions	50
TABLE 8 Summary of evidence relating to causal chains and outcomes for 31 shared-identity social support groups interventions	57
TABLE 9 Summary of evidence relating to causal chains and outcomes for 22 intercultural encounter interventions	66
TABLE 10 Preliminary assessment of provision in response to need for initiatives, UK picture	95
TABLE 11 Characteristics of panel members in workshop 1	137
TABLE 12 Characteristics of panel members in workshop 2	139
TABLE 13 Befriending papers overview: characteristics of inputs	152
TABLE 14 Shared-identity social support group papers overview: characteristics of inputs	162
TABLE 15 Intercultural encounters papers overview: characteristics of inputs	180
TABLE 16 Psychotherapy interventions	194
TABLE 17 Equipping and training interventions	200
TABLE 18 Meaningful activity interventions	208
TABLE 19 Volunteering interventions	211
TABLE 20 Light-touch psychological inputs	213
TABLE 21 Befriending interventions causal chains and outcomes (<i>n</i> = 19, qualitative and quantitative)	218

LIST OF TABLES

TABLE 22 Shared-identity social support group interventions causal chains and outcomes (<i>n</i> = 31; qualitative and quantitative)	222
TABLE 23 Intercultural encounter interventions, causal chains and outcomes (<i>n</i> = 22 qualitative and quantitative)	230
TABLE 24 Quantitative papers: causal chains and outcomes (RCTs; pre–post or comparator design; <i>n</i> = 34)	236

List of figures

FIGURE 1 Flow diagram of literature searching and syntheses	7
FIGURE 2 Generic befriending logic model	39
FIGURE 3 Generic shared identity social support group logic model	42
FIGURE 4 Generic intercultural encounter logic model	44
FIGURE 5 Generic model of intervention illustrating potential system-moderating factors	78
FIGURE 6 Generic systems map: 'loneliness-proofing'	98
FIGURE 7 Illustrative example of early logic model drawn during extraction of intervention paper	136
FIGURE 8 Example of visual representation worksheet for CP workshop 1	142

List of boxes

BOX 1 What do we mean by 'loneliness'? Themes generated from first round of CP meetings	17
--	----

List of supplementary material

Report Supplementary Material 1 Tables of UK initiatives identified in grey literature

Supplementary material can be found on the NIHR Journals Library report page (<https://doi.org/10.3310/phr08100>).

Supplementary material has been provided by the authors to support the report and any files provided at submission will have been seen by peer reviewers, but not extensively reviewed. Any supplementary material provided at a later stage in the process may not have been peer reviewed.

List of abbreviations

BME	black and minority ethnic	PAG	Project Advisory Group
CP	consultation panel	RCT	randomised controlled trial
HIV	human immunodeficiency virus	SCHARR	School of Health and Related Research
LGBT	lesbian, gay, bisexual and transgender	SSG	shared-identity social support group
MeSH	medical subject heading		

Plain English summary

Feeling lonely or lacking social ties can be bad for people's health; various responses have been tried. This project aimed to produce new understanding about how loneliness among ethnic minority and migrant groups can be tackled. These populations have, so far, not received much research attention, to our knowledge.

We undertook desk-based work, searching for relevant research papers and reports, and summarising their findings. We also worked closely with community workers and interested members of the public through groups called consultation panels. Two groups met in Sheffield and one in Leicester; each met three times over the course of the project. We used interactive sessions to allow consultation panel members to look carefully at what the research papers were showing. They added to this information with insights from their own broad experience.

We found that the way we think about loneliness needs to be broadened when the focus is on migrant and ethnic minority people. We need to pay attention to the experience of negative social ties and interactions, and to low self-worth. Both can increase the risk of loneliness, as well as a lack of positive social ties.

We identified eight different types of intervention that can potentially reduce loneliness. Three were common: befriending (a one-to-one supportive relationship), shared-identity social support groups (similar people coming together to support each other and engage in meaningful activities) and intercultural encounters (people interacting across ethnic or cultural difference).

Evidence on whether or not these initiatives work in practice was limited. UK studies were particularly sparse. However, there was quite a lot of consistent evidence to suggest that shared-identity social support groups can be effective. Some befriending and some intercultural encounters also appeared to be effective.

We found little information on the costs of interventions.

Research evidence and consultation panel workshops indicated that a wide range of factors can increase the risk of loneliness. Racism, both in terms of interpersonal abuse and organisational processes that discriminate, is a widespread problem. The wider hostile policy and media environment also contribute to feelings of loneliness, and of not belonging, among ethnic minority and migrant groups.

Scientific summary

Background and rationale

Social isolation and loneliness are widely recognised as major public health problems. Migrant and ethnic minority people may face particular risks of loneliness.

Aims and review questions

The overall aims were to synthesise the available evidence and produce new insights relating to the range of interventions addressing loneliness among people identifying as migrant and/or ethnic minority, plus the logic, functioning and effects of the interventions. The review questions were as follows:

- What types of interventional approaches to addressing social isolation and/or loneliness among migrant and/or ethnic minority people have been developed and evaluated?
- How effective are such interventions at reducing social isolation and/or loneliness when compared with usual or no intervention?
- What health outcomes have been examined?
- What negative effects have resulted from such interventions?
- Do effects vary for different people (e.g. by gender, age, income)?
- What 'programme theory' and assumed underlying mechanisms inform interventions?
- What system factors increase or decrease social isolation and loneliness among migrant and/or ethnic minority people?
- What happens when similar interventions are introduced into different contexts?
- What system conditions support or hamper successful and sustained implementation?
- To what extent do current interventional approaches address the known determinants? Where are the gaps?
- What are the costs associated with such interventions?
- What implications are there for roll-out at scale in the UK?

Methods

As well as examining initiatives, we aimed to uncover the broader features of socioecological systems that interplay with deliberate intervention and affect outcomes. We therefore combined an effectiveness review with a 'systems theory-informed' evidence synthesis.

Searching

We employed general and targeted electronic database searches (no date restrictions were applied), forward and backward citation-searching, review of prior reviews and expert recommendations to locate potentially relevant literature. Search processes conformed to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Grey literature searches identified additional UK initiatives.

Study selection

Searches were downloaded to EndNote version 9 [Clarivate Analytics (formerly Thomson Reuters), Philadelphia, PA, USA] and then exported to EPPI-Reviewer version 4 (Evidence for Policy and Practice Information and Co-ordinating Centre, University of London, London, UK) for screening and extraction.

Initial screening for relevance on title and abstract was undertaken by one reviewer, with any uncertain items referred to a second reviewer. A second round of full-text screening applied a piloted, refined and finalised checklist. Uncertainties were resolved by discussion.

Data extraction

An extraction template was developed, piloted and finalised in EPPI-Reviewer. Quantitative effectiveness information was double extracted, compared and agreed, calling on a third reviewer for consensus. Extractions for the theory-driven review were undertaken by one reviewer and validated via a process of iterative team discussions and revisiting of papers. Templates included structured items, interpretive coding and visual representations.

Appraisal

For the theory-informed review, paper contributions were moderated based on relevance, rigour and richness. For the effectiveness review, we applied the Cochrane Risk of Bias assessment tool to all randomised controlled trials; otherwise, we simply noted the study design.

Consultation panel and stakeholder workshops

We convened three consultation panels involving 34 participants: two in Sheffield and one in Leicester. All participants self-identified as a migrant and/or having an ethnic minority identity. A mix of other social characteristics was represented.

We held an initial 'meet-and-greet' session and two half-day workshops with each consultation panel. Sessions were highly interactive, employing structured exercises, visual diagrams and open discussion. Consultation panels provided commentary and critique on the emergent review material.

At a practitioner workshop involving ≈ 50 people we shared the emergent findings and sought input to the review products.

Synthesis and integration

Theory development, relating to interventional logic and system processes, was iterative and drew on complementary sources of insight: grand and mid-range theories identified in the published literature, insights from consultation panel workshops, and empirical papers describing interventions. Structured templates in Microsoft Word (Microsoft Corporation, Redmond, WA, USA) characterised the inputs, functions, strategies and causal chains between intervention elements, proximate determinants and relevant outcomes. Iterative team analysis sessions refined the theory.

Intervention/initiative papers that were suitable for quantitative data extraction employed diverse outcome measures and often had methodological limitations. Therefore, a narrative synthesis, guided by a set of derived hypotheses, was undertaken.

Drawing on consultation panel contributions, relevant data from UK intervention papers and a subset of rich UK non-intervention papers, a narrative synthesis of systems factors that affect both the risk of loneliness and the operation of interventions was developed.

Textual and diagrammatic synthesis products were produced.

Ethics

Ethics approval for the consultation panels was granted by the University of Sheffield's School of Health and Related Research Research Ethics Committee (reference number 016132).

Results

Developing the theoretical scope

Initial theory-building confirmed the inadequacy of existing formulations of 'loneliness'. In particular, rather than pathologising people's negative appraisal of existing social relations, we acknowledge exposure to social ties and interactions that undermine, rather than affirm, and constrain, rather than facilitate, companionship. For migrant and ethnic minority people these interactions are commonplace, and threats to self-worth are routinely experienced. Furthermore, for many migrants, a loss or weakening of significant social exchanges is a common experience.

Important conceptual overlap between related, but distinct, bodies of literature indicated the need to include several related outcomes: emotional loneliness (lack of intimacy), social loneliness (lack of sense of belonging), feeling isolated and feeling unsupported. The resultant model of loneliness included four proximate determinants: (1) positive social ties and interactions, (2) negative social ties and interactions (3) self-worth and (4) appraisal of existing ties. This model suggested a wider range of potential solutions than commonly considered.

What types of interventional approaches to addressing social isolation and/or loneliness among migrant and/or ethnic minority people have been developed and evaluated?

We 'typed' initiatives by identifying their intended functions (a set of closely related enabling conditions and opportunities for change). We identified eight types, each identified by a distinctive function, and labelled them as follows: befriending, shared-identity social support groups, intercultural encounters, psychotherapy, training or equipping focused, meaningful activity focused, volunteering and light-touch psychological inputs. Two 'other' categories accommodated multifaceted initiatives offering a menu of options or providing diverse inputs at a structural level.

What 'programme theory' and assumed underlying mechanisms inform interventions?

We went on to develop detailed logic models for the three most common intervention types. These 'ideal type' depictions aimed to capture the main elements of the intervention, including three functions in each case, and their inter-relationships.

The distinctive function of befriending was identified as the provision of a one-to-one relationship of trust that provides tailored emotional support and companionship. The distinctive function of shared-identity social support group interventions was identified as providing a safe, authentic, reciprocal social space where people who recognise some kind of shared identity engage with each other, with meaning and enjoyment. The logic model for intercultural encounters was more tentative, with the distinctive function identified as being to bring together, in meaningful contact across ethnic/cultural/religious differences, people who do not normally interact. Befriending and shared-identity social support group models shared some common logic with several other intervention types. Most operated via proximate determinants 1, 3 and, to a lesser extent, 2. Light-touch psychological inputs were unusual in operating via proximate determinant 4.

How effective are such interventions at reducing social isolation and/or loneliness when compared with usual or no intervention?

There was consistent evidence from nine qualitative studies that befriending initiatives led to improvements in dimensions of loneliness. Three quantitative studies showed a positive impact on a relevant outcome. In contrast, four reported no such impact, but none of these appeared to achieve the distinctive function. There was consistent qualitative evidence from 10 studies that befriending interventions that achieve function 1, namely one-to-one tailored support, result in a positive social tie for the befriended. There was limited and mixed evidence on whether or not befriending initiatives result in positive ties beyond the befriender-befriended relationship. There was consistent qualitative

evidence from 10 studies that befriending initiatives result in increased self-worth among befriendees. There was consistent qualitative evidence from eight studies that befriending interventions result in decreased negative ties and interactions (with family members and/or professionals). None of the befriending studies documented changes in appraisal of existing ties.

Nineteen qualitative, and six quantitative, studies of shared-identity social support groups provided evidence to suggest a positive impact on dimensions of loneliness, whereas three quantitative studies reported no effect. There was consistent qualitative evidence from 29 studies that shared-identity social support group initiatives that achieve function 1 (safe, reciprocal space) lead to increased positive ties among group members; one quantitative study supported this finding. Consistent qualitative evidence from 16 studies showed such ties and interactions extending beyond group activities. Qualitative evidence from seven studies and quantitative evidence from two studies suggested that shared-identity social support groups lead to reduced negative ties and interactions for participants. Eighteen qualitative studies, and one quantitative study, provided evidence that shared-identity social support groups can increase participant self-worth. Two qualitative studies suggested that shared-identity social support groups can produce a more positive appraisal of existing ties.

Few intercultural encounter studies provided data on relevant outcomes. There was qualitative evidence from 12 studies of increased positive 'within-group' ties, and from 15 studies of increased positive 'out-group' ties. Two quantitative studies also suggested increased 'out-group' ties. A small number of studies reported no such changes. There was mixed evidence as to whether or not intercultural encounter initiatives reduce the experience of negative ties and interactions for migrant/ethnic minority people. Several intercultural encounter initiatives aimed to produce broader shifts in attitudes and practices of individuals beyond the immediate initiative, but very limited evidence was available to assess effects.

Drawing on the qualitative evidence and theoretical insights, we developed hypotheses regarding probable relationships between interventional characteristics and outcomes that were used to guide exploration of 34 quantitative outcome studies. Notwithstanding the generally low quality of study designs, we found fairly consistent support for the following hypotheses: (1) interventions that target underlying causes of loneliness (via tailoring or multiple inputs) are more effective than those that do not, (2) interventions that explicitly aim to boost self-worth are more effective than those that do not and (3) interventions that explicitly support the building of a shared-identity social network for new migrants are more effective than those that do not.

What negative effects have resulted from such interventions?

A small number of studies suggest that befriending initiatives may result in some befriender dependence and feelings of loss when the relationship ends. Reduced self-worth (self-esteem) was reported in one befriending study (although this initiative did not achieve the distinctive function). In relation to intercultural encounter initiatives, a few studies suggested the potential for encounters to exacerbate negative attitudes, inequalities in status and racist behaviour.

Do effects (positive and negative) of interventions vary for different people (e.g. by gender, age, income)?

Few published studies considered differential effects of interventions, and no consistent patterns were discernible.

What system factors increase or decrease social isolation and loneliness among migrant and/or ethnic minority people? What system conditions support or hamper successful and sustained implementation of interventions?

At the individual level, a lack of self-confidence and low self-worth, undermining people's ability both to form and maintain social connections, and to take up intervention opportunities, was a prominent theme. Other factors were ill health and disability, lack of material resources and lack of awareness

and familiarity with opportunities for social engagement. Evidence suggested both a commonly felt need for opportunities to socialise within ethnically homogeneous groups at times, and a desire to engage across ethnic difference. The potential for people to connect and find commonality around various aspects of identity or experience was also emphasised. New migrants can be disappointed by a lack of hoped-for close relationships with non-migrant established residents.

The loss of family ties and support associated with migration was a prominent theme. In addition, however, families as a source of stress and 'negative social support' were also important issues. Competing demands and responsibilities were felt to increase the risk of social isolation and to negatively affect people's ability to access and sustain engagement in interventions. Stigma of isolation and loneliness and of accepting support was also highlighted. Working with, rather than against, family ties is important.

Feeling unwelcome and experiences of interpersonal racial harassment at the community level were found to limit social interactions and to contribute to feelings of isolation and lack of belonging among both migrants and ethnic minority people. On the other hand, 'neighbourliness'; that is, the positive, relatively fleeting, encounters between people in public spaces were identified as contributing to a feeling of being 'at home'. Local geographies – the presence, or absence, of spaces and places for positive social encounters and connections – were highlighted as important. Unreliable and unwelcoming public transport was a further factor restricting social engagement.

Official systems and processes frequently act to 'other', and thereby undermine, a sense of belonging among migrant and ethnic minority people. The experience of microaggressions from people in authority was reported as commonplace, contributing to a feeling among migrant and ethnic minority people of not being valued and of not belonging.

The wider hostile policy and media environment towards migrants (and, by extension, towards ethnic minority people) undermines people's sense of belonging, and has a negative impact on the take-up and success of initiatives.

To what extent do current interventional approaches address the known determinants of social isolation and/or loneliness among migrant and/or ethnic minority people? Where are the gaps? What implications are there for roll-out at scale in the UK? What are the costs associated with such interventions?

A preliminary assessment of UK activity suggested that shared-identity social support group and befriending interventions are common, but that some promising approaches are currently relatively rare, including training (and access to) digital technologies; direct transfer of resources to support social participation; provision of safe spaces to discuss and develop coping strategies for racism; provision of information, skills and navigational support for new contexts; and equipping people with social and communication skills.

Our review revealed no evidence of strategies that are effective in tackling overt racism, or increasing organisational cultural competence, with knock-on positive implications for our proximate determinants or outcomes. In addition, although we identified a large and varied set of 'intercultural encounter' initiatives in the UK, none provided strong evidence of impact.

Consultation panel discussions and the practitioner workshop highlighted the disjuncture between the published literature, which tended to focus narrowly on individual initiatives, and the reality of a complex system within which individuals may encounter diverse deliberate provision, as well as other resources and processes, that support or hamper their social connectedness. We developed a visual representation of a potential systems approach to 'loneliness-proofing'. Broad considerations included targeting and tailoring interventions to individual needs; provision of varied formal and informal opportunities for social connection, both within and across ethnic groups; effective signposting and

referral between agencies; engagement of the general public to increase neighbourliness; and concerted efforts to tackle racism and improve cultural competence within organisations.

There was very little information on the costs of UK interventions, and no assessments of cost-effectiveness. Widespread use of volunteers may represent good value for money.

Finally, an important tension was highlighted between the demonstrated need for opportunities to build and celebrate intraethnic, 'bonding' ties, and policy orientations that present such ties as threatening and favour supporting 'bridging' ties across difference.

Conclusions

Common conceptualisations of 'loneliness' can be usefully extended to recognise four proximate determinants when focusing on migrant and ethnic minority populations: (1) positive social ties and interactions, (2) negative social ties and interactions, (3) self-worth and (4) appraisal of existing ties.

Diverse interventions have been introduced with the potential to affect loneliness among these groups. Befriending, shared-identity social support groups and intercultural encounters were the most common types of intervention. Credible programme theory was developed for the first two of these types. Evidence of positive impact on loneliness was strongest for shared-identity social support groups. Quantitative evidence was inadequate and there were no data relating to long-term impacts.

The UK evidence base was extremely limited. Grey literature, however, suggested significant relevant activity around the country. Priorities are to co-produce interventional approaches with migrant and ethnic minority people that address the underlying nature and causes of loneliness among these populations, and to evaluate existing interventions that are being delivered – particularly shared-identity social support groups, intercultural encounters and multicomponent programmes.

An interlocking set of factors operating at individual, family, community, organisational and wider societal levels increase the risk of loneliness, and undermine access to, and the impact of, interventions. Interpersonal, structural and cultural racism operate throughout the system to increase the risk of loneliness. Current UK interventional approaches fail to address many of these system factors.

Study registration

This study is registered as PROSPERO CRD42017077378.

Funding

This project was funded by the National Institute for Health Research (NIHR) Public Health Research programme and will be published in full in *Public Health Research*; Vol. 8, No. 10. See the NIHR Journals Library website for further project information.

Chapter 1 Introduction

Background

Social isolation and loneliness are widely recognised as major public health problems, affecting large numbers of people across the lifespan, particularly older people.¹ Social isolation has been defined as a lack of interactions and relationships with other people, 'a deprivation of social connectedness'.¹ Loneliness has been conceptualised and defined in a variety of ways,^{2,3} but it is generally recognised as a complex and unpleasant emotional state related to, but distinct from, social isolation. Several, although not all, conceptualisations of loneliness explicitly identify both 'social integration' and 'intimacy' as the dimensions of loneliness.⁴

Loneliness is clearly, in and of itself, a dimension of ill-being. In addition, the health risks of loneliness and social isolation are increasingly highlighted.⁵ Both have been found to be associated with a range of physical and mental health problems.⁶⁻¹² A predominance of cross-sectional studies has precluded examination of the direction of causality, although bidirectionality seems likely. Research from 2011 suggests that loneliness and social isolation may each have independent impacts on health through their effects on health behaviours.¹³ Social isolation may also affect health through biological processes.¹³ Both loneliness and social isolation have also been found to be adversely associated with aspects of functional status in older adults, particularly among more disadvantaged individuals.¹⁴ A 2010 meta-analysis across all ages estimated an average 50% increased likelihood of survival for people with stronger social relationships.¹⁵

Although much of the available research focuses on older people, social isolation and loneliness have also been found to be associated with poor mental health and health-damaging behaviours at younger ages, with pregnant and postpartum women and adolescents receiving particular attention to date.^{16,17}

Determinants of social isolation and loneliness operate at micro, meso and macro levels, including individual, family, community, neighbourhood and wider society.¹⁸ Interventional activity with the potential to affect social isolation and loneliness (whether positively or negatively) is, therefore, diverse. To date, however, most interventional research has tended to adopt a fairly narrow, individualised approach. There is a need to better understand the wider determinants of social isolation and loneliness, and to understand how initiatives interact with elements and processes within wider socioecological systems.

The health and well-being of migrants and people from ethnic minority backgrounds is a growing policy concern in many parts of the world, and these groups may face particular risks of social isolation and loneliness. Although the collective terms 'migrant' and 'ethnic minority' (or 'minority ethnic') conceal significant heterogeneity, evidence suggests important patterning of social isolation and loneliness by migration status and ethnicity. Our own work using qualitative and quantitative UK data confirmed important ethnic differences in patterns of social networks and interactions, with black African women emerging as a group with low levels of social connection and support.¹⁹ Very high rates of loneliness have been found in ethnic minority elders, particularly those with family origins in China, Africa, the Caribbean, Pakistan and Bangladesh.²⁰ Social isolation may be higher among minority ethnic children than among majority ethnic children,¹⁸ with very high levels among new migrants, asylum seekers and refugees.^{21,22} Perinatal depression is high among some UK migrant and ethnic minority women, and is associated with isolation and poor support.²³ Similar findings are reported elsewhere.^{17,24,25}

These high risks among some migrant and ethnic minority groups relate, in part, to the concentration of risk factors that affect socioeconomically disadvantaged sections of society more generally (e.g. poverty, poor housing, unemployment).²⁶⁻²⁸ In addition, however, exclusionary processes and structures linked to

migrant/ethnic minority identities present additional risks. Cumulative exposure to racial discrimination, including microinsults and fear of attack, can increase social isolation and mental ill health.²⁹ Wider societal discourses and negative media portrayal can undermine a sense of belonging and self-worth. For newly arrived individuals, limited language skills, uncertain legal status, lack of familiarity with organisational processes and few local co-ethnic ties can hamper the development of supportive social networks.²² Furthermore, broader policy relating to housing and resettlement, immigration and entitlement to public services and welfare will often differentially affect social relationships by ethnicity. Migrant and ethnic minority people also tend to have less access to interventions aimed at tackling social isolation and loneliness. Practitioners may erroneously assume that 'they look after themselves',³⁰ while questions about the importance of promoting co-ethnic versus interethnic social ties for health promotion remain.³¹

In sum, social isolation and loneliness are complex and widespread problems, with migrant and ethnic minority people facing some particular risks. Identifying effective and feasible interventional strategies to reduce unwanted social isolation and loneliness among ethnically diverse and migrant populations should therefore be a priority for local and national public health decision-makers.

Identifying effective and feasible interventional strategies to reduce unwanted social isolation and loneliness among ethnically diverse and migrant populations is, therefore, an urgent need.

Rationale

A series of earlier reviews have usefully categorised some of the interventional approaches and confirmed that some interventions are effective at reducing social isolation and/or loneliness, particularly group-based and shared interest-focused activities for older people.^{2,32-38} The current project aimed to extend this earlier work in three important ways.

First, we focused on population groups that have, to date, received very little attention. To our knowledge, just one prior small-scale review has focused on the needs and experiences of migrant and/or ethnic minority people.³⁹

Second, we aimed to include a wide range of interventional activity. Earlier reviews have often taken a narrow, individually-focused approach and looked exclusively at interventions specifically designed to address loneliness and/or social isolation. Policy and practice reports from 2015 highlight the need to consider the impacts of policy and initiatives in a wider range of sectors.^{18,31}

Third, we adopted a 'systems theory-driven' approach. Prior work has focused predominantly on answering simple effectiveness questions. Although important, this approach pays little attention to the complex, dynamic and multifaceted nature of the problem and its potential solutions. We adopted a systems approach, grounded in realist ontology, with the aim of generating a more thorough understanding of how and why interventional activity plays out in particular ways in particular contexts, as well as identifying missed opportunities to protect against, and alleviate, isolation and loneliness.

Research objectives

The overall aim of the project was to synthesise the available evidence and produce new insights relating to the range of interventions that have attempted to address unwanted social isolation and loneliness among people identifying as migrant and/or ethnic minority, plus the logic, functioning and effects of such interventions. The primary purpose was to inform future action aiming to reduce social isolation and/or loneliness among ethnically diverse populations.

We conceptualised unwanted social isolation and loneliness as emergent properties of a system, in which processes operating at individual, family, community and population level are intimately connected.⁴⁰⁻⁴² Our primary effort was directed towards examining interventions and initiatives that were intended, or had the potential, to reduce social isolation and/or loneliness. We also aimed to uncover broader features of socioecological systems that interplay with, and affect, these outcomes. We aimed to improve understanding of what happens when interventions are introduced into particular settings by looking for evidence on the system processes that ensue, particularly those that amplify or dampen intended causal pathways.

Outline of the report

Chapter 2 sets out our research questions and describes our methodological approach and the methods employed. In *Chapter 3*, we describe the findings from the preliminary review of theory, understandings and measurement of social isolation and loneliness. We describe how these were used to shape the scope of the project and to develop a model of the proximate determinants of loneliness among our population groups of focus. *Chapter 4* presents an overview of the varied initiatives that were identified from the published and grey literature and develops a typology of interventions. In *Chapter 5*, we describe the three most common intervention types in more detail, via the development of programme theory and logic models, as well as identifying the common, and distinct, causal chains that are posited within other intervention types. *Chapter 6* synthesises the empirical data from the evaluative intervention studies to assess what is known about how interventions operate in practice, and their effects and outcomes. In *Chapter 7*, we draw on insights from across the data sources to consider how interventions interplay with wider system factors. We examine the evidence on system processes shaping the risk of social isolation and loneliness for our groups of interest, and how such processes affect implementation and reach. In *Chapter 8*, we juxtapose current UK interventional activity with what is known about the causes of isolation and loneliness, to identify areas of alignment and opportunities for action. We consider the system conditions that might support or hamper more successful and sustained action. We suggest what a more holistic system approach to 'loneliness-proofing' among ethnically diverse populations might look like. Finally, in *Chapter 9*, we identify the limitations of our research approach and the available evidence base. We suggest implications for practice and identify recommendations for future research.

Chapter 2 Methods

Introduction

Our aim was to combine an effectiveness review with a theory-informed review methodology,⁴³ informed by 'systems-thinking'.⁴⁴ Theory-informed reviews seek to go beyond the bounded remit of systematic reviews of effects, extending the enquiry from 'what works' to 'what happens'.^{43,45} We combined traditional desk-based methods with participatory consultation panel (CP) input. The review protocol is registered on PROSPERO (an international prospective register of systematic reviews) as CRD42017077378.⁴⁶ The methods are presented here as sequential. However, identification, analysis and synthesis occurred iteratively and in parallel.

Review questions

- What types of interventional approaches to addressing social isolation and/or loneliness among migrant and/or ethnic minority people have been developed and evaluated?
- How effective are such interventions at reducing social isolation and/or loneliness when compared with usual or no intervention?
- What health outcomes have been examined in relation to these interventions?
- What negative effects have resulted from such interventions?
- Do effects (positive and negative) of interventions vary for different people (e.g. by gender, age, income)?
- What 'programme theory' and assumed underlying mechanisms inform interventions?
- What system factors increase or decrease social isolation and loneliness among migrant and/or ethnic minority people?
- What happens when similar interventions are introduced into different contexts? What processes (both anticipated and unanticipated) ensue and how do these reflect the interplay of local and wider system elements?
- What system conditions support or hamper successful and sustained implementation?
- To what extent do current interventional approaches address the known determinants of social isolation and/or loneliness among migrant and/or ethnic minority people? Where are the gaps?
- What are the costs associated with such interventions?
- What implications are there for roll-out at scale in the UK?

Rationale for review methodology

In adopting a 'systems theory-informed' approach, we acknowledge that real-world problems, such as social isolation and loneliness, are complex and multifaceted.⁴⁷ Interventions aimed at addressing such problems are complex, and their effects are determined by multiple, interacting factors.⁴⁴ Linear approaches to causation, as captured in simple effectiveness questions, are ineffectual in surfacing an understanding of how interventions interact with, shape and are shaped by their contexts. Such interactions include positive or negative feedback loops and may result in planned, unanticipated and unintended consequences. Understanding such complex situations requires the disentangling of interventions, actors, mechanisms of change, outcomes and contexts, characterised by a systems approach, grounded in realist ontology. The project sought to generate a nuanced understanding of how and why interventional activity plays out in particular ways in particular contexts, as well as identify missed opportunities to protect against, and alleviate, isolation and loneliness. *Table 1* shows how the review methodology addresses the review questions.

TABLE 1 How the review methodology addresses the review questions

Methodology	Typology development	Theory-based review	Effectiveness review	Synthesis of costs	CPs	International or UK focus
1. Types of interventional approach						
Described	✓		✓		✓	International
Evaluated			✓			
2. Effectiveness of interventions			✓			International
3. Health and well-being outcomes of interventions			✓			International
4. Negative effects resulting from interventions		✓	✓		✓	International
5. Differential effects of interventions (e.g. by gender, age, income)		✓	✓		✓	International
6. 'Programme theory' and underlying mechanisms		✓			✓	International
7. System factors		✓			✓	UK
8. Differential effects of contexts		✓	✓		✓	UK
9. System conditions affecting implementation		✓			✓	UK
10. How interventional approaches address determinants		✓	✓			UK
11. Costs associated with interventions				✓		International
12. Implications for roll-out at scale in the UK			✓	✓	✓	UK

Literature search methods

Figure 1 shows the various searching approaches employed (numbered 1–7) and how each contributed to the suite of synthesis products.

Initial database searches (approach 1)

Initial searches of electronic databases sought studies in which the target population was identified as either (1) migrant and/or ethnic minority people (however defined and labelled by authors), or (2) a client group, population or neighbourhood diverse in terms of ethnicity/migrant status, and for which the study included a focus on the outcomes of interest. Early searches confirmed the importance of widening core terms/labels (social isolation, isolation, loneliness) to include (sense of) belonging, social connectedness, social networks, social ties and social relationships. It also revealed a need to consider studies that included outcomes that are a potential part of a causal pathway to social isolation and loneliness. A comprehensive list of search terms was developed iteratively from exploratory searches, medical subject heading (MeSH) terms and harvesting keywords from relevant reviews. As anticipated, indexing of social isolation and loneliness outcomes was variable, requiring identification of appropriate free-text terms. Searches of three key electronic databases (MEDLINE, Applied Social Sciences Index and Abstracts, and Social Science Citation Index via Web of Science) were undertaken in October 2017, using free-text and MeSH terms (see *Appendix 1* for examples). No date restrictions were applied. A UK filter was initially tried, but this was not successful across the databases; therefore, we opted to retrieve international literature.

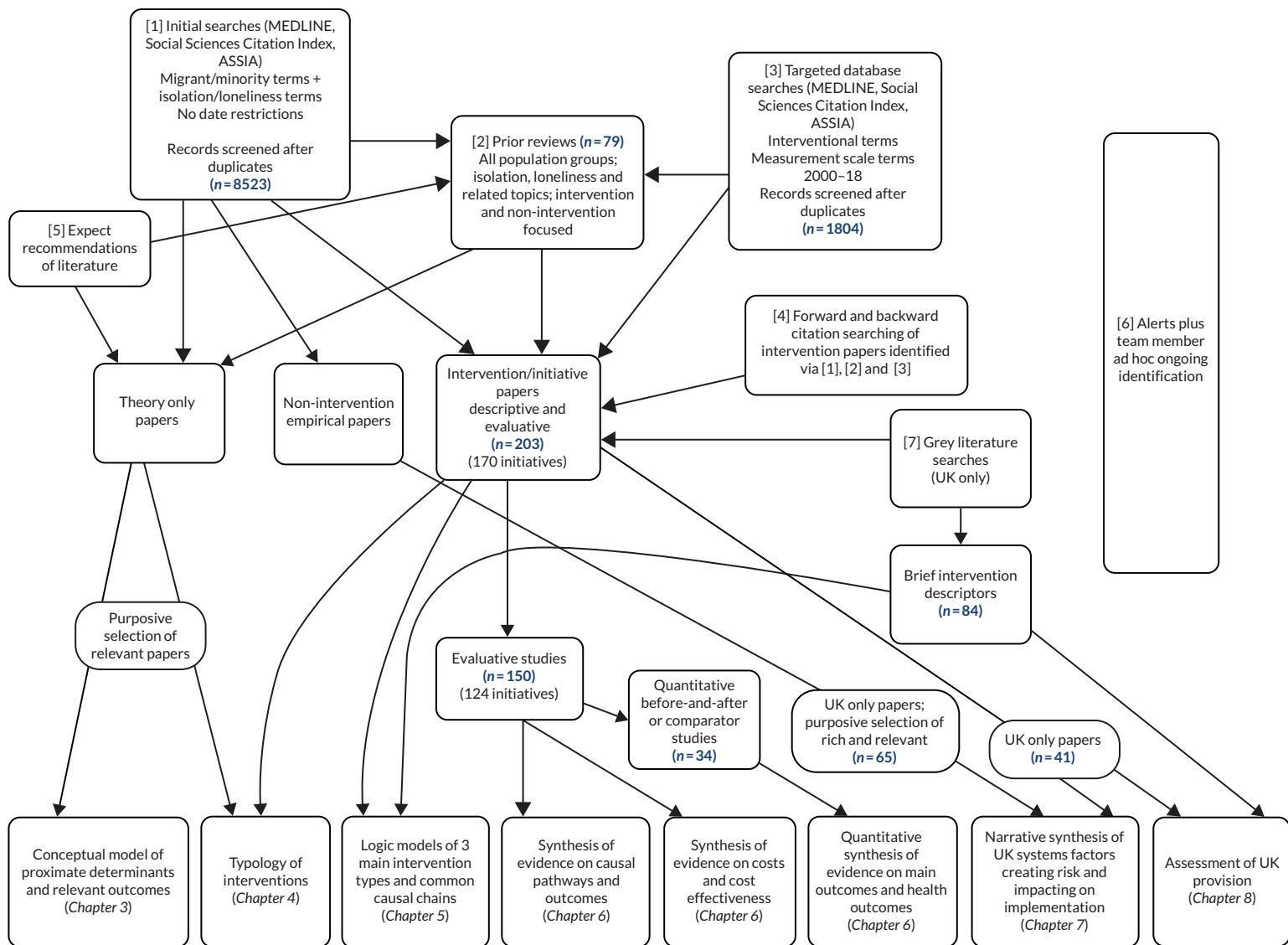


FIGURE 1 Flow diagram of literature searching and syntheses. ASSIA, Applied Social Sciences Index and Abstracts.

Review of prior reviews (approach 2)

We conducted a review of reviews to engage with the wider literature (theoretical and empirical) around social isolation and loneliness (i.e. not specific to migrant/ethnic minority people). All types of review, including evidence from UK and international studies, were included, not just those that were intervention related. We adopted a two-stage approach, with an initial batch of reviews being read and extracted in detail using a Microsoft Excel® (Microsoft Corporation, Redmond, WA, USA) template, and subsequent reviews being screened more quickly so that only material that added to the emerging theoretical picture was extracted. All of the prior reviews were examined carefully for identification of relevant intervention-/initiative-related studies. The review of reviews surfaced definitions and theories around loneliness, social isolation and related concepts. It also identified prior intervention typologies, informing our own thinking on the utility of categorisations, which was explored with the Project Advisory Group (PAG). Identification of intervention terms/labels revealed that some were too generic to be usefully employed in further searches, for example 'support group'. We therefore decided, with agreement from the PAG, to focus on terms implicitly about isolation or loneliness, for example 'friendship group'. Further reviews of potential relevance were identified during screening and extraction for the other review components, and via ongoing literature alerts, revealing this as a very active area of research. These were examined to (1) ensure that no relevant empirical intervention studies were overlooked and (2) identify useful theory to inform the review approach.

Additional search techniques (approaches 3, 4, 5 and 6)

We undertook targeted electronic database searches in October 2018 (approach 3) using a list of interventional approaches compiled through the aforementioned stages of searching and sifting, and suggestions from the PAG and CPs (e.g. befriending/companionship, cognitive-behavioural therapy/counselling, friendship groups, neighbourhood cohesion, shared spaces/housing design), and a list of loneliness measurement scale terms.

Complementary searches were conducted by forward and backward citation-searching (approach 4) using Publish or Perish information management systems (Publish or Perish Inc., Houston, TX, USA) and the reference lists of included intervention studies. Typically, most included studies cited between eight and 20 papers, although older or influential studies cited considerably more than this. The yield from citation-searching compares favourably with screening from electronic subject searches, and search methods using forward and backward citation-tracking are particularly valuable in finding documents to develop and test provisional theories.⁴⁸

Members of the PAG also made recommendations (approach 5), particularly in terms of theoretical material and prior reviews. Throughout the project period, journal alerts (approach 6) were used to capture newly published material up to the end of August 2019.

Grey literature identification (approach 7)

Grey literature was included to identify UK-based interventions/initiatives of relevance. We identified grey literature by Google searches (Google Inc., Mountain View, CA, USA) using key terms (both generic and intervention-specific, as harvested from earlier searches); searching websites of relevant policy, practice, research and advocacy organisations and contacting their research and evaluation departments by e-mail; contacting subject experts and using subject-relevant e-mail distribution groups; and searching OpenGrey. Grey literature searching was completed in July 2018.

The search for empirical literature was recorded for audit trail purposes. The search process was undertaken according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.⁴⁹

Selection of included studies

For the database searches, results were downloaded to EndNote version 9 [Clarivate Analytics (formerly Thomson Reuters), Philadelphia, PA, USA] and then exported to EPPI-Reviewer version 4 (Evidence for Policy and Practice Information and Co-ordinating Centre, University of London, London, UK), where screening, data extraction and appraisal took place. Initial screening for relevance of the title and abstract was undertaken by one reviewer, with any uncertain items referred to a second reviewer. A second round of single-reviewer full-text screening for inclusion/exclusion was undertaken by four team members applying a piloted, refined and finalised checklist. Ten per cent of papers were double-screened to ensure consistent application. Uncertainties were resolved by discussion. The team maintained a detailed audit of the process of screening and selection.

Initial inclusion criteria for empirical papers were twofold: (1) the population of interest should be either (a) migrant and/or ethnic minority people (however defined and labelled by authors) or (b) a multiethnic client group, population or neighbourhood, of which at least 10% identify as migrant and/or ethnic minority; and (2) the study should include empirical data relating to social connectedness, social support, belonging, isolation, and/or loneliness. Full-text screening of the potential intervention/initiative papers resulted in three categories of papers:

1. intervention-evaluative (qualitative and/or quantitative evaluation)
2. intervention-descriptive (e.g. intervention development; no process or outcome evaluation)
3. non-intervention empirical (qualitative and/or quantitative data presented on patterns or determinants, but no relevant intervention or initiative described).

Some additional inclusion criteria were applied to generate suitable subsets of the papers for each of our syntheses, as described in the chapters that follow.

In addition, the screening approach flagged a large number of 'theory' papers that did not present any relevant empirical material, but were retained because of their potential to make a useful conceptual contribution, as shown in *Chapters 3 and 4*.

For the grey literature searches, results were copied and pasted into Excel, where they were screened. The same inclusion criteria were applied, although only intervention papers were retained. Many documents referred to multiple interventions or initiatives. Initiatives identified in the grey literature were allocated to two categories: (1) detailed, reasonable-quality evaluative report of the initiative and (2) description only or limited evaluative document. Very few were allocated to the first category; those in the first category were incorporated into the EPPI-Reviewer database of published literature for subsequent extraction. The remainder were retained in Excel and a short extraction template was used to summarise the information available.

Data extraction

We developed and tested an extraction template before finalising it and preparing it in EPPI-Reviewer. Extractions for the theory-driven review were initially undertaken by one reviewer, and validated via a process of iterative team discussions and revisiting of papers. Templates used both structured and interpretive coding. We extracted both verbatim and precis text. Visual representations were extracted or generated by reviewers to demonstrate programme theory and wider system elements. Diagrams were uploaded to the EPPI-Reviewer database (see example in *Appendix 2*). Papers that included quantitative outcome measures were flagged in EPPI-Reviewer. Quantitative effectiveness information was double-extracted from these studies using a Microsoft Excel template, compared and agreed; data-checking was undertaken by a third reviewer for consensus. *Table 2* presents the extraction criteria.

TABLE 2 Extraction criteria

Criteria extracted for effectiveness review	Information extracted for the theory-driven systems review
<ul style="list-style-type: none"> • Study design and methods (including limitations) • Participant/population characteristics (including migrant/ethnic categorisation employed) • Outcome measures • Context/setting • Intervention/initiative characteristics (in detail, guided by the TiDieR framework) • Control group/control area characteristics and any intervention • Results – outcomes overall • Subgroup analyses • Costs data 	<ul style="list-style-type: none"> • Explicit and implicit programme theory • Information on underlying pathways, potential moderators and implementation processes • Explicit statements of relevance and also commentary on implicit content • Preparation of visual diagrams to represent the interventional logic and relevant contextual factors reported in the papers • Information on patterns and determinants of isolation, belonging and loneliness • Information on wider contextual factors
TiDieR, Template for Intervention Description and Replication.	

Quality assessment

For the theory-informed review, papers were not excluded on the basis of quality; instead, their contributions were moderated on the basis of three criteria:

1. relevance – articulated in terms of potential contribution to analysis and/or synthesis
2. rigour – whether or not the method used to generate data is credible and trustworthy
3. richness – the extent to which a quantitative or qualitative study contributed to an understanding of the phenomena of interest or to the mechanisms by which an intervention achieves its effect.

For the effectiveness review, we applied the Cochrane Risk of Bias assessment tool to all randomised controlled trials (RCTs); for non-randomised studies, we described the overall study design.

Quantitative synthesis

Intervention/initiative papers suitable for quantitative data extraction were flagged if they reported outcome measures relating to loneliness, unwanted social isolation, sense of belonging, and/or perceived social support (see *Chapter 3* for justification). Many of these papers employed scales that incorporate multiple diverse dimensions of social connectivity and well-being. At this stage, the team explored the feasibility and potential utility of network meta-analysis, by grouping papers by (1) population/setting (2) outcome measure and (3) form of intervention. This exploration revealed that, notwithstanding some coherence in terms of theory, outcomes and interventional approach, significant methodological and reporting limitations existed across many of the papers. With agreement from the PAG, we subsequently opted for a narrative synthesis based around hypotheses (see *Chapter 6*).

Theory development

The process of developing programme theories and visual depictions drew on four complementary sources of insight, which were combined in an iterative fashion:

1. grand and mid-range theories, described in *Chapter 3*
2. insights from CP workshops
3. advice from the PAG
4. empirical papers describing and evaluating interventions.

The team created 'preliminary groupings', representing a mixture of population groups and settings, with individual members of the team analysing groups of related papers; the preliminary groupings were older migrant and ethnic minority people, international students, ethnic minority students, technologies and parents/pregnant women. This was a pragmatic step intended to make the initial stages of theory development easier by providing each team member with a set of reasonably coherent papers.

To complement formal data extraction of empirical papers, we undertook an initial round of data synthesis that employed structured templates in Microsoft Word (Microsoft Corporation, Redmond, WA, USA), in which we characterised the inputs, functions, strategies and causal chains between these elements and proximate determinants and relevant outcomes (using colour-coding to distinguish hypothesised or demonstrated relationships). Throughout the review, theories were sought, developed and/or refined to explain how a programme (or programme component) achieves its outcomes. The team further sought to identify, at a general level, the inter-relationship of contexts, mechanisms and outcomes. Theories used were developed and/or refined from the data, and/or were the product of refinement of existing substantive theory.

Consultation panels

The project was intended to be participatory, with members of the public and community-based workers contributing importantly to the theory-driven elements of the review. We convened groups, which we named 'consultation panels'. This term acknowledged the probable extent of participation that could be achieved within the constraints of the project design and commissioning process.⁵⁰ Ethics approval for the CPs was granted by the University of Sheffield's School of Health and Related Research (SchARR) Research Ethics Committee (reference number 016132).

Recruitment and participants

Consultation panel participation was based on interest in the topic, an ability to relate the topic to real-world experiences and a capacity to consider the influence of broader social processes. It was not a requirement that participants were lonely or isolated. The purpose of the CPs was not to elicit revealing or distressing personal stories, but to offer insight into processes through which loneliness and social isolation arise and can be addressed. We decided to convene three CPs based around broad age/life-stage groups: young adults/students, working-age people and older people. Potential participants were identified in partnership with community-based organisations and existing black and minority ethnic (BME) and migration-oriented networks. After interested respondents had been approached and given an opportunity to reflect, researchers contacted them by telephone to discuss the project in more detail. Members were selected to ensure broad representation across social characteristics (e.g. gender, ethnicity), as well as their active contribution. We recruited between six and 11 individuals to each CP (two in Sheffield and one in Leicester). Overall, 34 participants contributed. Two interested participants, from a minority group that was under-represented in the CP workshops, were included in one-to-one telephone and face-to-face discussions as they were unable to attend the workshops. Participants were members of the public and people working in community-based roles with good knowledge of local communities. All participants self-identified as a migrant and/or having an ethnic minority identity. The groups included recent arrivals and more established migrants, as well as UK-born individuals. One panel included people who had been forced to migrate. Individuals who did not speak English fluently were not excluded. One participant was provided an interpreter to assist during workshops. Our approach to the CPs did not make any prior assumptions about differences in experiences between migrant and UK-born ethnic minority people. Exercises encouraged participants to examine the commonalities and divergences within and between groups of people ascribed particular ethnic and migration labels.

The management and ethos of the consultation panels

Workshops were held in local venues familiar to many of the participants. Timings were arranged in consultation with members.

The approach was based on participatory principles set out by INVOLVE.⁵¹ Our approach was informed by Group Model Building methods,⁵² which emphasise the importance of adopting an iterative process of dialogue, building, testing and improvement, and the need to attend carefully to group dynamics. Early ground rules were collaboratively developed during introductory sessions to ensure that everyone had the opportunity to create an enabling ethos. Important principles suggested by CP members were respectful dialogue, listening carefully and making sure that information shared among the group was not divulged beyond the group.

Participants were offered £50 shopping vouchers to recognise their contributions to the half-day workshops. All travel expenses and any care costs were paid.

Structure and content of consultation panel sessions

One introductory session and two half-day workshops were organised for each group. A final co-creation session with CP members from all the three groups was convened to generate visual outputs.

Meeting 1: introductory session (April–June 2018)

Three 90-minute 'meet-and-greet' sessions allowed people to get to know one another and provided a gentle introduction to the topic and the role of CP members. Simple engagement exercises were used to encourage mixing and open discussion. An interactive exercise uncovered participants' understandings of 'loneliness' and 'social connectedness'. These sessions were relaxed and helpful in terms of generating a positive working atmosphere and allowing participants to begin to explore complex and, sometimes emotive, issues. The exercise products were used as a springboard to discussion in workshop 1.

Consultation panel workshop 1 (June–July 2018)

Three CP workshops, involving 27 participants (see *Appendix 3*), took place; each lasted 4 hours. Structured exercises were employed to elicit (1) open-ended exploration of experiences of, causes of and solutions to isolation and loneliness, and (2) reflection on early findings of the effectiveness review, including early representations of intervention logic models/programme theory. The workshops elicited additional ideas about intervention components and functioning, and context, as well as system elements that affect isolation/loneliness. Audio-recording, detailed note-taking and visual diagramming captured contributions. *Appendix 5* includes illustrative examples of workshop materials.

Consultation panel workshop 2 (March–April 2019)

Twenty-one people participated in the second round of CP workshops, seven of whom were new recruits (see *Appendix 4*). Attrition was most evident among the student group and the older persons group; attrition among students was explained by students completing their course. Attrition among the older persons group may have been linked to a break in continuity among the research team. Each workshop lasted 4 hours. Discussions were audio-recorded and detailed notes were taken; visual diagramming was also employed. The aim of this phase was to interrogate and 'sense-check' representations of system elements, connections and interdependencies. Panels drew on real-world experiences to confirm or refute draft system models, and particularly focused on processes that could amplify or dampen the intended mechanisms of interventions/initiatives. Discussions sought to identify some overlooked elements and additional relationships and extended knowledge on how system components interact to generate intended and unintended outcomes. *Appendix 5* includes illustrative examples of workshop materials.

Visual output co-creation session (August 2019)

A final 3-hour session drew on the expertise of a visual scribe. Panel members from across the three groups co-created a series of visual outputs that represented some of the individual, family, community and wider system factors that can generate social isolation and loneliness among ethnic minority and migrant people. This was achieved through participatory exercises. Panel members generated a series of visualised personas that communicated the complex of factors that can inform loneliness and social isolation. See *Appendix 6* for examples.

Consultation panel contribution

Consultation panel workshops contributed importantly to the review in the following ways:

- critique and expansion of the concepts of social isolation and loneliness, based on lived experience
- generation of theory, through panel member narratives, on how social isolation and loneliness operate across different levels of the system
- shaping the inclusion and typing of interventions and initiatives
- identification of upstream, mid-range and individual factors that can influence the effectiveness of interventions
- commentary on, and refinement of, draft models of proximate and distal causes of social isolation and loneliness
- identification of why interventions/initiatives are more or less accessible, and work more or less well, for different people
- identification of some gaps and uncertainties in the team's analysis that warranted follow-up, with such insights informing follow-on database searches.

At each stage, our analysis drew across the insights from the three CPs to highlight elements of the constructed theory that were: supported, refuted, or refined/extended by CP testimony, as well as new system characteristics not previously identified.

Adaptations to the review process

As the review progressed, we opted to focus attention on three common interventional approaches (see *Chapters 4–6*). This was both pragmatic and offered analytical purchase, because other interventions were commonly characterised by sub-elements of these three common types. We focused review efforts, including CP discussion, on these three types, while remaining open to identifying further interventions that did not conform to this typology.

Final participatory workshop

In July 2019, a final participatory workshop was held involving a small number of CP members, together with practitioners from local authorities and third-sector organisations. Participants were invited to participate as 'teams' representing particular cities or other local authority areas. Around 50 participants attended, and six local areas were represented. We shared emerging findings and sought feedback on draft intervention logic models and a broader system diagram. Local teams were invited to map local action against the system model, with the aim of revealing examples of promising practice, missed opportunities for action, conflicting action (or policy) that undermines social connectedness and/or efforts to tackle isolation and loneliness, and potential for modification or disinvestment. Workshop discussions were captured in real time by a visual scribe; detailed notes were also taken. Insights from the workshop were subsequently integrated with the other data sources.

Chapter 3 Identifying the theoretical scope of the project

Introduction

The first stage of the project involved developing a conceptualisation of loneliness that was appropriate to our population groups of interest, as well as an overarching theory of the proximate determinants of loneliness that could guide our subsequent interrogation of the evidence relating to interventional approaches. We undertook an iterative process of exploring and synthesising conceptualisations and approaches to identifying or measuring relevant concepts, drawing on four complementary sources:

1. prior evidence syntheses focused on loneliness and related concepts ($n = 79$)
2. CP discussions
3. theory extracted from the first batch of 49 identified intervention studies
4. additional theoretical material suggested by the above three sources.

Loneliness and social isolation

Concepts and definitions

Loneliness can be considered a 'chaotic concept'; variously defined and measured, debated and contested. From a public health perspective, loneliness is seen as a problem because it has been associated with a range of negative physical and mental health outcomes. Growing concerns about levels of loneliness, particularly among the elderly, might also be seen as a moral panic, as politicians, civil society and the media invoke images of the breakdown of the social fabric of families and communities.

It is now commonly accepted that social isolation and loneliness are not the same; the former relates to the objective state in which an individual has little contact with family members, friends or neighbours,⁵³ and the latter relates to a subjective assessment that one's social relationships are inadequate. This distinction is useful because it draws our attention to the quality of social relationships and interactions, and suggests that a person who, at face value, is not isolated from other people can, nevertheless, be lonely. At the same time, the distinction also suggests that people who have little social contact may not necessarily feel lonely. Although true, research does suggest a strong correlation between the number and intensity of social ties and the risk of loneliness.⁵⁴ Individuals who live solitary lives without feeling alone seem to be the exception. Understanding loneliness as resulting from the interplay of a deficit in social connection and an individual's cognitive assessment of the adequacy of relationships seems likely to be more fruitful.⁵⁵

It has been suggested that loneliness can arise because an individual perceives any or all of the quantity, quality or modality of their relationships to be lacking.⁵⁶ There is also the issue of which relationships, when perceived to be lacking, can generate loneliness. Some authors have drawn a distinction between 'intimate' and 'social' loneliness; the former relates to perceived inadequacy in close, affirmative, confiding ties (typically family members and close friends), whereas the latter relates to a perceived lack of relationships that provide camaraderie. Questions are raised about whether different types of relationships are functionally distinct and necessary for emotional well-being, providing an individual with different forms of social sustenance, or whether they are, instead,

interchangeable. Common definitions and measures of loneliness frequently merge both intimate and social dimensions, such as Rook's:⁴

[A]n enduring condition of emotional distress that arises when a person feels estranged from, misunderstood or rejected by others and/or lacks appropriate social partners for desired activities, particularly activities that provide a sense of social integration and opportunities for emotional intimacy.

Rook⁴

Although Rook's⁴ definition suggests an 'enduring' condition, the need to recognise variation in the temporal and spatial characteristics of loneliness has also been noted. Loneliness may be a temporary state, often linked to life stages or transitions or a change in circumstances, or it may be long lasting. Loneliness may also be situationally specific, experienced only in a particular sphere or space of life, such as the home, the workplace or at school. The intensity of loneliness also varies. For some, it is an extreme state of emotional distress, whereas for others it is less intense.⁵⁶ These elements of chronicity versus transience, generalised versus situation specific, and variations in intensity can co-occur in any combination. Some measures of loneliness use scales that could, in theory, enable assessment of the degree of intensity of loneliness, although this approach has been rare to date. Longitudinal data on the fleeting versus enduring nature of loneliness are also rare. Some research focuses on experiences of loneliness in particular settings, often framed in terms of 'sense of belonging', a concept that has particular resonance for our population groups of interest, as discussed more in *Sense of belonging and racism*. To date, there is little evidence of the implications of these different forms of loneliness for physical and mental health across the lifespan.

Closely related concepts

Our review of prior evidence syntheses highlighted the very limited attention to migrant and ethnic minority people in research on loneliness, and raised queries as to whether or not existing theoretical frameworks were adequately specified with respect to the experiences of these groups. In addition, our first round of CP workshops, and preliminary extraction from the first batch of 49 intervention studies, suggested the importance of drawing on a wider range of theory and concepts. As shown in *Box 1*, CP members associated diverse inter-related ideas and terms with the notion of 'loneliness'.

We therefore identified related bodies of work concerned with social relationships, which have tended to develop in parallel to those focused on isolation and loneliness, that could usefully inform the project, including social support, social networks and social integration, and sense of belonging. *Table 3* illustrates the significant overlaps between these concepts by presenting some of the common measurement tools that have been used to capture these constructs. Then we discuss these commonalities, as well as some of the distinctions that provide potentially useful theoretical additions for the current project.

More generally, drawing on the sociology of emotions, we looked for complementary understandings of 'feeling lonely' that went beyond the individual, to consider social, cultural and power-related dimensions. Burkitt⁶¹ argues that all emotions are relational, stating that 'how we come to see and feel about ourselves is inseparable from how we imagine that others see and feel about us'.⁶¹ It is perhaps surprising that work on loneliness to date appears to pay rather scant attention to these interactive and relational dimensions.

Social support

The distinction between the quality and the quantity of social relationships found in theories of loneliness and social isolation is mirrored in the literature concerned with the conceptualisation and measurement of 'social support'. For instance, Gottlieb and Bergen⁶² note the importance of distinguishing between the structure of a person's social network on the one hand, and the resources that arise from such social ties on the other, eschewing the suggestion that 'people's social ties are unconditionally supportive'.⁶²

BOX 1 What do we mean by 'loneliness'? Themes generated from first round of CP meetings

Themes generated

Perceived lack of close supportive social ties

No emotional support.
Lack of social support.
No one to turn to.
No one to talk to.
Nobody to confide in.
No friends or family.
Feeling like you have no one.
Lack of in-depth relationships.
Barriers to connecting with my family.
Unable to trust people.

Fear and experience of negative social interactions

No one likes me living here.
I don't feel safe.
Exclusion.
Being reminded I do not belong here.
Fear of being rejected.
Racism.
Social pressures of friendship groups.
Workplace exclusions and hostility.
Family expectations; family judgemental.
Not being understood even though speaking in English.

Feeling like I do not belong

'Fish out of water'.
Being trapped when I can go to better places like home.
Feeling I don't belong.
Not understanding cultural references.
Cut off; torn.
Bilqul alag thalag (completely separated).
Akelaa (alone, apart).
Tanhaa (solitude).
Not engaged.
Not feeling part of...
Not being able to connect.

Authenticity; not being able to be myself

Feeling misunderstood.
Feeling like you have no one to be yourself around.
Nobody to share my interests and activities.
Lost.
Hiding/hidden; invisible.
No internal security.

BOX 1 What do we mean by 'loneliness'? Themes generated from first round of CP meetings (*continued*)

Hard to admit that I am alone, that I am struggling here.
Needing someone with same ethnic identity.
Nobody to speak my language with.
Nobody to discuss racism, colonialism.

Loss of social role; unable to contribute

Feeling like you can't contribute anything useful.
Homesickness.
Away from extended family networks.
Boredom.
Unmet expectations.
Disappointment with social interactions.

Not feeling valued by others

Being undervalued.
Even your peers do not value you.
Unwanted.
Feeling of dread.
Feeling forgotten.
Feeling unimportant.
Put on one side.
Nobody cares about me.
Sadness; depression.

Theoretical work in this field has highlighted the importance of examining both sources of support and the types of support that are available and/or provided.

Gottlieb and Bergen⁶² define social support as 'social resources acquired from non-professionals in the context of both formal support groups and informal helping relationships', whereas others also regard professionals as potential sources of support.⁶³

Work in the 1980s sought to identify types of social support. Barrera⁶⁴ identified five types of social support: emotional, instrumental, companionship, informational and esteem support; House and Kabarl⁶⁵ opted for four types of social support: emotional, tangible, informational and appraisal. Barrera⁶⁴ also argued that a distinction should be drawn between perceived support and that which is actually mobilised and received, and empirical research⁶² has tended to show that it is people's sense of support that provides a buffering effect in stressful or challenging situations. Clearly, the concept of perceiving a lack of available social relationships that can provide emotional and affirmational support and companionship is akin to the definitions of loneliness commonly employed.

In addition, social support literature draws attention to the qualitative adequacy of the support offered, that is the manner and associated meaning that is conveyed through the provision of support. An offer or provision of social resources that is made in an unsuitable way can be unsupportive, or even damaging to the recipient, even if the intention was positive.⁶² Spontaneous receipt of social resources from one's social network may also have a more positive impact than that which has to be requested.⁶²

TABLE 3 Commonality across measures of loneliness and related concepts

Loneliness and related concepts	'Loneliness' (UCLA scale ⁵⁷)	'Sense of belonging' (Pak's ⁵⁸ measure)	'Social support' (Social Provisions Scale ⁵⁹)	'Social integration' (Hausmann's measure) ⁶⁰
Emotional loneliness (lack of intimacy; lack of emotional support)	<ul style="list-style-type: none"> I have nobody to talk to I cannot tolerate being so alone I am unhappy doing so many things alone I am no longer close to anyone My social relationships are superficial No one really knows me well I feel completely alone 		<ul style="list-style-type: none"> There is no one I can turn to for guidance in times of stress I feel that I do not have close personal relationships with other people I have close relationships that provide me with a sense of emotional security and well-being I lack a feeling of intimacy with another person No one needs me to care for them 	<ul style="list-style-type: none"> Since coming to this university I have developed close personal relationships
Social loneliness (lack of fit; lack of companionship; lack of social validation)	<ul style="list-style-type: none"> I lack companionship I feel as if nobody really understands me My interests and ideas are not shared by those around me I feel left out I am unable to reach out and communicate with those around me I feel starved for company I feel isolated from others I am unhappy being so withdrawn I feel shut out and excluded by others People are around me but not with me 	<ul style="list-style-type: none"> I feel that I am a member of campus community I feel comfortable on campus I feel a sense of belonging to the campus community I feel like I fit in on campus My college is supportive of me 	<ul style="list-style-type: none"> There are people who enjoy the same social activities I do Other people do not view me as competent I feel part of a group of people who share my attitudes and beliefs I have relationships in which my competence and skills are recognised There is no one who shares my interests and concerns There is no one who likes to do the things I do 	<ul style="list-style-type: none"> Most students at this university have values and attitudes different from my own The student friendships I have developed at this university have been personally satisfying
Social isolation (lack of connectedness and social interactions)	<ul style="list-style-type: none"> I find myself waiting for people to call or write There is no one I can turn to It is difficult for me to make friends 	<ul style="list-style-type: none"> I have positive and frequent interactions with diverse peers I have positive and frequent interactions with professors 		<ul style="list-style-type: none"> It has been difficult for me to meet and make friends
UCLA, University of California, Los Angeles.				

These theoretical contributions enhance the loneliness literature by drawing clearer attention to so-called 'negative social support', that is interactions and social ties that are experienced as stressful, that are unsupportive and that are detrimental to the individual's mental well-being. In this literature, 'negative social support' has most commonly been identified as emanating from familial relationships, particularly spousal and parent–children ties, that is relationships that are generally expected to provide emotional, affirmational and tangible support.⁶⁶

A further emphasis in the social support literature, that is less evident in the work on loneliness, is the reciprocal nature of many supportive social relationships: 'social support is not a commodity that resides in the provider and passes to the recipient, but . . . is an expression of the mutuality and affection characteristic of the relationship between the parties'.⁶² 'Peer support' has received particular attention as a route via which effective emotional and information support can be delivered, as it is predicated on the principle of mutuality.^{62,67} Non-reciprocal relationships will be perceived as supportive (rather than exploitative or degrading, depending on whether you are the giver or receiver) only if the unidirectional flow meets the expectations of both parties. The expectations people hold about relationships, shaped by individual attributes and collective values, are fundamental to their perceptions of social support. These conceptual contributions reveal the way in which social ties and flows of social resources are mutually constituting. A social relationship (which carries a particular meaning) presents an opportunity for the exchange of resources, the materialised nature and volume of which, in turn, serve to define and give meaning to the relationship. These insights have particular relevance to our focus on ethnic minority and migrant populations. Transition to an unfamiliar social context (whether due to international migration or movement into white-dominated institutions and spaces) can mean both the loss of supportive social ties and exposure to unaccustomed norms of relationship-building.^{63,68} Furthermore, formal social support services may be deficient for migrants and minorities owing to a lack of cultural competence.⁶⁹

As well as providing useful insights into the meaning and consequences of interpersonal social exchanges, the social support literature usefully draws attention to the potential impact of 'macrosocial' variables, such as housing patterns, transport and job conditions, as well as status hierarchies (linked to gender, ethnicity, socioeconomic position), on people's levels of perceived and actualised social support.⁷⁰ Contextual stressors such as poverty and being in an unfamiliar context can mean that social ties become overwhelmed or inadequate, and interactions more negative, creating the need for bolstering of informal support networks.⁶⁸

Social networks, social integration and acculturation

As noted above, social support researchers have argued that the structural properties of people's social ties should be distinguished from their perceived or actual functions. Gottleib and Bergen⁶² suggest that structural properties of an individual's social network (number of ties, density and interconnections) are measures of 'social integration', that is 'the extent to which the person is enveloped in the social fabric'.⁶² Therefore, this notion of social integration is very similar to the concept of 'social connectedness' and, in essence, is the opposite of social isolation.

In addition, however, 'social integration' has been conceptualised more broadly, and variously, in relation to migrants (and, by extension, ethnic minority individuals). Here the interest has been on migrant social connections across various spheres of life. Ager and Strang's⁷¹ widely cited model identifies 10 inter-related domains of integration and highlights 'the fundamental role that social connection is seen to have played in driving the process of integration at a local level'.⁷¹ However, although this and other formulations characterise integration as a process involving cognitive and behavioural adaptation on the part of both newcomers and established citizens, a so-called 'two-way street', leading to immigrants becoming accepted members of society,⁷² competing conceptualisations are also highly visible.

Linked to claims of self-segregating minorities who ascribe to values and norms that are incompatible with the host society (portrayed as homogeneous white British), and fears around strong intraethnic ties, 'integration' in policy circles has increasingly been understood as a process through which people of migrant and/or ethnic minority identity should adapt to the (imagined) 'British' way of life.⁷³ Such 'assimilationist' policy approaches have been critiqued from diverse angles, including their potential to undermine positive social ties within and across ethnic groups.⁷⁴

Parallel debates have occurred in relation to the entry of ethnic minority and/or migrant individuals into specific white majority-dominated social spaces and institutions. Some theorists advocate a process of adaptation to the new social way of life, through which newcomers replace their home culture with that of the new social setting. Others critique this approach as 'cultural suicide', arguing that successful outcomes require both acquisition of new cultural repertoires alongside the conservation of a sense of self and cultural tradition.⁷⁵

Theoretical work around the notion of 'acculturation' is also useful here. Berry⁷⁶ identified the way in which people arriving in a new cultural context are faced with the need to accommodate both their heritage culture and that of the new society (or setting) in which they find themselves. This work drew attention to the varied patterns of association that migrants may establish with both people recognised as members of their 'in group' and those who are 'out group' members. Empirical work drawing on these ideas has tended to find that newcomers who manage to maintain a positive sense of their own ethnic identity and supportive ties to in-group members, while at the same time also forging positive ties to out-group members, have a lower risk of poor emotional health than those who have ties to either group alone, or no supportive ties at all.^{77,78}

These contributions are significant for the current project because they highlight the importance of considering the ethnocultural identity of individuals within social relationships and networks, and the implications of such identities for whether or not, and how, relationships meet individual social needs and expectations. Our CP members gave many examples of seeking out, and finding comfort in, relationships with individuals who shared their ethnic (or national) identity; 'a little safety cocoon with yourself', as one student CP member called it. At the same time, opportunities to form ties, and to interact informally, across difference were welcomed.

Sense of belonging and racism

Rooted in Durkheim's⁷⁹ early work on the social causation of suicide, Spady^{80,81} developed influential ideas around 'belonging', focused on a concern to reduce under-represented group dropout from US higher educational institutions. He identified the risk factors for dropout as 'a lack of consistent, intimate interactions with others, holding values and orientations that are dissimilar from those of the general social collectivity, and lacking a sense of compatibility with the immediate social system'.⁸⁰ A large body of subsequent US work has explored the nature and determinants of 'sense of belonging' within predominantly white institutions. Strayhorn⁸² identified a sense of belonging as rooted in feeling accepted, valued, respected and cared for by peers and the wider institution. Baumeister and Leary⁸³ have argued that the need to belong is a powerful, fundamental and pervasive motivation among human beings, and extends within and beyond particular institutional contexts. Hagerly *et al.*⁸⁴ identify belonging as the experience of personal involvement in a system or environment, together with the experience of being valued, needed and accepted, and 'fit' (perceiving that your characteristics articulate with or complement the system or environment).

These insights are particularly relevant to our focus on loneliness among migrant and ethnic minority people, whose sense of 'mattering', 'being valued' and 'fitting in' are frequently undermined. A large body of research is concerned with notions of belonging in a more general sense, to communities and to society at large, and how such belonging is constructed and negotiated by migrants and minorities in the face of exclusionary

discourses and processes of ‘othering’.^{74,85,86} This work also explores how sense of belonging may interplay with transnationalism. It is important to be alert to the ways in which the maintenance and disruption of transnational social networks may have implications for loneliness among migrants and minorities. Important also is the way in which transnational lives may lead to majority discourse that questions the ‘commitment’ of migrant and minority individuals to belonging where they reside and policies that undermine social connections.^{74,87} Older CP members talked vividly about their loss of social connections outside the UK:

Because when we are older we yearn for things we had when we were younger, some of which you will never get back. That can become problematic in the mind . . . Food, connections with individuals who are actually not there anymore. The music, the conversations, the jokes, the understanding of what it is you left back home. Which isn't there, by the way.

CP older member

The concept of self-worth, although present in the general literature on loneliness,⁸⁸ is particularly foregrounded in the sense-of-belonging literature, and highly relevant to our focus on migrant and minority groups, whose identities are commonly stigmatised. This suggests the importance of examining the interplay between discrimination, stigma, shame and loneliness. Importantly, racial discrimination can usefully be understood as operating at multiple, interlocking levels. At a structural level, processes of racism are entrenched in laws, policies and practices, and are reproduced in societal institutions and organisations. At a cultural level, the circulation of images, language and symbols in multiple societal arenas – everyday conversation, media, the arts and policy discourse – serves to perpetuate, and normalise, the ideology of inferiority and difference.⁸⁹ These insights are important because, in addition to racist interpersonal interactions that might be experienced as outright verbal or physical abuse, or more subtle microaggressions, sense of belonging can be undermined by the material and symbolic properties of ‘white spaces’.⁹⁰

Intercultural encounters

A final related body of work seeks to understand patterns of interaction across ethnocultural difference, and how more positive social interactions, and reduced prejudice, can be achieved. Early psychological contributions to this area were framed in terms of ‘contact theory’,⁹¹ whereas more recent work has examined the nature of, and opportunities for, ‘meaningful encounters’ that can have a transformatory effect on attitudes and behaviours.^{92,93} The importance of bringing this work into view for the present project was supported by our CP members, who underscored the relevance of both positive interethnic ties and negative interactions across ethnic difference, for sense of belonging among migrant and ethnic minority people. For example, a discussion in the working-age Sheffield group centred on increased hostility from neighbours following the Brexit vote, with one member commenting:

When migrant and minority ethnic individuals see the future of this country, they do not see themselves in it.

CP working-age group member

Delineating the scope

The conceptual terrain briefly set out in previous sections was used to inform our subsequent approach to the project in the following ways:

- identifying the outcomes of interest
- developing a framework of the proximate determinants of loneliness
- sensitising to potential interventional strategies (and thereby informing inclusion criteria for interventional studies).

Outcomes of interest

Combining insights from the CP sessions with the theoretical literature, we identified the following types of outcomes, whether assessed quantitatively or described qualitatively, as being dimensions of loneliness, and therefore within remit:

- emotional loneliness, lack of intimacy
- social loneliness, (lack of) sense of belonging; feeling isolated
- feeling unsupported.

A framework of the proximate determinants of loneliness

Our theoretical review confirmed that existing formulations of the underlying causes of, and potential solutions to, 'loneliness' are inadequate. In particular, rather than pathologising people's negative appraisal of existing social relations (employing terms like 'abnormal' cognition),² it is important to acknowledge that individuals are exposed to social ties and interactions that undermine, rather than affirm, and that constrain, rather than facilitate, companionship. Importantly, for migrant and ethnic minority people, these interactions are commonplace, and threats to self-worth are routinely experienced. Furthermore, for many migrants, a loss or weakening of significant social exchanges is a prominent feature of their experience.

An initial scoping extraction of 49 interventions/initiatives involved mapping all of the inputs associated with these initiatives, and identifying the associated strategies (that is the cognitive, behavioural or environmental changes that were intended). We then examined each of these strategies, asking the question 'how does this strategy have an impact on loneliness experienced at the individual level?', to identify candidate proximate determinants that aligned with the theory review. We drew up a draft model and discussed it with the CP members. This process resulted in the identification of four proximate determinants, through which, we hypothesised, all initiatives must operate to affect loneliness:

1. increased positive ties and interactions – social relationships and exchanges that are experienced as providing affirmation and authentic companionship (being able to be oneself), often of a reciprocal nature
2. decreased negative ties and interactions – social relationships and exchanges that are experienced as failing to affirm, or as actively undermining, one's sense of self, and/or failing to provide or actively obstructing valued social activities
3. increased self-worth – perception of being valued by, and valuable to, other people
4. more positive appraisal of existing social ties and interactions – reduced gap between what you want and what you have.

We recognised that these proximate determinants inter-relate with one another, and that there may be two-way causality (or feedback loops) between loneliness and these proximate determinants. For instance, experiencing negative social interactions is likely to undermine one's self-worth. However, the model suggests that, in theory, interventions must affect loneliness via one, or more, of these determinants. So, for example, it may be possible to reduce loneliness by enhancing self-worth, even if there is no change to the number of positive social ties and interactions that the individual experiences. The model does not distinguish between intimate ties and broader social connections, whether experienced positively or negatively, because we found little indication that such a distinction would be helpful in understanding how interventions function. This decision also reflected a concern that this distinction may be ethnocentric, reflecting Western notions of the nuclear family and primacy of the intimate, heterosexual husband-wife bond. Work by Smart⁹⁴ alerts us to the ways in which people are active in (re)creating family-type relationships, and that elements of intimacy, support and companionship can be achieved in different ways.

Potential strategies and solutions

Previous review work has categorised interventional strategies into four main types, each of which responds to an identified immediate cause of loneliness.² As shown in *Table 4*, we developed an extended model that enabled us to look for a wider range of potential interventional strategies.

TABLE 4 Hypothesised proximate determinants and associated solutions to loneliness

Model	Causal factors	Potential responses
	<i>Immediate cause</i>	<i>Solutions</i>
Masi <i>et al.</i> 's ²	Lack of intimate, supportive social ties	Provide substitute relationships that afford such intimacy and support
	Lack of social connections	Provide opportunities for social connections
	Lack of skills to build relationships	Equip people with social and communication skills
	Maladaptive social cognition	Help people to think differently about their social relationships
	<i>Proximate determinants</i>	<i>Potential strategies</i>
Our new model	Lack of positive social ties and interactions	<ul style="list-style-type: none"> • Directly provide positive social ties • Provide opportunities for positive social connections, e.g. associational spaces • Equip people with skills to form new positive ties • Equip people with resources to maintain/enhance existing ties
	Negative social ties and interactions	<ul style="list-style-type: none"> • Equip people with skills to make existing ties more positive • Reduce exposure to negative social interactions, e.g. provision of safe spaces • Modify other people's behaviours • Modify systems and processes that discriminate
	Low self-worth	<ul style="list-style-type: none"> • Provide direct affirmation • Provide opportunities to demonstrate competence and value • Adjust symbolic and material characteristics of places (e.g. 'white spaces')
	Negative appraisal of existing ties	<ul style="list-style-type: none"> • Help people to think differently about their social relationships • Equip people with understanding of 'other' social norms

Chapter 4 A typology of interventional approaches

Introduction

This chapter addresses the following research question and presents a typology of interventions: what types of interventional approaches to addressing social isolation and/or loneliness among migrant and/or ethnic minority people have been developed and evaluated?

In keeping with our theory-driven methodology, and drawing on the work of Hawe and Shiell,^{40,41} we adopted an approach to 'typing' based on identifying the intended functions that interventions aimed to achieve. We understood a function to be a set of closely related enabling conditions and opportunities for change. The functions that characterise a particular intervention type are, more or less explicitly, underpinned by assumptions about the proximate determinant(s) of loneliness, as well as feasible ways of modifying these determinants, among the intended beneficiaries.

Therefore, although in some cases a particular function dictates some aspects of the form that an intervention takes (i.e. the nature and quantity of resources provided), this is not necessarily the case. Furthermore, distinct intervention types can share some aspects of form. As an example, initiatives that adopt a group-based format appear superficially similar, but can vary importantly in terms of their functions, with some being entirely focused on providing the conditions to equip participants with particular knowledge or skills, whereas others might be characterised by the distinctive function to provide a safe, reciprocal authentic space for group members.

As discussed in *Chapter 3*, our inclusion criteria encompassed interventions for which the primary goal was not reducing loneliness or social isolation, provided that these interventions had a secondary goal or a (hypothesised) intermediate pathway of increasing social connectedness (increasing positive and/or reducing negative social ties and interactions). For such initiatives, we sought to characterise their functions in terms of how they related to the processes and outcomes of focus in this study.

Having identified diverse intended functions, we sought to create a typology that identified each intervention type by its 'distinctive' function. Several types were found to have more than one function, but when this was the case, a function could be identified that was distinctive in the sense that, without this, it would no longer be considered to be this type of intervention. A few functions appeared in more than one intervention type, but our approach meant that they could be considered distinctive in only one type.

Input from the CP workshops was also important to this stage of the project. CP discussions revealed illustrations of how the form of initiatives can be deceptive, and thereby provided support for our focus on articulating functions. Members also helped to refine the way we described functions, for example confirming the inclusion of 'safe space' in the description of the distinctive function of shared-identity support groups (see *Table 5*). They also supported the inclusion of 'intercultural encounters' as a type of intervention with potential to affect loneliness, despite these initiatives commonly being framed in terms of social cohesion at a more aggregate level. CP members were unanimous that, although these initiatives were often flawed in practice, in principle they had the potential to affect importantly the proximate determinants and feelings of loneliness, particularly a sense of belonging.

The resultant typology represents generic models of how interventions are intended to function. Its purpose was twofold. First, it provided a structure for mapping the interventional activity that has

TABLE 5 Typology of interventional approaches

Number	Approach types	Intended distinctive function
1	Befriending	To provide a one-to-one relationship of trust through which an individual with inadequate social connections receives tailored emotional support and companionship
2	Shared-identity social support group	To provide a safe, authentic, reciprocal social space where people who recognise some kind of shared identity engage with each other with meaning and enjoyment
3	Intercultural encounter	To bring together, in meaningful contact across ethnic/cultural/religious differences, people who do not normally interact
4	Psychotherapy	To provide individuals currently living with (or at high risk of) a common mental disorder with structured therapy to help them better understand and adapt their thinking and behaviours (which may contribute to isolation and loneliness) (individual or group therapy)
5	Training or equipping focused	To provide individuals with an opportunity to gain new knowledge and/or skills that have relevance to increasing the quantity and/or quality of their social ties and interactions (alone or in a group setting)
6	Meaningful activity focused	To provide an opportunity to undertake activity that has meaning for the individual and the potential to enhance self-worth (alone or in a group setting)
7	Volunteering	To provide individuals with an opportunity to volunteer that has the potential to enhance self-worth and create new social ties and interactions (alone or in a group setting)
8	Light-touch psychological inputs	To expose individuals to brief ‘messaging’ intended to alter perceptions and support more positive appraisal of existing social ties and interactions
9	Other (individual focused)	Varied: holistic services (combining several functions flexibly according to need, often including distinctive functions of approaches 1, 2, 5, 6 and 7); social prescribing (connecting people to types 1, 2, 6 and 7 primarily); residential mobility programme (providing opportunity to live in different sociodemographic neighbourhood)
10	Other (community, organisation or structural)	Varied: area-level partnership commissioning range of activities (combining several functions aimed at creating opportunities for new social ties and interactions); dedicated campaigning organisations (advocating for service gaps to be filled and system change); holistic co-ordinating agencies (facilitating support by other agencies as well as direct support provision); creation of engaging physical social spaces; community planning exercises

been subject to documentation and/or evaluation in the published and grey literature. Second, it provided a tool to guide subsequent analyses of how interventions are hypothesised to work and how they play out in the real world.

Overview of the range of interventional approaches

We identified eight types of interventions. *Table 5* lists these, along with their distinctive intended functions, and *Table 6* shows the distribution of these types by the population subgroups we employed, as found in the published and more detailed grey literature (a total of 170 initiatives). *Report Supplementary Material 1* provides brief descriptions of the intervention types found in the rest of the grey literature accessed.

In practice, not all of the interventions described in the published and grey literature conform exactly to the intervention types that we developed. In a few cases, interventions combine more than one of the intervention types (and several different functions). These ‘hybrids’ were assigned to the type felt to capture the most prominent distinctive function, with a note being added to describe their syncretic

TABLE 6 Population groups by intervention/initiative type

Beneficiary group of focus	Number of interventions/initiatives identified in published and detailed grey literature									
	Befriending	SSG	Intercultural encounter	Training or equipping	Psychotherapy	Meaningful activity	Volunteering	Light-touch psychological inputs	Other (individual)	Other (structural)
People seeking or granted asylum (all ages/life stages)	5	13	12	5	0	3	1	0	1	3
<i>Not people seeking asylum or refugees</i>										
Pregnant women or new mothers	8	3	1	1	7	0	0	0	0	0
Older people	2	4	0	5	0	0	1	0	0	2
University students	6	16	4	4	1	0	2	5	0	1
Children in school setting	2	0	2	1	0	0	0	2	0	1
Children and young people outside educational setting	0	0	5	0	0	0	0	0	1	0
Women in vulnerable or challenging circumstances ^a	3	9	0	0	2	0	0	0	0	0
General-population migrants and/or ethnic minorities (no age or stage focus)	1	4	1	2	1	2	0	0	3	2
Majority population alone or multiethnic population including majority	0	0	10	0	0	0	0	0	0	0
Total	27	49	35	18	11	5	4	7	5	9

SSG, shared-identity social support group.

^a In three papers, the participant group included a few men but was predominantly female.

form. We also included two 'other' categories to accommodate interventions that did not fit neatly into any of the eight types. These were primarily multifaceted initiatives offering a menu of options to individuals or providing diverse activities and resources at a structural level.

In the next section, we provide a description of each of the identified intervention types, including their distinctive functions, along with an overview of the forms that they took, guided by the Template for Intervention Description and Replication (TIDieR)-Lite framework,⁹⁵ when appropriate. *Chapter 5* further develops the theory of how the common intervention types work and presents pictorial representations (logic models).

Common interventional types

Befriending

The distinctive intended function 1 of interventions included in this type was identified as the creation of a one-to-one relationship of trust through which an individual with inadequate social connections receives tailored emotional support and companionship.

From our published (and more detailed grey) literature search, a total of 27 interventions were categorised into the befriending type, five of which were UK based (papers by McLeish and Redshaw^{96,97} that examined multiple interventions, some of which focused on our population groups, have been counted as a single intervention, as the analysis was aggregative). Diverse labels were employed to describe the individual acting in a befriending capacity, such as befriender, host, sponsor, tutor, buddy, labour friend, mentor mother and so on. Examples were found for all of our population subgroups except 'children and young people outside educational settings'.

Appendix 7 sets out all of these interventions, describing the key components, guided by the TIDieR-Lite framework,⁹⁵ and we summarise these here.

Key components

Recipients (to whom)

These interventions were targeted at individuals identified as having, or being at risk of having, inadequate social connections and/or lacking a sense of belonging in their current social context. None of the studies reported that the initiatives employed formal screening tools to identify eligible recipients, but some involved a process of referral by a professional (e.g. a midwife or a teacher). Five interventions were designed to support individuals seeking, or recently having been granted, asylum. All of these highlighted the challenges faced by individuals finding themselves in unfamiliar and often difficult environments, particularly in relation to establishing social connections. Four interventions targeted the needs of adults with a general focus on settlement and adaptation to the new country, whereas one⁹⁸ sought to address the needs of schoolchildren of refugee status adapting to their new educational setting. Eight interventions focused on pregnant women and new mothers, and all but one were framed in terms of improving social support as a route to improving birth outcomes. A further initiative provided support to parents, but was not restricted to a narrow age or stage of family-building.⁹⁹ Two initiatives were aimed at older people, in both cases focusing on immigrant elders. Six initiatives were aimed at supporting university students to adapt to social and academic life in an unfamiliar learning context (one focused on students of minority ethnicity and five focused on international students). Two initiatives focused on schoolchildren who were identified as being at risk of lacking a sense of belonging in school, and therefore at risk of academic dropout or poor achievement. Finally, three befriender initiatives aimed at supporting women in vulnerable circumstances. Two of these focused on breast cancer survivors and one on newcomers at risk of social isolation and mental ill-health.

Additional functions

In addition to lack of adequate social connections, almost all initiatives also characterised recipients as lacking the necessary information and/or skills to function well in a new and unfamiliar situation. In some cases, the new situation arose because of a physical move to a new country or social context; in others, it represented a life transition or event. As a result, we identified a commonly intended additional function 2: equipping the individual to function well in a new and/or challenging role or context.

In addition, the importance of supporting recipients to connect with other existing support services, as well as to develop their own social connections beyond the befriender, was often emphasised. Therefore, a further commonly intended additional function 3 was linking the individual to wider social support opportunities and services.

Befrienders (by whom)

There was no consistency in terms of labels employed for the 'befriender' nor the nature of the role played. Some roles were paid, but the majority were voluntary. Some were played by individuals who had a professional identity that equipped them for the role. However, most involved individuals acting in a lay capacity. In some cases, the individuals playing these roles were labelled as 'peers', suggesting a shared identity and/or common experience between the befriender and the befriender. Other initiatives involved careful matching processes, without suggesting that the two participants were 'peers'. In most cases, a period of training and induction for befrienders was included.

What

All but one of the initiatives involved face-to-face contact between the befriender and the befriender, with some also using telephone, e-mail and text messages. Most of the initiatives were described as being flexible, with the content of meetings and activities being tailored to the needs of the befriender. However, a small number employed standardised materials as resources to be drawn on by befrienders during encounters, such as the Hispanic Labor Friends Initiative.¹⁰⁰

Where

There was variation in terms of where such face-to-face meetings took place. In some cases, these included private homes, whereas in others only public, community venues were used, and in others the contact was still restricted to institutional settings.

Intensity, frequency, duration

There was variation in terms of the frequency of meetings. In most cases, befrienders were expected to provide a minimum amount of contact with the befriender over a specified period, but with flexibility on the part of the befriender to seek support as needed. Some schemes were more structured, such as those in school settings. The duration of schemes varied and, although some had flexible endings dictated by the needs of the befriender, others had fixed durations. As discussed more in *Chapter 6*, the nature of endings in befriender–befriender relationships could be problematic.

Grey literature

A large number of UK examples of befriending interventions for migrant and/or ethnic minority people were identified via the grey literature search. *Report Supplementary Material 1* (tables 1–8) provides an overview of these initiatives across the different population subgroups. We identified 26 such initiatives, 17 aimed at older people, all of which demonstrated an explicit focus on reducing social isolation and loneliness. An interesting example was Phonelink, providing befriending to older South Asian people in their preferred language by telephone (see *Report Supplementary Material 1*, #42). Six befriending initiatives were targeted at people seeking asylum or refugees. In several cases, initiatives were linked to broader projects offering social support groups and other activities, as, for example, the African Francophone Woman's Support project (see *Report Supplementary Material 1*, #36) and Wai Yin: Kwan Wai Community Café (see *Report Supplementary Material 1*, #40).

Shared-identity social support groups

The distinctive intended function 1 of interventions included in this type was identified as providing a safe, authentic, reciprocal social space where people who recognise some kind of shared identity engage with each other with meaning and enjoyment.

From our published (and more detailed grey) literature, a total of 49 interventions were categorised into this intervention type, eight of which were UK based (when papers drew on data relating to more than one support group but did not clearly distinguish between them in the findings, they have been counted as just one intervention each). Diverse labels were employed to describe the interventions, including support group, counselling group, self-help group, support network, (multi)cultural centre and others. *Appendix 7* sets out the key components of each of these interventions as described in the papers.

Key components

Recipients (to whom)

These interventions were targeted at individuals who were assumed to be at risk of having inadequate social connections and/or lacking a sense of belonging in their current social context, and, in some cases, at risk of conflictual interpersonal relationships. None of the studies reported that the initiatives employed formal screening to identify recipients in terms of isolation or loneliness.

As discussed more in *Chapter 6*, the 'shared identity' of groups was variously understood, with some groups being much more homogeneous than others in terms of ethnic and national identity. Thirteen interventions were designed to support adult individuals seeking, or recently having been granted, asylum. Two of these targeted individuals identifying as a sexual minority.^{101,102} Three interventions focused on pregnant women and new mothers. Four initiatives were aimed at older people. In one case, an initiative in Japan appeared to target internal migrants;¹⁰³ however, we retained this initiative as its logic is very close to those focused on cross-national migrants. Eight initiatives were aimed at supporting international students, and eight involved ethnic minority students. Nine initiatives were intended to support women in vulnerable or challenging circumstances, including those living with illness, those caregiving and victims of domestic abuse. Finally, four initiatives were open to mixed age and life-stage groups.

Additional functions

Several initiatives were framed in terms of providing support to migrant and/or ethnic minority people in the context of stigmatised identities and a hostile wider environment within which the experience of interpersonal, structural and cultural racism is part and parcel of everyday life. As a result, we identified a commonly intended additional function 2: buffering the external hostile context that denigrates minority ethnic/cultural/religious or migrant identity of the group members. A total of 21 interventions included some elements of this function.

In addition, in common with befriending, these initiatives often recognised recipients as lacking the necessary information and/or skills to function well in a new and unfamiliar situation. Therefore, a further commonly intended additional function 3 was identified as equipping the individual to function well in a new and/or challenging role or context; just nine of the reported interventions appeared not to include elements aimed at this function.

Group facilitators (by whom)

Groups were led or facilitated by a variety of people, including those identified as professionals and laypeople, and those in both paid and voluntary roles. In a few cases, groups were bottom-up initiatives, being organised and led by group members themselves. Across a large number of initiatives, the group leadership was designed to support linguistic and cultural appropriateness for group members.

What

A majority of the initiatives involved individuals who considered themselves to be 'members' of the group, meeting face to face at a consistent location and time. However, some initiatives were more fluid and flexible, being shared-identity centres or networks offering diverse activities that people could dip in and out of, such as a cultural centre offering card games and chat for Irish men alongside other activities,¹⁰⁴ or an African American Student Center that offered a variety of support activities on a flexible attendance basis.¹⁰⁵ Two groups that were based online, one an e-mail distribution list and the other a private web space, both encouraged offline engagement also.^{106,107} Groups varied in terms of how open or closed they were to new members. Although the core of all these initiatives was the reciprocal sharing of experiences, insights and information, this happened in a variety of more or less structured ways. A variety of other complementary activities also took place in these group settings, including sharing of food, arts, dancing and music, structured education and skills sessions, outings, role plays and critical debate. Many also incorporated signposting and 14 initiatives included some element of one-to-one support/input to enable individual issues to be addressed.

Intensity, frequency, duration

Groups commonly involved weekly meetings, although some were less frequent. They varied in terms of their duration, with some being completely open-ended, and others having a fixed duration, often guided by a structured programme, such as an extensive 1-year programme for immigrant women in Sweden and the Netherlands,¹⁰⁸ and a 10-week course for minority students in the USA.¹⁰⁹

Grey literature

Twenty-five examples of initiatives that could be considered shared-identity social support groups (SSGs) were found in the grey literature (see *Report Supplementary Material 1*). Examples were found serving different population subgroups, and these initiatives took varied forms. Examples included an initiative for young Muslim women in Birmingham, which aimed to get the women involved in sport and created inclusive physical spaces for people to come together (see *Report Supplementary Material 1, #55*); a gardening and cooking club for Bengali women in London (see *Report Supplementary Material 1, #60*); a music-based group for people seeking asylum in Wakefield (see *Report Supplementary Material 1, #3*); and a cultural kitchen for people seeking asylum in Plymouth (see *Report Supplementary Material 1, #14*).

Intercultural encounters

The distinctive intended function 1 of interventions included in this type was to bring together, in meaningful contact across ethnic/cultural/religious differences, people who do not normally interact.

From our published (and more detailed grey) literature search, a total of 35 interventions were categorised into this intervention type, 13 of which were UK based.

Key components

Recipients/participants (to whom)

For 12 initiatives, the main targeted beneficiaries were people seeking asylum or refugees;¹¹⁰⁻¹²¹ of these, four focused on children. In one initiative, the participants were pregnant women and parents (predominantly mothers) of small children.¹²² Four involved university students,¹²³⁻¹²⁶ two involved children in schools^{127,128} and five involved children and young people outside educational institutions.¹²⁹⁻¹³³ Eleven were open to people of all ages: one involved all ethnic minority people and 10 involved both minority and majority groups.^{72,134-141}

In terms of the intercultural nature of initiatives, there was great variation in the mix of migration, ethnic and national identities of the participants involved. Furthermore, although some initiatives were carefully orchestrated, and thereby open only to individuals who met particular identity-related inclusion criteria, others were on offer to broader constituencies, such as anyone living in a certain

neighbourhood. Examples of orchestrated initiatives included a US scheme whereby people seeking asylum and refugees who shared a national or ethnic identity were brought together with largely white American students,^{112,113} and an arts-based project in Denmark that engaged a mixed nationality group of asylum-seeking children and involved majority white adult Danes in teaching roles.¹²⁰ Initiatives that were more fluid in terms of participants included intercultural football leagues,^{111,115,142} neighbourhood 'improvement and integration' schemes,^{121,132,137} and designated community leisure and social spaces.^{122,139} Although most initiatives involved some form of contact between migrant and/or ethnic minority individuals and the white majority population, three brought together groups that could all be considered minoritised in their current social context.^{126,130,141}

Two initiatives were established exclusively for women,^{117,124} whereas the remainder were open to all genders, although some of the sporting initiatives were dominated by men/boys, and the Children's Centre primarily involved women.¹²²

Those initiatives that focused on people seeking asylum, refugees, international students and other newly arrived migrants were commonly framed, at least in part, in terms of a high risk of social isolation. However, none of them reported any kind of screening/targeting. The remaining initiatives tended to be framed in terms of increasing social cohesion and positive relations between ethnic groups, sometimes labelled 'bridge-building'.¹³³

Additional functions

Although some initiatives simply brought people together, creating a space where meaningful intercultural encounters were expected to develop organically, others included more deliberate activity. We therefore identified intended function 2: 'myth-busting' – actively shifting negative beliefs about 'others'. Sixteen initiatives included some elements that appeared to be aimed at this function.

In addition, some initiatives recognised recipients (usually the migrant/minority participants) as requiring information and/or skills to enable them to function well in cross-cultural encounters, leading to the identification of hypothesised function 3: equipping the individual to function well in cross-cultural encounters. Sixteen of the initiatives appeared to include elements aimed at this function.

Leaders/facilitators (by whom)

Most initiatives involved one or more individuals playing a facilitating or supporting role; in the majority of cases, these individuals were trained in their role. Facilitators could be professionals or laypeople, paid or unpaid, and several initiatives combined these characteristics in their facilitating 'teams'. Several of the initiatives provided opportunities for beneficiaries/participants to contribute actively to the endeavour, particularly those that were neighbourhood based and of longer duration.

What

The nature of activities was varied, but four broad types of encounter were more common: arts based,^{110,114,120,127,132,143} music based,^{126,128,136} sports based,^{111,115,130,142} sharing conversation (more or less structured)^{72,112,113,116-118,122,124,125,133,134,138,140,144} and neighbourhood improvement projects.^{121,141} Other formats included an online collaborative game,¹²⁹ diverse team-based activities over a 4-week programme,¹³¹ poster and social media campaigns,^{118,145} community gardens¹³⁹ and other community spaces.¹³⁷ Several initiatives combined multiple activities, such as neighbourhood improvement with sports or arts activities.

Intensity, frequency, duration

These initiatives varied greatly in terms of their intensity and duration, as well as in terms of how prescriptive or flexible they were in relation to individual exposure/participation.

Grey literature

A total of 33 examples of initiatives that could be considered intercultural encounters were found in the grey literature (see *Report Supplementary Material 1*). Examples involved diverse population groups and varied activities, such as a theatre-based project involving young people and recently arrived migrants in Coventry (see *Report Supplementary Material 1, #1*), a music concert linking older people of Bangladeshi and white British ethnic identity in London (see *Report Supplementary Material 1, #31*), and a schools-based anti-racism and welcome campaign in Scotland (see *Report Supplementary Material 1, #52*).

Other intervention types

Appendix 8 describes all of the other included interventions, guided by the TiDieR-Lite framework.⁹⁵ A brief description of each type is given in the following sections.

Training or equipping focused

Although other interventions, notably SSGs and befriending, could include an element of training or equipping, these interventions were distinctive in their focus on this function: to provide individuals with an opportunity to gain new knowledge and/or skills that have relevance to increasing the quantity and/or quality of their social ties and interactions. Eighteen interventions were identified as being of this type.

Recipients/participants (to whom)

The recipients of these interventions were people seeking asylum and/or refugees ($n = 5$), pregnant or postpartum women ($n = 1$), older people ($n = 5$), university students ($n = 4$) (three of which focused on international students), children in school ($n = 1$) and mixed age/life-stages ($n = 2$).

Leaders/facilitators (by whom)

Diverse facilitators/trainers were involved, professionals and laypeople, paid and unpaid, and, in some cases, employing co-facilitation models.

What

Several initiatives focused on equipping migrant or ethnic minority individuals with the sociocultural skills, as well as contextual information and navigational skills, perceived to be necessary to function well in a new/challenging role or social setting.^{146,147} However, others focused on equipping recipients with a narrower set of skills, such as learning to drive¹⁴⁸ or improving balance,¹⁴⁹ or took an approach focused on health and well-being.¹⁵⁰⁻¹⁵² Some of these initiatives shared some similarities with SSGs in that they adopted an approach of bringing together people who had similar experiences or ethnocultural background, such as a project convening 'Senior Meetings' in Sweden.¹⁵³ However, these initiatives foregrounded the training element rather than the creation of a shared, reciprocal space. The majority involved face-to-face training in a group setting, but a few used remote, digital media.^{146,151,154}

Intensity, frequency, duration

Most of these interventions involved a fixed number of sessions and duration because they followed some kind of predetermined curriculum. However, the durations varied considerably.

Psychotherapy

Eleven psychotherapy interventions were identified. The distinctive function of these initiatives in relation to our focus of interest was identified as follows: to provide individuals currently living with (or at high risk of) a common mental disorder with structured therapy to help them better understand and adapt their thinking and behaviours (which may contribute to isolation and loneliness). Eight out of 11 interventions were framed in terms of treating or preventing depression, whereas three had a broader focus on well-being in the context of challenging situations.¹⁵⁵⁻¹⁵⁷

Recipients (to whom)

Seven of these interventions were targeted at pregnant or postpartum women: six in the USA^{158–163} and one in the UK.¹⁶⁴ One was provided to international students,¹⁵⁵ one to African American women aged 30–60 years,¹⁶⁵ one to carers of people living with Alzheimer's disease (who were mainly, although not exclusively, women)¹⁵⁶ and one to African American men.¹⁵⁷

Three were delivered in a group setting only,^{155,164,165} four were delivered via individual one-to-one sessions only,^{158,160,162,163} and four included both group and individual components^{156,157,159,161} (although, in the case of Eisdorfer *et al.*,¹⁵⁶ this meant an individual or family group session with the therapist).

By whom

In all but one case,¹⁶⁴ the intervention was delivered by a health-care or social care professional or someone with training in psychotherapy or counselling.

What

All interventions involved face-to-face contact with a therapist, and some also included telephone contact. All followed a structured programme; some were manualised. Three interventions employed a form of interpersonal psychotherapy.^{158,160,162} Four described some kind of 'cognitive-behavioural' intervention.^{155,159,161,164,165} One programme¹⁶³ incorporated both interpersonal psychotherapy and cognitive-behavioural therapy methods. Elligan¹⁵⁷ described an African-centred and spiritually centred psychotherapy focused around racism and the impact of oppression of black men's lives. Eisdorfer *et al.*¹⁵⁶ examined an intervention that employed structural ecosystem therapy alongside the provision of technology (a computer-telephone integrated system) that was intended to support communication both with the therapist and with family and friends.¹⁵⁶ Eight of the interventions included explicit design elements aimed at achieving cultural relevance to recipients. Two were explicit in addressing racism as central to the lived experience of recipients.^{157,161}

Where

Interventions were delivered in diverse settings, but were primarily community based, including recipients' homes. There was often an emphasis on avoiding stigma, and maximising the comfort and convenience to participants.

Intensity, frequency, duration

These interventions tended to be time-bound, typically involving weekly interactions and lasting up to around 4 months, although some were longer in duration.^{156,158}

In addition to the 11 psychological therapy interventions, several SSG interventions were described as employing some elements of 'psychotherapy', 'psychoeducation' or 'counselling' as inputs to their training/equipping function.^{166–168}

Meaningful activity focused

Although meaningful activity was a characteristic of other intervention types, notably SSGs, these interventions were distinctive in their focus on this function alone: to provide an opportunity to undertake activity that has meaning for the individual and the potential to enhance self-worth. Just five initiatives were identified as being of this type, although some of those typed as equipping or training could also be considered meaningful activity, such as tai chi classes.¹⁵²

Recipients/participants (to whom)

Recipients were people seeking asylum or refugees ($n = 3$), and people at any age or life stage group ($n = 2$).

Leaders/facilitators (by whom)

These activities tended to be loosely structured and user led. The arts-based initiative did involve an artist supporting the participants.¹⁶⁹

What

Four of these initiatives involved gardening activities,¹⁷⁰⁻¹⁷³ and one was arts-based.¹⁶⁹

Intensity, frequency, duration

The gardening projects tended to be open-ended and of the frequency and intensity determined by the users themselves. The arts-based project was a 20-week initiative.

Volunteering

One volunteering-based intervention was identified for older people, Experience Corps; this is a well-established initiative in the USA that involves placing older people in primary schools to support young children, and attracts a high proportion of African American participants.^{174,175} Vickers¹⁷⁶ reported on volunteering initiatives for people seeking asylum and refugees in UK. Two initiatives involved opportunities for minority students in the USA to engage in volunteering that showcased their language and culture.^{58,177}

Volunteering was also an element in some of the SSGs, and the intercultural encounters, particularly those reported in the grey literature.

Light-touch psychological inputs

Interventions of this type expose individuals to brief 'messaging' that is intended to alter perceptions and support more positive appraisal of existing social ties and interactions. Five initiatives of this type involved university students^{60,178-181} and two involved school children.^{182,183} All were US based, and a majority of these involved the same group of researchers. In all cases, the focus was on increasing students' sense of belonging – fitting in and being valued – in their educational institution, with the longer-term goal of supporting retention and academic achievement.

An example is an initiative that involved a 1-hour laboratory-based exercise intended to convey the message that social adversity in school is short-lived, and not attributable to fixed qualities of self or one's ethnic group. Students were given the results of an ostensible survey of senior students about their experiences of college. They were then asked to write an essay and prepare to deliver a speech to new students that echoed the findings of the survey. The intention was that students would internalise the message and not experience subsequent 'ambiguous' social interactions as social setbacks or indicators of their lack of fit.¹⁷⁹

Other (individual)

We also identified a further five initiatives delivered at the individual level that did not fit easily within the eight types already mentioned. One of these was a social prescribing initiative involving referral to varied local programmes or activities and support from a volunteer tailored to individual needs.¹⁸⁴ Another was a US programme in which people living in deprived neighbourhoods were entered into a lottery that, for some, gave them the chance to move to a better-off area, with the potential for opportunities for better housing, education and employment, but uncertain impacts on social connections.^{185,186} Strang¹⁸⁷ evaluated the Holistic Integration Service for refugees in Scotland, which included a large number of different components, including some directly relevant to social connectedness. Franz¹⁸⁸ described an outreach social work initiative that involved engaging first- and second-generation migrant youth in Austria in music and creative activities, with the potential to positively affect social connections and self-worth, and Kipling¹⁸⁹ examined the role of citizenship ceremonies on integration and belonging.

Other (community, organisation or structural)

A further nine initiatives were identified that were judged to have relevance to social connectedness, particularly bridging ties and sense of belonging, for migrant and/or ethnic minority groups, but that operated at organisational and partnership levels, seeking to create an enabling environment, or to support delivery by other agencies. Papers that described these initiatives did not include exploration of individual-level processes or outcomes. These papers examined UK Children's Fund strategies aimed at supporting social network-building among refugee and asylum-seeking children;¹⁹⁰ refugee support organisations in Austria;¹⁹¹ a multicomponent organisation in Peterborough, UK, involving both direct service provision to refugees and a base for other community projects;¹⁹² a US action research initiative involving older people in shaping physical and social environments;^{193,194} an approach to social capital development among a US Latino community;¹⁹⁵ an active learning pedagogical change initiative in a US university;¹⁹⁶ a school-wide model that aimed to enhance prosocial behaviour;¹⁹⁷ French local authority policies relating to accommodation of Roma migrants (villages d'insertion);¹⁹⁸ and community-based organisations providing settlement services in South Australia.¹⁹⁹

Chapter 5 Intervention logics

Introduction

In this chapter we address the research question: what 'programme theory' and assumed underlying mechanisms inform interventions?

The process of developing these programme theories and visual depictions drew on four complementary sources of insight, combined in an iterative fashion:

1. grand and mid-range theories, described in *Chapter 3*
2. empirical published papers describing interventions
3. insights from CP workshops
4. grey literature describing interventions.

Having completed data extraction using EPPI-Reviewer for the first batch of empirical papers, we undertook an initial round of data synthesis, which employed structured templates in Microsoft Word in which we characterised the inputs, functions, strategies and causal chains between these elements and the four proximate determinants and the outcomes of interest (using colour-coding to distinguish hypothesised or demonstrated relationships). Draft generic logic models were developed for the three most common interventional forms that we identified in *Chapter 4*. These models were discussed and refined during two rounds of CP workshops, as well as via cross-reference to descriptions in the grey literature. They are therefore informed by 170 interventions/initiatives reported in 203 published papers, plus 84 grey literature intervention descriptions.

The resultant models are 'ideal type' depictions of the interventional approach that aim to capture the main elements of the intervention and their inter-relationships. Not all examples of each intervention type involved all elements in the models, and the models omit some elements that were present in some interventions. The aim of these models was to provide hypotheses regarding the functioning of interventions that could direct the subsequent analyses, that is to identify potential pathways between functions, strategies and outcomes.

The generic logic models are presented in terms of four main components: (1) the distinctive and additional functions of the intervention (the enabling conditions and opportunities for change that are intended to result from deliberate inputs – highlighted dark purple in *Figures 2–4*); (2) the intermediate strategies (the cognitive, behavioural and/or environmental changes that are anticipated to happen as a result of achieving the functions – highlighted blue in *Figures 2–4*); (3) the four proximate determinants by which any impact on loneliness must be achieved (highlighted orange in *Figures 2–4*); and (4) loneliness (the final outcome of interest, defined broadly as discussed in *Chapter 4*) (highlighted light purple in *Figures 2–4*).

As our focus was on typing interventions according to their function, and subsequently articulating the assumed operational processes of the interventions, the logic models do not specify precise inputs (the form of the intervention) that are necessary to achieve the functions. The question of which inputs have been found to be necessary to successfully achieve which functions is examined in *Chapter 6* via the empirical data.

A further noteworthy point is that, at the levels of functions and strategies, the models include some 'clusters' of elements. The use of these clusters is both pragmatic, enabling a reduction in the number of separate elements depicted in the models, and theoretical, because these elements are presumed to inter-relate very closely so that there may be little analytical purchase in trying to delineate the

precise relationships among them. That said, when evidence allows, some attempt to refine these relationships is made in *Chapter 6*.

To simplify the depiction, unless otherwise indicated, all the arrows in the logic diagrams (see *Figures 2–4*) represent positive relationships; an increase in the preceding (left-hand) element is hypothesised to lead to an increase in the succeeding element. Therefore, some elements are identified in the negative, for example ‘reduced internalised stigma’.

Befriending

Figure 2 depicts the generic logic model/programme theory for befriending interventions. The distinctive function of this type of intervention was identified as being the provision of a one-to-one relationship of trust that provides tailored emotional support and companionship. This distinctive function is further described in terms of providing an opportunity for the befriender to engage flexibly according to his/her own needs and preferences; express feelings and share experiences; receive affirmation and encouragement; demonstrate one’s competence and value; and engage in enjoyable, authentic social activities. This function is given the shorthand label ‘one-to-one tailored support’.

Aspects of this distinctive function were suggested by interventions in both the published and grey literature. For instance, Ardal *et al.*²⁰⁰ described an initiative for migrant mothers with babies being cared for in an intensive care unit whereby parent buddies were trained in empathic listening skills and were intended to make themselves available for ‘open-ended conversations that flowed from the mother’s needs’. The Tower Hamlets Friends and Neighbours (see *Report Supplementary Material 1, #43*) scheme for older people was depicted as providing opportunities for befriender to express feelings and share experiences, and receive affirmation and encouragement, via the co-creation of life-story profiles using reminiscence exercises.

The model shows this distinctive function acting to increase positive social bonds (proximate determinant 1) for the befriender both directly, through the creation of the befriender–befriender relationship, and indirectly, via increased trust/sense of security, which, in turn, leads to improved interactions with existing social ties and also new social bonds and interactions. Improvements in interactions with existing ties also results in reduced negative social bonds (proximate determinant 2).

The distinctive function is also shown operating via the normalisation of social challenges and reduced internalised stigma, plus increased self-confidence/empowerment/mastery, both of which, in turn, act to increase self-worth (proximate determinant 3). The potential for normalisation, or social validation, to be a pathway in befriending interventions was suggested by theory relating to peer support as well as empirical papers in which there was deliberate matching of befrienders and befriender on a particular experiential attribute, as in the case mentioned earlier in which the buddies were women who had themselves gone through the experience of having a baby in intensive care.²⁰⁰

Additional function 2 for this type of intervention was identified as equipping the befriender to function well in a new or challenging role or context (often linked to change or transition) (shorthand: ‘equipping for context’). This additional function is further described as providing the opportunity for increased knowledge of relevant systems, norms and processes; development of sociocultural and communication skills; and development of practical, problem-solving and/or coping skills for the current context.

As an example, Darwin *et al.*²⁰¹ described a doula intervention aimed at supporting pregnant women living with human immunodeficiency virus (HIV). Doulas were intended to provide women with information about pregnancy in the context of living with HIV and to help them to prepare for their birth. Similarly, befrienders in the scheme for refugees described by Askins²⁰² were expected to provide

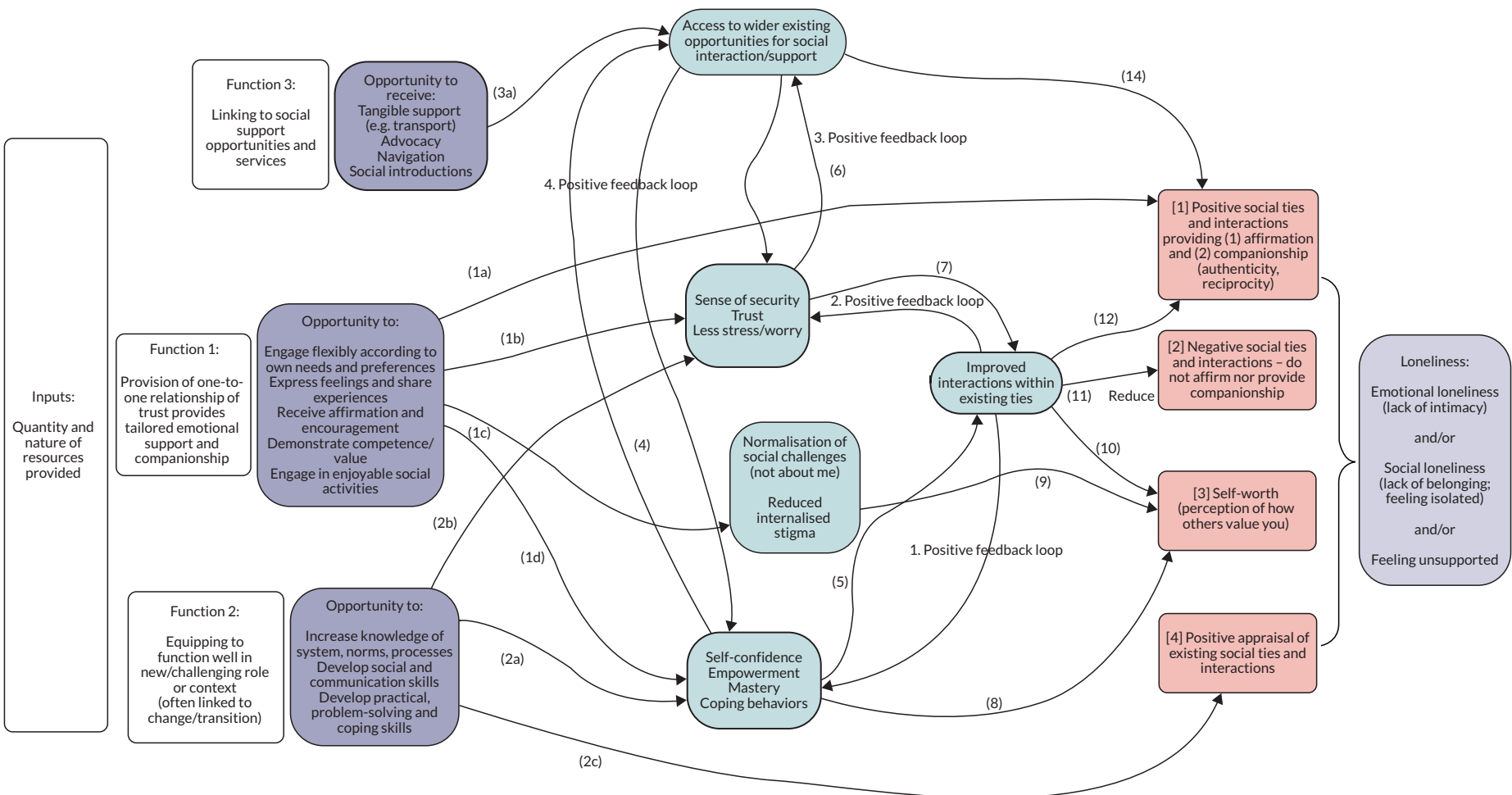


FIGURE 2 Generic befriending logic model. All relationships are positive unless stated otherwise. Dark purple denotes functions intended to produce cognitive, behavioural or environmental change. Blue denotes strategies – cognitive, behavioural or environmental change. Orange denotes proximate determinants by which any impact on loneliness must be achieved. Light purple denotes the final outcome of interest: loneliness.

befriendedees with information and advice about their new home and support English language skills development via informal conversational practice. CP workshop discussions also emphasised the importance of knowledge and skills, particularly related to unfamiliar sociocultural norms, for new migrants as well as for UK-born ethnic minority individuals entering unfamiliar, white-dominated social contexts.

The 'equipping for context' function is shown as operating via increased self-confidence/empowerment/mastery, which, in turn, acts to increase self-worth (proximate determinant 3). This additional function is also shown to improve interactions with existing ties, which, in turn, links to both positive social bonds (proximate determinant 1) and reduced negative social bonds/interactions (proximate determinant 2).

In addition, 'equipping for context' is shown as acting to increase positive appraisal of existing social bonds/interactions (proximate determinant 4). This causal pathway is suggested by interventions that aimed to equip befriendedees with knowledge of relevant norms and cultural meanings, such as Blair's²⁰³ description of community ambassadors who sought to mediate between the expectations regarding family relationships held by elderly South Asian newcomers and their established adult children in the USA, and Weekes *et al.*'s⁹⁸ description of adult tutors providing cultural context and meaning of homework tasks and teacher requests as part of their 'scaffolding' support to refugee children.

Finally, additional function 3 for this intervention type was identified as follows: linking the befriendedee to other social support opportunities and services (shorthand 'linking to support'). This additional function is further described as providing the opportunity to receive tangible and practical support, navigation, advocacy and social introductions.

The Canadian host programme²⁰⁴ illustrates this intended function well with its explicit focus on addressing newcomers' lack of community, professional and social links. Hosts are expected to introduce their clients to people in their social and professional networks and to connect them to other relevant social networking opportunities. Similarly, an intervention involved senior student mentors linking international students to societies, social networks and opportunities for part-time employment.²⁰⁵

This 'linking to support' function is shown as operating via the creation of new social bonds and interactions for the befriendedee with both formal and informal sources of support, which, in turn, creates positive social bonds (proximate determinant 1). In addition, this function is shown as increasing trust/sense of security (as it demonstrates the befriender's responsiveness to the befriendedee's needs), which, in turn, improves interactions with existing ties.

Four potential positive feedback loops are also illustrated in the befriending logic model. First, reversing the notion of a 'reinforcing loneliness loop',²⁰⁶ the logic model suggests that, as befriendedees increase in confidence and acquire mastery over their new context, they experience improved interactions with existing ties (e.g. international students communicating more easily with host students or faculty members), which, in turn, serves to further increase confidence/self-efficacy/mastery. Similarly, increasing levels of trust and sense of security are shown to lead to improved interactions with existing ties (e.g. women communicating more effectively with health-care professionals caring for them or their baby), which, in turn, supports trust and sense of security. Third, increasing levels of trust and sense of security (which is likely to coincide with decreased stress/worry) is shown to lead to befriendedees accessing wider opportunities for social interaction and support, which can in turn act to reinforce feelings of trust and security. Finally, increased confidence/empowerment/mastery is also shown in a potential positive feedback loop with access to new social bonds and interactions, suggesting that a positive reinforcing spiral may ensue as befriendedees engage in greater social contact both within and beyond the opportunities introduced via the befriending intervention itself.

Shared-identity social support groups

Figure 3 depicts the generic logic model/programme theory for SSG interventions. The distinctive function of this type of intervention was identified as follows: providing a safe, authentic, reciprocal social space where people who recognise some kind of shared identity engage with each other with meaning and enjoyment (shorthand 'safe, reciprocal space'). This distinctive function is further described in terms of providing an opportunity for group members to make new friendships; share feelings and experiences (listen and be heard); give and receive affirmation and encouragement; give and receive information and advice; demonstrate one's competence and value; engage in enjoyable, authentic social activity; and engage in activity that has meaning or purpose to them. Some aspects of this function overlap with those of befriending, but it is the creation of a group setting in which reciprocal exchange of emotional and informational support can occur that is distinctive.

Aspects of this distinctive function were suggested by interventions in the published and grey literature, as well as in theoretical literature on social support and group work. For instance, a group established to support black American students in predominantly white universities drew on Yalom's²⁰⁷ key characteristics of effective support groups, including cohesion (bonds of caring and connectedness), catharsis (emotional release) and interpersonal learning (members learning from each other in the social microcosm of the group).²⁰⁸⁻²¹⁰ In a contrasting example, a professional- and peer-led group for older people in the USA clearly aimed at generating this kind of reciprocal and affirming space by focusing on peer interaction and enhancing a 'sense of mastery' among participants.²¹¹

It has been suggested that group-based interventions may be superior to one-to-one input for individuals lacking social support across diverse contexts. For instance, Dipeolu *et al.*,¹⁶⁷ discussing international students, stated that:

... group support offers advantages over individual counseling because groups can instil hope, modify feelings of being alone, impart information, assist students to feel needed and useful, help them to develop socializing techniques, promote interpersonal learning, and provide a sense of community and group cohesion.

*Dipeolu et al.*¹⁶⁷

The model shows this 'safe reciprocal space' function acting to increase positive social bonds (proximate determinant 1) for group members both directly, through the creation of new friendships in the group (1a), and indirectly, via increased trust/sense of security (1b), which, in turn, leads to improved interactions with existing social ties and also access to new social bonds and interactions. Improvements in interactions with existing ties also results in reduced negative social ties and interactions (proximate determinant 2). A further causal chain is shown operating via normalisation/reduced internalised stigma/positive ethnocultural identity (1c). This hypothesised relationship was articulated well by a staff member involved in developing a group for people seeking asylum having run one-to-one counselling for some time:

So, we knew at that point that there was a need for people to meet together and learn more about their community, to share common experiences. Because they tend to feel alone; that they are experiencing what they are experiencing on their own, not realising that other people in their very immediate environment are going through very similar issues. So this project was born out of that.

*Active Communities programme, People's Health Trust.*²¹²

Reproduced with permission from People's Health Trust

The 'safe, reciprocal space' function is also hypothesised to increase self-confidence/mastery/coping behaviours (1d), particularly as a result of the reciprocal exchange of information and advice, and to directly affect the positive appraisal of existing ties (proximate determinant 4) (1e), as a result of the reciprocal exchange and reflection on social relationship experiences within the group.

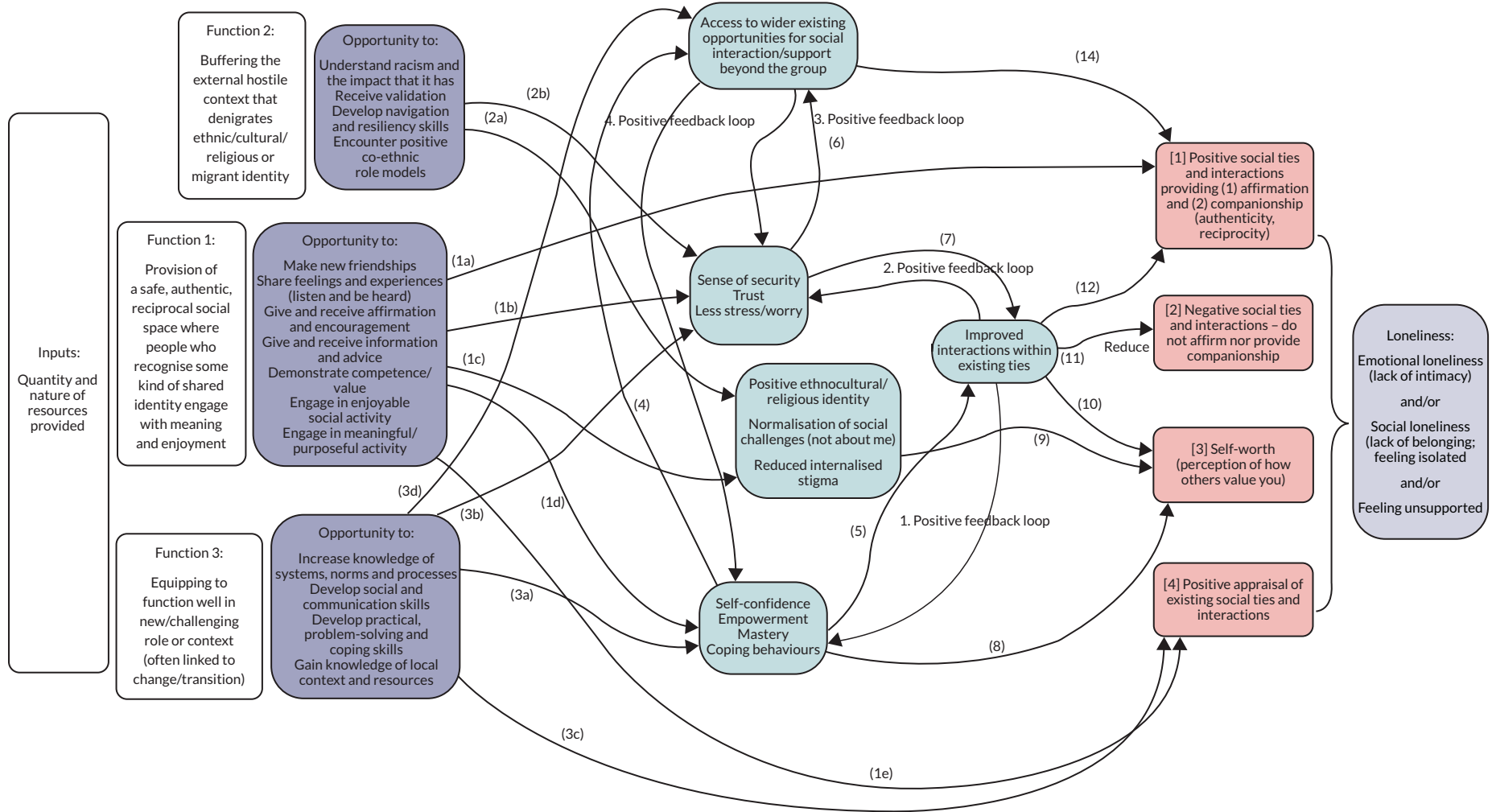


FIGURE 3 Generic shared identity social support group logic model. All relationships are positive unless stated otherwise. Dark purple denotes functions intended to produce cognitive, behavioural or environmental change. Blue denotes strategies – cognitive, behavioural or environmental change. Orange denotes proximate determinants by which any impact on loneliness must be achieved. Light purple denotes the final outcome of interest: loneliness.

Additional function 2 for this type of intervention was identified as buffering the external hostile context that denigrates minority ethnic/cultural/religious or migrant identity of the group members (shorthand: 'buffering hostility'). This additional function is further described as providing the opportunity to understand racism and the impact that it has, receive validation, develop navigation and resiliency skills, and encounter positive co-ethnic role models. The inclusion of this function is particularly informed by the empirical literature on under-represented students' experiences in predominantly white institutions in the USA, as well as the literature on structural and cultural racism.²¹³ The logic model depicts this function as acting via both normalisation/reduced internalised stigma/positive ethnocultural identity (3a) and increased sense of trust/reduced stress (3b), to subsequently affect proximate determinants 1, 2 and 3.

Finally, additional function 3 for this intervention type was identified as equipping the group members to function well in a new or challenging role or context (often linked to change or transition) (shorthand: 'equipping for context'). This additional function mirrors function 2 of the befriending type, and is further described as providing the opportunity for increased knowledge of relevant systems, norms and processes; development of sociocultural and communication skills; development of practical, problem-solving and/or coping skills for the current context; and knowledge of local context and resources. 'Equipping for context' is shown as operating via increased self-confidence/empowerment/mastery, which, in turn, acts to increase self-worth (proximate determinant 3). This function is also shown to improve interactions with existing ties, which, in turn, links to both positive social ties (proximate determinant 1) and reduced negative social ties/interactions (proximate determinant 2). In addition, function 3 ('equipping for context') is hypothesised as acting to increase positive appraisal of existing social ties/interactions (proximate determinant 4). This causal pathway is informed by acculturation theory⁷⁶ and suggested by interventions that aimed to equip group members with knowledge of relevant norms and cultural meanings, such as groups established for African refugees in Canada that included sessions designed to improve understanding and adjustment to familial roles and relationships in the new cultural context.^{63,214–216} Finally, 'equipping for context' may increase access to wider existing opportunities for social interaction and support via the provision of relevant information.

The same four potential feedback loops represented in the befriending model were also identified in the SSG model.

Intercultural encounters

Figure 4 depicts the generic logic model/programme theory for intercultural encounters. This model is more tentative than for the previous two intervention types, reflecting the fact that fewer initiatives were directly concerned with the review outcomes of interest, and that related theory has not tended to include a focus on individual-level loneliness. The interventional logic is also complicated by the fact that, although our primary interest is in the proximate determinants and outcomes for migrant/minority individuals, the changes that interventions aim to achieve relate to the cognition and behaviours of 'out-group' (particularly majority ethnicity) members also. For simplicity, the model does not distinguish participant identities, but rather presents all changes as potentially occurring to all participants. We note below where some pathways are more relevant to migrant/minority participants.

The distinctive function of this type of intervention was identified as being to bring together, in meaningful contact across ethnic/cultural/religious differences, people who do not normally interact (shorthand: 'meaningful interethnic contact'). This distinctive function is further described in terms of providing an opportunity to share stories and experiences (listen and be heard), demonstrate competence and value, engage in purposeful activity and engage in enjoyable social activity. The articulation of this function is informed by contact theory⁹¹ and more recent empirical literature on meaningful encounters.^{93,130} The importance of creating encounters to which individuals that are routinely reminded of their deficit status can contribute, and in which their cultural heritage and

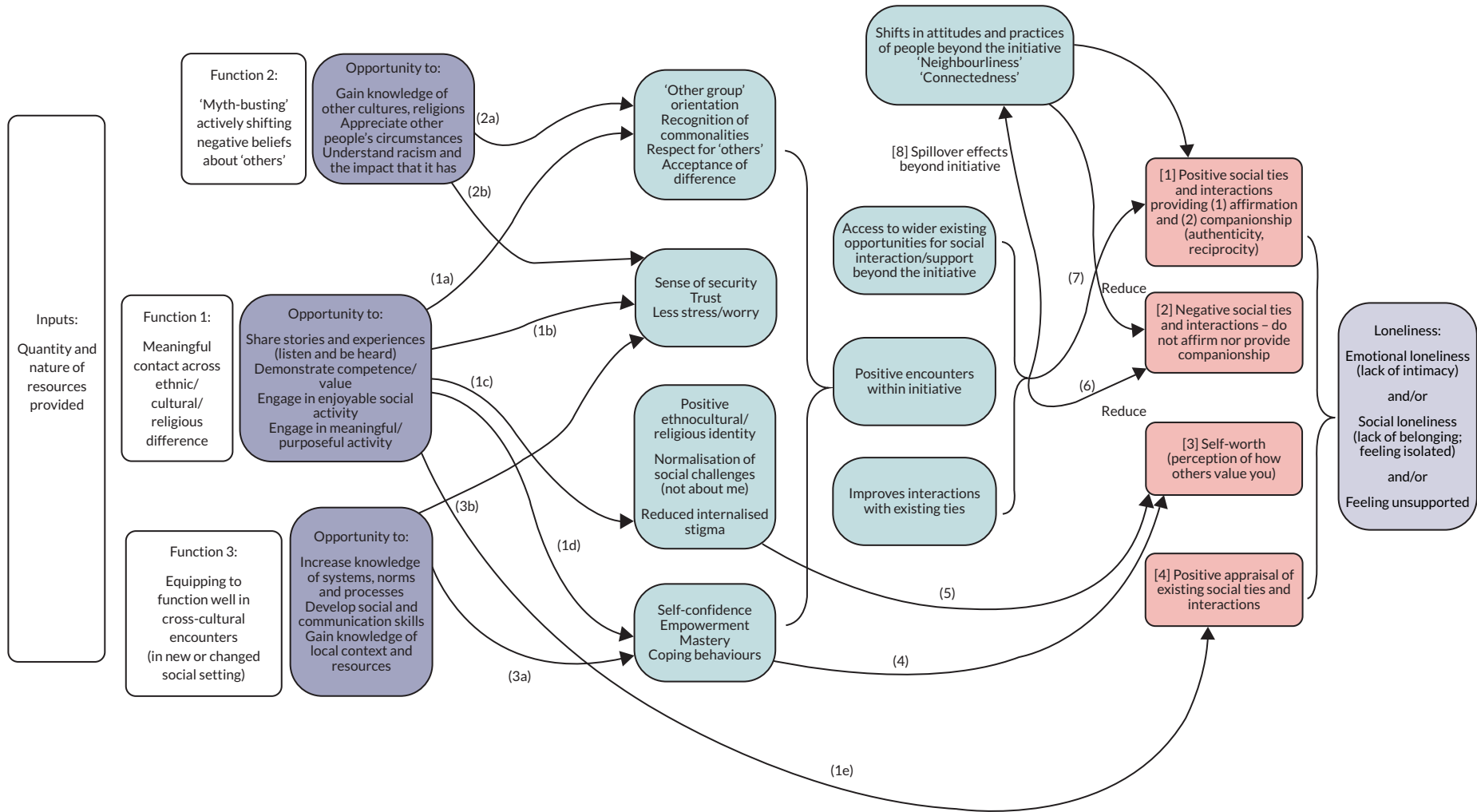


FIGURE 4 Generic intercultural encounter logic model. All relationships are positive unless stated otherwise. Dark purple denotes functions intended to produce cognitive, behavioural or environmental change. Blue denotes strategies – cognitive, behavioural or environmental change. Orange denotes proximate determinants by which any impact on loneliness must be achieved. Light purple denotes the final outcome of interest: loneliness.

knowledge is valued, was emphasised in the logic of several initiatives.^{112,113,117} The need for encounters to be 'meaningful', rather than fleeting and insignificant, to achieve interpersonal connection, as well as destabilise dominant, negative narratives about the 'other', was also a common theme.^{137,142}

Additional function 2: 'myth-busting' – actively shifting negative beliefs about 'others' (shorthand: 'myth-busting'); this was identified as providing the opportunity to gain knowledge of other cultures and religions, to appreciate other people's circumstances and to understand racism and its impacts. For example, a UK project for women¹¹⁷ was described as teaching British women about migrant women's lives, their cultures, religions and migration experiences, and promoting understanding and empathy.

Additional function 3 was identified as follows: equipping individuals to function well in cross-cultural encounters (shorthand: 'equipping for contact'), via providing the opportunity to increase knowledge of systems, norms, and processes; develop social and communication skills; and gain knowledge of the local context.

The logic model shows distinctive function 1, 'meaningful interethnic contact', acting to increase 'other-group orientation/recognition of commonalities/respect and acceptance of difference (1a). These changes are hypothesised to occur in all participants of the intercultural encounter, not just those of migrant or ethnic minority identity (indeed, it may be changes to majority participants that have the biggest potential to affect positively social interactions within and beyond the group). Further pathways of effect are illustrated via increased sense of security/trust and/or reduced stress and worry (again, relevant to all participants) (1b), more positive ethnocultural identity/normalisation/reduced stigma (relevant to minoritised participants) (1c) and increased self-confidence/mastery/coping (relevant to all, but particularly minoritised, participants) (1d). Finally, 'meaningful interethnic contact' is shown as leading to changes in proximate determinant 4 (1e), as intercultural exposure may potentially lead directly to individuals adjusting their interpretation of social interactions with 'others' without the volume or objective nature of such interactions being affected. As an example, CP members talked about having to adjust to the British habit of asking 'how are you?' without really wanting to hear the honest answer, which they had initially found to be very rude and upsetting.

Function 2, 'myth-busting', is shown as affecting 'other-group orientation' (2a) and sense of security/trust (2b), whereas function 3, 'equipping for contact', is shown to affect self-confidence/mastery (3a) and sense of security/trust (3b).

The logic model depicts the intermediate changes, which are affected by one or more of the intervention functions, as affecting collectively in a positive way encounters within the initiative, interactions with existing ties beyond the initiative (e.g. family members, colleagues or neighbours) and also access to new, wider opportunities for social interaction beyond the initiative.

These three sets of changes in social interactions are then shown as affecting proximate determinants 1 and 2 (pathways 6 and 7).

Pathways 4 and 5 in the model also indicate that improvements in positive ethnocultural identity and/or in self-confidence/mastery can have an impact on self-worth (proximate determinant 3), independent of any changes in patterns of social interaction.

Importantly, the model also represents 'spillover effects' via pathway 8. Intercultural encounter interventions are hypothesised to have positive effects on the attitudes and behaviours of non-participants in the local area or organisation in which the initiative is operating, or in the wider social networks of participants. Effects may occur because the initiative itself is visible to others, and thereby demonstrates positive intercultural encounters, and/or via the role modelling or direct advocacy of participants beyond the initiative. The model shows increased 'neighbourliness'/connectedness' resulting from this spillover. In turn, this is shown to reduce negative social ties and interactions and to increase positive ties and interactions for minoritised individuals.

Other interventions: hypothesised causal chains

The logic embedded in some of the other interventional types identified in *Chapter 4* included both some of the same hypothesised causal chains in the three generic models presented above and some additional potential causal chains that warrant consideration.

Training or equipping focused

As noted in *Chapter 4*, several of these initiatives focused on equipping migrant or ethnic minority individuals with the sociocultural skills, as well as contextual information and navigational skills, perceived to be necessary to function well in a new/challenging role or social setting.^{146,147} As a result, the logic of these initiatives mirrors the ‘equipping for context’ function found in befriending (function 2) and in SSGs (function 3). In a few cases, these interventions focused on equipping recipients with a narrower set of skills, such as learning to drive¹⁴⁸ or improving balance,²¹⁷ or took an approach focused more on health and well-being.^{150,151} Nevertheless, in relation to our focus of interest, the logic of these initiatives can be depicted using the same causal chains. Those interventions that utilised a group-based format, either alone or in combination with individual elements, could also be represented as directly creating the opportunity for recipients to form new social ties with other group members (although this was not the primary function and was not always made explicit).

Psychotherapy

Interpersonal psychotherapy^{158,160,162} was described as aiming to improve an individual’s ability to cope with, adapt to and improve his/her social environment. This type of therapy has a problem-solving focus and addresses the ways in which individuals communicate their attachment needs to others, thereby aiming to facilitate the development of more supportive relationships.¹⁶⁰ ‘Cognitive-behavioural’ interventions^{155,159,161,164,165} similarly aim to enhance recipients’ awareness of social interactions, and improve social and communication skills. Jesse *et al.*¹⁵⁹ noted that:

[W]hile a CBI [cognitive-behavioural intervention] cannot compensate for lack of partner or other support in women’s lives, the women can use skill-building activities to help build a healthier support network, to communicate better with existing support persons, and to learn to ask for what they need/want.

*Jesse et al.*¹⁵⁹

An African-centred and spiritually centred psychotherapy group for black men similarly focused on understanding and improving social relationships within and beyond the family.¹⁵⁷ In an intervention for carers of people living with Alzheimer’s disease,¹⁵⁶ structural ecosystem therapy was described as building up family relationships and assets, and restructuring specific interactions within the family, and between the family and other systems, that may contribute to caregiver burden.

The key causal chains hypothesised for most of these interventions operated via ‘improved interactions with existing ties’ to affect proximate determinant 2, that is to reduce negative ties and interactions. These initiatives were also expected to increase access to new social ties, and thereby operate on loneliness via proximate determinant 1. Intermediate changes that were hypothesised included reduced stress/increased trust and increased self-confidence/mastery.

Those interventions that utilised a group-based format, either alone^{155,164,165} or in combination with individual elements,^{156,157,159,161} could also be depicted as intending to directly create the opportunity for recipients to form supportive social ties with other group members (i.e. pathway 1a on the befriending and SSG models).

Meaningful activity-focused

In common with intervention types mentioned above, meaningful activity initiatives that were communal in nature (e.g. community gardens¹⁷⁰) could be hypothesised as acting partly via the creation of positive social ties and interactions. However, this type of initiative was distinctive in that its core

focus was on the individual engaging in an activity, through choice, that provides a sense of purpose and fulfilment, and often an opportunity to develop mastery and self-confidence. In addition, such activities may result in reduced rumination. These activities are hypothesised as acting on loneliness primarily via increased self-worth and via more positive appraisal of existing social ties and interactions.

Although not represented in our published papers, acts of religious observance, such as prayer, meditation and fasting, were identified by CP members as a further type of meaningful activity that can be supported by interventions, or indeed undermined, and are hypothesised as affecting loneliness via self-worth and an experienced positive connection to God.

Volunteering

The main hypothesised causal chains associated with volunteering relate to the provision of an opportunity for the individual to 'give back' and, in so doing, to demonstrate both competence and value, and to gain self-confidence. Increased self-worth is anticipated to result from this. Because volunteering will also often involve direct social interactions, as in the case of older people working in teams to support young school children,¹⁷⁴ there is also the potential for a direct increase in positive social ties.

Light-touch psychological inputs

Interventions of this type are unusual in that they include no inputs that are intended to alter the number or quality of a recipient's social ties and interactions (at least not in the short term). Instead, they are intended to operate via adjustment of the recipient's cognition so that they develop a more positive appraisal of existing social ties and interactions (proximate determinant 4), and greater self-worth (proximate determinant 3), which then results in an increased sense of belonging. The primary assumed causal chain is via the normalisation of social challenges and/or reduction in internalised stigma.

Chapter 6 Intervention effects and outcomes

Introduction

This chapter addresses the following research questions:

- How effective are interventions at reducing social isolation and/or loneliness when compared with a usual or no intervention?
- Do effects of interventions vary for different people (e.g. by gender, age, income)?
- What negative effects have resulted from interventions?
- What health outcomes have been examined in relation to these interventions?

Rather than focusing solely on the outcome measures of interest, we also examined the evidence available in support, or refutation, of the various causal pathways postulated in the logic models presented in *Chapter 5*. The aim was to increase understanding, not simply of whether or not interventions are effective, but the routes by which they achieve their outcomes. Notwithstanding the complex, and multidirectional, causal chains that are likely to operate in practice, the logic models essentially depict four generic causal relationships that were used to guide the synthesis of available evidence (see *Figures 2–4*):

1. A: inputs (nature and quantity of resources provided) → B: functions.
2. B: functions (enabling conditions and opportunities for change) → C: strategies.
3. C: strategies (resultant shifts in cognition, behaviours and/or environmental conditions) → D: proximate determinants.
4. D: proximate determinants → E: outcomes.

In addition, in both the befriending and SSG logic models, the distinctive function 1 is depicted as leading directly to increased positive social ties and interactions, as they directly create new social relationships (B→D).

For this stage of the analysis, we included the subgroup of 124 intervention papers that were identified as 'evaluative' and that provided qualitative or quantitative evidence relating to the processes and outcomes as experienced by the recipients of, or participants in, the initiatives. When information about an intervention's causal processes and outcomes was available solely through the eyes of those delivering it, we excluded these papers from the analysis presented in this chapter (although relevant information from these papers contributed to the analyses presented in *Chapters 4, 5, 7 and 8*).

We drew on the structured templates already described in *Chapter 5*, focusing here on the extracted evidence relating to the processes that actually ensued in practice (rather than all those that might have been intended). For each intervention type, we considered the evidence in support of each of the casual chains (referring to the labels on the diagrams to indicate the part of the model being examined). We also looked for evidence of feedback loops. We then synthesised the evidence relating to effects on each of the proximate determinants, and the final outcomes of interest.

Next we considered the evidence available in relation to the inputs required to achieve the identified functions. The level of detail provided on interventional content and causal pathways was very varied across the papers, making it difficult to characterise inputs and processes in several cases.

In the following sections, we provide a synthesis of the main findings with selective supporting material, first for befriending, then for SSGs and finally for intercultural encounters. We then incorporate qualitative evidence from the broader set of interventions relating to common causal pathways, as well as some additional pathways that are not represented in the three common initiatives, but that warrant consideration.

We then develop generic hypotheses relating to the effectiveness of initiatives in relation to final outcomes, and use these to examine the complete set of quantitative evaluations that were available.

Befriending

The analysis in this section is based on 19 separate interventions, reported in 24 papers. *Table 7* presents a summary of the evidence for the various relationships hypothesised in the befriending logic model, and *Appendix 9* provides more detail for each intervention.

TABLE 7 Summary of evidence relating to causal chains and outcomes for 19 befriending interventions

Initial causal pathways	Qualitative studies (n)		Quantitative studies (n)	
	Supporting	Refuting	Supporting	Refuting
Function 1: one-to-one tailored support				
(1a) Function 1 → positive social tie	10	0	0	0
(1b) Function 1 → increased security/trust/reduced worry	10	0	0	0
(1c) Function 1 → normalisation of challenges/reduced internalised stigma	3	0	0	0
(1d) Function 1 → self-confidence/mastery/coping behaviours	2	0	0	0
Function 2: equipping for context				
(2a) Function 2 → self-confidence/mastery/coping behaviours	9	0	1	0
(2b) Function 2 → increased security/trust/reduced worry	7	0	1	0
(2c) Function 2 → positive appraisal of existing ties	0	0	0	0
Function 3: linking to support				
(3a) Function 3 → access to wider opportunities for social support and interaction	8	0	0	0
Proximate determinants				
Increased positive social ties and interactions	11	0	1	0
Increased positive social ties and interactions, aside from the befriender	4	4	0	3
Decreased negative ties and interactions	8	0	0	0
Increased self-worth	10	0	1	1
Increased positive appraisal of existing ties and interactions	0	0	0	0
Outcomes: improvements in loneliness, isolation, belonging and/or feeling supported	9	0	3	4

Distinctive function 1: one-to-one tailored support

Our generic logic model identifies the distinctive function of befriending interventions as 'provision of a one-to-one relationship of trust that provides tailored emotional support and companionship to the befriended'. The assumption is that, if such a relationship is established, there is a direct improvement in the befriended's level of positive social ties and interactions (proximate determinant 1) via pathway 1a.

Pathway 1a: what evidence is there that befriender interventions directly result in recognition of the befriended-befriender relationship as a positive social tie on the part of the befriended?

Qualitative evidence documented that 10 of the interventions^{96,97,99,100,200-202,204,205,218-220} achieved a positive social tie between the befriender and befriended for a majority of recipients, and a further two studies^{221,222} provided some evidence for this effect for some recipients. For the remaining interventions, no data were presented in the studies to demonstrate whether or not this social tie was achieved. When achieved, the positive social tie was commonly described by recipients in terms of 'friendship' or 'family'.

The generic logic model further described function 1 in terms of providing the opportunity to engage flexibly according to the befriended's own needs and preferences, express feelings and share experiences, receive affirmation and encouragement, demonstrate competence/value and engage in enjoyable social activities. Several of the qualitative papers provided evidence in support of some of these elements as contributing to the achievement of pathway 1a. No papers included any quantitative analysis of the relationships between these elements and the nature of the social tie established.

'Being heard', namely having a befriender who listens actively and creates a non-judgemental space in which the befriended feels able to express their emotions openly, was demonstrated via qualitative data as an important element that results in a positive social tie in nine interventions,^{96,99,200-202,204,205,218,219} as was the importance of a personalised, responsive, reliable and flexible offer of support. Providing affirmation and encouragement was a further dimension of befriender interventions that was consistently identified as important to the building of a relationship experienced as positive and supportive.^{96,99,200-202,204,205,218,219} Two evaluations^{202,218} identified the way in which giving practical support and help to deal with day-to-day issues and material hardship (e.g. second-hand baby clothes; shopping and cooking) could also be interpreted by beneficiaries as affirmative and encouraging. Having the opportunity to demonstrate competence and/or value was not explicitly evidenced in any of the 19 interventions as instrumental to achieving a close social tie between befriender and befriended, although no contrary evidence was reported either. Engaging in social activities with the befriender was mentioned as an element of several interventions, but only explicitly implicated in pathway 1a in two studies.^{205,219} This finding may reflect the fact that those papers providing more detailed evidence were often focused on people in particularly challenging circumstances (e.g. women caring for preterm babies) for whom socialising (and social belonging) was likely to be a lower priority need at the time than intimacy and emotional support. It was also difficult to disentangle paired activity with the befriender from activities aimed at linking the befriended to other networks of social support and services (function 3).

Pathway 1b: what evidence is there that achievement of one-to-one tailored support leads to an increased sense of security/trust and/or reduced stress or worry?

There was consistent qualitative evidence (from 10 studies) that the achievement of function 1 leads to an increased sense of security/trust and reduced stress or worry among befriendeds.^{96,99,100,200-202,204,205,218,219}

There was no quantitative exploration of these relationships (see below for information on depression/anxiety outcomes). As with pathway 1a, the key elements of function 1 that were demonstrated as contributing to an increased sense of security/trust and reduced worry were 'being heard', being able to engage flexibly according to one's own needs and receiving affirmation and encouragement.

Pathway 1c: what evidence is there that achievement of one-to-one tailored support leads to normalisation of social challenges and reduced internalised stigma?

Three studies explicitly identified this pathway.^{96,200,218} All of these interventions involved befriender–befriendee pairs that were matched on shared experiential identity. Again, the elements that were found to be important were ‘being heard’, being able to engage flexibly according to one’s own needs and receiving affirmation and encouragement.

Pathway 1d: what evidence is there that achievement of one-to-one tailored support leads to increased self-confidence/mastery/coping behaviours?

There was some evidence in two papers^{200,201} that achievement of function 1 could, in itself, lead to increased confidence and self-efficacy. However, because all the initiatives that demonstrated such one-to-one tailored support also involved some elements of function 2 (‘equipping for context’) (which were clearly important in increasing self-confidence/mastery; see below), it was difficult to disentangle the effects of these two elements.

Additional function 2: equipping for context

Our generic logic model identifies ‘equipping the befriender to function well in a new or challenging role or context (often linked to change or transition)’ as additional function 2 of befriending initiatives. This function was further described as providing the opportunity for beneficiaries to increase knowledge of relevant systems, norms, and processes; develop social and communication skills; and also develop practical, problem-solving and coping skills. All of the evaluative studies included here described befriender interventions that included some element of this function.

Pathway 2a: what evidence is there that achievement of equipping for context leads to increased self-confidence, and/or mastery and coping behaviours?

Eight studies^{96,98,99,200–202,204,205,218,219} provided qualitative evidence that the provision of opportunities to develop knowledge and skills relevant to their new role or environment, such as caring for a new child or negotiating college life, led to increased self-confidence, feelings of empowerment, mastery and/or coping skills. One study provided some quantitative data in support of this pathway.²¹⁹

Pathway 2b: what evidence is there that achievement of equipping for context leads to an increased sense of security/trust and/or reduced stress or worry?

The provision of contextually relevant information, particularly the interpretation of unfamiliar norms and practices, was identified as important in building trust and reducing fear and stress in seven qualitative evaluations.^{99,100,200,201,204,205,218,219} One study provided some quantitative data in support of this pathway.²¹⁹

Pathway 2c: what evidence is there that achievement of equipping for context leads to more positive appraisal of existing ties?

No evidence in support, or refutation, of this causal pathway was found in the set of included studies.

Additional function 3: linking to support

Our generic logic model identifies an additional function 3 of befriender interventions as ‘linking the befriender to other social support opportunities and services’. This function was further described as potentially providing the opportunity for beneficiaries to receive tangible support (e.g. transport), advocacy, navigation and direct social introductions. Ten of the evaluative studies included here described befriender interventions that included some element of this function.

Pathway 3a: what evidence is there that achievement of linking to support leads to access to wider opportunities for social support and interactions?

Eight studies^{96,99,100,202,204,205,218,219} provided qualitative evidence in support of this pathway. Importantly, the relevance of linking befrienderes to both informal and formal sources of support was indicated across several of these studies. Three studies^{96,99,218} also demonstrated the advocacy and linking role that befrienders can play in supporting people to access other services.

Feedback loops

The logic model identifies four potential positive feedback loops (see *Figure 2*). Although none of the studies reviewed focused on these relationships in any detail, some evidence in support of some loops was found. For example, McLeish and Redshaw's⁹⁶ findings described the way in which some peer supporters introduced groups of mothers to each other and suggested that this could contribute to a virtuous circle of increasing confidence and social connectedness (feedback loops 1 and 4). Similarly, Askins²⁰² described how, over time, some befriendees became more confident and able to engage in new connections, which, in turn, led to greater confidence and firmer relationships, so that they became 'progressively more involved.'²⁰²

Second-order causal links and proximate determinants

The logic model suggests that, as self-confidence/empowerment/mastery increases, this should lead to befriendees accessing wider opportunities for social support and interaction (pathway 4), as well as improved interactions with existing ties (pathway 5). Similarly, the logic model suggests that increased trust and reduced worry/stress should also lead to befriendees accessing wider opportunities for social support and interaction (pathway 6), as well as improved interactions with existing ties (pathway 7). We found some qualitative evidence in support of these pathways, but it was often difficult to disentangle pathways, as increased confidence/mastery was often presented as interplaying with increased trust and reduced worry in these qualitative studies. For instance, McLeish and Reshaw⁹⁶ concluded that befriending schemes often had 'substantial and interlocking positive impacts on emotional wellbeing'.⁹⁶ Improved interactions with family ties was identified as an important intermediate effect of several initiatives:^{99,200,201,218}

By talking things over with my family support worker it has been a lot of help to us all. Before, he was beating me and my kids had physical abuse ... But the worker talked to him ... and he thinks it has helped. He used to call her his sister.

Gray⁹⁹

Evidence from Askins²⁰² suggests that, for some individuals who are seeking asylum, developing trust is a long-term process and persistent mistrust can impede the development of new social ties. These findings suggest that equipping such newcomers with the knowledge and skills to operate in their new home is not sufficient to lead to the development of new close social ties, nor necessarily improved interactions with existing ties, thereby demonstrating that these pathways are distinct.

Increased positive social ties

All 19 befriending interventions included in this stage of the analysis clearly intended to increase the positive social ties and interactions experienced by the beneficiaries. Eleven studies^{96,98-100,200-202,204,205,218,219} provided qualitative data that suggested that the interventions were successful in achieving this goal. One study²⁰⁴ also provided quantitative follow-up survey data that indicated that the scheme was successful in this way for a large proportion of beneficiaries.

An important consideration is whether or not the initiatives were able to achieve an increase in positive social ties and interactions aside from the immediate befriender-befriended relationship. As noted above, function 3, 'linking to support', was clearly intended in a large number of the initiatives, but it is important to remember that the creation of additional ties and interactions will not necessarily be perceived as positive by the beneficiary; it is the quality of such ties and interactions that is crucial. For example, in a study²²³ focused on the Lifestyle Engagement Activity Program (LEAP) for older people in the USA, there was evidence of increased social participation, but it was unclear whether or not this constituted positive social interactions, as perceived by the beneficiaries. Four studies^{202,204,205,219} provided qualitative data that suggested that the interventions were indeed generally successful in this regard. The picture appeared to be more variable in the group of papers relating to interventions for pregnant women and new mothers and families, with such broader ties being achieved by some, but not

all, beneficiaries.^{96,99,201,218} Two studies^{221,224} reported quantitative data that suggested that the initiative had no effect on this proximate determinant, and one study²²⁵ reported a negative effect, which was difficult to interpret. The remaining papers presented no relevant data, despite this being an apparent objective.

Fewer negative ties and interactions

Nine initiatives^{66,99,100,200,201,204,205,219,222} had the objective of reducing the number of negative ties and interactions experienced by beneficiaries; for all except one⁶⁶ of these, there was some evidence of success in this regard. These negative ties and interactions could relate to family and friends (e.g. three studies^{99,100,201} reported that befrienders worked to support women to improve their relationships with their partners). The negative experiences could also relate to ties and interactions with professionals in positions of power, such as health-care professionals¹⁰⁰ or teachers.^{99,222} Only one study⁹⁹ included some suggestion of befrienders supporting clients to deal with more overt interpersonal racism and discrimination. Action aimed at changing such negative interactions was beyond the scope of most befriending interventions.

Increased self-worth

Fourteen of the 19 initiatives identified improving self-worth as an objective. Ten of these demonstrated success in achieving increased self-worth via qualitative data, and one²²⁶ demonstrated an increase quantitatively (although for boys only). Among the qualitative studies there was consistent evidence that befriendees experienced the schemes as a positive boost to their feelings of being valued, via pathways 8, 9 and 10, as indicated on the logic model and illustrated in the data presented in *Distinctive function 1: one-to-one tailored support*. In addition, there was also consistent evidence to suggest that the positive tie and interactions with the befriender in and of themselves were factors in increasing the self-worth of befriendees in many cases. This direct pathway was not included in our generic befriending logic model. In contrast, there was a decrease in self-worth (measured quantitatively by Rosenberg Self-Esteem Scale²²⁷) among participants in the New Mothers Network intervention, which involved online mentoring by professional nurses (and did not appear to achieve the distinctive function of befriending in practice).²²⁸

Increased positive appraisal of existing ties and interactions

There was no direct evidence provided by this set of intervention papers to support or refute changes to this proximate determinant.

Outcomes

Nine qualitative evaluations demonstrated reduced feelings of isolation or loneliness, and/or increased feelings of belonging, or of being supported, among a majority of befriendees in receipt of the interventions. However, all involved data collection during, or soon after, the end of the intervention period, so that they provide no evidence relating to longer-term impacts on the review outcomes of interest.

Three quantitative studies reported some kind of positive effect on a relevant outcome. Two evaluations of adult mentor programmes in schools reported an increased sense of belonging to school among children.^{222,226} There was an increase in feeling supported among women in receipt of a Promotoras intervention.²²⁹

Four quantitative studies found no effect on review outcomes of interest. Two of these^{224,228} reported no difference among the recipients in measures of feeling supported. One²²⁸ of these also reported no effect on loneliness [using the University of California, Los Angeles (UCLA) Loneliness Scale⁵⁷]. Low *et al.*²²³ reported no effect on loneliness (using the UCLA Loneliness Scale⁵⁷) of an intervention among elderly recipients and Quintrell and Westwood²²¹ found no difference in the proportion of international students who described their first year at university as 'lonely' between those who had and those who

had not been part of a host support programme. Importantly, none of these studies demonstrated pathway 1a, suggesting that they failed to achieve the distinctive function of befriending, namely one-to-one tailored support. We return to these quantitative studies later when we consider some generic hypotheses about likely effectiveness.

Differential processes and outcomes

Few of the studies reported on differential outcomes or considered intersectionality. There was evidence of a gender difference in the intervention's impact on self-worth in one of the school-based initiatives, with only boys benefiting.²²⁶ However, a majority of the befriender initiatives reviewed were targeted at women only.

Achieving functions: what inputs are important?

Identity of befriender

Our logic model did not include any specific requirement in relation to the identity of the befriender, and evidence from the included studies paints a complex picture.

Findings reported by four studies^{99,100,200,219} suggested that shared language and ethnic identity between befriender and befriender were important in the achievement of function 1 (one-to-one tailored support). Five qualitative evaluations^{96,200,205,218,219} suggested that a sense of shared identity based on having experienced common challenging experiences (e.g. being a mother to a preterm infant, living with HIV, forced migration, being a new university student) can also be important in developing an open and trusting relationship between befriender and befriender. Shared experiential identity may be a requirement for normalising social challenges faced by the befriender, and may also be influential in terms of function 2 (equipping for context).

However, although these common identifiers were found to be important in some situations, there was also evidence that all three functions could be achieved across difference, whereby befriender and befriender do not obviously share ethnic or national identity nor a common challenging experience.^{96,202,204} Indeed, befrienders from outside a befriender's ethnic or national community could be seen as having more authoritative knowledge, being better connected and being more trustworthy and beyond gossip.^{96,97,202}

Findings were also inconsistent in relation to a 'lay' versus 'professional' identity of the befriender. Although befrienders were often highly praised, and compared favourably with professionals, it seems that this relates more to the narrow focus and boundaries of professional roles than to having a professional identity per se.

Almost all the studies evaluated voluntary schemes, and there was little evidence relating to how paid versus voluntary roles influenced the processes or outcomes of the interventions. McLeish and Redshaw²¹⁸ noted potential pros and cons.

These findings, as a whole, tend to suggest that the attitudes, attributes and behaviours of befrienders are more important than any inherent social identities (while recognising that the importance of enabling befrienderes to communicate freely may necessitate matching on a language other than the majority language).

Recruitment, training and support

Appendix 7 briefly describes the processes of recruitment, training and support that were reported in the studies. A majority of studies reported that befrienders went through a process of selection, induction and training, and that befrienders and befrienderes were matched on some criteria. However, details were often absent. There were insufficient data to examine relationships between recruitment

processes, duration, nature or content of training, patterns of support or matching processes, and the achievement of functions.

Content and boundaries of the interactions

Although the central element of all these initiatives involved one-to-one (usually face-to-face) befriender-focused conversation, initiatives did vary quite considerably in terms of the nature and content of befriender–befriender interactions, even in schemes that were ostensibly meeting the needs of similar clients (e.g. those supporting pregnant and postpartum women). So, although some interactions were time-bound and always took place in the same location, others were much more flexible and involved multiple locations, and even outings together. In some cases, the flexibility of interactions appeared to contribute to achieving one-to-one tailored support,^{96,218} but it was not essential. Interactions that involved trips out and about in the local area also seemed to be useful in increasing befriender confidence and equipping them with knowledge about local resources and opportunities for subsequent social interactions.^{201,202} Only one initiative explicitly identified inputs aimed at addressing material hardship: family support workers in Gray's⁹⁹ study supported families to maximise their income and manage their household finances; this input could be considered an aspect of function 2 (equipping for context), and was found to be important in reducing stress and family discord.

Timing, frequency and duration

The importance of having access to a befriender soon after the experience of a challenging transition was highlighted in a few studies. For instance, Menzies *et al.*²⁰⁵ reported that provision of a mentor to students within the first month of arrival was important, and, in some cases, women who received their befriender match late in pregnancy did not develop such a close, trusting relationship.^{96,97} However, it seems that timing is less crucial for some potential clients, and getting a good match may be more important.^{202,204}

Befriender schemes varied in terms of the intensity of contact that was expected as a minimum. However, aside from the two mentoring schemes that took place in schools, most adopted a very flexible, client-led approach with befrienders being able to seek contact as and when they needed it, often using telephone, text or e-mail, and this was felt to be instrumental in achieving function 1 (one-to-one tailored support). McLeish and Redshaw^{96,97} suggested that those schemes with stricter rules regarding frequency of contact might not achieve the closeness of relationship as readily as those that are more flexible.

Although befriender programmes varied in terms of whether or not they had a fixed duration, several studies reported the importance of flexible endings.^{201,202} In several cases, function 3 (linking to support) was explicitly intended as a way of promoting the transition from one-to-one support to other sustainable connections with groups and activities.

Befriending: negative effects

Two types of potential negative effects were identified by a small number of studies. The first related to the potential for befrienderes to become dependent on the befriender, and therefore to be at risk of feelings of loss when the relationship comes to an end.^{97,201,224} These studies highlight the need for careful management of emotional relationships, boundaries and expectations, as well as careful consideration of how endings should be orchestrated for particular people in particular circumstances. The second negative effect was reduced self-worth (labelled as 'self-esteem') reported in just one study.²²⁸ Previous work has emphasised the importance of selecting and matching befrienders (or mentors) carefully so as to avoid a relationship that undermines, rather than boosts, self-worth. This study involved no such matching and provided online, asynchronous interactions only.

Shared-identity social support groups

This analysis is based on 31 separate interventions, reported in 41 qualitative or quantitative evaluative papers. *Table 8* presents a summary of the evidence for the various relationships hypothesised in the SSG logic model; *Appendix 10* provides more detail for each intervention.

Distinctive function 1: safe reciprocal space

Our generic logic model identifies the distinctive function of SSG interventions as 'to provide a safe, authentic, reciprocal social space in which people who recognise some kind of shared identity engage with each other with meaning and enjoyment' (shorthand: 'safe reciprocal space'). The assumption is that if such a shared space can be created, there is a direct improvement in the participants' levels of positive social ties and interactions (proximate determinant 1) via pathway 1a.

TABLE 8 Summary of evidence relating to causal chains and outcomes for 31 shared-identity social support groups interventions

Initial causal pathways	Qualitative studies (n)		Quantitative studies (n)	
	Supporting	Refuting	Supporting	Refuting
Function 1: safe reciprocal space				
(1a) Function 1 → positive social tie	29	0	1	0
(1b) Function 1 → increased security/trust/reduced worry	20	0	0	0
(1c) Function 1 → normalisation of challenges/reduced internalised stigma	17	0	0	0
(1d) Function 1 → self-confidence/mastery/coping behaviours	14	0	0	0
(1e) Function 1 → more positive appraisal of existing ties and interactions	2	0	0	0
Function 2: buffering hostility				
(2a) Function 2 → positive ethnocultural identity/normalisation/reduced internalised stigma	7	0	0	0
(2b) Function 2 → increased security/trust/reduced worry	6	0	0	0
Function 3: equipping for context				
(3a) Function 3 → self-confidence/mastery/coping behaviours	18	0	1	0
(3b) Function 3 → increased security/trust/reduced worry	10	0	0	0
(3c) Function 3 → more positive appraisal of existing ties and interactions	0	0	0	0
(3d) Function 3 → access to wider opportunities for social support and interaction	8	0	0	0
Proximate determinants				
Increased positive social ties and interactions	29	0	1	0
Beyond the group (as well as within)	16	0	0	0
Decreased negative ties and interactions	7	0	2	0
Increased self-worth	18	0	1	1
Increased positive appraisal of existing ties and interactions	2	0	0	0
Outcomes: improvements in loneliness, isolation, belonging and/or feeling supported	19	0	6	3

Pathway 1a: what evidence is there that shared-identity social support group interventions directly result in recognition of new positive social ties on the part of the group members/participants?

Evaluations of 29 initiatives provided qualitative evidence in support of this pathway, with one paper providing quantitative evidence in support.²⁴⁸ Two papers^{103,230} did not report that a majority of group members developed close, positive ties. Group participants typically referred to the group as providing a 'safe', 'easy', 'stress-free' and non-judgemental space, a 'home from home' and a place to be oneself, with group members being 'like family'. In some cases, group members were physically distant from their usual familial or friendship support networks, so that the group provided a more accessible, although complementary, source of companionship and support. In other cases, familial and friendship networks were unable to provide adequate support, or were even a source of negative social interactions and stress, so that the groups provided a substitute [e.g. for some women in vulnerable circumstances and for lesbian, gay, bisexual and transgender (LGBT) individuals].

The generic logic model further described function 1 in terms of providing the opportunity to make new friendships; share feelings and experiences (listen and be heard); give and receive affirmation and encouragement; give and receive information and advice; demonstrate one's competence and value; engage in enjoyable, authentic social activity; and engage in activity that has meaning or purpose to them.

Several of the qualitative papers provided evidence that these elements contribute to the achievement of pathway 1a. No papers included any quantitative analysis of the relationships between these elements and the nature of the social tie established.

It was not always easy to disentangle the types of reciprocal exchanges that occurred among group members, with emotional, appraisal and informational support often occurring together. The reciprocal sharing of emotional support, both actively listening and being heard, was commonly described in qualitative evaluations as a key element of pathway 1a.^{101,102,108,209,215,231-234} For example, participants in the Black Students Network were described as 'sharing struggles'.²¹⁰

The importance of groups providing affirmation was consistently reported across the studies. Such affirmation could come directly from other group members via the sharing of experiences, and also from the facilitator of the group providing encouraging words. In addition, several studies confirmed that affirmation could come from having the opportunity to demonstrate one's competence or value, either through the provision of advice and information to other group members, or in fewer cases, by the opportunity to utilise one's skills in a visible way. For example, Means and Pyne¹⁷⁷ described how an ethnic minority student was able to use her language skills as part of a US initiative, which 'showed her how valuable she was in this university-sanctioned space'.¹⁷⁷

The importance of the group engaging in activity that had meaning or purpose for the members in order to achieve pathway 1a was suggested by several studies, although this purpose was often also achieved via function 3 (equipping for context). The importance of enjoyable social activity to achieving pathway 1a was less clear, and seemed to vary depending on the needs of the participants. So, although the establishment of a welcoming and comfortable space was essential, the centrality of socialising varied between groups. That said, a majority of studies suggested that the sharing of food and refreshments among group participants was always a positive contributor to group cohesion. Striking the right balance between members experiencing the group as sociable and as purposeful appears to be key.

Pathway 1b: what evidence is there that achievement of a safe, reciprocal space leads to an increased sense of security/trust and/or reduced stress or worry?

Twenty papers included some qualitative evidence in support of this pathway. For example, Pejic²³⁵ described women expressing a 'sense of relief' at being able to share their experiences.

The availability of emotional support could be important even if it was not drawn on, as noted by Williams *et al.*:²³³

Some students however, did not always make use of, or 'activate,' potential emotional support, but nevertheless reported feeling as though they benefited from knowing that a community of support was there if it was ever needed.

Williams *et al.*²³³

Pathway 1c: what evidence is there that achievement of a safe, reciprocal space leads to normalisation of social challenges and reduced internalised stigma?

Seventeen qualitative studies included evidence that SSGs achieving function 1 (safe, reciprocal space) result in a process of normalisation or social validation, through which challenges are seen as normal and not a reflection of the individual's inadequacies:

I think the shared experiences . . . definitely make me feel better. Like, it's good to know that other people are stressed about the same things that I would stress out about.

Black student, Williams *et al.*²³³

To know I am not the only person experiencing these feelings, different problems but here you find people have the same feelings about life. You feel some encouragement, to know you are not the only one.

Active Communities programme, People's Health Trust.²¹²

Reproduced with permission from People's Health Trust

Pathway 1d: what evidence is there that achievement of a safe, reciprocal space leads to increased self-confidence/mastery/coping behaviours?

Fourteen papers included some qualitative evidence of this pathway being in operation.

For example, Pejic²³⁵ reported that coming together and learning from each other provided participants in a Somali parenting group with 'a newfound confidence and a sense of empowerment.'²³⁵ A participant in this study commented:

Before I was shy and I was to myself and I didn't know how to express myself and my pain.

Pejic²³⁵

Pathway 1e: what evidence is there that achievement of a safe, reciprocal space leads directly to more positive appraisal of existing social ties and interactions?

Just two papers provided any evidence in support of this pathway.^{213,232}

Additional function 2: buffering hostility

Additional function 2 of social support groups was identified as 'buffering the external hostile context that denigrates ethnic minority and/or migrant identity'. Fifteen of the evaluative studies^{63,104,177,208-210,213-216,230,233,236-240} included described support group initiatives that included some element of this function.

Pathway 2a: what evidence is there that achievement of the 'buffering hostility' function leads to a more positive ethnocultural identity/normalisation of social challenges and reduced internalised stigma?

There was qualitative evidence relating to seven initiatives, reported in 11 papers,^{63,104,177,208-210,213,216,233,239,240} that participants gained ethnic/racial identity validation, often through critical discussion of racist processes, as well as the provision of opportunities to demonstrate one's knowledge and competence, celebrate one's culture, and to be in close quarters with other, positive, ethnic minority role models. For example, Grier-Reed²¹⁰ reported that 'students felt heard, seen, valued, and respected' and that 'deficit notions of people of color were dismissed.'²¹⁰

Pathway 2b: what evidence is there that achievement of ‘buffering hostility’ function leads to increased sense of security/trust and/or reduced stress or worry?

There was some qualitative evidence in support of this pathway relating to six initiatives, reported in 10 papers.^{63,104,177,208–210,213,216,233,240} For example, Stewart *et al.*⁶³ found that some participants reported isolation linked to discrimination, and that sharing experiences of racism and discrimination with their peers in the support group helped to reduce worry.

Additional function 3: equipping for context

Additional function 3 of support group interventions was as follows: equipping group members to function well in a new or challenging role or context (often linked to change or transition). All but three of the evaluative studies included here described support groups that included some element of this function.

Pathway 3a: what evidence is there that achievement of ‘equipping for context’ leads to increased self-confidence and/or mastery and coping behaviours?

There was some qualitative evidence in support of this pathway relating to eighteen initiatives.^{66,101,108,109,177,212,214–216,231–236,238,239,241–247} One paper provided some quantitative data in support.²⁴⁸ A quotation from a participant at a community day centre for asylum seekers in Canada illustrates this causal chain:

There are trainings that take place that allow an asylum seeker to be truly active, to understand. [. . .] when you understand the system, it enables you to do something, to open yourself up, and to flourish.

*Chase and Rousseau*²³⁶

Pathway 3b: what evidence is there that achievement of ‘equipping for context’ leads to an increased sense of security/trust and/or reduced stress or worry?

There was qualitative evidence relating to 10 initiatives in support of this pathway.^{66,101,214–216,231,232,234,236,238,239,241,243,244,246,247} As an example, an intervention in Canada reported that new skills and understanding for parenting in the Canadian context resulted in reduced stress and worry linked to childrearing among newcomer parents.⁶³

Pathway 3c: what evidence is there that achievement of ‘equipping for context’ leads to more positive appraisal of existing ties?

There were no papers that provided data in support of this pathway.

Pathway 3d: what evidence is there that achievement of ‘equipping for context’ leads to access to wider opportunities for social support and interaction?

Qualitative evidence relating to eight initiatives^{107,177,214,215,236,239,242,244,249} suggested that the achievement of function 3 (equipping for context) directly enabled participants to take up new opportunities to access social support and social interactions. For example, direct provision of information about leisure and social activities via the online NewBridger system¹⁰⁷ led to greater participation in community life and access to services and formal sources of support. Saito *et al.*¹⁰³ reported quantitative data showing increased familiarity with services.

Feedback loops

Few studies explicitly explored potential feedback loops, but some evidence was available indirectly via participant stories. Some examples are given here.

Feedback loop 4 (see *Figure 3*): refugee women exposed to a peer support group plus mobile phone initiative were reported as becoming ‘more confident about travelling to places outside their home or community, which led to feelings of empowerment and self-capability among the women’.²³⁴

Some papers also suggested positive feedback loops between the sharing of knowledge and advice within the group, growing confidence, and the experience of positive social ties. That is, the more group

members share, the more they grow in confidence and the more they feel connected.^{210,235} This concurs with the theory presented in *Chapter 3* that the performance of social interactions/exchanges and the meaning of relationships are co-constituting.

Second-order causal pathways and proximate determinants

Increased positive social ties and interactions

All 31 initiatives of this type clearly intended to increase the positive social ties and interactions experienced by the beneficiaries, 29 provided qualitative evidence of success in this regard and one provided descriptive quantitative data.²³⁸

As with befriending, an important consideration is whether or not the initiatives were able to achieve an increase in positive social ties and interactions beyond the group. There was some qualitative evidence from 16 initiatives^{63,101,102,108,204,208–210,215,216,231,232,235,236,239,240,242,245,249–251} of increased positive social ties and interactions for beneficiaries beyond the group itself. This could involve group members interacting with one another outside the group's parameters and/or group members taking up other opportunities to access social support and positive interaction:

Now she comes to my house with her husband, and we go to hers. All because of the telephone.
Afghan group member, Walker et al.²⁴¹

Other papers did not make it explicit whether or not new ties and interactions extended beyond the group.

It is also of interest to know whether or not SSGs can enhance members' interethnic social ties and interactions, particularly with the more privileged white majority. Although this was not reported systematically, there was evidence from several studies that SSGs can provide a foundation from which migrant and/or ethnic minority people can gain the confidence, knowledge, skills and networks to connect across ethnic difference:

... when I used to see new people, I wouldn't initiate conversation. But now, when I see people, I feel that I can speak up. ... by participating in this program, it is a subtle change, a change to a more open mind.
Phinney et al.²⁴⁹

Fewer negative ties and interactions

Seven evaluations included some qualitative evidence in support of SSGs resulting in fewer negative ties and interactions, and two^{237,238} provided some quantitative evidence.

In eight cases, the improvements involved familial relationships, and in two cases improvements in co-ethnic interactions outside the family were mentioned.

Studies tended to suggest that acquisition of communication skills, and reduced stress and increased sense of security, were instrumental in improving interactions with existing ties (pathways 5 and 7).

Increased self-worth

A total of 25 initiatives aimed to increase participant self-worth (in some cases labelled 'self-esteem'). Feeling as if one did not 'matter' and was invisible was identified as an important issue for many beneficiaries:

Every mother in the program wanted to be seen as someone who was important and visible to others.
Pejic²³⁵

Qualitative evidence relating to 18 initiatives^{63,101,102,108,177,208-210,213-216,232-236,239-244,246,247,249,250} and quantitative evidence relating to one²³⁷ suggested achievement of this proximate determinant. One paper²³⁰ aimed to increase self-worth but reported no such effect.

In many of the papers, there was evidence to suggest that the sharing of advice and information among group members was particularly important in increasing self-worth, that is the feeling of being valued by others.^{215,232,235,236,250} In most cases, this was explicitly linked via increased self-confidence and empowerment (pathway 8). In other papers, the data appeared to suggest a direct pathway from function 1 (safe, reciprocal space) to self-worth. For instance, Lin¹⁰⁷ reported that NewBridger members are aware and proud that their network is a mutual help group:

We help each other at NewBridger. Helping (other) people gives me satisfaction. (There is a) sense of achievement. . . . I like to share what I know with other people. I really enjoy it.

Lin¹⁰⁷ Reproduced with permission from Julie Lin

The acquisition of tangible skills, such as improved host language skills, was also an important route to enhanced self-worth, via confidence and improved coping behaviours.²¹⁵ Other papers illustrated the pathway between positive ethnocultural identity and reduced internalised stigma and self-worth (pathway 9).^{215,232,242,250}

Increased positive appraisal of existing ties and interactions

Just two papers provided any evidence in relation to this pathway, and in both the data were limited.^{232,250}

Outcomes

Evaluations of 19 interventions provided qualitative evidence that members had reduced feelings of social isolation or loneliness or developed a sense of belonging as a result of participating in the group:

What I gained was, you know, the sense of belonging.

Pejic²³⁵

Notwithstanding poor study designs, six studies^{103,214,230,237,238,248} included some quantitative evidence in support of an effect on relevant outcomes, whereas three^{63,101,109} provided quantitative evidence of no such effect.

As with the befriending initiatives, no studies involved long periods of follow-up, so none was able to offer evidence on whether or not positive outcomes were sustained.

Differential processes and outcomes

Most studies did not report on differential outcomes between subgroups nor engage in any analysis of intersectional processes. In two studies, focused on newly arrived refugees, authors found that the development of social networks by participants was dependent on pre-existing networks and assets, with some groups starting from a much lower level and developing more slowly.^{214,215,243}

Canuso⁶⁸ reported that the group format did not work for two participants who had significant additional difficulties.

Saito *et al.*¹⁰³ reported that a programme for older people was effective on the loneliness outcome (as well as subjective well-being) for those who had at least mild loneliness at the start. In contrast, those who had no loneliness at baseline showed increased familiarity with services but no change in subjective well-being or loneliness.¹⁰³ Another programme for older people showed the greatest reduction in loneliness among ethnic minorities.²⁴⁸

Two studies examined subgroup differences but found no effects, between Hispanic and black students²³³ and between immigration status groups.²³²

Achieving functions: what inputs are important?

In this section we summarise the evidence that was available in relation to how particular inputs (the nature and volume of resources and activities provided) influenced whether or not the groups achieved the intended functions. *Chapter 7* presents information on factors that influenced the access and uptake of initiatives.

Shared identity

Although the importance of participants recognising themselves as ‘members’ of the group or centre was illustrated in the majority of papers, the shared identity appealed to in creating such membership was varied.

Several groups were formed around a particular ethnic, linguistic or national identity, and group members identified this as an important aspect of achieving a supportive group environment:^{101,107,108,164,210,213,215,216,231,232,234,235,237,238,249,250,252}

NewBridger is a group of people of same background . . . if someone throws in a joke, I can truly understand it. I can laugh whole heartedly. . . I belong here.

Lin¹⁰⁷ Reproduced with permission from Julie Lin

Two groups were targeted at people who had both an ethnic minority and a sexual minority identity.^{101,102}

Other groups were more heterogeneous in terms of ethnic or national identity, and instead appealed to shared experiential identity, particularly seeking asylum,^{212,236,239,242} or being a newly arrived international, or ethnic minority, student at a predominantly white university.^{109,177,230,233,244} There was evidence that cohesion could develop as group members recognise shared issues:

When I came here to [the day center], I know so many friends. We make a relationship. If you talk to [other] asylum seekers, it helps. They just tell you, ‘It is OK, it is in God’s hands’. This kind of thing.

Chase and Rousseau²³⁶

The importance of creating space and time to develop trust, identify commonalities and promote the essential characteristics of function 1 (a safe reciprocal space) was emphasised in some papers:^{166,167,212}

We have been talking about trust because everyone is from a different country and if we try we can make it friendly . . . so we talk about respecting each other.

Active Communities programme, People’s Health Trust.²¹²

Reproduced with permission from People’s Health Trust

Looking across the studies, there is some evidence to suggest that the need for homogeneous, ethnic-specific (or national or subnational identity-specific) groups may be greater where other opportunities for authentic social activity are few, where the perceived and actual linguistic and cultural obstacles to interethnic engagement are high and where the perceived or actual stigmatisation of the ethnic identity is high.^{108,252}

Four initiatives involved organising groups exclusively for people identifying as male,^{63,101,212,214} whereas 14 provided groups exclusive to women only; the remainder involved a group or groups that were open to all genders. When female-only groups had been formed, these were felt to be essential to

creating an acceptable space and one that would be experienced as safe, reciprocal and authentic by members.

Fixed or fluid membership

Initiatives varied in terms of whether group membership was fixed or open to newcomers, and in terms of whether or not there was a clear start and end to the group and whether or not there was any kind of formal screening and admissions process. In some cases, however, these differences related more to the nature of the research design than to the logic of the intervention itself. A variety of pros and cons were identified in relation to closed versus open membership.

A closed group may make the establishment of trust and cohesion among members easier, whereas the addition of new members can provide an opportunity for older persons group members to 'give back', via the provision of knowledge and experience; a key process in sustaining group cohesion and a pathway to increased self-worth.

There was insufficient evidence to conclude that one format is always preferable; this is likely to depend on the needs and causes of low support among the group members, particularly the extent to which the sharing of sensitive personal experiences is important.¹⁶⁶

Facilitation and user involvement

Among the evaluative studies, only one²⁵⁰ examined a 'self-help' group, with the remainder involving facilitation by someone who was not identified as a group member themselves. Although several initiatives aimed at increasing user involvement in the design, organisation and delivery of group activities over time,^{210,212,245} having someone in a designated facilitator role appeared to be important to initiating and sustaining the groups. Indeed, it may be important not to expect too much from group participants and to enable users to get involved as much as they feel able,²⁴⁵ rather than risk group participation becoming burdensome.

As with group membership, there was variation across the initiatives in terms of whether or not facilitators were ethnically and/or linguistically matched to group members, as well as whether they were identified as 'professional' or 'peer/lay'. Aside from the obvious need for members to be able to communicate with the facilitator, there was insufficient evidence to draw any conclusions about which model is more successful at achieving the functions. Authors identified pros and cons of facilitators being perceived to be either ethnic/national 'insiders' or 'outsiders'. Some initiatives involved co-facilitation in which the facilitators had contrasting ethnic identities and linguistic competencies, and this seemed to be a successful way of achieving the group functions.²⁴⁴

As with befriending initiatives, once individuals have decided to try participating in a group, it may be the attributes and behaviours of the facilitators that are most important: warmth and empathy²⁵² and being non-judgemental²⁴⁵ were identified as crucial.

Content

As noted above, there was consistent evidence that effective, and attractive, groups combine both fun and purpose. However, it is clear that the nature of inputs that are perceived as either enjoyable or having purpose/meaning varies depending on participant characteristics and needs. In some cases, participants recognise an urgent need for a particular set of knowledge and skills (e.g. in relation to their new home or new context). In other cases, an effective group may provide the opportunity to pursue more generic meaning, such as through creative or environmental activities.^{212,249} Providing opportunities to show competence, for instance via the use of native language, or demonstration of cooking or other skills via voluntary roles linked to the group, were beneficial aspects of some group formats.²⁴²

Several initiatives involved some kind of initial, and/or ongoing, consultation with group members so that the content and format of group meetings and activities was shaped by their needs and preferences. Cultural sensitivity or cultural congruence was also identified as an important consideration in the development and delivery of several initiatives.

Mode: technologies

One initiative was online only,¹⁰⁷ whereas two initiatives combined remote with face-to-face interactions.^{233,243} In one of these dual mode initiatives, participants reported that the two modes were complementary and enhanced the effectiveness of the initiative.^{243,246}

Frequency and duration

Groups typically met together on a weekly basis, although, in some cases, interactions were less frequent or ad hoc, depending on members' motivations to connect. Although a few of the initiatives were open-ended,^{102,104,107,212,213,236,239} most involved a fixed duration. In common with befriending initiatives, there was evidence that some groups that were time-bound and relatively short in duration were felt to be insufficient to address the needs of participants, whose obstacles to positive social connectedness and well-being were deep-rooted.¹⁶⁴ Nevertheless, these initiatives were successful in achieving their intended functions and having an impact on the proximate determinants, at least in the short term.

In other cases, time-bound groups appeared to be appropriate to the needs of group members, particularly when positive social ties and interactions could be established beyond the group, for instance among student participants who could become connected with other support structures relatively easily.

Shared-identity social support groups: negative effects

Three potentially harmful effects of support group participation were identified in the papers: disclosure of sensitive information by group members within (and possibly beyond) the group; disruption to family relationships; and the potential to inhibit 'out-group' interactions, leading to further exclusion from wider society. There was very limited evidence in support of any of these effects; however, most papers did not include any discussion of unanticipated or harmful consequences of the initiatives.

Intercultural encounters

This analysis is based on 22 separate interventions, reported in 26 qualitative or quantitative evaluative papers. *Table 9* presents a summary of the evidence for the various relationships hypothesised in the intercultural encounters logic model; *Appendix 11* provides more detail for each intervention.

Distinctive function 1: meaningful interethnic contact

Our generic logic model identifies the distinctive function of intercultural encounters as being to bring together, in meaningful contact across ethnic/cultural/religious differences, people who do not normally interact. This is further described in terms of providing an opportunity to share stories and experiences (listen and be heard), demonstrate competence and value, engage in purposeful activity and engage in enjoyable social activity.

The level of detail provided in the papers was often limited, and some papers examined multiple different initiatives under the umbrella of a programme, so that it was not possible to examine the elements of function 1 in detail across most papers. Several interventions did include explicit aspects that enabled minority participants to demonstrate competence,^{110,111,115} and, in some cases, leadership. However, a feeling of unequal value among minority participants was shown to persist in some cases.¹¹²

TABLE 9 Summary of evidence relating to causal chains and outcomes for 22 intercultural encounter interventions

Initial causal pathways	Qualitative studies (n)		Quantitative studies (n)	
	Supporting	Refuting	Supporting	Refuting
Function 1: meaningful interethnic contact				
(1a) Function 1 → 'other-group orientation'				
Minority participants	13	3	2	1
Majority participants	11	4	0	0
(1b) Function 1 → increased security/trust/reduced worry				
Minority participants	5	2	0	0
Majority participants	2	2	0	0
(1c) Function 1 → positive ethnocultural identity/ normalisation/reduced internalised stigma				
	3	0	0	0
(1d) Function 1 → self-confidence/mastery/coping behaviours				
	5	1	0	0
(1e) Function 1 → more positive appraisal of existing ties and interactions				
	0	0	0	0
Function 2: myth-busting				
(2a) Function 2 → 'other-group orientation'				
Minority participants	4	0	0	0
Majority participants	2	1	0	0
(2b) Function 2 → increased security/trust/ reduced worry				
	2	0	0	0
Function 3: equipping for contact				
(3a) Function 3 → self-confidence/mastery/ coping behaviours				
	3	0	0	0
(3b) Function 3 → increased security/trust/ reduced worry				
	0	0	0	0
Spillover effects: neighbourliness, connectedness				
	2	7	0	0
Proximate determinants				
Increased positive social ties and interactions				
Within 'group': bonding ties	12	1	1	0
Outside 'group': bridging ties (beyond initiative)	15 (8)	6 (4)	(2)	(1)
Decreased negative ties and interactions				
	4	6	0	0
Increased self-worth				
	3	0	2	0
Increased positive appraisal of existing ties and interactions				
	1	0	0	0
Outcomes: improvements in loneliness, isolation, and/or feeling supported				
	4	2	3	2
Note				
Papers may provide both supporting and refuting evidence if they identify mixed effects across sites or participant groups.				

Pathway 1a: what evidence is there that intercultural encounter interventions achieving meaningful interethnic contact result in increased 'other-group orientation' among group members/participants?

There was some qualitative evidence relating to 13 initiatives^{110–113,115,121,123,126,127,130,131,137,253} and quantitative evidence relating to two initiatives (both involving children)^{115,128} that 'other-group' orientation increased for migrant and/or minority participants. However, for three of these initiatives, qualitative evidence indicated that this shift was not found among all minority participants.^{121,127,137} A further quantitative study¹²⁵ reported no such change. In relation to majority participants, some qualitative data was found in support of this pathway in 11 initiatives.^{110,112,113,121,123,126,127,131,137,142,253} Four of these studies also provided refutational evidence (i.e. there were mixed effects across participants).^{121,127,137,142} In the case of Matejskova and Leitner's¹³⁷ study in Germany, not all of the initiatives under investigation appeared to fully achieve function 1. Data were limited in several of these studies, and no quantitative data were available in relation to majority participants' 'other-group' orientation for any of the initiatives.

Although it was usually not possible to isolate the effects of 'meaningful contact' from 'myth-busting' (function 2) in those initiatives that included both elements, it is worth noting that several interventions that did not include any deliberate activities aimed at 'myth-busting', and adopted instead a more organic approach, nevertheless triggered pathway 1a to some extent.

Pathway 1b: what evidence is there that intercultural encounter interventions achieving meaningful interethnic contact result in an increased sense of security/trust and/or reduced stress and worry among group members/participants?

There was qualitative evidence relating to five interventions^{112,113,122,131,137} that achieving meaningful interethnic contact resulted in increased trust and/or reduced worry among at least some minority participants. However, the extent of this sense of trust or reduced worry seemed to vary across initiatives. Matejskova and Leitner¹³⁷ reported a mixed picture, with only some minority participants experiencing increased trust or reduced worry. Parks¹²² reported increased situation-specific trust for minority female participants who attended a children's centre open to all. These women reported feeling wary of unknown majority ethnic people beyond the confines of the initiative, perceiving them to be of a different nature to those who participated. In contrast, two studies^{112,113} did suggest a more generalised reduction in fear and increased sense of security:

This project has made me be open-minded to interact with people, not to fear them just because we don't speak the same language, just because we don't look alike. There's that human aspect to it that despite our differences and culture, our differences in language, our differences in appearance, that we kind of share the same thing.

Hmong participant, Goodkind et al.¹¹²

One qualitative study¹³¹ also suggested that this effect occurred for majority participants, whereas the findings reported by Matejskova and Leitner¹³⁷ again indicated diverse effects, with some, but not all, majority participants experiencing increased trust or reduced worry. Raw¹²⁷ provided qualitative evidence that suggested that such an effect did not generally result for minority or majority children in a schools-based initiative under evaluation.

Pathway 1c: what evidence is there that intercultural encounter interventions achieving meaningful interethnic contact result in positive ethnocultural identity/reduced internalised stigma?

Three studies^{112,113,126} provided some qualitative evidence that minority participants gained a more positive sense of ethnocultural identity. Comments from students in a music-based initiative in Israel¹²⁶ were particularly compelling:

In the beginning I was confused and I felt that my music should be set aside . . . I repressed my music, because I wanted to absorb the Israeli culture as fast as possible . . . today it [my music] has great meaning in my life.

Gilboa et al.¹²⁶

Pathway 1d: what evidence is there that intercultural encounter interventions that achieve meaningful interethnic contact result in increased self-confidence/empowerment/mastery among minority participants?

Five studies^{112,113,121,126,127} provided some qualitative evidence in support of this pathway. For example, Goodkind *et al.*¹¹³ report on a US initiative bringing students and refugees together that demonstrated 'increases in participants' environmental mastery and self-confidence'.¹¹³ However, Raw¹²⁷ also reported qualitative evidence that suggested that this effect did not result in some schools.

No studies provided any evidence in support or refutation of pathway 1e in the intercultural encounter logic model.

Additional function 2: myth-busting

As noted above, function 2 and function 1 could not easily be disentangled in several of the initiatives, and the causal pathways were not generally clearly articulated in the papers.

Four studies^{112,113,126,130} provided qualitative data in support of pathway 2a, that 'myth-busting' could lead to more positive 'other-group' orientation among minority participants, and two studies^{112,113} provided evidence that 'myth-busting' could lead to more positive 'other-group' orientation among majority participants, at least in the short term.

One study¹³⁷ indicated that myth-busting activities were not effective in shifting 'other-group' attitudes among majority participants, although these were not delivered in the context of an initiative that had clearly achieved function 1. The studies reported by Goodkind *et al.*¹¹³ and Goodkind²⁵⁴ that evaluated 'learning circles' for students and refugees with two different refugee groups, Hmong and African, also both provided qualitative support for pathway 2b, that myth-busting can lead to increased trust and reduced worry.

Additional function 3: equipping for contact

Just seven interventions included some elements that could be considered to be aimed at function 3, and all of these were focused on people seeking asylum or refugees or other newcomers. In three studies,^{112,115,122} qualitative evidence was provided to suggest that pathway 3a was achieved, with migrant participants showing increased self-confidence/mastery. Participants in a football-based initiative reported that the leadership training provided had importantly increased their self-confidence:

The most powerful experience I've ever had in my life is that leadership program, you know, that changed my life, that changed my thinking . . . you know, make good decisions . . . they give you a good opportunity for you to be a good leader in the community (FS, male).

I: You're officially coaching . . . how does that feel for you? R: It feels amazing. I look after people, then the people listen to me in the game and stuff (FS, male).

*Nathan et al.*¹¹⁵ This article is published under license to BioMed Central Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited

None of the papers provided convincing evidence for or against the causal chain between 'equipping for contact' and increased trust and/or reduced stress or worry, reflecting a lack of exploration of these potential processes.

Proximate determinants

Increased positive ties and interactions

All the initiatives were intended to increase positive ties and interactions for participants. Twelve studies^{110-113,115,120-122,124,126,131,253} provided qualitative evidence, and one¹²⁵ provided quantitative support,

that initiatives led to increased positive ties and interactions of a 'bonding' nature for migrant/minority participants. That is, participants developed ties with people they recognised as being similar to themselves in terms of migrant and/or ethnic status. In one case,¹²⁴ there was evidence that such 'bonding' ties did not develop for some participants and that assumptions about commonalities and 'safety', in this case among women who shared international student status, could be too simplistic. Fifteen studies^{72,110–113,120,121,124,126,127,130,131,142,144,253} provided some qualitative evidence for increased positive ties and interactions across migrant and/or ethnic status, so-called 'bridging' ties, in the initiative. However, in four of these studies,^{121,124,127,142} refutational evidence was also provided, highlighting the contrasting experiences between participants, and two other qualitative studies^{129,137} also presented evidence that refuted the establishment of positive bridging ties in the initiative.

As with the earlier initiatives, there is particular interest in whether or not participants increased their positive ties and interactions with people beyond the group. Eight qualitative^{7,72,111,113,121,126,131,253} studies provided some evidence of such a broader impact, although one¹²¹ reported that this varied greatly across the three initiatives explored. A further three qualitative studies^{129,130,241} reported no such increase in positive bridging ties beyond the initiative.

In terms of quantitative studies, two^{125,128} reported some evidence of increased bridging ties beyond the initiative. In contrast, one study¹¹⁵ found that, although participants developed close ties within the initiative, which brought migrant children of various national backgrounds together, there was no increase in reported 'close friends' within the neighbourhood, suggesting that there had been no impact on bridging ties for participants.

Reduced negative ties and interactions

Eight of the initiatives were intended to reduce negative ties and interactions experienced by participants and, in some cases, among broader groups or communities of which the participants were seen to be representatives. The focus here was on interethnic or interfaith conflict, rather than on negative interactions or lack of support within close interpersonal ties.

No quantitative data were reported that were relevant to this pathway. Four studies^{110,112,121,127} provided qualitative data that supported a reduction. However, in all four cases these studies also provided refutational evidence, illustrating that these changes occurred only for some participants, or only in some sites of the initiative. Furthermore, Askins and Pain¹¹⁰ also noted that reductions in negative interactions were fragile and not sustained over time and space. Matejskova and Leitner's¹³⁷ study, which examined a rather ill-defined set of initiatives in Germany, concluded that there was no consistent evidence of reduced negative interactions. Anderson¹²⁴ reported that the 'Women across cultures' initiative for international students appeared to increase negative interactions for some participants, as it was experienced as an uneasy space.

Increased self-worth

Increasing the self-worth of participants was a clear objective of just four initiatives. In three of these studies,^{112,113,253} qualitative evidence supported the achievement of shifts in this proximate determinant, with participants expressing feelings of increased dignity and value, whereas in two studies^{126,128} there was supporting quantitative evidence.

Appraisal of existing social ties and interactions

Just one study (reported in two papers)^{113,255} provided any evidence in relation to shifts in appraisal of existing ties. Refugee participants originating from African countries showed some decrease in feelings of being discriminated against by white people in a US study.

Pathway 8: evidence for shifts in attitudes and practices among people beyond the initiative

Several of these initiatives had the aspiration to be a catalyst for broader shifts in the attitudes and practices of individuals beyond the immediate initiative, to engender higher levels of 'neighbourliness'

or 'connectedness' among people living, studying or working together. There was, however, very limited evidence in the papers to determine whether or not relevant causal pathways were achieved.

Two papers provided some evidence in support of such a 'spillover' effect.^{121,144} However, one¹²¹ of these highlighted very different processes that unfolded across sites involved in the UK Communities R Us initiative, with evidence of such spillover in just one area, and persistence of poor interethnic community relations in other areas. This report¹²¹ highlighted persistent interethnic tensions among younger people, feelings of unease among older people, the need for more sustained work to improve relations, and a lack of obvious leadership going forward.

Six further studies provided qualitative evidence that suggested that such spillover effects were not achieved.^{110,127,130,131,137,142} In Matejskova and Leitner's¹³⁷ German study, a process of 'exceptionalisation' was described, rather than one of generalised, ripple-out effects on attitudes and behaviours:

In the end the positive values gained through an encounter with an immigrant become attached to that individual subject who becomes 'like us' whereas the group category remains largely negatively connoted.

Matejskova and Leitner¹³⁷

In another, involving UK young people, participants talked about the initiative as if it was an 'unreal' space, and expressed doubt that their other family members would connect across difference as they had during the programme:

I met people that I would never have met in real life.

Mills and Waite¹³¹

Outcomes

Nine studies^{72,111,113,123-125,127,128,253} provided some data relevant to review outcomes of interest. Four studies^{72,111,124,253} provided some qualitative evidence, and three^{113,123,128} provided quantitative evidence, of an increased sense of belonging, feeling supported or reduced feelings of isolation. One of these qualitative studies¹²⁴ reported mixed findings, with the initiative not being experienced as supportive by all, and two^{111,253} provided very limited data. One study¹²⁷ drew on qualitative and descriptive quantitative data and concluded no evidence of improvement in a relevant indicator of belonging. A further study showed no evidence of improvement in a quantitative measure.¹²⁵

Differential processes and outcomes

As noted above, several studies noted that interventions did not play out similarly for all participants, or across all sites, but only a few identified systematic differentials between subgroups or contextual characteristics. Borgogni and Digennaro¹¹¹ noted the low participation of women, and thereby an inability to evaluate the impact on women of an Italian football-based initiative. Mayblin *et al.*¹⁴² concluded that higher education, and having foreign language skills, were factors that made it easier for some participants to engage in 'organised encounters' offered via a Polish football-based initiative. Nathan *et al.*¹¹⁵ found that the effects of a football-based initiative for young migrants were similar regardless of how long the young people had been in Australia. Raw's¹²⁷ evaluation of a UK school-linking project identified multiple differentials: greater impacts among BME children in terms of other-group orientation and interethnic friendships, particularly BME girls, than white children; strongest effects among year 4 children; and stronger effects among children attending ethnically homogeneous schools than mixed schools. Meanwhile, socioeconomic status and faith versus secular school did not appear to affect outcomes.

Achieving functions: what inputs are important?

As noted above, several papers provided only brief information on the nature of the interventions, so that our ability to isolate key characteristics of inputs that are necessary or sufficient to achieve functions is limited. Nevertheless, the findings that are available tend to support earlier work⁹¹ that has characterised the nature of 'meaningful encounters'.

Participants

The make-up of participants in terms of ethnic and migration status varied considerably across the initiatives. In common with prior work, there was evidence to suggest the importance of bringing members of groups together on an equal-status basis, but challenges to doing so in practice.

When initiatives involved bringing migrant/minority individuals into contact with majority individuals, inequalities in status, and associated narratives of entitlement and legitimacy, were not easily eroded. As Matejskova and Leitner¹³⁷ state 'deeply entrenched, uneven power relations are not suspended during face-to-face contact but always saturate it and exceed it'.¹³⁷ Furthermore, in some cases, majority white people simply refused to participate.^{121,137}

Axes of difference that have important implications for how people perceive each other and develop equal-status relationships may be inadvertently overlooked by those designing intercultural encounter initiatives. For example, in one project there were significant unacknowledged class differentials, as well as faith differences, between the two groups.¹³⁰

In one initiative, it was suggested that having an all-female membership was conducive to achieving a more equal, trusting and empathic social space.¹¹⁷

Of course, when initiatives are aimed at addressing community-level tensions, and the associated social isolation that can result, the potential participants are defined by the neighbourhood. That said, there was some evidence that initiatives that start with small numbers of people, and attract those with more positive out-group orientations, at least in the early stages, may be more successful.¹²¹

Facilitator

Findings, although limited, tended to support prior work in confirming the importance of having someone in a facilitative role, particularly when the individuals coming together represent groups that have a context or history of conflict and mistrust.

Facilitators were found to usefully support the establishment of ground rules; to encourage cross-cultural discussions, reciprocity and celebration of difference; to work through misunderstandings; and to highlight commonalities and diffuse tensions.^{110,119,126,127,130} Even when initiatives were intended to be bottom-up, community-improvement endeavours, having someone in a supportive, facilitator role appeared to be important.¹²¹ It was, nevertheless, important that facilitators did not take over, but rather supported participants to engage and take ownership of the activities.¹¹⁰

There was insufficient evidence to suggest what identity such individuals should have. In some cases, having an 'outsider' to the community seemed important,¹²¹ in others the lack of community knowledge and ownership among such outsiders was felt to be a disadvantage in supporting the endeavour of integrating the community,¹¹⁰ and 'insider' facilitators could, potentially, be role models for positive intercultural encounters (although this was not necessarily unproblematic).¹³⁰

Content and format

Although several initiatives involved structured elements aimed at 'myth-busting' and enhancing understanding across cultural difference, some evidence suggested that the creation of more informal, multicultural spaces that allow new forms of relationship to emerge at their own pace may be more successful.

Mayblin *et al.*¹³⁰ identified three types of contact in the initiative for young people of Muslim and Jewish identity that she explored: formal interfaith dialogue, shared interest (cricket) and banal sociability. She concluded that it was banal sociability, the hanging-out and chatting about teenage interests, that was the most influential in establishing 'normal' relationships between participants. Similarly, Matejskova and Leitner¹³⁷ noted that projects that engaged immigrants in natural work roles

side by side with local Germans were successful in increasing sensibility and empathy among locals, whereas more formal attempts to educate via presentations were not so successful.¹³⁷

Several studies suggested that the use of participatory arts approaches could be successful in creating the space for dialogue and/or positive exchanges between people who do not normally interact, to share their feelings and thoughts.^{110,120,121,127} Music also seemed to be a successful approach in two studies.^{126,128}

Engaging in other types of purposeful group activity was also found to be effective in some initiatives, giving participants something to focus on and engage around. Achieving a goal collectively, even if small, could be a boost to positive intergroup connections also.^{121,141} It seems probable that offering diverse potential activities, and allowing participants to choose and direct content, is necessary to achieve positive engagement.

Sport was intended as a means to intercultural understanding and connectedness in several initiatives, but there was evidence that meaningful intercultural encounters could be very variable across participants,¹⁴² and another indication that individuals, particularly those of majority ethnicity, are not necessarily motivated to put themselves through the 'effort-intensive nature of encounters across difference'.¹³⁷

Duration

Several studies concluded that the intensity and duration of initiatives was inadequate to produce significant and lasting shifts in attitudes and behaviours, or to establish new positive relationships across difference. The need for multiple contacts, ideally across multiple contexts, was suggested by several authors.^{130,137} Raw¹²⁷ found some evidence that those children who had been involved in the school-linking project for longer durations showed greater shifts in attitudes. The initiatives evaluated by Goodkind *et al.*^{112,113} and Hess *et al.*²⁵⁵ that showed positive changes for minority and majority participants involved intense interactions over a 6-month period.

Intercultural encounters: negative effects

A few studies suggested that, in some circumstances, intercultural encounters could exacerbate negative attitudes, inequalities in status and racist behaviour. Raw¹²⁷ found that, in some schools, there was an apparent hardening of negative attitudes towards out-group members, particularly among majority ethnic children. Askins and Pain¹¹⁰ found that when children were involved in a photography project that gave them little active involvement, and instead positioned them as objects, 'other young people's comments were predominantly negative, based on (perceptions of) physical difference – the quintessential marker in constructions of difference – leading to arguments or evasion'.¹¹⁰

Goodkind²⁵⁶ found that some Hmong participants did not recognise themselves as imparting knowledge to the white American students they engaged with, instead positioning themselves as having less value (perhaps suggesting that the initiative heightened this negative self-perception, at least for some):

But I don't think I taught you anything else because I learned more from you, because you know English, and you know how to read and write, and so I think I learned more from you than you learned from me.

Goodkind²⁵⁶

Qualitative evidence relating to causal pathways from other intervention types

Here we briefly review the qualitative evidence from other interventional types relating to key causal pathways already presented, as well some additional pathways that warrant consideration. We also report on some quantitative findings on causal pathways from papers that did not include data on a relevant final outcome (and so are not included in *Revisiting the quantitative evaluations*).

Pathways to increased positive social ties and interactions

There was some evidence that training/equipping initiatives could increase positive social ties and interactions for participants, either directly if they adopted a strong group-building element (and so, it could be argued, were similar to SSGs),^{75,257,258} or indirectly if they served to overcome important current obstacles to social interactions.¹⁴⁸ For instance, one paper illustrated that, for older individuals, a training-based intervention designed to reduce the fear of falling significantly reduced reports that a concern about falling had 'interfered with normal social activities with family, friends, neighbours, or groups'.²¹⁷

However, interventions that focused narrowly on equipping participants in some way did not necessarily increase positive social ties. An intervention that aimed at equipping students with intercultural skills reported a small increase in a measure of cross-ethnic social self-efficacy, and an increase in time spent with cross-ethnic friends, but no increase in the number of cross-ethnic friendships.¹⁴⁷ An equipping intervention for older migrants in Sweden, despite aiming to encourage group members to discuss and share experiences, showed no positive impact on positive social ties.¹⁵³

Meaningful activities that were communal also showed evidence of increasing positive social ties,^{170,172,173} as did some volunteering activities.²⁵⁹

Pathways to reduced negative social ties and interactions

There was evidence from two studies^{157,164} that interventions that employed psychotherapy could enable participants to develop the skills and confidence to better manage stressful relationships, leading to fewer negative interactions:

Yes, it has. I am managing my family with less stress; I have realized and have gained the knowledge of overcoming my tension when I am dealing with my children and husband. I tell them I can do only so much at a time and they shouldn't be expecting a lot from me.

Masood et al.¹⁶⁴ This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The Creative Commons Public Domain Dedication waiver (<https://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated

Pathways to increased self-worth

There was evidence that meaningful activity initiatives could provide participants with a sense of being competent, of value and of being valued by others.^{170,172}

Volunteering activities could also increase feelings of self-worth:^{58,177}

I believe it made me feel needed and important. It made me realize that I could use my abilities to help others and made me feel good about myself. The feeling of satisfaction was the most beneficial aspect for me.

Pak⁵⁸

I feel like this [the SL (service-learning) project] gave Latinos a way to be involved and know that they can actually be a part of something.

Pak⁵⁸

There was evidence from some interventions that employed psychotherapy that these could lead to enhanced self-worth (labelled as 'self-esteem'),^{159,164} and that the active listening and sharing

components of these group-based interventions were an important element (in common with befriending and SSG initiatives).¹⁶⁴

There was also evidence that some training/equipping initiatives could enhance self-worth when they successfully equipped participants with the 'know-how', confidence and skills that they perceived they needed to operate in an important context. Such initiatives often incorporated a peer-learning approach and involved a normalisation pathway.^{75,151,260} Initiatives that failed to equip participants with the know-how and skills they wanted were less successful.²⁶¹

Pathways to more positive appraisal of existing ties and interactions

There was evidence from one study that an intervention that employed psychotherapy could enable participants to re-appraise their existing ties in a more positive light. Elligan and Utsey¹⁵⁷ reported that participants demonstrated 'an increased appreciation and love for other African American men' and greater sense of tolerance for conflict in interpersonal relationships and a renewed interest to maintain intimate/romantic relationships.

Revisiting the quantitative evaluations

Appendix 12 lists the 34 intervention papers included in this analysis, with associated characteristics. Interventions, study designs and outcome measures were too varied to support statistical synthesis. Study quality was also generally moderate to low, with no studies employing RCTs that were assessed as having a low risk of bias. Most studies had short periods of follow-up.

Drawing on the qualitative evidence and theoretical insights, we developed hypotheses regarding probable relationships between interventional characteristics and outcomes that were then used to guide our exploration of the quantitative data.

Hypothesis 1

Loneliness (feeling isolated, feeling unsupported) has a complex aetiology and the underlying causes can vary between individuals. Therefore, interventions that target underlying causes of loneliness are more effective, on average, than those that do not. Three groups of interventions are likely to be effective; these are interventions that:

1. focus on a particular group of individuals in a particular setting or circumstance and are designed to address their particular needs
2. are flexible enough to enable attention to individual needs
3. involve multiple components that link to all, or most, of the proximate determinants.

Befriending initiatives might be considered the most flexible, because they are provided on a one-to-one basis. However, the befriending initiatives examined in the quantitative batch of studies tended not to demonstrate achievement of one-to-one tailored support. Four of these initiatives were unsuccessful.^{221,223,224,228} Three papers concluded that the intervention was successful in relation to a relevant outcome: two^{222,226} focused on schoolchildren, a targeted group that was provided with inputs tailored to a child's social and academic achievement in school, and the third initiative focused on Spanish-speaking women who were provided a linguistically and culturally tailored input from Promotoras.²²⁹

Four studies examined interventions that provided multiple components aimed at addressing at least three of the proximate determinants. Three of these were reported to be successful.^{113,214,230} The fourth⁶³ was not successful in affecting quantitative outcomes, although there was promising qualitative data. The two interventions evaluated by Stewart *et al.*^{63,214} were very similar, suggesting that contextual differences may have moderated the causal processes.

Hypothesis 2

Low self-worth (linked to wider hostile environments) is common among migrant and ethnic minority people. Therefore, interventions that explicitly aim to boost self-worth are more effective, on average, than those that do not. Two groups of interventions are likely to be effective:

1. interventions that integrate components that directly enhance self-worth (e.g. opportunities to reciprocate, to demonstrate competence, to build confidence via new skills)
2. interventions that enable user involvement and/or ownership.

Overall, the data provide fairly consistent support for this hypothesis. Six studies^{113,128,214,222,226,237} reported a positive impact on self-worth (quantitatively or qualitatively) and a positive impact on a relevant outcome measure; two further studies^{182,229} had an explicit intention to affect self-worth (although there were no data presented) and the findings suggested a positive effect on a relevant outcome. In addition, four initiatives did not explicitly mention self-worth, but either supported active user involvement^{248,262} and/or had a focus on a closely related concept: mastery^{211,248} or self-efficacy.^{103,152}

Three interventions had no explicit intention to improve self-worth and did not achieve significant impacts,^{109,125,146} and one had an intention to improve self-worth but did not appear to include relevant inputs and had no impact on outcomes.²⁶³ A further initiative actually reduced self-worth (despite intentions to boost it) and had no positive effect on feeling supported or on loneliness.²²⁸

In two studies,^{63,101} there was evidence of increased self-worth, but no associated improvement in outcomes; both focused on people seeking asylum and refugees. In Adam *et al.*,¹⁰¹ there was no active involvement of users and there was evidence of unaddressed negative social interactions. In Stewart *et al.*,²¹⁵ there was qualitative evidence to suggest some improvements in perceived isolation and perceived social support.

Two interventions appeared to achieve a positive effect on outcomes despite no explicit attention to increasing self-worth. Both of these focused on international students and employed less rigorous study designs.^{144,264}

Hypothesis 3

For new migrants, particularly forced migrants, a severe lack of social connections is an important risk factor for loneliness. Interventions that explicitly support the building of a shared-identity social network are more effective than those that do not.

Three studies, focused on migrants, that put an emphasis on building shared identity ties reported an increase in positive social ties and a positive effect on a relevant outcome.^{113,214,237}

Two befriending interventions did not appear to aim for shared identity ties, and produced no impact on participants' reports of positive social connections, nor on the final outcome.^{221,224} Two initiatives, focused on international student adjustment, included no apparent emphasis on shared identity ties and produced no impact on final outcomes.^{125,146}

Two studies^{63,101} did appear to focus on shared identity ties, and did provide qualitative evidence of an increase in positive ties, but reported no impact on loneliness, suggesting that other factors were at play. Notably, in the Adam *et al.*¹⁰¹ initiative, the target group was migrant LGBT+ men, and there was some qualitative evidence that experience of negative social interactions was not reduced (see *Hypothesis 4*).

Two studies^{144,264} provided contradictory evidence, in that the interventions did not appear to aim to increase shared identity ties but, nevertheless, reported improvements in relevant outcome measures for international students. It is worth noting that, in the Brunsting *et al.*²⁶⁴ intervention, the participants were 86% Chinese students, and so may have developed shared identity ties even though this was not

an explicit aim. This initiative was intended to operate via a shift in international students' appraisal of the adequacy of their social ties, although no data relating to this causal pathway were provided.

Hypothesis 4

Having social ties and interactions that are experienced negatively is common among migrant and ethnic minority people. These can be (1) stressful intimate ties (due to living in conditions of material deprivation etc.) and/or (2) exposure to hostility and microaggressions in varied social settings, including with service providers and 'agents of the state'. These negative social interactions can undermine the effect of positive social ties, and create loneliness. Interventions that fail to address persistent negative social ties and interactions are less successful than those that do address them.

Few of the quantitative studies explicitly engaged with these causal processes.

Two initiatives, focused on people seeking asylum and refugees, included an explicit focus on reducing negative interactions and provided some evidence of success in this regard, as well as reporting a positive effect on outcomes.^{214,237} A further initiative, focused on schoolchildren, also provided some evidence of a reduction in negative interactions and reported a positive outcome effect.²²² Four further initiatives had an explicit aim to reduce negative ties and interactions, and reported a positive impact on outcomes, although no data were provided on this proximate determinant.^{113,155,158,160} One initiative aimed to affect this determinant, but appeared not to be successful and also reported no impact on the loneliness outcome.¹⁰¹ One study failed to affect the outcome despite some evidence of positive ties within the group; qualitative data suggested that this was because negative intrafamilial ties had not been addressed for many of the women.¹⁶⁵

One initiative recognised the importance of addressing negative ties, but provided no data on this determinant (and did not appear to provide credible inputs to address it), and reported no effect on the outcome.²²⁸ A further initiative, for international students, recognised these factors and reported no effect on a relevant measure, but did report an impact on the outcome.²⁶⁴ An initiative for refugees reported some qualitative data of impact on negative ties, but no effect on final outcome.⁶³

Twenty-two initiatives provided no information to suggest that they recognised or targeted negative ties and interactions. Ten of these reported no impact on final outcomes.^{60,109,125,146,159,221,223,224,263,265} Twelve initiatives reported a positive impact on a relevant outcome,^{103,128,144,150,152,179,182,226,229,230,248,262} although, as already noted, study quality was often poor.

Hypothesis 5

For individuals who have multiple, interlocking risk factors, addressing loneliness will take time, and short-term improvements may not be sustained. Interventions that are longer term, or that include effective transition arrangements to connect individuals with secure follow-on sources of support, are more likely to be effective than those that are of a fixed, shorter duration.

Quantitative studies did not include sufficiently long durations of follow-up to test this hypothesis.

Health outcomes

Seven quantitative evaluations included measures of mental ill-health (depression and/or anxiety): five reported positive effects^{113,158,160,165,229} and two reported no effect.^{223,224} Six initiatives, all focused on older people, included measures of physical health and well-being.^{103,150,152,248,263,265} Two reported a positive impact on a subjective quality-of-life/well-being measure.^{103,248} Three reported a positive impact on a physical activity-related measure.^{150,152,265} One reported no significant effect on either activities of daily living or self-rated health.²⁶³

Chapter 7 Understanding the wider 'system': risks for loneliness and factors influencing intended solutions

Introduction

This chapter is concerned with factors in the wider socioecological system, in terms of both how they influence people's risk of feeling lonely and their interplay with initiatives that aim to protect against, or reduce, social isolation and loneliness. The chapter addresses the following research questions:

- What are the causes of social isolation and loneliness among migrant and/or ethnic minority people?
- What happens when similar interventions are introduced into different contexts? What processes ensue? (Moderating factors).

The chapter presents a UK picture, integrating information extracted from the UK published and detailed grey literature, alongside insights from the CP workshops. We draw here on the available evidence on causes of loneliness, and intervention or initiative implementation processes, extracted from 41 UK intervention studies, as well as 65 UK papers that were identified as 'non-intervention empirical' during our screening process. Empirical papers were those that presented qualitative or quantitative data on levels and patterns of social isolation, social support and/or loneliness among our population groups of interest. Identifying important relationships in a complex system is challenging, so too is identifying the appropriate boundaries to adopt for the system under study. The analysis presented in this chapter is descriptive, and does not seek to quantify the strength of relationships between factors in the system. The elements and processes identified are based on a narrative synthesis of recurring themes across our complementary data sources.

Figure 5 presents a generic model, illustrating the various points at which wider system factors can impinge on interventional activity. However, our CP workshops, and our review of published literature, revealed that many of the key factors that undermine or support the implementation and operation of deliberate initiatives are relevant across multiple causal chains in the model. Furthermore, these processes are also implicated in the creation of, or protection against, risk for social isolation and loneliness more generally. We therefore adopt a thematic approach to this chapter, dealing with sets of processes operating at individual, family, organisation, neighbourhood and wider societal levels in turn (while recognising the inter-relationships between these levels). In each section, we present evidence relating to causes of social isolation and loneliness, as well as highlighting how these factors interplay with initiatives (including their relevance for particular interventional forms, when apparent) and approaches to intervention more broadly.

Individual-level factors

Self-confidence; self-worth

A theme of low self-confidence undermining people's ability to form and maintain social connections was common across all CP groups. CP members across all groups also identified important feedback loops.

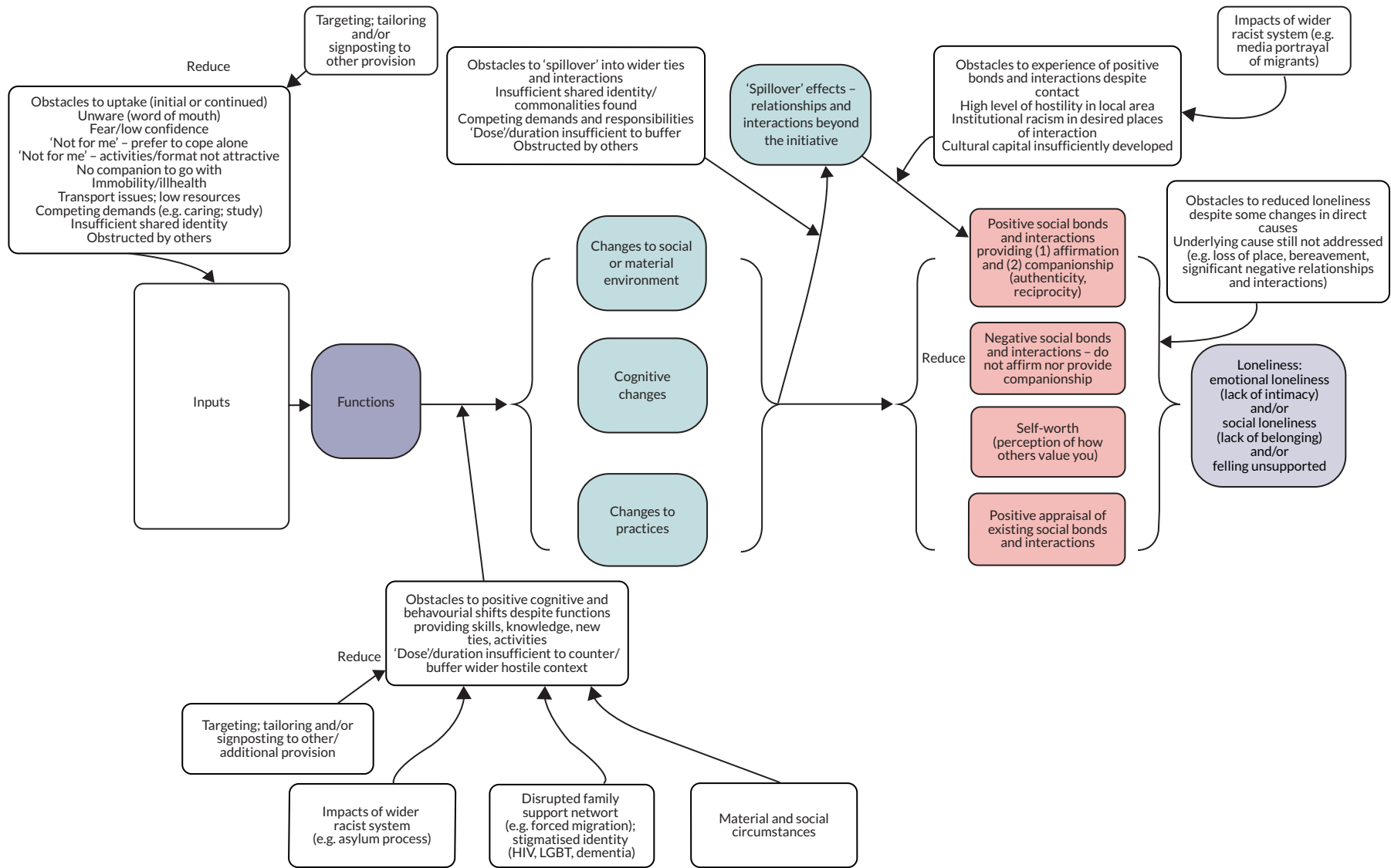


FIGURE 5 Generic model of intervention illustrating potential system-moderating factors. Dark purple denotes functions intended to produce cognitive, behavioural or environmental change. Blue denotes strategies – cognitive, behavioural or environmental change.

Supportive relationships serve to enhance self-worth, which, in turn, encourages more interaction and the chance to develop new relationships:

Boosting the confidence is the key, it also gives them a feeling of sense of worth – they are not useless, they are not old ...

CP older persons group

Being confident in your heritage and can go out in the world and say that ‘this is me, my heritage’ and you can go and show this.

CP student group

The student CP members felt that self-worth was a ‘defining thing’, and noted that a lack of self-confidence could prevent people from taking up the opportunities around them to engage socially. They also noted how contextually sensitive self-confidence and self-worth could be, and how the lack of supportive people around a person could quickly undermine these feelings.

Low levels of confidence could prevent people from taking up available offers of support. A CP member shared a story of a young male asylum seeker who was fearful of attending a youth group and needed the safety of one-to-one supportive chats over a period of time before being confident, and trusting, enough to engage with the group. Askins²⁰² found that some people seeking asylum were not even confident enough for a one-to-one befriending service.

Several closely related factors were identified, via the CPs and published literature, that feed into low confidence and undermine self-worth.

Fear

Fear of unfamiliar, and changing, places was noted as an important factor in CP discussions, and was thought to be closely linked to loneliness. Fear of being rejected and judged was identified as encouraging students of the same nationality to stick together. Fear was also felt to be prominent among older people:

I run a group with about 30 older African Caribbean women. They are at risk of becoming socially isolated as they are fearful to get out of home after six [o’clock] because they don’t have any transport to get to places. They are fearful of being attacked, fearful of going out after dark, and even when it’s not dark, and actually at quite a risk of social isolation.

CP older persons group

There was evidence that initiatives involving accompanied outings and navigational support can be helpful in reducing fear and increasing confidence:^{108,202}

Sometimes isolation keeps you within the home and you feel grounded in one place, but then if you have the courage to go out and do some courses, that helps.

CP working-age group

English-language skills

Limited ability to communicate in English was linked to restricted social engagement in published literature and the CP discussions, particularly for new migrants¹²² and some older people.

Consultation panel members felt that the significance of not having English-language skills could become more acute with ageing, as people lose spouses and children who previously provided support and companionship, and a link to the English-speaking world. Opportunities to develop English-language skills are valued by new migrants, although CP members felt that some offers were

overly formal and focused on targets that are not relevant to participants who want to acquire functional English and confidence to interact verbally in everyday spaces.

Change, transitions and loss of social role

A further theme that was commonly described as undermining self-confidence, and having an effect on people's ability to make positive social connections, related to change and transitions that lead to a loss of social roles, and a 'loss of self'. This was reported in both CP workshops and the published literature. International student CP members described the move to university as 'very destabilising', in this regard:

... not only have you left your home, but you have also left where your place was. If you were involved in anything, you have left that. You're coming to this place where you don't know where to fit into the structure. 'Cause other people already have their structures already. It takes time to find where you fit in.

CP student group

This was also a particular theme in relation to the experience of forced migrants, for whom the 'loss of self' can be particularly acute, with family ties, employment and other aspects of identity being abruptly lost:^{187,239}

The major problem that I faced here was the loss of my identity and the stigma of being different. I don't think people understand how traumatic and stressful it is unless they have personally gone through it. . . .

Christodoulou,²³⁹ Reproduced with permission from Migrants Organise

Initiatives that helped people to orient themselves and ask questions in a non-judgemental atmosphere were identified by CP members as helpful, such as orientation week activities for international students and a drop-in 'tea and biscuits' session for people seeking asylum at which people were encouraged to speak in English and received help with navigating systems. The former was identified as useful in terms of conveying some culturally specific communication tips, and providing accompanied trips about the city. Family members could also help older people adjust to changes in their social context:

My son says [name of place] has become so lively now. I was missing the [Punjabi] community before, but I have started to see things differently now. Since my son made this comment about how lovely it was, now, I take my friends, go and enjoy.

CP older persons group

Ill-health and disability

The relatively high levels of chronic ill-health and disability among ethnic minority groups, particularly older people, was identified as an important factor that both contributes to isolation and loneliness and undermines people's ability to take up interventions. Again, this theme appeared in both published studies and CP discussions.

The negative spiral of depression, leading to social isolation, leading to more chronic depression was highlighted in CP workshops. CP members described how people can 'become stuck', and breaking out of depression, isolation and low self-worth can be very difficult.

Physical ill-health among older people was felt to be a particular issue, and the importance of outreach services was highlighted. The Irish centre evaluated by Cant and Taket¹⁰⁴ catered to people who felt particularly isolated and unable to visit the project because of health problems by providing a culturally sensitive telephone befriending service.

Material resources

The impact of limited material resources on people's ability to engage in social activities, both informal and of a more structured provision, was mentioned across all CP groups. Students talked about being invited to go to the pub, but not having the money to do so. Other CP members talked about people seeking asylum not being able to participate in activities that were intended to connect them to others, such as free swimming sessions when not having the money to buy swimming trunks. Lack of money was a particularly prominent theme for forced migrants, in both the CPs and the published literature, with some not even being able to accept an offer of going for a cup of coffee with a friendly neighbour. Furthermore, the expectation of having to pay can deter people from venturing into community centres and other spaces,⁶⁹ and having to ask for favours (e.g. eating with friends when awaiting benefits) can put a strain on social relationships.¹⁸⁷ There were numerous examples of how interventions can fail to adequately consider the resource constraints that people face.^{131,202} In Askin's²⁰² study, befrienders had to work around the lack of resources experienced by asylum-seeking individuals by meeting in befriendees' houses, as this involved no direct cost such as bus fares or buying drinks.

Awareness and familiarity

Consultation panel members noted that older people and newer migrants may have limited awareness of opportunities for social connection and support, and may be reluctant to venture too far afield. There was a feeling that many people rely on friends and family for information and recommendations about places to go and things to do. Places can feel unfamiliar and threatening both to new arrivals and to established residents as their character changes over time.

Low uptake of interventions was reported by CP members and in published papers. Word of mouth, and working through people and organisations already known to intended beneficiaries, can be helpful in increasing participation over time, and breaking down mistrust and/or scepticism.^{110,266} Respectful partnering with local community organisations to reach ethnic minority people had been successful in some locations.²⁶⁷ In the case of some initiatives, there may also be a need to explain unfamiliar content to prospective participants. For example, Pakistani women with depression who were invited to join a psychotherapy-based support group described their initial apprehension about the nature of the groups and the degree of disclosure that would be expected.²⁶⁸

Individual needs and preferences for social relationships and contact

Consultation panel workshop discussions often focused on the ways in which particular interventional forms would not be suitable for everyone, highlighting the range of individual attributes and circumstances that shape needs and preferences for social contact and relationships.

Age and life-stage

Consultation panel members felt that the need for social contact varies across the life course in terms of both type and quantity. Several members suggested that the need for friends and sociable activity declines as one ages, being more important in young adulthood, with middle-aged and older people being more attracted to engage collectively with people in something that is meaningful and productive. At the same time, retirement was identified as an important transition, and one that is more difficult for some than others:

Going back to the question of what are the things in our life that prepare us against loneliness, if you were in a people-oriented job, you get a chance to refine your people skills, but there are a few jobs where you don't get the chance to refine those skills. So, if sociability is a skill, we need to be able to practise it.

CP older persons group

Gendered preferences and expectations

Consultation panel members and published papers identified diverse ways that gendered norms and identities shaped preferences. Men were often identified as being less likely to want to join groups and engage in activities that required 'opening up', suggesting the need for loosely structured, informal activities to better attract men.^{144,212}

Within-ethnic group and across-group preferences

Discussions in CP workshops generally conveyed the message that migrants and people from ethnic minority backgrounds want to have a mix of social ties and are keen to engage across ethnic difference. The potential for people to connect and find commonality around various aspects of identity or experience was also emphasised (echoing the findings on SSGs reported in *Chapter 6*), so that ethnic identity need not necessarily be the salient feature in encounters. It was also clear that some new migrants, particularly international students, could be disappointed by a lack of hoped-for close relationships with local people.^{187,269}

Here the culture and the people are different. I was excited when I first arrived in the UK but soon I realised how difficult everything was . . .

Refugee, Strang et al.¹⁸⁷ Reproduced with permission from the Scottish Refugee Council

However, CP members also identified that individuals vary in terms of how motivated they are to interact with different types of people and to try out new things. Although some CP members identified an attitude characterised as 'I don't know, and I don't want to know', others felt that apparent reluctance to engage across difference is more likely to be rooted in fear and low confidence, as well as poor language skills, as noted in *English-language skills*. Supporting evidence was provided in published papers:^{122,187}

Yes, I feel myself different from other people, I'm sure they feel me different from them . . . I wish to feel myself as part of the community, but it is difficult . . . It's not people's problem, it's my problem because I have to talk in English very well to mix with them, so they can understand me, they can feel if I am good or not good, they can then judge me and decide if they want to talk with me or not . . .

Children's centre migrant mother, Parks.¹²² Reproduced with permission.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited

At the same time, however, CP members identified the need for opportunities to socialise in ethnically homogeneous groups at times:²⁷⁰

Not saying we want separate lives, but at certain points, it is important community is central and these community provisions need to be with people that share similar backgrounds.

CP older persons group

While, in part, reflecting a desire for cultural commonality and shared authentic expression, this need was also linked to the obstacles people experienced to 'being themselves' in predominantly 'white spaces'. For instance, CP members talked about experiencing people objecting to them speaking their mother tongue and attracting unwelcome attention when wearing traditional clothing or hairstyles. Moreover, as discussed further below, for some, the need for intraethnic social ties clearly relates to a need to feel safe, to escape hostility experienced elsewhere and to enable mutual support in the face of racism:

My enduring friendships are, I think inevitably, two South Asians friends of mine. All three are British South Asians . . . So it's the sharing of that shared hardship that helps us endure and then the shared stories of being racially abused . . . that brings us together.

CP student group

In one of the projects I was involved with, it involved quite a diverse community. We found some failure because people hesitated to mix with people from other backgrounds – particularly people with very strong religious beliefs. Language was also a main thing, we were complained about why we were using a particular language.

CP older persons group

There may also be more practical aspects of intervention organisation, venues and timings for instance, that play out differently for people from different ethnic or religious groups because of the way they fit, or clash, with other aspects of day-to-day living:

There was also another thing about the hidden individual and considerations of family convenience of when they could attend, which was different between different ethnic groups. And we have really diverse communities.

CP older persons group

Both CP discussions and published papers also raised the importance of being aware of potential factions within ethnic or national communities. Cant and Tacket¹⁰⁴ highlighted the deliberately non-sectarian approach of the Irish centre, which made that project accessible to older Irish people from a variety of backgrounds. CP members recalled instances when project deliverers overlooked important internal divisions and historical animosity between groups of people who were assumed to be 'from the same group'.

It is important to also note that, in relation to intercultural encounter initiatives, a particular challenge is involving majority white British people. There is often poor interest and these initiatives are often felt to fail in reaching those sections of society whose attitudes and behaviours are prejudicial.^{121,142}

Individual preferences

Consultation panel members reported that some people do not like to join groups, and argued that there is a need for flexible activities for which there is a 'low threshold' for entry and people can do as much or as little as they choose. Centres that offer spaces and activities in which people participate side by side, rather than having to engage in conversation such as film clubs,¹⁰⁴ gardening or artwork, can be attractive for some, and may enable transition into more engaged activity over time (or provide sufficient input to protect against loneliness for some).

More generally, CP members noted the importance of having varied activities on offer to people because people find meaning and enjoyment in a variety of ways. Engaging local people in shaping the offer of activities was identified as important and demonstrated in several grey literature intervention examples. It was also suggested that projects and activities that may not be explicitly focused on social isolation and loneliness can, nevertheless, play an important role if appropriately designed. A member of the older-age CP group talked about a project she was involved with – Play Dominoes, Talk Prostate:

So what I'm doing is mixing the positive connector of playing dominoes, which is an African Caribbean cultural thing, with the negative connector of talking prostate, and that has resulted in as many as 25 men coming in every week to play dominoes and talk about prostate cancer, going for the checks.

CP older persons group

Individual needs

Consultation panel discussions also drew attention to the varied underlying factors that can lead to feelings of loneliness among particular people (e.g. loss of intimate relationships following bereavement vs. a sense of being an undervalued outsider among highly skilled new migrants). CP members felt that the published evaluations of interventions often did not offer a sufficiently nuanced discussion of how interventions might play out for different people.

Some published papers also highlighted variation in individual need. For instance, a group-based psychotherapy intervention for South Asian women was highly appreciated, but some participants wanted one-to-one support in addition, to allow more sensitive issues to be discussed.¹⁶⁴

In addition, as discussed in *Chapter 6*, interventions that fail to address significant unmet relationship expectations for participants will probably not be effective at protecting against or reducing loneliness.

In collective initiatives and interventions, there is a need to recognise that the motivations for participating may well vary across participants, and this may have implications for dynamics. Parks¹²² noted this for white British women and new migrant mothers who frequented Children's Centres. While the former tended to seek friendly social contact for them and their young children, the latter were often more focused on acquiring language skills.

Furthermore, both CP discussions and published papers questioned the adequacy of short-term, fixed-duration initiatives to address the needs of many individuals, whose isolation and loneliness, and, in some cases, associated mental ill-health, were rooted in complex social and economic circumstances.¹⁶⁴

These insights into individual variation in need highlight the importance of targeting, tailoring (or flexibility) and signposting, as discussed in *Chapter 8*.

Faith and spirituality

Faith (as opposed to religious identity) as a resource that can protect against loneliness was identified by members in two of the CPs. There were no UK intervention papers that explicitly paid attention to this aspect, although some US-based initiatives did. We are aware of initiatives beyond the scope of this project that have been developed in the UK to allow the integration of people's faith (and personal religious resources) into recovery from depression (although these are not directly concerned with loneliness).²⁷¹

Family-level factors

Loss of family ties and support

All of the CPs talked about family ties as being foundational to a person's sense of being supported and belonging. Student CP members talked about the difficulties they faced being a long way from family members who were an important source of emotional and affirmational support. Efforts were made to keep in touch through social media, but time differences and virtual contact did not feel the same as face-to-face interactions for some. These CP members also felt that some relationships were lost, or weakened, irreparably with the passage of time. Loss of family was also a salient theme in the published studies relating to forced migrants:

No, I do not think that here is like Albania, because there are so many things I miss family.

I never lived alone, I am coming from a family where I have five sisters and I always surrounded people, and I was scared of living alone.

*Refugees, Strang et al.*¹⁸⁷ *Reproduced with permission from the Scottish Refugee Council*

Older CP members also talked vividly about the permanent loss that results from being a long-term migrant. This sense of loss related not simply to loss of social relationships, but to a loss of place:

It's not there anymore – it has changed, no longer the close family. Once the parents have gone, you go back to visit and they're not there. House has gone, and no one to share and no memories are left.

CP older persons group

Despite loss of family ties, there was also evidence of active agency on the part of forced migrants. Clayton²⁷² looked at young ethnic minority people in Leicester and found that they were active in maintaining both local and transnational ties that were important in their sense of belonging; multifaceted identities were not necessarily in conflict, and their religious identities were important.²⁷²

Recognition of the importance of maintaining transnational ties, and support to do so, appeared to be limited in UK interventions. A pilot initiative in Sheffield identified by a CP member sought to equip older Chinese people to use smartphones and WeChat (Tencent Holdings Ltd, Shenzhen, China) so that they could connect with relatives in and outside the UK.

Families as sources of stress; negative social support

Both CP discussions and published literature highlighted the importance of recognising that family relationships were not necessarily supportive for migrant and ethnic minority people. Furthermore, given expectations of close family ties and reciprocal obligations, poor family relationships could often be felt very acutely:

But, there is an expectation of having to please your parents. There can be a feeling that you are not pleasing your parents and not living up to their expectations. This can undermine sense of support. In this situation, individuals may be going out and about and connecting with others, but they may still feel isolation and loneliness if parents don't give support to them.

CP working-age group, talking about South Asian women experiencing divorce

In the papers describing psychotherapy and group-based support for women, negative support from spouses, conflict with children and unfulfilled expectations of support were common themes contributing to feelings of isolation and loneliness.^{201,218,250,252}

Consultation panel members who were migrants, both students and those who were working, talked about the way that interactions with family members and close friends 'back home' were not necessarily supportive:

If my mum says to me when I'm feeling frustrated and sad 'Come back to [name of country]', it is very different to her saying 'Oh don't worry, you've just had a bad day, why not go out for a walk?'

CP working-age group member

People could be judgemental, have high expectations and make assumptions about the migrant 'having an amazing time'. This could make migrant individuals less inclined to keep in contact with their relatives and encourage them to conceal their need for support. CP members noted that such expectations can make people feel that they are not achieving, undermine self-worth and increase feelings of isolation:

You are torn between the two. . . . I put it as a negative sort of connection. If you feel that connection is there, you feel you have got that responsibility and the perception is you're scared, you aren't there – land of opportunity, but you are torn – you long for it, you want to hear your mother's voice, but you try, you know, you are torn.

CP student member

There were also disappointments at not being able to share new experiences with close friends:

My girlfriend back in Mexico – I didn't feel lonely by this time – but I was sharing all my new experiences here and for her it was not that exciting because she was in the same routine. I felt lonely because she wasn't sharing with me, this feeling or this emotion.

CP student member

Family members were also found to restrict access to interventions in some cases. Masood *et al.*¹⁶⁴ reported mixed support for South Asian women to attend a group-based initiative, and Gater *et al.*²⁶⁸ identified resistance from family members, particularly husbands, as a 'major hindrance'.²⁶⁸ Gater *et al.*²⁶⁸ noted that family members 'did not recognise depression as meriting outside help and lacked faith in the appropriateness of the intervention', indicating the importance of gaining trust and providing culturally sensitive care.

Family members could also discourage positive cognitive and behavioural shifts among people who were participating in projects aimed at creating positive connections. The Respect and Understanding – Building Inclusive Communities (RUBIC) project¹¹⁶ was described as a multilayered model that tackled attitudes in students' homes, as well as involving students in leadership activities, as this was anticipated to have 'a much deeper impact' than working with young people alone.

Failure to address sources of negative social support may mean that interventions are not successful, as the provision of positive ties may be insufficient to counteract negative ones if they are significant relationships about which the individual holds particular hopes and expectations. However, relatively few of the UK initiatives appeared to actively engage with these issues.

Competing demands and responsibilities

Competing responsibilities and demands were identified as undermining people's abilities to invest in their social relationships, as well as their access to and engagement with interventions.

Housework and child-care responsibilities were highlighted for women. For instance, 'homework' expectations of a group-based psychotherapy initiative were difficult for South Asian women with child-care responsibilities to complete.¹⁶⁴ Similarly, refugee women with children found it difficult to combine child-care responsibilities with the timing of English classes.¹⁸⁷

Consultation panel members suggested that men from migrant communities were also at risk of being socially isolated owing to their felt duty to earn for their families. For instance, many male members of the Chinese community were identified as working long unsociable hours in the restaurant trade, leading to being isolated not only from family, but from the wider community.

Interventional approaches could increase participation by providing child care, and convenient scheduling. In addition, both CP members and published evidence suggested that the content of initiatives is important, in that people may feel able to prioritise, and justify to other family members, activities that provide clear practical skills and knowledge that have value beyond the individual.

Stigma

Felt and enacted stigma relating to feelings of social isolation and loneliness were highlighted in all CP workshops. As noted above, migrant individuals could feel reluctant to admit to family members 'back home' that they needed support, when they were perceived to be the lucky ones.

Consultation panel members felt that men felt particular stigma to admitting feeling unsupported or lacking in social connections, with gendered expectations forcing them to 'man up' and 'suffer in silence'.

At a family level, there can be resistance to individuals, particularly older people, accepting support or engaging in initiatives, because it reflects badly on other family members who have a perceived obligation to meet those needs themselves.

Consultation panel members suggested that initiatives that enable participants to involve their wider family members from time to time, for instance a gardening project, may be more acceptable and also provide a way for the individual to demonstrate competence and to strengthen important family ties.

Interventions that adopted neutral labels, for example 'Thursday night chat', or that were framed in terms of aspects of development could be less stigmatising. As an example, international students may feel embarrassed and illegitimate in devoting time to a support group that takes time away from their studies, but may feel able to join a group that is focused on adapting to life in a new academic environment (which at the same time provides emotional support and companionship).

Neighbourhood and community-level factors

Feeling unwelcome; interpersonal racial harassment

There was a strong and consistent theme of feeling unwelcome:

I feel lonely everywhere, not just in London. People don't like migrants, especially if you have the face of an Arab or a Muslim . . .

I felt remarkably unwelcome in the UK. There was a distinct feeling that you, as a 'foreigner' were not welcome . . .

Refugee participants, Christodoulou.²³⁹ Reproduced with permission from Migrants Organise

More seriously, direct experience, and fear, of racial abuse as something that limits people's social interactions and contributes to feelings of isolation and lack of belonging among both migrants and ethnic minority people was a consistent theme across all CPs and the published literature. In a vivid example, a member of our older people's CP described how someone spat in her face in a local area as she was dressed in her traditional clothes. In another, they described newly arrived migrants in one area of the city running to the bus stop as quickly as possible to evade the torrent of verbal abuse from neighbours. In Gray's⁹⁹ study, the young and the elderly in the Bangladeshi community were found to feel especially vulnerable, with respondents citing multiple incidents of theft and bullying:

I had a mugger who took my money. [. . .] The mugger hit me as well, so I reported it to the police like my family support worker told me to. [. . .] Now I'm afraid to go outside myself and I'm afraid for my son to go outside alone.

Gray⁹⁹

The risk of abuse was exacerbated by poverty. For instance, children attending school in old clothes became a target owing to their 'visible poverty and cultural differences'.⁹⁹

A CP member recounted experiences of neighbour abuse:

I know that when we moved into a bigger house in [name of place] in the centre, our neighbours weren't happy from next door, that a Pakistani family has moved in; 'Our house prices will go down'. They did everything possible to offend us, sort of thing.

CP working-age group

Experiences of racial abuse and harassment were identified as a particular problem for those seeking asylum and refugees. In part, this was identified as being related to having no control over their housing and being housed in areas where other residents hold racist attitudes. In addition, however, the overwhelmingly negative portrayal in the media and politics was felt to be a significant contributing force.

Furthermore, although CP members recognised that skin colour, religious dress and other aspects of appearance can make some migrant and ethnic minority people particularly visible, fear of racism was common among white European migrants also:

I know of someone from Polish origins who told her children not to speak in Polish outside because then they will become easily identifiable.

CP working-age group member

Consultation panel members felt that the prevailing negative racial climate limited people's knowledge, and uptake, of opportunities to engage in activities and programmes aimed at tackling isolation and loneliness. They also expressed concerns that progress towards building self-confidence and a sense of belonging that might be achieved in group-based activities, and other initiatives, can be undermined by negative experiences out and about – themes that resonate with the published evidence on intercultural encounters that are reported in *Chapter 6*.

Although some UK initiatives that were reviewed explicitly engaged with racism, recognising this as part and parcel of migrant and minority experiences, this was uncommon aside from those labelled as intercultural encounters. Notably, recognition of the need to address racism was more prominent in SSGs in the USA than in those in the UK.

Neighbourliness

Importantly, as well as revealing a negative focus on racism, CP members and the published literature also highlighted the positive potential of 'neighbourliness' or 'conviviality', that is the positive, relatively fleeting, encounters between people in public spaces that could contribute to a feeling of being 'at home':¹⁹⁰

Strangers sometimes can be positive social connectives. I can walk down the street and I can talk for England and I would just meet someone and speak to them as though I've known them for years, and just listening to other people and people having a different outlook in life, that can be a positive thing that can uplift you, so it's a positive connective.

CP older persons group

Some interventions appeared to have successfully drawn on this reservoir of goodwill and desire to connect. For example, Refuweegee¹¹⁸ has managed to mobilise very large numbers of people in Glasgow to be part of a welcome initiative for newly arrived refugees.

Confidence in encountering such neighbourliness could, however, be very context specific. Unfamiliar places can make people wary, and undermine the potential for conviviality, as can rapid changes in the make-up of an area:

The university is a safe zone. If I'm within the structure of the university, I can go anywhere. When I'm in the wider city, I don't really fit in. Going for a national insurance number, the vibe was 'what is going on?'. There should be a way to facilitate this with the job centre as a student. Nobody is facilitating you.

CP student group

There are big issues with neighbours. It's changing. People move on. Someone has come next door to me, with a different language. A large influx of Nigerian, Polish, Latvian and other, makes me feel less belonging.

CP older people

Community assets and geographies; natural spaces of encounter and connection

The presence, or absence, of spaces and places for social encounters and connections was highlighted as important.

There were concerns about restricted opportunities for everyday interactions in some localities, such as residential buildings not being conducive to sustained and repeated exposure to neighbours, and missed opportunities during new planning projects to create associational spaces that are open to everyone. Although the notion of self-segregating communities has been challenged, some studies did note the limited opportunities in some parts of the country, particularly for children, to interact routinely across ethnic and religious difference.^{110,127,130,131}

Consultation panel members talked about libraries as important spaces where ‘all sorts of people’ can come together.

Churches and other places of worship were also felt to be important for both established ethnic minority groups and new arrivals as places to feel safe and to connect around a shared religious identity, and, in some cases, a shared ethnic (or national) identity too:

How I met my Jamaicans here in Sheffield is that one Jamaican led to another who led me to another . . . this helped me because she led me to a church and I meet a lot of Jamaicans; the Windrush generation and all that.

CP student group

Sports clubs were also identified as having the potential to bring people together and facilitate new social ties, in some cases across ethnic difference, and in others within self-identifying ethnic or national groups:

I work for [name of place] ethnic minority sports club and we have got 100 women playing sports every week. We've got lots of women coming every Saturday from the Tamil community and playing netball. So that kind of sports element brings them together, groups of women.

CP working-age group

However, as noted in *Chapter 6*, the published evidence on sports activities as sites of positive encounter is mixed, and suggests the importance of facilitation.

Some ethnic communities were identified as lacking permanent community spaces which they could occupy and make their own. For instance, use of a general community venue by Lychee Red, a support group for Chinese older people in Leeds, was felt to be inadequate by members.²⁶⁷

As well as physical meeting places, some CP members identified virtual communities and networks that could provide an important social support and companionship:

It's both. So it's professional in that, so being a woman and being black, in a professional role you're not just a minority, you're a super-minority. . . . [this contact makes] you see yourself or your potential self and it's really inspiring. Other professional elements would be, like, workplace conflicts; I've had this myself, where people say things that are, like, really racist or really sexist and you don't necessarily have the tools to [address this] . . . people know where you're coming from. On a personal level, it's just a nice community for discussion and debate.

CP student group; talking about an online network

Importantly, however, these ‘bottom-up’ places of naturalistic encounter could exclude, as well as include, people. An example was given of a local authority that had intervened to ensure that a local market remained a welcoming space for everyone following the development of interethnic group

tensions and fear among some people around accessing this facility. Some CP student members shared their experiences of not quite fitting into any of the on-campus 'community assets' that were available:

You have that situation where you feel like you don't fit in anywhere.

I think it works both ways . . . In groups, talk can be 'British' in one group and 'Nigerian' in another. May exclude. Too British to be Nigerian and too Nigerian to be British: I don't belong anywhere!

CP student group

Transport

Consultation panel members noted that public transport can be unreliable, and unwelcoming, making people less inclined to venture out of their home. Getting about can be made harder for those who have poor English-language skills, and those who do not drive or have no access to a car. Similar evidence came from some of the published papers:

You find people who don't welcome you and they are really racist and, you know, they abuse you on the bus and, you know, say words. I been, it happens to me, and one time I was really, really upset and I was crying when I went home.

Female participant, Strang et al.¹⁸⁷ Reproduced with permission from the Scottish Refugee Council

Inadequate transport options also hampered people's ability to participate in some initiatives,¹⁶⁴ whereas other initiatives included special provision to facilitate access. For instance, a group-based psychotherapy intervention for Pakistani women provided taxis with a female companion.²⁶⁸ More generally, intervention papers talked about using accessible venues, although this could relate to the identity and familiarity of venues as well as their physical location.

Organisational-level factors

Alienating systems and processes

All CPs identified ways in which official systems and processes frequently act to 'other' and undermine a sense of belonging among migrants and ethnic minority people. A student CP member described experiences of having to deal with visa arrangements, 'reminding me that I am different, not a member of society, do not belong here.' Another CP member described the insensitive processes of the welfare benefit office:

On Fridays, they get Muslim men to come and sign when it is Friday prayer times, exactly, spot-on, that time of the day. These kinds of things, they do get to people.

CP working-age group

And another CP member described poor experiences in a care home:

It's lack of cultural awareness [affecting my wife's end-of-life care]. Different religions . . . [My wife] was at the care home, every day they would send an Anglican priest. She's a Hindu. After a couple of weeks, I said 'you are out of order, my wife's a Hindu, you sending a Christian'. After that they identified a Hindu priest . . . They are not sensitive to the cultural needs of different people. It's a 'one size fits all' so you provide one service to the majority community and the rest have to fall in line. Social services have this problem.

CP older persons group

The negative impact of systems and processes on the self-worth and social connectedness was most significant among those seeking asylum and refugees. The system created demands on their time and sapped energy for building social relationships and engaging in relevant activities.^{21,187,239}

In addition, unstable housing undermined people's ability and motivation to establish social connections; adding to feelings of uncertainty and insecurity:

And my first experience at Heathrow when I ran and I went to the immigration office and I said 'I'm in trouble, I'm seeking protection'. It started from there, the way you are treated is like you are a criminal. You lose total control and you are less human, you are an underclass. And the housing is the same, it compounds, so it's not just having no choice. You get housed in areas where the housing stock is really cheap, poor housing, no aspiration, and you are stuck – no opportunities as well.

CP working-age group

Strang *et al.*¹⁸⁷ found that access to English-language classes (that could support the social connectedness of asylum seekers and refugees) was impeded by the need to attend appointments, particularly immediately after being granted status.

Consultation panel members also noted a reluctance to complain about organisational practices among migrant and ethnic minority people, for fear of repercussions:

It's hard to complain when you're older. If you feel unhappy about the service – feel unable to challenge poor care.

CP older persons group

Staffing: skills, identities and behaviours

Although overt racist discrimination was less commonly identified within organisational settings than out and about at community level, evidence across our sources indicates that the experience of microaggressions is commonplace.

Examples were given of individuals in authority or service-providing positions, through their comments and behaviours, undermining the self-worth of migrant and ethnic minority individuals and contribute to a sense of not mattering, not belonging and not fitting in:^{106,273,274}

You know like they've got to eat restaurant-style and we have to eat with our right hand because the prophet – peace be upon him – ate with his right hand, and that's how we eat. But the schools are telling the kids that they can't do that, and that's confusing for the kids.

CP working-age group

My mum was in a home and you notice others who don't have family or carers. And some carers are not carers, if you know what I mean. Some dread the carer, they want someone who speaks their language and has respect. Some are crying out for help because of loneliness. For the aged, hygiene and incontinency are the big things – they all contribute to loneliness.

CP older persons group

Wilkins and Lall²⁷⁵ found that ethnic minority student teachers experienced stereotypical attitudes among their white peers and that, as teachers, their contribution was often narrowly constructed in terms of their ethnic identity, leaving them feeling isolated and marginalised. Garner *et al.*²⁷⁴ found that poor communication between health-care professionals and West African mothers led to difficulties in understanding needs, and an increased sense of isolation among the women.

In one case, past experiences at a local Children's Centre had been so negative that a support group project had moved to another more neutral venue to encourage attendance and create a positive atmosphere.²⁴⁵

Again, there was consistent evidence to suggest that people seeking asylum and refugees are perceived particularly negatively, and frequently experience microaggressions:

When they assume I'm an international student, here just to study, the reaction, the conversation that you have is totally different. People accept you, you are international, they respect you. Many times . . . I have said I'm still a refugee, it's totally different – the reaction. The judgement comes in, you – you are less important, you are not capable. That's the perception.

CP working-age group

Furthermore, because these individuals typically have few family or friends in the country, insensitive treatment by professionals was felt to be particularly detrimental:

If they do not get the appropriate support from services or even people, it actually knocks their confidence back and then obviously they are not able to actually connect.

CP working-age group

In relation to interventions aimed at tackling isolation and loneliness among migrant and ethnic minority people, as mentioned in *Chapter 6*, some aimed to adopt explicitly culturally competent models.

A further relevant dimension was the creation of volunteering opportunities in initiatives for current or former recipients. This approach could be helpful in diverse ways, providing a wider range of visible ethnic diversity and language skills among providers, as well as opportunities for volunteers to develop skills and self-confidence. Volunteering provided a much-needed opportunity to demonstrate value and reciprocate, key factors in boosting self-worth:¹⁷⁶

Opportunities to help others makes you feel better.

CP older persons group

I feel so empowered to see how far I've come. Not just to be now a service user, it was a little bit of, like, upgrade in life, I felt like.

Black African mentor mother, McLeish and Redshaw²¹⁸

Having volunteers who share the ethnic or migrant identity of potential beneficiaries can also help to develop trust and increase access. McLeish and Redshaw⁹⁶ noted the challenges to building trust among pregnant women, with asylum-seeking women being fearful and suspicious. In that study,⁹⁶ volunteer peer supporters reported that they find it easier to be open with other 'asylum people' and that being non-judgemental helped in forming a close connection.

However, Vickers¹⁷⁶ suggests the need to think carefully about who gets to volunteer when working with refugee (and migrant) groups, as the need for confidence, education and language skills means that opportunities go to people from relatively privileged backgrounds, with the potential to create divisions between these people and refugees who arrive with less human and social capital.

Consultation panel members also raised the issue of negative experiences in workplaces that can undermine self-worth and create a sense of not belonging. In some cases, these experiences were felt to 'spill over', generating more chronic loneliness for some people, particularly those for whom their career is an important part of self-identity. The review of published literature did not identify any initiatives based in workplaces, suggesting an important evidence gap:

In the office that I manage, people ask me for the manager, 'where is the manager?' and that keeps happening. It's like 'how can this African guy be the manager or the in-charge?!'

CP working-age group

Wider society; structural and cultural racism

Dominant UK policy and media narratives

A strong message from CP members was that the wider hostile environment towards migrants (and, by extension, ethnic minority people) seriously undermines people's sense of belonging, and can mean that people do not take up the services and support that are on offer.

Connections to professional staff who might provide support and reduce isolation are compromised because migrants are fearful and find it hard to trust professionals.

Encounters at community level are also undermined. For instance, young Muslims in one study¹³³ reported that, despite their efforts in social action, charity-giving and interfaith involvement, they remain victims of negative media stories. This study also illustrated the way in which 'bridge-building' projects, aiming to create positive ties between people of different faiths and ethnicities, are susceptible to being incorporated into popular and dominant narratives around terrorism and security.¹³³

Ripple effects of 'remote' events

This societal backdrop also means that remote events are felt close to home, and directly affect migrant and ethnic minority people's sense of security and belonging.^{127,130}

Raw¹²⁷ examined a school-linking project around the time of the 2005 terrorist attacks and found that primary school children were directly affected. Muslim children reported feeling scared ('I don't know if they might be angry with us'), and white British children expressed mistrust ('suspicious of brown people now').¹²⁷

Intersecting risks

The sections above include some examples of intersectionality identified by CP members. The interplay of ageism and racism is highlighted for older people, while sexism and racism were simultaneously experienced by female CP student members who referred to being a 'super-minority'.

In addition, CP group discussions and published evidence suggest that there are some subgroups of individuals who had particular sets of attributes and circumstances that suggested very high levels of risk for isolation and loneliness: those not granted asylum; unaccompanied minors; older asylum seekers; LGBT+ asylum seekers; asylum seekers with mental ill-health, HIV or other stigmatised conditions; undocumented migrants; ethnic minority people who experienced intimate partner violence or had extensive caring responsibilities; and members of small, low-skilled, dispersed communities.

In the above cases, individuals were often detached from, and faced obstacles to forming, connections both with people they recognised as sharing their ethnic identity and across ethnic difference.

A vivid example was provided by Selman *et al.*,²⁷⁶ who described the experiences of Somali parents of children with autism who faced stigma and isolation. These people found themselves with an absence of supportive family ties, obstacles to co-ethnic ties (stigma, lack of understanding, fear of 'gossip', lack of trust), rejection by white/majority society and dependence on inadequate services and professionals.

Chapter 8 Current UK approaches and potential new directions

Introduction

This chapter addresses the following research questions:

- To what extent do current interventional approaches address the known determinants of social isolation and/or loneliness among migrant and/or ethnic minority people? Where are the gaps?
- What system conditions support or hamper successful and sustained implementation?
- What are the costs associated with such interventions?
- What implications are there for roll-out at scale in the UK?

We take a UK-focused approach in this chapter, drawing on the published and grey literature relating to the UK, as well as insights from the CP workshops, and the final practitioner workshop.

Provision versus need

Table 10 provides a preliminary assessment of the nature of deliberate intervention in the UK, in comparison to the identified risk factors for isolation and loneliness. It is not possible to comment on the adequacy of the volume of provision with the data we had to hand. Rather, the aim is to flag up any causes or interventional strategies that might, so far, be overlooked.

TABLE 10 Preliminary assessment of provision in response to need for initiatives, UK picture

Underlying causes	Promising [and possible] interventional strategies	UK activity volume (initial assessment from published and grey literature)
<i>Few positive social ties and interactions</i>		
Lack of bonding ties, opportunities for authentic social activity	<ul style="list-style-type: none"> • Provide spaces of ethnocultural celebration and validation (SSGs) 	Some
Unfulfilled desires to build interethnic ties	<ul style="list-style-type: none"> • Create spaces for, or provide, bridging ties (intercultural encounters) • Equip with cultural and communication skills (intercultural encounters; education and/or training) 	Some
Separation from family members	<ul style="list-style-type: none"> • Provide training in, and access to, digital technologies • (Support family reunification) (bereavement counselling) 	Few
Lack of resources, competing demands, inadequate transport to take up opportunities	<ul style="list-style-type: none"> • Direct provision of resources to support attendance (SSGs, education and/or training, meaningful activity) 	Few
Fear, low confidence, lack of mobility, poor health	<ul style="list-style-type: none"> • Provide one-to-one intimate tie of trust (befriending) 	Some (mainly for women, older people, asylum seekers or refugees)

continued

TABLE 10 Preliminary assessment of provision in response to need for initiatives, UK picture (continued)

Underlying causes	Promising [and possible] interventional strategies	UK activity volume (initial assessment from published and grey literature)
Negative ties and interactions		
Stressful family relationships	<ul style="list-style-type: none"> • Equip with social and communication skills (psychotherapy, befriending, SSGs) • (Family therapy) 	Few (for women)
Overt racism in day-to-day interactions	<ul style="list-style-type: none"> • Provide safe spaces to discuss and develop coping strategies (SSGs, befriending) • [Buffer with neighbourliness (intercultural encounters)] • [Reduce prejudice and associated behaviour – little evidence (intercultural encounters)] 	Few Some (uncertain impact)
Microaggressions, particularly from significant others, for example peers, teachers, service providers, bus drivers	<ul style="list-style-type: none"> • [More inclusive and culturally competent services and organisations] 	Few
Low or precarious self-worth		
Lack of familiarity with context	<ul style="list-style-type: none"> • Provision of information, skills and navigational support (SSGs, education and/or training, befriending, intercultural encounters) 	Few (mainly for asylum seekers/refugees, pregnant women)
Change/transition: social roles and confidence undermined	<ul style="list-style-type: none"> • Opportunities to show value and competence; reciprocity (SSGs, volunteering) 	Some
Experience of negative ties and interactions	<ul style="list-style-type: none"> • As above 	As above
Negative appraisal of existing ties and relationships		
Lack of familiarity with sociocultural context; misinterpretation of cues and exchanges	<ul style="list-style-type: none"> • Equip with understanding and communication skills (befriending involving bridging tie; intercultural encounters; education and/or training) 	Few
'Stereotype threat' – expectation of negative interactions	<ul style="list-style-type: none"> • Support positive thinking about social interactions (light-touch psychological intervention) 	None
Loss of significant relationships	<ul style="list-style-type: none"> • Engagement in fulfilling activities; reduced rumination (SSGs; meaningful activity; psychotherapy) 	Some
Note		
Promising strategies are those for which there was evidence to support them being effective at affecting proximate determinants; possible strategies are those that might, in theory, be effective, but were not covered by any interventions in the present review.		

Several approaches seem to be adopted relatively rarely in relation to our population groups of interest: direct transfer of resources to support social participation; provision of safe spaces to discuss and develop coping strategies for racism; provision of information, skills and navigational support for new contexts; and equipping people with social and communication skills (e.g. via psychoeducation approaches). Providing training in (and access to) digital technologies was also rarely reported in the published and grey literature that we accessed. However, our approach may have overlooked relevant initiatives of this type if they were badged in terms of 'digital literacy' rather than in terms of enhancing social connectedness. Furthermore, CP discussions suggested that this type of initiative may be on the rise, and newer initiatives may not yet be documented in a way that would have been picked up by our searches.

In addition, our search strategies found no evidence of any initiatives in the UK that employ light-touch psychological interventions to support positive thinking about social interactions; this is a strategy that appears to have shown some success in relation to increasing sense of belonging among minority students in educational institutions in the USA.

We found no evidence in our data of strategies that are effective in tackling overt racism, or increasing the cultural competence of organisations, with knock-on positive implications for our proximate determinants or outcomes. And, although we identified a large and varied set of 'intercultural encounter' initiatives in the UK, none provided strong evidence of impact.

Towards a systems approach

Consultation panel discussions and the practitioner workshop highlighted the disjuncture between the published literature, which tended to focus narrowly on individual initiatives, and the reality of a complex system in which individuals may encounter diverse provision, as well as other resources and processes, that support or hamper their social connectedness. The need to identify whether or not and how interventions, wider services and community assets work together to protect against, and reduce, loneliness, among migrants and ethnic minority people was emphasised. We developed a visual representation of a potential systems approach to 'loneliness-proofing' that was shared and refined during the practitioner workshop (*Figure 6*). Several broad considerations were highlighted, as briefly discussed in the following sections.

Targeting and tailoring

Recognising the multifaceted nature of loneliness and its underlying causes, the importance of targeting and tailoring initiatives was highlighted. Enabling people to identify their own needs and select from a menu of support options was suggested. Recognising that people may have multiple needs was also identified as important by CP members and practitioner workshop participants. Published research provided supporting evidence. For instance, Strang *et al.*¹⁸⁷ noted that refugees report high levels of social connections with friends and family, and yet still express a strong sense of homesickness and loss at being apart from close family members, suggesting that certain needs were unmet. In *Chapter 6*, we presented evidence that tended to support the contention that interventions that target underlying causes of loneliness are more effective, on average, than those that do not, whether these be carefully tailored approaches or approaches that are multifaceted, allowing a range of potential underlying causes to be addressed.

A further important dimension was the importance of working with, rather than against, people's existing social ties and connections. The importance of recognising the ways in which interventions can inadvertently undermine existing ties was noted, as well as the need to support people to protect, rekindle and strengthen ties when they can. This was a theme found across our consultation work and the published literature, although many intervention designs were not explicit in terms of these considerations.

Signposting and referring

Linked to targeting and tailoring is the importance of signposting people to appropriate provision.

Concerns were expressed in published literature and CP discussions that, although initiatives may be beneficial to those who are involved in them, those most in need of support often remain unreached (see *Chapter 7*). In addition, there was evidence that fixed-term interventions can be problematic if they do not include effective ways of linking beneficiaries to more sustainable social networks and sources of support.^{96,164,218}

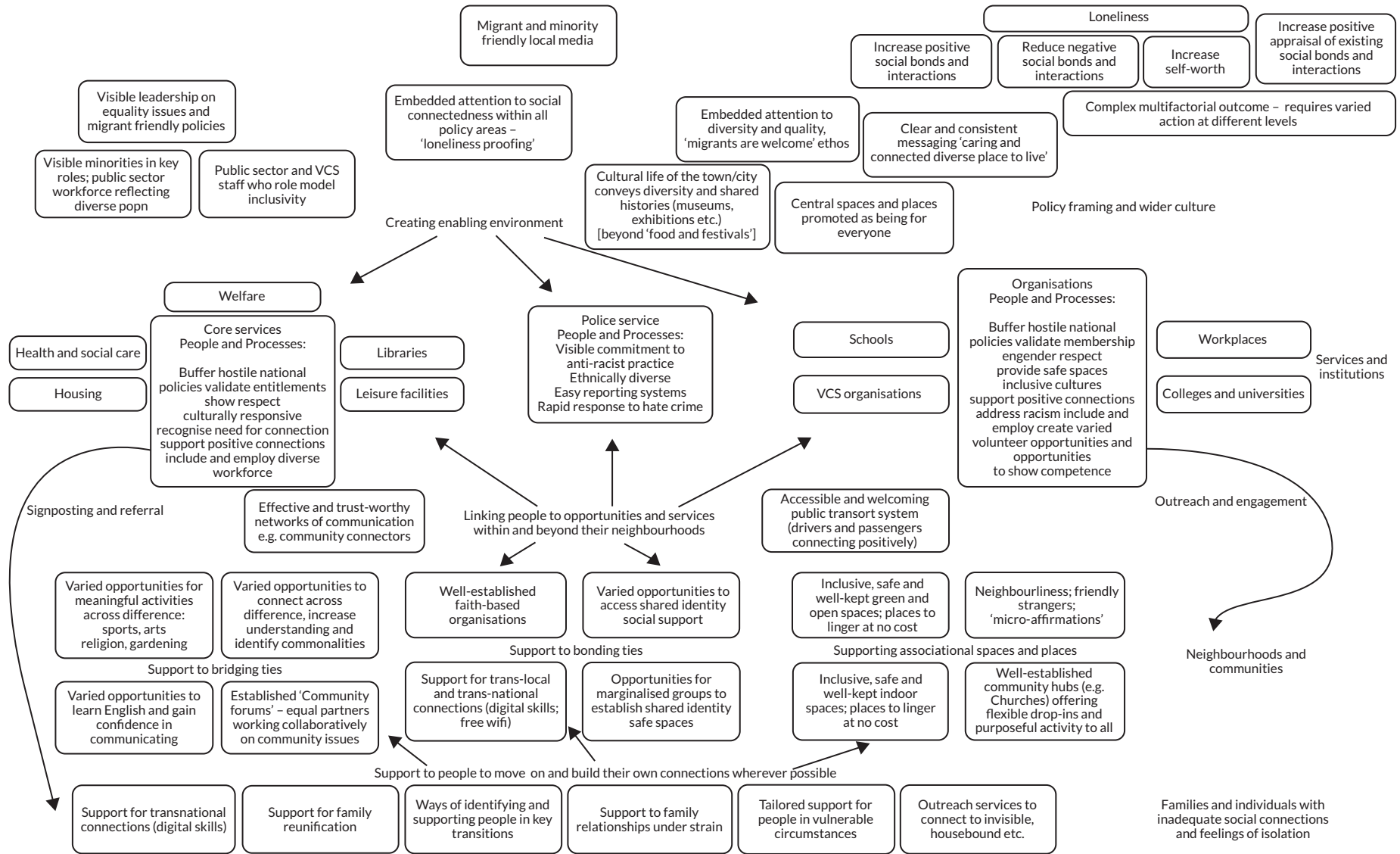


FIGURE 6 Generic systems map: 'loneliness-proofing'. VCS, Voluntary and Community Sector.

There were some examples in the published literature of good partnership-working that supported the identification and signposting of migrant and/or ethnic minority individuals in need of support.^{104,190,192}

However, a common theme at our practitioner workshop was that professionals, as well as community members, had inadequate knowledge of available resources and services in their local area that could meet the needs of migrant and ethnic minority people. There was a need for better communication across organisations. Furthermore, some people felt that signposting and partnership-working had deteriorated in recent years as funding had been cut and third-sector organisations increasingly felt that they were in competition with each other. White British practitioners, who were in the majority at our workshop despite its focus, also felt ill-informed about community assets that could be relevant to minority individuals, further underscoring the importance of improved links to community-based organisations that serve these populations.

Embedding and diversifying

A further theme was the importance of recognising that people have very varied preferences, and that there is therefore a need for varied provision. CP members told us that not everyone will want to join a 'group' and 'not everyone wants to do gardening!'. It was also pointed out that lots of existing activities and community assets are already protecting against loneliness, such as churches and other places of worship, but that these are not necessarily well supported financially or recognised for their contribution.

Furthermore, a wider range of activities that could have the potential to make an impact are currently overlooked when the issue of loneliness is under consideration. CP members and workshop participants felt that there was work to be done to ensure that public spaces and generic activities (e.g. leisure spaces, libraries) were more conscious of promoting positive social connectedness in general, and more inclusive and welcoming to migrants and ethnic minority people in particular. Positive examples were given as possible role models.

Engaging local people

As noted in *Chapter 7*, 'neighbourliness' appears to play an important role in boosting people's sense of belonging. CP members, and some published papers, provided examples of how local people had been effectively engaged in initiatives aimed at welcoming newcomers,^{118,253} as well as some intercultural encounters involving diverse, established communities. School and university students have also been engaged in some relevant projects, although we found no evaluations in the UK literature. These examples raise the possibility of untapped potential for addressing loneliness among our population groups of interest.

Challenging aversion to ethnic-specific provision

A further theme that arose across the data sources was the aversion in current UK policy at both local and national levels to investing in initiatives that are seen as serving only one particular community. There is an important tension between the demonstrated need for opportunities to build and celebrate intraethnic 'bonding' ties, and policy orientations that consider such ties to be threatening, and seek instead to prioritise bridging ties across difference.¹⁹⁰

Most participants in our practitioner workshop felt that they were currently expected to design initiatives that are 'for everyone'. This policy stance did, however, appear to vary somewhat across localities. For instance, the evaluation by Wigfield and Alden²⁶⁷ suggested that, in Leeds, several ethnic-specific initiatives had been supported, and well received, in recent years as part of the Time to Shine programme.

Costs, resources and funding regimes

Very little information was presented on costs of interventions in the published UK evaluations, and there were no assessments of cost-effectiveness.

A large number of the reported initiatives involved volunteers in their provision, suggesting that such initiatives may represent good value for money. On the other hand, in a few cases, authors reported that initiatives were relatively expensive compared with provision for other groups because of the need for 'culturally sensitive' additions.²⁶⁸

Consultation panel members and participants in the practitioner workshop bemoaned the commonly short-term funding regimes that were currently in place, making it difficult to sustain provision, and the small amounts of money that were devoted to tackling complex individual and neighbourhood issues:

In the 80s, there were about 20 luncheon clubs. We are not holding luncheon clubs anymore. It's cut, cut, cut. The elderly will end up in hospital then, costing more money . . .

CP older persons group

There was evidence in the grey literature too that initiatives commonly involved small investments and were not sustained.²⁴⁵ For instance, in the intercultural pilots evaluated by Wilson and Zipfel,¹²¹ areas were provided with just £7000 to cover project management and £3000 for actual activities in the neighbourhood. Practitioner workshop participants reported that levels of investment in community-level activities were low, and expectations of rapid improvements unrealistic.

Chapter 9 Limitations, implications and conclusions

In drawing out implications and conclusions from the present project, several limitations should be acknowledged both in terms of the research design and execution, and in relation to the evidence base currently available for synthesis.

Limitations of the research

Searching and literature retrieved

We adopted a broad and inclusive approach to searching and screening relevant literature. Nevertheless, there was a need for a manageable approach. We opted to restrict our searching to a smaller number of electronic databases than originally planned in the protocol, as the initial yield from three databases was high. In keeping with the theory-informed approach, we decided that an iterative approach using citation follow-up and targeted searches was a more appropriate use of available resources. It is, of course, possible that this design decision resulted in some relevant evidence being overlooked.

In addition, we opted not to include search terms related to religion or religious identity, but, instead, to focus on those related to ethnicity, race and migration. This may have resulted in some relevant material not being captured. CP discussions highlighted the importance of faith to many ethnic minority people.

Furthermore, there may be material residing in other literatures (e.g. relating to health promotion, how to tackle racism, build social capital and community assets, and enhance cultural competence of organisations) that is not explicitly linked through to our proximate determinants or outcomes, and so was not picked up through our searches.

Our assessment of gaps in current UK provision is likely to be compromised by under-reporting of activity in grey and published literature. This may be a particular problem for short-term initiatives targeted at our population groups of interest. We suspect many missed opportunities to document initiatives and to learn about intervention processes and outcomes.

Consultation panels

We believe that the CPs were successful; feedback from participants was overwhelmingly positive. CP involvement importantly shaped the research findings. Nevertheless, we acknowledge that earlier engagement, and a greater depth of participation, would probably have been even more valuable. For instance, earlier engagement might have led us to include religious search terms in our database searches. Employing Cook *et al.*'s⁵⁰ framework, we achieved variable levels of participation across the project life cycle, including 'compliance', 'consultation' and 'co-operation'. Importantly, however, we also noted the emergence of significant new understanding (characteristic of Cook *et al.*'s⁵⁰ 'co-learning' participation level), although this was not within a framework of action-planning in the current project. Failure to establish a London CP, as originally intended, was also a limitation, as this might have offered complementary insights to those from the panels convened in Leicester and Sheffield.

Limitations of the evidence base

Overall, the number of UK papers was small and the quality inadequate. None of the quantitative outcome papers were UK based. Although the use of CP workshops and our synthesis of UK grey literature provided useful complementary evidence, generalisations of findings to the UK context are inevitably cautious.

Testing the causal chains in the logic models was not always possible, as the level of detail provided on interventional content and causal pathways was very varied across the papers, making it difficult to characterise inputs and processes in several cases. There were few quantitative data available on causal chains and moderating factors.

Assessment of the effectiveness of interventions was compromised by study quality. Quantitative papers were generally assessed as being of moderate to low quality, with no studies employing RCTs that had a low risk of bias. Most studies had short periods of follow-up, a serious shortcoming also identified in a 2018 general review of loneliness interventions.⁵⁶

A further limitation across both UK and non-UK literatures was the lack of attention to differential access to, and experiences and outcomes of, interventions between population subgroups. Linked to this, very few papers examined intersectionality; that is, the way in which multiple dimensions of individual identity and social location may interplay to create particular disadvantage and risk.²⁷⁷ *Chapter 7* identified some population subgroups that have such 'intersecting risks', but the volume of literature was low. Attention to migration histories and sociocultural contexts was also absent in much of the intervention literature, and there were few studies that demonstrated meaningful involvement of affected populations in the design of the initiatives being evaluated.

Implications for practice

Several implications for UK practice emerge from the knowledge generated through this study. These include opportunities to think differently about the nature of loneliness and its potential solutions, as well as promising avenues to improve existing interventional approaches and develop innovative ways of addressing loneliness among migrant and ethnic minority people.

Conceptualising loneliness

Study findings support the complex nature of loneliness and the importance of recognising its multiple dimensions: emotional loneliness (lack of intimacy); social loneliness, (lack of) sense of belonging, feeling isolated; and feeling unsupported.

Study findings demonstrate the utility of the four proximate determinants model to thinking about the routes to reducing or protecting against loneliness: increase positive social ties and interactions, reduce negative social ties and interactions, increase self-worth, and enhance positive appraisal of existing social ties and interactions:

- Those designing or commissioning loneliness strategies and interventions for local populations may find the model useful in understanding the aetiology of loneliness and potential avenues for action.
- Practitioners seeking to prevent or reduce risk of loneliness among individuals could use the model in identifying underlying causes/risks and tailoring solutions.

Understanding interventions

Study findings demonstrate the value of identifying the functions of interventions, and their intended pathways of effect, rather than focusing narrowly on the superficial form that they take.

Logic models developed for befriending and SSG interventions were well supported by the evidence. Several of the causal chains identified were also demonstrated in other intervention types:

- Those designing or commissioning interventions may find these models helpful in assessing the probable success of proposed or existing initiatives by determining whether or not functions and causal pathways are achieved.

Study findings suggest that interventions that target the proximate determinants of loneliness are more effective than those that do not:

- Those designing or commissioning interventions may find it useful to assess whether or not interventions are likely to be successful in targeting the proximate determinants via tailoring to the particular identified risk factors of a group of beneficiaries; being flexible enough to enable attention to individual risk factors; or involving multiple components that link to all, or most, of the proximate determinants.

Study findings support the assertion that interventions that explicitly aim to boost self-worth are more effective than those that do not:

- Those designing or commissioning interventions may find it useful to assess whether or not interventions integrate components that directly enhance self-worth (e.g. opportunities to reciprocate, to demonstrate competence, to build confidence via new skills) and/or enable user involvement and a sense of ownership, while avoiding overburdening users.

Findings demonstrate that experiencing negative social ties and interactions is common among migrant and ethnic minority people. There was also some evidence that interventions that fail to address this proximate determinant are ineffective at reducing loneliness:

- Those designing or commissioning interventions can assess whether or not interventions are adequately combating negative social ties and interactions when they contribute to loneliness among recipients.

Enhancing existing approaches

Shared-identity social support groups

Findings demonstrate that SSGs can be effective across diverse contexts and participants, and identify characteristics of successful initiatives:

- To enhance success, those designing, commissioning and delivering SSGs can consider ways to ensure that members feel safe and can 'be themselves'; to cultivate shared identity and reciprocity among members; to provide non-judgemental facilitation and ethos; to enable activity that is regarded by group members as both enjoyable and purposeful; to provide opportunities for members to demonstrate their competence and value; to allow members to shape content and format; to support (rather than undermine) pre-existing social ties, particularly family relationships; and to include activity to buffer the wider hostile context.

Findings suggest that migrant and ethnic minority people value social connections both within and across the ethnic group that they identify with. Findings also highlight the importance of building co-ethnic bonding ties and engaging in authentic social activity, and suggest limited support to do so in the UK context:

- Those designing, commissioning and delivering initiatives to combat loneliness may find it helpful to consider whether or not available SSGs (e.g. groups, centres, programmes) provide adequate spaces and opportunities for minority ethnocultural celebration and validation.

Befriending

Findings suggest that some befriending initiatives are successful, but that others fail to achieve the distinctive function of 'one-to-one tailored support', and also that there are some potential downsides.

However, such one-to-one support may be essential for people in highly vulnerable circumstances. Characteristics of more successful initiatives were highlighted:

- To enhance success, those designing, commissioning and delivering befriending initiatives can consider ways to ensure that befriendees feel heard, affirmed and encouraged; to allow responsiveness to individual needs and preferences; to provide opportunities to demonstrate value and competence; to equip befriendees with skills and resources to build wider social ties; and to address negative (or unfulfilled) social ties.
- To avoid negative effects, those designing, commissioning and delivering befriending initiatives can consider ways to carefully match befrienders and befriendees; to ensure shared understanding of the nature of the relationship; to attend to and reduce power asymmetry; to focus on building befriender self-worth; and to allow flexible endings and/or create links to onward sustainable sources of support.

Intercultural encounters

There is some evidence to suggest that intercultural encounter initiatives may have the potential to positively affect dimensions of loneliness, but that they are currently not optimised in terms of these outcomes. Findings suggest that intercultural encounter initiatives are often too short term and limited in scope to achieve their goals:

- Those designing, commissioning and delivering intercultural encounter initiatives could usefully consider (1) how they could more effectively incorporate functions from SSGs shown to address the proximate determinants of loneliness among migrant and ethnic minority people, (2) how to maximise learning from practice regarding ways to positively shift attitudes and behaviours towards 'other groups' and (3) longer-term investments with careful monitoring of a wider range of individual and collective impacts.

Other interventional approaches

Study findings indicate that interventions that are narrowly focused on equipping participants with skills or knowledge intended to support social connectedness are unlikely to be successful for most people at risk of loneliness:

- Those designing, commissioning and delivering interventions aimed at equipping/training can usefully consider ways to ensure that the skills and information are those that participants themselves identify as needed, to provide opportunities for positive social connections, to incorporate elements that can boost self-worth (opportunities to show competence and value and build self-confidence), and to recognise and counter negative interactions as part of the migrant/minority experience.

Wider system factors and opportunities for action

The study co-produced with practitioners and CP members a 'loneliness-proofing' diagram (see *Figure 6*) that highlights meso- and macro-level processes that influence the risk of loneliness:

- Those designing or commissioning loneliness strategies and interventions for local populations may find the diagram useful for mapping current activity, identifying gaps and highlighting opportunities for more impactful action.

Findings suggested a number of areas in which current UK activity appears to be low:

- Those designing or commissioning loneliness strategies and interventions for local populations may consider whether or not action is needed to reduce exposure to negative social interactions (e.g. provision of safe spaces); create associational spaces where people can mingle free of charge; engender neighbourliness among multiethnic communities; address the lack of material resources

and poor access to transport that can undermine social connections for some; equip people with skills to improve social relationships; provide training in, and access to, digital technologies to connect across distance; eliminate microaggressions from significant others (e.g. teachers, bus drivers and service providers); provide information, skills and navigational support for people new to their social context; and improve collaboration, signposting and referral between services and resources.

- Local policy-makers may also find it helpful to consider whether or not broader policy-framing and culture creates (or undermines) an enabling environment in which to tackle loneliness among migrant and ethnic minority groups, and whether or not the contributions of core services and anchor institutions are clear.

Implications for research

Focusing on the UK evidence base relating to migrant and ethnic minority populations, there is a need for research to:

- co-produce interventional approaches with migrant and ethnic minority people that address the underlying nature and causes of loneliness among these populations (while allowing for heterogeneity and intersectionality)
- evaluate existing interventions that are being delivered, particularly SSGs, intercultural encounters and multicomponent programmes, by combining careful articulation of intervention logic with rigorous outcome measurement over longer periods of follow-up
- explore the feasibility, acceptability and impact of interventions currently rare in the UK, including digital technologies, social and communication skills, direct provision of material resources, and light-touch psychological interventions (in institutional settings)
- synthesise evidence on approaches to tackling racism at interpersonal, structural and cultural levels and their impact on loneliness and other health outcomes
- examine social connectedness and loneliness as outcomes in evaluations of a wider range of activity, including workplace well-being programmes, transport, housing, sport and physical activity, family support and parenting programmes and psychotherapy, that have the potential to have a positive or negative impact on loneliness
- examine the role of faith-based organisations, and the role of faith and spirituality, in protecting against loneliness
- understand more about the role of individual 'appraisal of existing relationships' in the production of loneliness and viable strategies for affecting this proximate determinant
- examine workplaces of various types as a social sphere in which the risk of loneliness may be exacerbated (or indeed mitigated) for migrant and ethnic minority people.

The present study has demonstrated the value of combining a review of published research with active involvement of members of the public; we suggest that future evidence syntheses can learn from the approaches developed here. We also suggest that the logic models developed for common interventional approaches can be used to guide future research.

Conclusions

Common conceptualisations of 'loneliness' can be usefully extended to recognise four proximate determinants when focusing on migrant and ethnic minority populations: (1) positive social ties and interactions, (2) negative social ties and interactions, (3) self-worth and (4) appraisal of existing ties.

A wide variety of interventions have been introduced that have the potential to affect loneliness among these groups, the majority operating via proximate determinants 1–3. Befriending, SSGs and

intercultural encounters were the most common types. It was possible to develop credible programme theory for the first two of these types, but logic was more tentative for the third.

Evaluation of intervention processes and outcomes was limited by study content and quality. Evidence of positive outcomes was strongest for SSGs. Evidence indicated that some befriending initiatives were successful, but others failed to achieve important elements of the model. Few intercultural encounter studies reported relevant outcomes, although some did provide some evidence of improvement in relevant outcome measures. There was very little evidence relating to long-term impacts for any of the initiatives.

An interlocking set of factors operating at individual, family, community, organisational and wider societal levels produce risk of loneliness, and undermine access to, and impact of, interventions. Interpersonal, structural and cultural racism operate in various ways throughout the system to produce the risk of loneliness.

Overall, the UK evidence base is limited and of inadequate quality. Although a large number of UK initiatives are evident in the grey literature, many appear to be short-lived and remain unevaluated. Activity also often appears to be unco-ordinated. Some interventional strategies that have shown promise elsewhere appear to be rarely adopted in the UK.

A more holistic, systems approach to 'loneliness-proofing' for these groups is suggested. This would involve: targeting and tailoring interventions to individual needs, provision of a varied range of formal and informal opportunities for social connection both within and across ethnic groups, effective signposting and referral between agencies, engagement of the general public to increase neighbourliness, and concerted efforts to tackle racism and improve cultural competence in organisations.

Acknowledgements

University of Sheffield

- Emma Everson Hock: risk-of-bias assessment of quantitative papers.
- Edanur Yazici: grey literature extraction and CP workshop facilitation.
- Sarah Baz: grey literature extraction and CP workshop facilitation.
- Natalie Bennett: CP workshop facilitation.
- Jean Hamilton: statistical advice.
- Katie Powell: protocol development.
- Sarah Crede: CP workshop note-taking.

Advisory group members

- Soo Downe, University of Central Lancashire.
- James Nazroo, University of Manchester.
- Jabeer Butt, Race Equality Foundation.
- Ghazala Mir, University of Leeds.
- Annmarie Connolly, Public Health England.
- Isabella Goldie, Mental Health Foundation.
- Janet L Harris, University of Sheffield.
- Karen Barker, Red Cross.
- Mark Petticrew, London School of Hygiene and Tropical Medicine.
- Olivia field, Red Cross.
- Samir Jeraj, Race Equality Foundation.
- Andrea Wigfield, University of Sheffield.
- Susan Cooke, Red Cross.

Consultation panel members and organisers

Shahid Ali, Zanib Rasool, Edyta Banczer, Ursula Myrie, Yvonne Witter, Bereket Loul, Karen Tsui, Nighat Khan, Rodrigo Edema, Pauline Yau, Jean-Marie Minani, Alan Lo, Nupur Chowdhury, Prithvi Venkateswaran, Arturo Serratos De Vecchi, Hareen De Silva, Christy Braham, Pamela Campbell-Morris and Rohini Corfield.

We acknowledge the contribution of all the CP members who did not wish to have their names included in this report, but who contributed to the research. We would also like thank Vinod Kotecha and Anil Gohil, Confederation of Indian Organisations in Leicester, The Race Equality Centre in Leicester and Yvonne Witter and colleagues of Darnall Well Being, Sheffield, for their valuable assistance in the organisation of the panel workshops.

Others

- Laura Evans, Nifty Fox Creative: creation of visual outputs for dissemination and consultation events, and running the final consultation workshop.
- Jo Reynolds, Sheffield Hallam University: grey literature identification and extraction.

Contributions of authors

Professor Sarah Salway (<https://orcid.org/0000-0002-7688-5496>) (Professor of Public Health): study conceptualisation, data generation, analysis, interpretation and report-writing.

Dr Elizabeth Such (<https://orcid.org/0000-0003-2242-3357>) (Research Fellow): study conceptualisation, data generation, analysis, interpretation and report-writing.

Dr Louise Preston (<https://orcid.org/0000-0001-7477-4517>) (Senior Research Fellow): study conceptualisation, data generation, analysis and report-writing.

Dr Andrew Booth (<https://orcid.org/0000-0003-4808-3880>) (Reader in Evidence Based Information Practice and Director of Information, ScHARR): study conceptualisation, interpretation and report-writing.

Dr Maria Zubair (<https://orcid.org/0000-0001-9199-6576>) (Research Associate): data generation and analysis; review of final report.

Professor Christina Victor (<https://orcid.org/0000-0002-4213-3974>) (Professor of Gerontology and Public Health): study conceptualisation, interpretation, review of final report.

Professor Raghu Raghavan (<https://orcid.org/0000-0002-3346-0877>) (Professor of Mental Health): study conceptualisation, data generation, review of final report.

Data-sharing statement

This is an evidence synthesis study focusing primarily on qualitative evidence; therefore, the data generated are not suitable for sharing beyond those contained in the report. Further information can be obtained from the corresponding author.

References

1. Zavaleta D, Samuel K, Mills C. *Social Isolation: A Conceptual and Measurement Proposal*. Working paper 67. Oxford: Oxford Poverty and Human Development Initiative, University of Oxford; 2014. <https://doi.org/10.35648/20.500.12413/11781/ii029>
2. Masi CM, Chen HY, Hawkey LC, Cacioppo JT. A meta-analysis of interventions to reduce loneliness. *Pers Soc Psychol Rev* 2011;**15**:219–66. <https://doi.org/10.1177/1088868310377394>
3. Tzouvara V, Papadopoulos C, Randhawa G. A narrative review of the theoretical foundations of loneliness. *Br J Community Nurs* 2015;**20**:329–34. <https://doi.org/10.12968/bjcn.2015.20.7.329>
4. Rook KS. Promoting social bonding: strategies for helping the lonely and socially isolated. *Am Psychol* 1984;**39**:1389. <https://doi.org/10.1037/0003-066X.39.12.1389>
5. Courtin E, Knapp M. Social isolation, loneliness and health in old age: a scoping review. *Health Soc Care Community* 2017;**25**:799–812. <https://doi.org/10.1111/hsc.12311>
6. Cacioppo JT, Hughes ME, Waite LJ, Hawkey LC, Thisted RA. Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. *Psychol Aging* 2006;**21**:140–51. <https://doi.org/10.1037/0882-7974.21.1.140>
7. Luo Y, Hawkey LC, Waite LJ, Cacioppo JT. Loneliness, health, and mortality in old age: a national longitudinal study. *Soc Sci Med* 2012;**74**:907–14. <https://doi.org/10.1016/j.socscimed.2011.11.028>
8. Holwerda TJ, Beekman AT, Deeg DJ, Stek ML, van Tilburg TG, Visser PJ, *et al*. Increased risk of mortality associated with social isolation in older men: only when feeling lonely? Results from the Amsterdam Study of the Elderly (AMSTEL). *Psychol Med* 2012;**42**:843–53. <https://doi.org/10.1017/S0033291711001772>
9. Newall NE, Chipperfield JG, Bailis DS, Stewart TL. Consequences of loneliness on physical activity and mortality in older adults and the power of positive emotions. *Health Psychol* 2013;**32**:921–4. <https://doi.org/10.1037/a0029413>
10. Steptoe A, Shankar A, Demakakos P, Wardle J. Social isolation, loneliness, and all-cause mortality in older men and women. *Proc Natl Acad Sci USA* 2013;**110**:5797–801. <https://doi.org/10.1073/pnas.1219686110>
11. Caspi A, Harrington H, Moffitt TE, Milne BJ, Poulton R. Socially isolated children 20 years later: risk of cardiovascular disease. *Arch Pediatr Adolesc Med* 2006;**160**:805–11. <https://doi.org/10.1001/archpedi.160.8.805>
12. Thurston RC, Kubzansky LD. Women, loneliness, and incident coronary heart disease. *Psychosom Med* 2009;**71**:836–42. <https://doi.org/10.1097/PSY.0b013e3181b40efc>
13. Shankar A, McMunn A, Banks J, Steptoe A. Loneliness, social isolation, and behavioral and biological health indicators in older adults. *Health Psychol* 2011;**30**:377–85. <https://doi.org/10.1037/a0022826>
14. Shankar A, McMunn A, Demakakos P, Hamer M, Steptoe A. Social isolation and loneliness: prospective associations with functional status in older adults. *Health Psychol* 2017;**36**:179–87. <https://doi.org/10.1037/hea0000437>
15. Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLOS Med* 2010;**7**:e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
16. Hall-Lande JA, Eisenberg ME, Christenson SL, Neumark-Sztainer D. Social isolation, psychological health, and protective factors in adolescence. *Adolescence* 2007;**42**:265–86.

17. Eastwood JG, Jalaludin BB, Kemp LA, Phung HN, Barnett BE. Immigrant maternal depression and social networks. A multilevel Bayesian spatial logistic regression in South Western Sydney, Australia. *Spat Spatiotemporal Epidemiol* 2013;**6**:49–58. <https://doi.org/10.1016/j.sste.2013.04.003>
18. Durcan D, Bell R. *Local Action on Health Inequalities: Reducing Social Isolation across the Lifecourse*. London: Public Health England, UCL Institute of Health Equity; 2015.
19. Salway S, Platt L, Chowbey P, Harriss L, Bayliss E. *Long-term Ill Health, Poverty and Ethnicity*. Bristol: Policy Press; 2007.
20. Victor CR, Burholt V, Martin W. Loneliness and ethnic minority elders in Great Britain: an exploratory study. *J Cross Cult Gerontol* 2012;**27**:65–78. <https://doi.org/10.1007/s10823-012-9161-6>
21. Strang A, Quinn N. *Integration or Isolation? Mapping Social Connections and Well-being Amongst Refugees in Glasgow*. 2014. URL: <https://eresearch.qmu.ac.uk/bitstream/handle/20.500.12289/4139/eResearch%25204139.pdf?sequence=1%26isAllowed=y> (accessed 18 May 2020).
22. McCabe A, Gilchrist A, Harris K, Afridi A, Kyprianou P. *Making the Links – Poverty, Ethnicity and Social Networks*. York: Joseph Rowntree Foundation; 2013.
23. Husain N, Cruickshank K, Husain M, Khan S, Tomenson B, Rahman A. Social stress and depression during pregnancy and in the postnatal period in British Pakistani mothers: a cohort study. *J Affect Disord* 2012;**140**:268–76. <https://doi.org/10.1016/j.jad.2012.02.009>
24. Falah-Hassani K, Shiri R, Vigod S, Dennis CL. Prevalence of postpartum depression among immigrant women: a systematic review and meta-analysis. *J Psychiatr Res* 2015;**70**:67–82. <https://doi.org/10.1016/j.jpsychires.2015.08.010>
25. Wright-St Clair VA, Neville S, Forsyth V, White L, Napier S. Integrative review of older adult loneliness and social isolation in Aotearoa/New Zealand. *Australas J Ageing* 2017;**36**:114–23. <https://doi.org/10.1111/ajag.12379>
26. Platt L. *Poverty and Ethnicity in the UK*. Bristol: Policy Press; 2007.
27. Pleace N. Immigration and Homelessness. In Edgar B, Doherty J, editors. *Homelessness Research in Europe*. Brussels: Feanta; 2010. pp. 143–62.
28. Kissoon P. From persecution to destitution: a snapshot of asylum seekers' housing and settlement experiences in Canada and the United Kingdom. *J Immigr Refug Stud* 2010;**8**:4–31. <https://doi.org/10.1080/15562940903575020>
29. Wallace S, Nazroo J, Bécares L. Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *Am J Public Health* 2016;**106**:1294–300. <https://doi.org/10.2105/AJPH.2016.303121>
30. Katbamna S, Ahmad W, Bhakta P, Baker R, Parker G. Do they look after their own? Informal support for South Asian carers. *Health Soc Care Community* 2004;**12**:398–406. <https://doi.org/10.1111/j.1365-2524.2004.00509.x>
31. Jopling K. *Promising Approaches to Reducing Loneliness and Isolation in Later Life*. 2015. URL: www.campaigntoendloneliness.org/wp-content/uploads/Promising-approaches-to-reducing-loneliness-and-isolation-in-later-life.pdf (accessed 18 May 2020).
32. McWhirter BT. Loneliness: a review of current literature, with implications for counseling and research. *J Couns Dev* 1990;**68**:417–22. <https://doi.org/10.1002/j.1556-6676.1990.tb02521.x>
33. Findlay RA. Interventions to reduce social isolation amongst older people: where is the evidence? *Ageing Soc* 2003;**23**:647–58. <https://doi.org/10.1017/S0144686X03001296>

34. Cattan M, White M. Developing evidence based health promotion for older people: a systematic review and survey of health promotion interventions targeting social isolation and loneliness among older people. *Internet J Health Promot* 1998;**13**:1–9.
35. Cattan M, White M, Bond J, Learmouth A. Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Ageing Soc* 2005;**25**:41–67. <https://doi.org/10.1017/S0144686X04002594>
36. Perese EF, Wolf M. Combating loneliness among persons with severe mental illness: social network interventions' characteristics, effectiveness, and applicability. *Issues Ment Health Nurs* 2005;**26**:591–609. <https://doi.org/10.1080/01612840590959425>
37. de Jong Gierveld J, Fokkema T, van Tilburg T. Alleviating Loneliness Among Older Adults: Possibilities and Constraints of Interventions. *Safeguarding the Convoy: A Call to Action from the Campaign to End Loneliness*. Abingdon: Age UK Oxfordshire; 2011. pp. 41–5.
38. Gardiner C, Geldenhuys G, Gott M. Interventions to reduce social isolation and loneliness among older people: an integrative review. *Health Soc Care Community* 2018;**26**:147–57. <https://doi.org/10.1111/hsc.12367>
39. Pool MS, Agyemang CO, Smalbrugge M. Interventions to improve social determinants of health among elderly ethnic minority groups: a review. *Eur J Public Health* 2017;**27**:1048–54. <https://doi.org/10.1093/eurpub/ckx178>
40. Hawe P. Lessons from complex interventions to improve health. *Annu Rev Public Health* 2015;**36**:307–23. <https://doi.org/10.1146/annurev-publhealth-031912-114421>
41. Hawe P, Shiell A, Riley T. Theorising interventions as events in systems. *Am J Community Psychol* 2009;**43**:267–76. <https://doi.org/10.1007/s10464-009-9229-9>
42. Diez Roux AV. Complex systems thinking and current impasses in health disparities research. *Am J Public Health* 2011;**101**:1627–34. <https://doi.org/10.2105/AJPH.2011.300149>
43. Noyes J, Hendry M, Booth A, Chandler J, Lewin S, Glenton C, Garside R. Current use was established and Cochrane guidance on selection of social theories for systematic reviews of complex interventions was developed. *J Clin Epidemiol* 2016;**75**:78–92. <https://doi.org/10.1016/j.jclinepi.2015.12.009>
44. Rutter H, Savona N, Glonti K, Bibby J, Cummins S, Finegood DT, et al. The need for a complex systems model of evidence for public health. *Lancet* 2017;**390**:2602–4. [https://doi.org/10.1016/S0140-6736\(17\)31267-9](https://doi.org/10.1016/S0140-6736(17)31267-9)
45. Petticrew M. Time to rethink the systematic review catechism? Moving from 'what works' to 'what happens'. *Syst Rev* 2015;**4**:36. <https://doi.org/10.1186/s13643-015-0027-1>
46. Salway S, Preston L, Zubair M, Such E, Hamilton J, Booth A, et al. *How Can Loneliness and Isolation be Reduced Among Migrant and Minority Ethnic People? A Systematic Participatory Review of Programme Theories, System Processes and Outcomes*. PROSPERO; 2017. URL: www.crd.york.ac.uk/PROSPEROFILES/77378_PROTOCOL_20181001.pdf (accessed 18 May 2020).
47. Dörner D, Funke J. Complex problem solving: what it is and what it is not. *Front Psychol* 2017;**8**:1153. <https://doi.org/10.3389/fpsyg.2017.01153>
48. Harris J, Croot L, Thompson J, Springett J. How stakeholder participation can contribute to systematic reviews of complex interventions. *J Epidemiol Community Health* 2016;**70**:207–14. <https://doi.org/10.1136/jech-2015-205701>
49. Moher D, Liberati A, Tetzlaff J, Altman DG, PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ* 2009;**339**:b2535. <https://doi.org/10.1136/bmj.b2535>

50. Cook T, Boote J, Buckley N, Vougioukalou S, Wright M. Accessing participatory research impact and legacy: developing the evidence base for participatory approaches in health research. *Educ Action Res* 2017;**25**:473–88. <https://doi.org/10.1080/09650792.2017.1326964>
51. INVOLVE. *Public Involvement in Research: Values and Principles Framework*. Eastleigh: INVOLVE; 2016.
52. Siokou C, Morgan R, Shiell A. Group model building: a participatory approach to understanding and acting on systems. *Public Health Res Pract* 2014;**25**:e2511404. <https://doi.org/10.17061/phrp2511404>
53. Lubben J, Gironda M. Measuring Social Networks and Assessing their Benefits. In Phillipson C, Allen G, Morgan D, editors. *Social Networks and Social Exclusion: Sociological and Policy Perspectives*. Abingdon: Routledge; 2003.
54. Golden J, Conroy RM, Bruce I, Denihan A, Greene E, Kirby M, Lawlor BA. Loneliness, social support networks, mood and wellbeing in community-dwelling elderly. *Int J Geriatr Psychiatry* 2009;**24**:694–700. <https://doi.org/10.1002/gps.2181>
55. Dykstra PA, Fokkema T. Social and emotional loneliness among divorced and married men and women: comparing the deficit and cognitive perspectives. *Basic Appl Soc Psych* 2007;**29**:1–12. <https://doi.org/10.1080/01973530701330843>
56. Victor C, Mansfield L, Kay T, Daykin N, Lane J, Duffy L, et al. *An Overview of Reviews: The Effectiveness of Interventions to Address Loneliness at all Stages of the Life-course*. London: What Works Centre for Wellbeing; 2018.
57. Russell D, Peplau LA, Cutrona CE. The revised UCLA Loneliness Scale: concurrent and discriminant validity evidence. *J Pers Soc Psychol* 1980;**39**:472–80. <https://doi.org/10.1037/0022-3514.39.3.472>
58. Pak C-S. Linking service-learning with sense of belonging: a culturally relevant pedagogy for heritage students of Spanish. *J Hispanic High Educ* 2018;**17**:76–95. <https://doi.org/10.1177/1538192716630028>
59. Cutrona CE, Russell DW. The Provisions of Social Relationships and Adaptation to Stress. In Jones W, Perlman D, editors. *Advances in Personal Relationships*. Greenwich, CT: JAI Press; 1987. pp. 37–67.
60. Hausmann LRM, Schofield JW, Woods RL. Sense of belonging as a predictor of intentions to persist among African American and white first-year college students. *Res High Educ* 2007;**48**:803–39. <https://doi.org/10.1007/s11162-007-9052-9>
61. Burkitt I. *Emotions and Social Relations*. London: SAGE Publications Ltd; 2014. <https://doi.org/10.4135/9781473915060>
62. Gottlieb BH, Bergen AE. Social support concepts and measures. *J Psychosom Res* 2010;**69**:511–20. <https://doi.org/10.1016/j.jpsychores.2009.10.001>
63. Stewart M, Makwarimba E, Letourneau NL, Kushner KE, Spitzer DL, Dennis CL, Shizha E. Impacts of a support intervention for Zimbabwean and Sudanese refugee parents: 'I am not alone'. *Can J Nurs Res* 2015;**47**:113–40. <https://doi.org/10.1177/084456211504700407>
64. Barrera M. Distinctions between social support concepts, measures, and models. *Am J Community Psychol* 1986;**14**:413–45. <https://doi.org/10.1007/BF00922627>
65. House JS, Kahn RL, McLeod JD, Williams D. Measures and Concepts of Social Support. In Cohen S, Syme SL, editors. *Social Support and Health*. San Diego, CA: Academic Press; 1985. pp. 83–108.

66. Campbell-Grossman CK, Hudson DB, Keating-Lefler R, Heusinkvelt S. New mothers network: the provision of social support to single, low-income, African American mothers via e-mail messages. *J Fam Nurs* 2009;**15**:220–36. <https://doi.org/10.1177/1074840708323048>
67. Mead S, MacNeil C. Peer support: what makes it unique? *Int J Psychosoc Rehabil* 2006;**10**:29–37.
68. Canuso R. Low-income pregnant mothers' experiences of a peer-professional social support intervention. *J Community Health Nurs* 2003;**20**:37–49. https://doi.org/10.1207/S15327655JCHN2001_04
69. Hatzidimitriadou E, Çakir S. Community activism and empowerment of Turkish-speaking migrant women in London. *Int J Migr Health Soc Care* 2009;**5**:34–46. <https://doi.org/10.1108/17479894200900005>
70. House JS. Social support and social structure. *Sociol Forum* 1987;**2**:135–46. <https://doi.org/10.1007/bf01107897>
71. Ager A, Strang A. Understanding integration: a conceptual framework. *J Refug Stud* 2008;**21**:166–91. <https://doi.org/10.1093/jrs/fen016>
72. Thomas RL, Chiarelli-Helminiak CM, Ferraj B, Barrette K. Building relationships and facilitating immigrant community integration: an evaluation of a cultural navigator program. *Eval Program Plann* 2016;**55**:77–84. <https://doi.org/10.1016/j.evalprogplan.2015.11.003>
73. Casey L. *The Casey Review: A Review into Opportunity and Integration*. London; Ministry of Housing, Communities & Local Government; 2016.
74. Hamaz S, Vasta E. *'To Belong or not to Belong': Is that the Question? Negotiating Belonging in Multi-ethnic London*. Oxford: Centre on Migration, Policy and Society, University of Oxford; 2009.
75. Ovink SM, Veazey BD. More than 'getting us through:' a case study in cultural capital enrichment of underrepresented minority undergraduates. *Res High Educ* 2011;**52**:370–94. <https://doi.org/10.1007/s11162-010-9198-8>
76. Berry JW. Acculturation: living successfully in two cultures. *Int J Intercult Relat* 2005;**29**:697–712. <https://doi.org/10.1016/j.ijintrel.2005.07.013>
77. Berry JW, Phinney JS, Sam DL, Vedder P. Immigrant youth: acculturation, identity, and adaptation. *Appl Psychol* 2006;**55**:303–32. <https://doi.org/10.1111/j.1464-0597.2006.00256.x>
78. Berry JW, Sabatier C. Variations in the assessment of acculturation attitudes: their relationships with psychological wellbeing. *Int J Intercult Relat* 2011;**35**:658–69. <https://doi.org/10.1016/j.ijintrel.2011.02.002>
79. Durkheim E. Translated by Spaulding JA, Simpson G. *Suicide: A Study in Sociology*. New York, NY: Free Press; 1897/1951.
80. Spady WG. Dropouts from higher education: an interdisciplinary review and synthesis. *Interchange* 1970;**1**:64–85. <https://doi.org/10.1007/BF02214313>
81. Spady WG. Dropouts from higher education: toward an empirical model. *Interchange* 1971;**2**:38–62. <https://doi.org/10.1007/BF02282469>
82. Strayhorn TL. *College Students' Sense of Belonging*. New York, NY: Routledge; 2012. <https://doi.org/10.4324/9780203118924>
83. Baumeister RF, Leary MR. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychol Bull* 1995;**117**:497–529. <https://doi.org/10.1037/0033-2909.117.3.497>

84. Hagerty BM, Lynch-Sauer J, Patuskly KL, Bouwsema M, Collier P. Sense of belonging: a vital mental health concept. *Arch Psychiatr Nurs* 1992;**6**:172–7. [https://doi.org/10.1016/0883-9417\(92\)90028-H](https://doi.org/10.1016/0883-9417(92)90028-H)
85. Yuval-Davis N, Kannabiran K, Vieten UM. *Introduction Situating Contemporary Politics of Belonging*. London: SAGE Publications Ltd; 2006.
86. Lewis G. Welcome to the margins: diversity, tolerance, and policies of exclusion 1. *Ethn Racial Stud* 2005;**28**:536–58. <https://doi.org/10.1080/0141987042000337876>
87. Levitt P. *The Transnational Villagers*. Los Angeles, CA: University of California Press; 2001.
88. Bahr HM, Peplau LA, Perlman D. Loneliness: a sourcebook of current theory, research and therapy. *Contemp Sociol* 1984;**13**:203. <https://doi.org/10.2307/2068915>
89. Williams DR, Lawrence JA, Davis BA. Racism and health: evidence and needed research. *Annu Rev Public Health* 2019;**40**:105–25. <https://doi.org/10.1146/annurev-publhealth-040218-043750>
90. Puwar N. *Space Invaders: Race, Gender and Bodies out of Place*. Oxford: Berg Publishers; 2004.
91. Pettigrew T, Hammann K. Gordon Willard Allport: The Nature of Prejudice, Addison-Wesley: Reading, MA 1954, 537 S. (dt. Die Natur des Vorurteils, Kiepenheuer & Witsch: Köln 1971, 531 S.). In Salzborn S, editor. *Klassiker der Sozialwissenschaften*. Wiesbaden: Springer VS; 2016. pp. 193–6. https://doi.org/10.1007/978-3-658-13213-2_43
92. Amin A. Ethnicity and the multicultural city: living with diversity. *Environ Plan A* 2002;**34**:959–80. <https://doi.org/10.1068/a3537>
93. Valentine G. Living with Difference: Reflections on Geographies of Encounter. In Paddison R, McCann E, editors. *Cities and Social Change: Encounters with Contemporary Urbanism*. London: SAGE Publications Ltd; 2014. pp. 75–91. <https://doi.org/10.4135/9781473907867.n5>
94. Smart C. *Personal Life: New Directions in Sociological Thinking*. Cambridge: Polity Press; 2007.
95. Chambers D, Cantrell A, Booth A. Implementation of interventions to reduce preventable hospital admissions for cardiovascular or respiratory conditions: an evidence map and realist synthesis. *Health Serv Deliv Res* 2020;**8**(2). <https://doi.org/10.3310/hsdr08020>
96. McLeish J, Redshaw M. Mothers' accounts of the impact on emotional wellbeing of organised peer support in pregnancy and early parenthood: a qualitative study. *BMC Pregnancy Childbirth* 2017;**17**:28. <https://doi.org/10.1186/s12884-017-1220-0>
97. McLeish J, Redshaw M. Peer support during pregnancy and early parenthood: a qualitative study of models and perceptions. *BMC Pregnancy Childbirth* 2015;**15**:257. <https://doi.org/10.1186/s12884-015-0685-y>
98. Weekes T, Phelan L, Macfarlane S, Pinson J, Francis V. Supporting successful learning for refugee students: the Classroom Connect project. *Issues Educ Res* 2011;**21**:310–29.
99. Gray B. Working with families in Tower Hamlets: an evaluation of the Family Welfare Association's Family Support Services. *Health Soc Care Community* 2002;**10**:112–22. <https://doi.org/10.1046/j.1365-2524.2002.00347.x>
100. Hazard CJ, Callister LC, Birkhead A, Nichols L. Hispanic Labor Friends Initiative: supporting vulnerable women. *MCN Am J Matern Child Nurs* 2009;**34**:115–21. <https://doi.org/10.1097/01.NMC.0000347306.15950.ae>
101. Adam B, Betancourt G, Serrano-Sanchez A. Development of an HIV prevention and life skills program for Spanish-speaking gay and bisexual newcomers to Canada. *Can J Hum Sex* 2011;**20**:11–7.

102. Logie CH, Lacombe-Duncan A, Lee-Foon N, Ryan S, Ramsay H. 'It's for us – newcomers, LGBTQ persons, and HIV-positive persons. You feel free to be': a qualitative study exploring social support group participation among African and Caribbean lesbian, gay, bisexual and transgender newcomers and refugees in Toronto, Canada. *BMC Int Health Hum Rights* 2016;**16**:18. <https://doi.org/10.1186/s12914-016-0092-0>
103. Saito T, Kai I, Takizawa A. Effects of a program to prevent social isolation on loneliness, depression, and subjective well-being of older adults: a randomized trial among older migrants in Japan. *Arch Gerontol Geriatr* 2012;**55**:539–47. <https://doi.org/10.1016/j.archger.2012.04.002>
104. Cant B, Taket A. Promoting social support and social networks among Irish pensioners in South London, UK. *Divers Equal Health Care* 2005;**2**:263–70.
105. Jones JD. A Northwest African American Student Center: Is the Support Apocryphal? In Allen WR, Teranishi RT, Bonous-Hammarth M, editors. *As the World Turns: Implications of Global Shifts in Higher Education for Theory, Research and Practice (Advances in Education in Diverse Communities, Vol. 7)*. Bingley: Emerald Group Publishing Ltd; 2012. pp. 403–20. [https://doi.org/10.1108/S1479-358X\(2012\)0000007020](https://doi.org/10.1108/S1479-358X(2012)0000007020)
106. Local Government Association, Devon County Council, Local Government Delivery Council. *Customer Led Transformation Programme. Case Study – Devon County Council: The Devon Grapevine*. 2012. URL: www.local.gov.uk/sites/default/files/documents/devon-county-council-devo-76f.pdf (accessed 18 May 2020).
107. Lin JX. *The Role Of Internet-Based Social Support Network In Immigrant Settlement*. Theses and dissertations. Paper 611. Toronto, ON: Ryerson University; 2009. <https://digital.library.ryerson.ca/islandora/object/RULA:946>
108. Nieuwboer C, van't Rood R. Learning language that matters. A pedagogical method to support migrant mothers without formal education experience in their social integration in Western countries. *Int J Intercult Relat* 2016;**51**:29–40. <https://doi.org/10.1016/j.ijintrel.2016.01.002>
109. Liptow E, Chen C, Parent R, Duerr J, Henson D. *A Sense of Belonging: Creating a Community for first-generation, Underrepresented groups and Minorities through an Engineering Student Success Course*. American Society for Engineering Education (ASEE) 123rd Annual Conference and Exposition, New Orleans, LA, 26–29 June 2016.
110. Askins K, Pain R. Contact zones: participation, materiality, and the messiness of interaction. *Environ Plan D* 2011;**29**:803–21. <https://doi.org/10.1068/d11109>
111. Borgogni A, Digennaro S. Playing together: the role of sport organisations in supporting migrants' integration. *Empiria* 2015;**30**:109–31. <https://doi.org/10.5944/empiria.30.2015.13887>
112. Goodkind J, Hang P, Yang M. Hmong Refugees in the United States: A Community-based Advocacy and Learning Intervention. In Miller KE, Rasco LM, editors. *The Mental Health of Refugees: Ecological Approaches to Healing and Adaptation*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc; 2004. pp. 295–334.
113. Goodkind JR, Hess JM, Isakson B, LaNoue M, Githinji A, Roche N, *et al*. Reducing refugee mental health disparities: a community-based intervention to address postmigration stressors with African adults. *Psychol Serv* 2014;**11**:333–46. <https://doi.org/10.1037/a0035081>
114. Naidoo L. The Refugee Action Support program: a case study report of best practice. *Int J Incl Mus* 2011;**3**:83–90. <https://doi.org/10.18848/1835-2014/CGP/v03i04/44344>

115. Nathan S, Kemp L, Bunde-Birouste A, MacKenzie J, Evers C, Shwe TA. 'We wouldn't of made friends if we didn't come to Football United': the impacts of a football program on young people's peer, prosocial and cross-cultural relationships. *BMC Public Health* 2013;**13**:399. <https://doi.org/10.1186/1471-2458-13-399>
116. British Academy, Paul Hamlyn Foundation. RUBIC: A Whole Community Approach to Tackling Community Tensions and Promoting Social Integration. *If You Could do One Thing: The Integration of Migrants, Refugees and Asylum Seekers: Case Studies*. London: British Academy, Paul Hamlyn Foundation; 2017. pp. 13–19.
117. British Academy, Paul Hamlyn Foundation. Xenia: Two-way Social Integration for Women through English Language Learning. *If You Could do One Thing: The Integration of Migrants, Refugees and Asylum Seekers: Case Studies*. London: British Academy, Paul Hamlyn Foundation; 2017. pp. 27–34.
118. British Academy, Paul Hamlyn Foundation. Refuweege: Celebrating Glasgow Together. *If You Could do One Thing: The Integration of Migrants, Refugees and Asylum Seekers: Case Studies*. London: British Academy, Paul Hamlyn Foundation; 2017. pp. 35–41.
119. Phillimore J. Embedded integration and organisational change in housing providers in the UK. *Soc Pol Soc* 2017;**16**:1–14. <https://doi.org/10.1017/S1474746415000639>
120. Whyte Z. Meetings of the art: cultural encounters and contact zones in an art project for asylum-seeking minors in Denmark. *J Intercult Stud* 2017;**38**:679–93. <https://doi.org/10.1080/07256868.2017.1386634>
121. Wilson M, Zipfel T. *Communities R Us: New and Established Communities Working Together*. London: Housing Associations Charitable Trust; 2008. <https://lemosandcrane.co.uk/resources/HACT%20-%20Communities%20R%20Us.pdf> (accessed 18 May 2020).
122. Parks J. Children's Centres as spaces of interethnic encounter in North East England. *Soc Cult Geogr* 2015;**16**:888–908. <https://doi.org/10.1080/14649365.2015.1040057>
123. Geelhoed Robyn J, Abe J, Talbot Donna M. A qualitative investigation of U.S. students' experiences in an international peer program. *J Coll Stud Dev* 2003;**44**:5–17. <https://doi.org/10.1353/csd.2003.0004>
124. Anderson V. *Re-imagining 'Interaction' and 'Integration': Reflections on a University Social Group for International and Local Women*. The 19th International Student Advisers' Network of Australia (ISANA) International Education Conference 'Promoting Integration and Interaction', 2–5 December 2008, Auckland, New Zealand, abstract no. 141.
125. Sakurai T, McCall-Wolf F, Kashima ES. Building intercultural links: the impact of a multicultural intervention programme on social ties of international students in Australia. *Int J Intercult Relat* 2010;**34**:176–85. <https://doi.org/10.1016/j.ijintrel.2009.11.002>
126. Gilboa A, Yehuda N, Amir D. Let's talk music: a musical-communal project for enhancing communication among students of multi-cultural origin. *Nord J Music Ther* 2009;**18**:3–31. <https://doi.org/10.1080/08098130802610999>
127. Raw A. *Schools Linking Project 2005–06: Full Final Evaluation Report*. URL: <http://linkingnetwork.bml-dev.co.uk/wp-content/uploads/2017/02/Bradford-Schools-Linking-Evaluation-2005-06.pdf> (accessed 18 May 2020).
128. Frankenberg E, Fries K, Friedrich EK, Roden I, Kreutz G, Bongard S. The influence of musical training on acculturation processes in migrant children. *Psychology Music* 2016;**44**:114–28. <https://doi.org/10.1177/0305735614557990>

129. Franz B, Götzenbrucker G, Kayali F, Pfeffer J, Purgathofer P, Schwarz V. *Immigrant Youth, Hip Hop, and Online Games: Alternative Approaches to the Inclusion of Working-Class and Second Generation Migrant Teens*. Lanham, MD: Lexington Books; 2015.
130. Mayblin L, Valentine G, Andersson J. In the contact zone: engineering meaningful encounters across difference through an interfaith project. *Geogr J* 2016;**182**:213–22. <https://doi.org/10.1111/geoj.12128>
131. Mills S, Waite C. From big society to shared society? Geographies of social cohesion and encounter in the UK's National Citizen Service. *Geogr Ann Ser B* 2018;**100**:131–48. <https://doi.org/10.1080/04353684.2017.1392229>
132. British Academy, Paul Hamlyn Foundation. Aik Saath: Promoting Social Integration Through Youth-led Heritage and Oral History Projects. *If You Could Do One Thing: The Integration of Migrants, Refugees and Asylum Seekers: Case Studies*. London: British Academy, Paul Hamlyn Foundation; 2017. pp. 42–9.
133. Slatcher S. Contested narratives of encounter from a bridge-building project in northern England. *Space Polity* 2017;**21**:191–205. <https://doi.org/10.1080/13562576.2017.1331984>
134. Communities and Local Government, Commission on Integration and Cohesion. 5.2.2. Belonging Campaign. 'What Works' in Community Cohesion. 2007. URL: <https://dera.ioe.ac.uk/6586/2/whatworks.pdf> (accessed 19 May 2020). pp. 99–102.
135. Caponio T, Donatiello D. Intercultural policy in times of crisis: theory and practice in the case of Turin, Italy. *Comp Migr Stud* 2017;**5**:13. <https://doi.org/10.1186/s40878-017-0055-1>
136. de Quadros A, Vu Kinh T. At home, song, and fika – portraits of Swedish choral initiatives amidst the refugee crisis. *Int J Incl Educ* 2017;**21**:1113–27. <https://doi.org/10.1080/13603116.2017.1350319>
137. Matejskova T, Leitner H. Urban encounters with difference: the contact hypothesis and immigrant integration projects in eastern Berlin. *Soc Cult Geogr* 2011;**12**:717–41. <https://doi.org/10.1080/14649365.2011.610234>
138. Riis H. It Doesn't matter if you're black or white: negotiating identity and Danishness in intercultural dialogue meetings. *J Intercult Stud* 2017;**38**:694–707. <https://doi.org/10.1080/07256868.2017.1389702>
139. Shinew KJ, Glover TD, Parry DC. Leisure spaces as potential sites for interracial interaction: community gardens in urban areas. *J Leis Res* 2004;**36**:336–55. <https://doi.org/10.1080/00222216.2004.11950027>
140. Wilson HF. Learning to think differently: diversity training and the 'good encounter'. *Geoforum* 2013;**45**:73–82. <https://doi.org/10.1016/j.geoforum.2012.10.001>
141. Berryhill JC, Linney JA. On the edge of diversity: bringing African Americans and Latinos together in a neighborhood group. *Am J Community Psychol* 2006;**37**:247–55. <https://doi.org/10.1007/s10464-006-9012-0>
142. Mayblin L, Valentine G, Winiarska A. Migration and diversity in a post-socialist context: creating integrative encounters in Poland. *Environ Plan A* 2016;**48**:960–78. <https://doi.org/10.1177/0308518X15623534>
143. Philipp R, Gibbons N, Thorne P, Wiltshire L, Burrough J, Easterby J. Evaluation of a community arts installation event in support of public health. *Perspect Public Health* 2015;**135**:43–8. <https://doi.org/10.1177/1757913914548155>
144. Abe J, Talbot DM, Geelhoed RJ. Effects of a peer program on international student adjustment. *J Coll Stud Dev* 1998;**39**:539–47.

REFERENCES

145. Department for Communities and Local Government. 'What Works' in Community Cohesion. London: Department for Communities and Local Government; 2007.
146. Kanekar A, Sharma M, Atri A. Enhancing social support, hardiness, and acculturation to improve mental health among Asian Indian international students. *Int Q Community Health Educ* 2009;**30**:55–68. <https://doi.org/10.2190/IQ.30.1.e>
147. Mak AS, Buckingham K. Beyond communication courses: are there benefits in adding skills-based Excell™ sociocultural training? *Int J Intercult Relat* 2007;**31**:277–91. <https://doi.org/10.1016/j.ijintrel.2006.02.002>
148. Riggs E, Block K, Mhlanga T, Rush C, Burley M. On the road to inclusion: evaluation of a refugee driver education program in regional Victoria, Australia. *J Soc Incl* 2014;**5**:85–94. <https://doi.org/10.36251/josi.71>
149. Doikou-Avliidou M, Dadatsi K. Enhancing social integration of immigrant pupils at risk for social, emotional and/or behavioural difficulties: the outcomes of a small-scale social-emotional learning programme. *Emot Behav Diffic* 2013;**18**:3–23. <https://doi.org/10.1080/13632752.2012.675137>
150. Rejeski WJ, Spring B, Domanchuk K, Tao H, Tian L, Zhao L, McDermott MM. A group-mediated, home-based physical activity intervention for patients with peripheral artery disease: effects on social and psychological function. *J Transl Med* 2014;**12**:29. <https://doi.org/10.1186/1479-5876-12-29>
151. Shorey S, Yang Yen Y, Dennis C-L. A mobile health app-based postnatal educational program (Home – but not Alone): descriptive qualitative study. *J Med Internet Res* 2018;**20**:e119. <https://doi.org/10.2196/jmir.9188>
152. Taylor-Piliae RE, Haskell WL, Waters CM, Froelicher ES. Change in perceived psychosocial status following a 12-week Tai Chi exercise programme. *J Adv Nurs* 2006;**54**:313–29. <https://doi.org/10.1111/j.1365-2648.2006.03809.x>
153. Arola A, Dahlin-Ivanoff S, Häggblom-Kronlöf G. Impact of a person-centred group intervention on life satisfaction and engagement in activities among persons aging in the context of migration [published online ahead of print January 19 2019]. *Scand J Occup Ther* 2019. <https://doi.org/10.1080/11038128.2018.1515245>
154. Kukulska-Hulme A, Gaved M, Paletta L, Scanlon E, Jones A, Brasher A. Mobile incidental learning to support the inclusion of recent immigrants. *Ubiquitous Learning* 2015;**7**:9–21. <https://doi.org/10.18848/1835-9795/CGP/v07i02/58070>
155. Smith R, Khawaja NG. A group psychological intervention to enhance the coping and acculturation of international students. *Adv Ment Health* 2014;**12**:110–24. <https://doi.org/10.1080/18374905.2014.11081889>
156. Eisdorfer C, Czaja SJ, Loewenstein DA, Rubert MP, Argüelles S, Mitrani VB, Szapocznik J. The effect of a family therapy and technology-based intervention on caregiver depression. *Gerontologist* 2003;**43**:521–31. <https://doi.org/10.1093/geront/43.4.521>
157. Elligan D, Utsey S. Utility of an African-centered support group for African American men confronting societal racism and oppression. *Cultur Divers Ethnic Minor Psychol* 1999;**5**:156–65. <https://doi.org/10.1037/1099-9809.5.2.156>
158. Grote NK, Swartz HA, Geibel SL, Zuckoff A, Houck PR, Frank E. A randomized controlled trial of culturally relevant, brief interpersonal psychotherapy for perinatal depression. *Psychiatr Serv* 2009;**60**:313–21. <https://doi.org/10.1176/appi.ps.60.3.313>

159. Jesse DE, Bian H, Banks EC, Gaynes BN, Hollon SD, Newton ER. Role of mediators in reducing antepartum depressive symptoms in rural low-income women receiving a culturally tailored cognitive behavioral intervention. *Issues Ment Health Nurs* 2016;**37**:811–19. <https://doi.org/10.1080/01612840.2016.1229821>
160. Toth SL, Rogosch FA, Oshri A, Gravener-Davis J, Sturm R, Morgan-Lopez Antonio A. The efficacy of interpersonal psychotherapy for depression among economically disadvantaged mothers. *Dev Psychopathol* 2013;**25**:1065–78. <https://doi.org/10.1017/s0954579413000370>
161. Muñoz RF, Le H-N, Ippen CG, Diaz MA, Urizar GG, Soto J, et al. Prevention of postpartum depression in low-income women: development of the Mamás y Bebés/Mothers and Babies Course. *Cogn Behav Pract* 2007;**14**:70–83. <https://doi.org/10.1016/j.cbpra.2006.04.021>
162. Beeber LS, Schwartz TA, Holditch-Davis D, Canuso R, Lewis V, Hall HW. Parenting enhancement, interpersonal psychotherapy to reduce depression in low-income mothers of infants and toddlers: a randomized trial. *Nurs Res* 2013;**62**:82–90. <https://doi.org/10.1097/NNR.0b013e31828324c2>
163. Gray LA, Price SK. Partnering for mental health promotion: implementing evidence based mental health services within a maternal and child home health visiting program. *Clin Soc Work J* 2014;**42**:70–80. <https://doi.org/10.1007/s10615-012-0426-x>
164. Masood Y, Lovell K, Lunat F, Atif N, Waheed W, Rahman A, et al. Group psychological intervention for postnatal depression: a nested qualitative study with British South Asian women. *BMC Womens Health* 2015;**15**:109. <https://doi.org/10.1186/s12905-015-0263-5>
165. Mynatt S, Wicks M, Bolden L. Pilot study of INSIGHT therapy in African American women. *Arch Psychiatr Nurs* 2008;**22**:364–74. <https://doi.org/10.1016/j.apnu.2007.10.007>
166. Yakunina ES, Weigold IK, McCarthy AS. Group counseling with international students: practical, ethical, and cultural considerations. *J Coll Stud Psychother* 2010;**25**:67–78. <https://doi.org/10.1080/87568225.2011.532672>
167. Dipeolu A, Kang J, Cooper C. Support group for international students. *J Coll Stud Psychother* 2007;**22**:63–74. https://doi.org/10.1300/J035v22n01_05
168. Chalungsooth P, Faris A. The development and implementation of a psychoeducational support group for international students. *Hum Serv Today* 2009;**6**:1–8.
169. van de Venter E, Buller A. Arts on referral interventions: a mixed-methods study investigating factors associated with differential changes in mental well-being. *J Public Health* 2015;**37**:143–50. <https://doi.org/10.1093/pubmed/fdu028>
170. Hartwig KA, Mason M. Community gardens for refugee and immigrant communities as a means of health promotion. *J Community Health* 2016;**41**:1153–9. <https://doi.org/10.1007/s10900-016-0195-5>
171. Porter CM. What gardens grow: outcomes from home and community gardens supported by community-based food justice organizations. *J Agric Food Syst Community Dev* 2018;**8**:187–205. <https://doi.org/10.5304/jafscd.2018.08A.002>
172. Bishop R, Purcell E. The value of an allotment group for refugees. *Br J Occup Ther* 2013;**76**:264–9. <https://doi.org/10.4276/030802213X13706169932824>
173. Harris N, Minniss FR, Somerset S. Refugees connecting with a new country through community food gardening. *Int J Environ Res Public Health* 2014;**11**:9202–16. <https://doi.org/10.3390/ijerph110909202>

174. Glass TA, Freedman M, Carlson MC, Hill J, Frick KD, Ialongo N, *et al.* Experience Corps: design of an intergenerational program to boost social capital and promote the health of an aging society. *J Urban Health* 2004;**81**:94–105. <https://doi.org/10.1093/jurban/jth096>
175. Martinez IL, Frick K, Glass Thomas A, Carlson M, Tanner E, Ricks M, *et al.* Engaging older adults in high impact volunteering that enhances health: recruitment and retention in the Experience Corps® Baltimore. *J Urban Health* 2006;**83**:941–53. <https://doi.org/10.1007/s11524-006-9058-1>
176. Vickers T. Opportunities and limitations for collective resistance arising from volunteering by asylum seekers and refugees in Northern England. *Crit Sociol* 2016;**42**:437–54. <https://doi.org/10.1177/0896920514526623>
177. Means D, Pyne K. Finding my way: perceptions of institutional support and belonging in low-income, first-generation, first-year college students. *J Coll Stud Dev* 2017;**58**:907–24. <https://doi.org/10.1353/csd.2017.0071>
178. Broda M, Yun J, Schneider B, Yeager David S, Walton Gregory M, Diemer M. Reducing inequality in academic success for incoming college students: a randomized trial of growth mindset and belonging interventions. *J Res Educ Eff* 2018;**11**:317–38. <https://doi.org/10.1080/19345747.2018.1429037>
179. Walton GM, Cohen GL. A brief social-belonging intervention improves academic and health outcomes of minority students. *Science* 2011;**331**:1447–51. <https://doi.org/10.1126/science.1198364>
180. Silver Wolf DAP, Perkins J, Butler-Barnes ST, Walker TA Jr. Social belonging and college retention: results from a quasi-experimental pilot study. *J Coll Stud Dev* 2017;**58**:777–82. <https://doi.org/10.1353/csd.2017.0060>
181. Yeager DS, Walton GM, Brady ST, Akcinar EN, Paunesku D, Keane L, *et al.* Teaching a lay theory before college narrows achievement gaps at scale. *Proc Natl Acad Sci USA* 2016;**113**:E3341–8. <https://doi.org/10.1073/pnas.1524360113>
182. Cook JE, Purdie-Vaughns V, Garcia J, Cohen GL. Chronic threat and contingent belonging: protective benefits of values affirmation on identity development. *J Pers Soc Psychol* 2012;**102**:479–96. <https://doi.org/10.1037/a0026312>
183. Gehlbach H, Brinkworth ME, King AM, Hsu LM, McIntyre J, Rogers T. Creating birds of similar feathers: leveraging similarity to improve teacher–student relationships and academic achievement. *J Educ Psychol* 2016;**108**:342–52. <https://doi.org/10.1037/edu0000042>
184. Carnes D, Sohanpal R, Frostick C, Hull S, Mathur R, Netuveli G, *et al.* The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC Health Serv Res* 2017;**17**:835. <https://doi.org/10.1186/s12913-017-2778-y>
185. Fauth RC, Leventhal T, Brooks-Gunn J. Seven years later: effects of a neighborhood mobility program on poor Black and Latino adults' well-being. *J Health Soc Behav* 2008;**49**:119–30. <https://doi.org/10.1177/002214650804900201>
186. Katz L, Kling J, Liebman J. Moving to opportunity in Boston: early results of a randomized mobility experiment. *Q J Econ* 2001;**116**:607–54. <https://doi.org/10.1162/00335530151144113>
187. Strang A, Baillot H, Mignard E. *Rights, Resilience and Refugee Integration in Scotland: New Scots and the Holistic Integration Service*. 2016. URL: <https://eresearch.qmu.ac.uk/bitstream/handle/20.500.12289/4140/eResearch%204140.pdf?sequence=1> (accessed 18 May 2020).
188. Franz B. Immigrant Youth, hip-hop, and feminist pedagogy: outlines of an alternative integration policy in Vienna, Austria. *Int Stud Perspect* 2012;**13**:270–88. <https://doi.org/10.1111/j.1528-3585.2012.00484.x>

189. Kipling K. *Making British Citizens: The Role of Citizenship Ceremonies and Tests in Integration and Belonging*. PhD thesis. Leeds: University of Leeds; 2015.
190. Beirens H, Hughes N, Hek R, Spicer N. Preventing social exclusion of refugee and asylum seeking children: building new networks. *Soc Pol Soc* 2007;**6**:219–29. <https://doi.org/10.1017/S1474746406003484>
191. de Jong S, Ataç I. Demand and Deliver: Refugee support organisations in Austria. *Soc Incl* 2017;**5**:28–37. <https://doi.org/10.17645/si.v5i3.1003>
192. Communities and Local Government, Commission on Integration and Cohesion. 5.6.2 New Link. 'What Works' in Community Cohesion. 2007. URL: <https://dera.ioe.ac.uk/6586/2/whatworks.pdf> (accessed 19 May 2020). pp. 130–4.
193. Canham SL, Fang ML, Battersby L, Woolrych R, Sixsmith J, Ren TH, Sixsmith A. Contextual factors for aging well: creating socially engaging spaces through the use of deliberative dialogues. *Gerontologist* 2018;**58**:140–8. <https://doi.org/10.1093/geront/gnx121>
194. Fang ML, Woolrych R, Sixsmith J, Canham S, Battersby L, Sixsmith A. Place-making with older persons: establishing sense-of-place through participatory community mapping workshops. *Soc Sci Med* 2016;**168**:223–9. <https://doi.org/10.1016/j.socscimed.2016.07.007>
195. Scharlach AE, Sanchez E. From interviewers to friendly visitors: bridging research and practice to meet the needs of low-income Latino seniors. *J Gerontol Soc Work* 2011;**54**:73–91. <https://doi.org/10.1080/01634372.2010.530343>
196. Ballen CJ, Wieman C, Salehi S, Searle JB, Zamudio KR. Enhancing diversity in undergraduate science: self-efficacy drives performance gains with active learning. *CBE Life Sci Educ* 2017;**16**:ar56. <https://doi.org/10.1187/cbe.16-12-0344>
197. Ogden T, Sørli MA, Hagen KA. Building strength through enhancing social competence in immigrant students in primary school. A pilot study. *Emot Behav Diffic* 2007;**12**:105–17. <https://doi.org/10.1080/13632750701315508>
198. Bessone M, Doytcheva M, Duez JB, Girard C, Guérard De Latour S. Integrating or segregating roma migrants in france in the name of respect: a spatial analysis of the villages d'insertion. *J Urban Aff* 2014;**36**:182–96. <https://doi.org/10.1111/juaf.12029>
199. Goel KM. *Community-based Organisations: Role in Settling Immigrants*. Bengaluru: Niruta Publications; 2014.
200. Ardal F, Sulman J, Fuller-Thomson E. Support like a walking stick: parent-buddy matching for language and culture in the NICU. *Neonatal Netw* 2011;**30**:89–98. <https://doi.org/10.1891/0730-0832.30.2.89>
201. Darwin Z, Green J, McLeish J, Willmot H, Spiby H. Evaluation of trained volunteer doula services for disadvantaged women in five areas in England: women's experiences. *Health Soc Care Community* 2017;**25**:466–77. <https://doi.org/10.1111/hsc.12331>
202. Askins K. *Being Together: Exploring the West End Refugee Service Befriending Scheme*. Newcastle upon Tyne: Northumbria University; 2014.
203. Blair TR. 'Community ambassadors' for South Asian elder immigrants: late-life acculturation and the roles of community health workers. *Soc Sci Med* 2012;**75**:1769–77. <https://doi.org/10.1016/j.socscimed.2012.07.018>
204. Government of Canada. *Evaluation of the Host Program*. URL: www.canada.ca/en/immigration-refugees-citizenship/corporate/reports-statistics/evaluations/host-program.html (accessed 18 May 2020).

REFERENCES

205. Menzies JL, Baron R, Zutshi A. Transitional experiences of international postgraduate students utilising a peer mentor programme. *Educa Res* 2015;**57**:403–19. <https://doi.org/10.1080/00131881.2015.1091202>
206. Hawkley LC, Cacioppo JT. Loneliness matters: a theoretical and empirical review of consequences and mechanisms. *Ann Behav Med* 2010;**40**:218–27. <https://doi.org/10.1007/s12160-010-9210-8>
207. Yalom I. *The Theory and Practice of Group Psychotherapy*. 4th edn. New York, NY: Basic Books; 1995.
208. Grier-Reed T, Arcinue F, Inman E. The African American Student Network : an intervention for retention. *J Coll Stud Ret* 2016;**18**:183–93. <https://doi.org/10.1177/1521025115584747>
209. Grier-Reed TL. The African American Student Network: creating sanctuaries and counterspaces for coping with racial microaggressions in higher education settings. *J Humanist Couns Educ Dev* 2010;**49**:181–8. <https://doi.org/10.1002/j.2161-1939.2010.tb00096.x>
210. Grier-Reed TL. The African American Student Network: an informal networking group as a therapeutic intervention for black college students on a predominantly white campus. *J Black Psychol* 2013;**39**:169–84. <https://doi.org/10.1177/0095798413478696>
211. Collins CC. Seniors CAN: Community-based Education to Promote Independence for Older Adults. *The LLI Review. The Annual Journal of the Osher Lifelong Learning Institutes: Explorations by and About Older Learners. Volume 1*. 2006. URL: www.seniorscan.org/SeniorsCAN/files/pdf/Life_Long_Learning.pdf (accessed 19 May 2020). pp. 60–8.
212. People's Health Trust. *African Community Centre Pamoja: Active Communities Case Study*. 2018. URL: www.peopleshealthtrust.org.uk/sites/default/files/African%20Community%20Centre%20Pamoja.pdf (accessed 18 May 2020).
213. Cunningham EL. *Institutionally Designated Safe Spaces: Understanding How Black Students Utilize and Experience These Spaces to Develop a Sense of Belonging*. PhD thesis. University Park, PA: Pennsylvania State University; 2015.
214. Stewart M, Simich L, Beiser M, Makumbe K, Makwarimba E, Shizha E. Impacts of a social support intervention for Somali and Sudanese refugees in Canada. *Ethn Inequal Health Soc Care* 2011;**4**:186–99. <https://doi.org/10.1108/17570981111250840>
215. Stewart M, Simich L, Shizha E, Makumbe K, Makwarimba E. Supporting African refugees in Canada: insights from a support intervention. *Health Soc Care Community* 2012;**20**:516–27. <https://doi.org/10.1111/j.1365-2524.2012.01069.x>
216. Stewart M, Spitzer D, Kushner K, Shizha E, Letourneau N, Makwarimba E, et al. Supporting refugee parents of young children: 'knowing you're not alone'. *Int J Migr Health Soc Care* 2018;**14**:15–29. <https://doi.org/10.1108/IJMHSC-04-2016-0018>
217. Batra A, Melchior M, Seff L, Frederick N, Palmer RC. Evaluation of a community-based falls prevention program in South Florida, 2008–2009. *Prev Chronic Dis* 2012;**9**:E13. <https://doi.org/10.5888/pcd9.110057>
218. McLeish J, Redshaw M. 'We have beaten HIV a bit': a qualitative study of experiences of peer support during pregnancy with an HIV Mentor Mother project in England. *BMJ Open* 2016;**6**:e011499. <https://doi.org/10.1136/bmjopen-2016-011499>
219. LaRosa J. *Understanding the Role of Peer Mentors in Supporting Chinese Freshman Undergraduates' Acculturation: A Case Study*. PhD thesis. Philadelphia, PA: Drexel University; 2017.

220. McLeish J, Redshaw M. 'I didn't think we'd be dealing with stuff like this': a qualitative study of volunteer support for very disadvantaged pregnant women and new mothers. *Midwifery* 2017;**45**:36–43. <https://doi.org/10.1016/j.midw.2016.12.003>
221. Quintrell N, Westwood M. The influence of a peer-pairing program on international students' first year experience and use of student services. *High Educ Res Dev* 1994;**13**:49–58. <https://doi.org/10.1080/0729436940130105>
222. Holt LJ, Bry BH, Johnson VL. Enhancing school engagement in at-risk, urban minority adolescents through a school-based, adult mentoring intervention. *Child Fam Behav Ther* 2008;**30**:297–318. <https://doi.org/10.1080/07317100802482969>
223. Low LF, Baker JR, Harrison F, Jeon YH, Haertsch M, Camp C, Skropeta M. The Lifestyle Engagement Activity Program (LEAP): implementing social and recreational activity into case-managed home care. *J Am Med Dir Assoc* 2015;**16**:1069–76. <https://doi.org/10.1016/j.jamda.2015.07.002>
224. Renner W, Laireiter AR, Maier MJ. Social support from sponsorships as a moderator of acculturative stress: predictors of effects on refugees and asylum seekers. *Soc Behav Pers* 2012;**40**:129–46. <https://doi.org/10.2224/sbp.2012.40.1.129>
225. Tolman S. The effects of a roommate-pairing program on international student satisfaction and academic success. *J Int Stud* 2017;**7**:522–41.
226. Portwood SG, Ayers PM, Kinnison KE, Waris RG, Wise DL. YouthFriends: outcomes from a school-based mentoring program. *J Prim Prev* 2005;**26**:129–88. <https://doi.org/10.1007/s10935-005-1975-3>
227. Rosenberg M. *Society and the Adolescent Self-image*. Princeton, NJ: Princeton University Press; 1965. <https://doi.org/10.1515/9781400876136>
228. Hudson DB, Campbell-Grossman C, Hertzog M. Effects of an internet intervention on mothers' psychological, parenting, and health care utilization outcomes. *Issues Compr Pediatr Nurs* 2012;**35**:176–93. <https://doi.org/10.3109/01460862.2012.734211>
229. Tran AN, Ornelas IJ, Kim M, Perez G, Green M, Lyn MJ, Corbie-Smith G. Results from a pilot promotora program to reduce depression and stress among immigrant Latinas. *Health Promot Pract* 2014;**15**:365–72. <https://doi.org/10.1177/1524839913511635>
230. Clauss-Ehlers CS, Wibrowski CR. Building educational resilience and social support: the effects of the educational opportunity fund program among first- and second-generation college students. *J Coll Stud Dev* 2007;**48**:574–84. <https://doi.org/10.1353/csd.2007.0051>
231. Frost E. *Refugee Health Education: Evaluating a Community-based Approach to Empowering Refugee Women in Houston, Texas*. Texas Medical Center Dissertations. Houston, TX: University of Texas School of Public Health; 2016.
232. Morales-Campos DY, Casillas M, McCurdy SA. From isolation to connection: understanding a support group for Hispanic women living with gender-based violence in Houston, Texas. *J Immigr Minor Health* 2009;**11**:57–65. <https://doi.org/10.1007/s10903-008-9153-3>
233. Williams SN, Thakore BK, McGee R. Providing social support for underrepresented racial and ethnic minority PhD students in the biomedical sciences: a career coaching model. *CBE Life Sci Educ* 2017;**16**:ar64. <https://doi.org/10.1187/cbe.17-01-0021>
234. Liamputtong P, Koh L, Wollersheim D, Walker R. Peer support groups, mobile phones and refugee women in Melbourne. *Health Promot Int* 2016;**31**:715–24. <https://doi.org/10.1093/heapro/dav015>

REFERENCES

235. Pejic V. *Promoting Healthy Family Transition and Support in Somali Refugee Parents: Outcomes of a Community-based Program*. PhD thesis. Greeley, CO: University of Northern Colorado; 2016.
236. Chase LE, Rousseau C. Ethnographic case study of a community day center for asylum seekers as early stage mental health intervention. *Am J Orthopsychiatry* 2018;**88**:48–58. <https://doi.org/10.1037/ort0000266>
237. Weine SM, Raina D, Zhubi M, Delesi M, Huseni D, Feetham S, *et al*. The TAFES multi-family group intervention for Kosovar refugees: a feasibility study. *J Nerv Ment Dis* 2003;**191**:100–7. <https://doi.org/10.1097/01.NMD.0000050938.06620.D2>
238. Rooney RM, Kane RT, Wright B, Gent V, Di Ciano T, Mancini V. The pilot and evaluation of a postnatal support group for Iraqi women in the year following the birth of their baby. *Front Psychol* 2014;**5**:16. <https://doi.org/10.3389/fpsyg.2014.00016>
239. Christodoulou P. *This is How it Feels to be Lonely: A Report on Migrants and Refugees' Experiences with Loneliness in London*. London: The Forum; 2015.
240. Grier-Reed TL, Madyun NiH, Buckley CG. Low black student retention on a predominantly white campus: two faculty respond with the African American Student Network. *J Coll Stud Dev* 2008;**49**:476–85. <https://doi.org/10.1353/csd.0.0031>
241. Walker R, Koh L, Wollersheim D, Liamputtong P. Social connectedness and mobile phone use among refugee women in Australia. *Health Soc Care Community* 2015;**23**:325–36. <https://doi.org/10.1111/hsc.12155>
242. Msengi CM, Arthur-Okor H, Killion L, Schoer J. Educating immigrant women through social support. *SAGE Open* 2015;**5**. <https://doi.org/10.1177/2158244015611935>
243. Koh Lee C, Walker R, Wollersheim D, Liamputtong P. I think someone is walking with me: the use of mobile phone for social capital development among women in four refugee communities. *Int J Migr Health Soc Care* 2018;**14**:411–24. <https://doi.org/10.1108/IJMHS-08-2017-0033>
244. Page NW. *International Student Support Groups: Understanding Experiences of Group Members and Leaders*. PhD thesis. Provo, UT: Brigham Young University; 2015.
245. People's Health Trust. *Signpost – The Sunshine Club (Active Communities Case Study)*. 2017. URL: www.peopleshealthtrust.org.uk/sites/default/files/Signpost%20-%20Sunshine%20Club.pdf (accessed 18 May 2020).
246. Wollersheim D, Koh L, Walker R, Liamputtong P. 'Happy, just talking, talking, talking': community strengthening through mobile phone based peer support among refugee women. *J Community Inform* 2017;**13**:50–71.
247. Wollersheim D, Koh L, Walker R, Liamputtong P. Constant connections: piloting a mobile phone-based peer support program for Nuer (southern Sudanese) women. *Aust J Prim Health* 2013;**19**:7–13. <https://doi.org/10.1071/PY11052>
248. Collins CC, Benedict J. Evaluation of a community-based health promotion program for the elderly: lessons from Seniors CAN. *Am J Health Promot* 2006;**21**:45–8. <https://doi.org/10.1177/089011710602100108>
249. Phinney A, Moody EM, Small JA. The effect of a community-engaged arts program on older adults' well-being. *Can J Aging* 2014;**33**:336–45. <https://doi.org/10.1017/S071498081400018X>
250. Siller H, Renner W, Juen B. Turkish migrant women with recurrent depression: results from community-based self-help groups. *Behav Med* 2017;**43**:129–41. <https://doi.org/10.1080/08964289.2015.1111858>

251. Chaudhry N, Husain N, Tomenson B, Creed F. A prospective study of social difficulties, acculturation and persistent depression in Pakistani women living in the UK. *Psychol Med* 2012;**42**:1217–26. <https://doi.org/10.1017/S0033291711002388>
252. Chaudhry N, Waheed W, Husain N, Bhatti S, Creed F. Development and pilot testing of a social intervention for depressed women of Pakistani family origin in the UK. *J Ment Health* 2009;**18**:504–9. <https://doi.org/10.3109/09638230902968209>
253. Phillimore J, Grzymala-Kazlowska A, Yi Cheung S. Voluntary Action for Asylum Seeker and Refugee Integration – The Welcome Project. In British Academy for Humanities and Social Sciences, editor. *If You Could do One Thing: 10 Local Actions to Promote Social Integration*. London: British Academy; 2017. pp. 19–25.
254. Goodkind JR. Effectiveness of a community-based advocacy and learning program for hmong refugees. *Am J Community Psychol* 2005;**36**:387–408. <https://doi.org/10.1007/s10464-005-8633-z>
255. Hess JM, Isakson B, Githinji A, Roche N, Vadnais K, Parker DP, Goodkind JR. Reducing mental health disparities through transformative learning: a social change model with refugees and students. *Psychol Serv* 2014;**11**:347–56. <https://doi.org/10.1037/a0035334>
256. Goodkind JR. Promoting Hmong refugees' well-being through mutual learning: valuing knowledge, culture, and experience. *Am J Community Psychol* 2006;**37**:77–93. <https://doi.org/10.1007/s10464-005-9003-6>
257. Mitschke DB, Aguirre RTP, Sharma B. Common threads: improving the mental health of Bhutanese refugee women through shared learning. *Soc Work Ment Health* 2013;**11**:249–66. <https://doi.org/10.1080/15332985.2013.769926>
258. Sporting Equals, Age UK. *Fit as a fiddle: final Evaluation Report – January 2012. Sporting Equals – Older People Faith and Community Strand*. URL: www.ageuk.org.uk/Documents/EN-GB/ID201168_fit_As_A_fiddle_Evaluation_Report_fiNAL130313_FINAL.pdf?dtrk=true (accessed 18 May 2020).
259. Varma VR, Carlson MC, Parisi JM, Tanner EK, McGill S, Fried LP, et al. Experience Corps Baltimore: exploring the stressors and rewards of high-intensity civic engagement. *Gerontologist* 2015;**55**:1038–49. <https://doi.org/10.1093/geront/gnu011>
260. Praetorius RT, Mitschke DB, Avila CD, Kelly DR, Henderson J. Cultural integration through shared learning among resettled Bhutanese women. *J Hum Behav Soc Environ* 2016;**26**:549–60. <https://doi.org/10.1080/10911359.2016.1172997>
261. Rania N, Migliorini L, Sclavo E, Cardinali P, Lotti A. Unaccompanied migrant adolescents in the Italian context: tailored educational interventions and acculturation stress. *Child Youth Serv* 2014;**35**:292–315.
262. Michael YL, Farquhar SA, Wiggins N, Green MK. Findings from a community-based participatory prevention research intervention designed to increase social capital in Latino and African American communities. *J Immigr Minor Health* 2008;**10**:281–9. <https://doi.org/10.1007/s10903-007-9078-2>
263. Gustafsson S, Berglund H, Faronbi J, Barenfeld E, Ottenvall Hammar I. Minor positive effects of health-promoting senior meetings for older community-dwelling persons on loneliness, social network, and social support. *Clin Interv Aging* 2017;**12**:1867–77. <https://doi.org/10.2147/CIA.S143994>
264. Brunsting NC, Smith AC, Zachry CE. An academic and cultural transition course for international students: efficacy and socioemotional outcomes. *J Int Stud* 2018;**8**:1497–521. <https://doi.org/10.32674/jis.v8i4.213>

265. Fried LP, Carlson MC, Freedman M, Frick KD, Glass TA, Hill J, *et al.* A social model for health promotion for an aging population: initial evidence on the Experience Corps model. *J Urban Health* 2004;**81**:64–78. <https://doi.org/10.1093/jurban/jth094>
266. Ismail L, Mackenzie J. Convening and facilitating support groups for South Asian family carers of people with dementia: experiences and challenges. *Dementia* 2003;**2**:433–8. <https://doi.org/10.1177/14713012030023012>
267. Wigfield A, Alden S. *Evaluation of Time to Shine: Year 2: Interim findings*. Sheffield: University of Sheffield; 2017. URL: www.sheffield.ac.uk/polopoly_fs/1.750658!/file/Time-to-Shine-final-Report.pdf (accessed 18 May 2020).
268. Gater R, Waheed W, Husain N, Tomenson B, Aseem S, Creed F. Social intervention for British Pakistani women with depression: randomised controlled trial. *Br J Psychiatry* 2010;**197**:227–33. <https://doi.org/10.1192/bjp.bp.109.066845>
269. Bell J. Migrants: keeping a foot in both worlds or losing the ground beneath them? Transnationalism and integration as experienced in the everyday lives of Polish migrants in Belfast, Northern Ireland. *Soc Identities* 2016;**22**:80–94. <https://doi.org/10.1080/13504630.2015.1110359>
270. Doku F, Meekums B. Emotional connectedness to home for Ghanaian students in the UK. *Br J Guid Counc* 2014;**42**:383–402. <https://doi.org/10.1080/03069885.2014.916396>
271. Mir G, Ghani R, Meer S, Hussain G. Delivering a culturally adapted therapy for Muslim clients with depression. *Cog Behav Ther* 2019;**12**:E26. <https://doi.org/10.1017/S1754470X19000059>
272. Clayton J. Living the multicultural city: acceptance, belonging and young identities in the city of Leicester, England. *Ethn Racial Stud* 2012;**35**:1673–93. <https://doi.org/10.1080/01419870.2011.605457>
273. Vitale A, Ryde J. exploring risk factors affecting the mental health of refugee women living with HIV. *Int J Environ Res Public Health* 2018;**15**:E2326. <https://doi.org/10.3390/ijerph15102326>
274. Gardner PL, Bunton P, Edge D, Wittkowski A. The experience of postnatal depression in West African mothers living in the United Kingdom: a qualitative study. *Midwifery* 2014;**30**:756–63. <https://doi.org/10.1016/j.midw.2013.08.001>
275. Wilkins C, Lall R. ‘You’ve got to be tough and I’m trying’: black and minority ethnic student teachers’ experiences of initial teacher education. *Race Ethn Educ* 2011;**14**:365–86. <https://doi.org/10.1080/13613324.2010.543390>
276. Selman LE, Fox F, Aabe N, Turner K, Rai D, Redwood S. ‘You are labelled by your children’s disability’ – a community-based, participatory study of stigma among Somali parents of children with autism living in the United Kingdom. *Ethn Health* 2018;**23**:781–96. <https://doi.org/10.1080/13557858.2017.1294663>
277. Hancock A-M. *Intersectionality: An Intellectual History*. Oxford: Oxford University Press; 2016. <https://doi.org/10.1093/acprof:oso/9780199370368.001.0001>
278. Shaw SA. Bridge Builders: A qualitative study exploring the experiences of former refugees working as caseworkers in the United States. *J Soc Serv Res* 2014;**40**:284–96. <https://doi.org/10.1080/01488376.2014.901276>
279. Hudson DB, Campbell-Grossman C, Keating-Lefler R, Cline P. New Mothers Network: the development of an Internet-based social support intervention for African American mothers. *Issues Compr Pediatr Nurs* 2008;**31**:23–35. <https://doi.org/10.1080/01460860701877183>

280. Brage Hudson D, Campbell-Grossman C, Brown S, Hanna KM, Ramamurthy B, Gorthi B, Sivadasan V. Enhanced New Mothers Network cell phone application intervention: interdisciplinary team development and lessons learned. *Compr Child Adolesc Nurs* 2017;**40**:126–35. <https://doi.org/10.1080/24694193.2016.1273979>
281. De Joseph JF, Norbeck JS, Smith RT, Miller S. The development of a social support intervention among African American women. *Qual Health Res* 1996;**6**:283–97. <https://doi.org/10.1177/104973239600600208>
282. Linley JL. Racism here, racism there, racism everywhere: the racial realities of minoritized peer socialization agents at a historically white institution. *J Coll Stud Dev* 2018;**59**:21–36. <https://doi.org/10.1353/csd.2018.0002>
283. Westwood MJ, Barker M. Academic achievement and social adaptation among international students: a comparison groups study of the peer-pairing program. *Int J Intercult Relat* 1990;**14**:251–63. [https://doi.org/10.1016/0147-1767\(90\)90008-K](https://doi.org/10.1016/0147-1767(90)90008-K)
284. Haynes-Maslow L, Allicock M, Johnson L-S. Peer support preferences among African-American breast cancer survivors and caregivers. *Support Care Cancer* 2017;**25**:1511–17. <https://doi.org/10.1007/s00520-016-3550-2>
285. Nápoles-Springer AM, Ortíz C, O'Brien H, Díaz-Méndez M. Developing a culturally competent peer support intervention for Spanish-speaking Latinas with breast cancer. *J Immigr Minor Health* 2009;**11**:268–80. <https://doi.org/10.1007/s10903-008-9128-4>
286. Cochrane E, Gulec N, Hershkowitz D, Ledoux M, Lee D, Mertaban M, et al. *Evaluating Services for Bhutanese Elders at the Champlain Senior Center*. 2015. URL: https://scholarworks.uvm.edu/cgi/viewcontent.cgi?article=1209%26context=comphp_gallery (accessed 18 May 2020).
287. Kieffer EC, Caldwell CH, Welmerink DB, Welch KB, Sinco BR, Guzmán JR. Effect of the healthy MOMs lifestyle intervention on reducing depressive symptoms among pregnant Latinas. *Am J Community Psychol* 2013;**51**:76–89. <https://doi.org/10.1007/s10464-012-9523-9>
288. Carr JL, Koyama M, Thiagarajan M. A women's support group for Asian international students. *J Am Coll Health* 2003;**52**:131–4. <https://doi.org/10.1080/07448480309595735>
289. Delgado-Romero Edward A, Wu Y-C. Asian international students in counseling programs: a group intervention to promote social justice. *J Specialists Group Work* 2010;**35**:290–8. <https://doi.org/10.1080/01933922.2010.492896>
290. Johnson DR. Examining sense of belonging and campus racial diversity experiences among women of color in STEM living-learning programs. *J Women Minor Sci Eng* 2011;**17**:209–23. <https://doi.org/10.1615/JWomenMinorScienEng.2011002843>
291. Lin YY. Understanding the benefits of an Asian music therapy student peer group. *Aust J Music Ther* 2014;**25**:28–44.
292. Smith TB, Chin L-C, Inman AG, Findling JH. An outreach support group for international students. *J Coll Couns* 1999;**2**:188–90. <https://doi.org/10.1002/j.2161-1882.1999.tb00156.x>
293. Ashing-Giwa K, Tapp C, Rosales M, McDowell K, Martin V, Santifer RH, et al. Peer-based models of supportive care: the impact of peer support groups in African American breast cancer survivors. *Oncol Nurs Forum* 2012;**39**:585–91. <https://doi.org/10.1188/12.ONF.585-591>
294. Tam C, Poon V. Developing a support group for families with children with disabilities in a Canadian Chinese church community. *J Pastoral Care Counsel* 2008;**62**:343–51. <https://doi.org/10.1177/154230500806200404>
295. Williams E, Barton P. Successful support groups for African American caregivers. *Generations* 2003;**27**:81–3.

REFERENCES

296. Goodkind J, LaNoue M, Lee C, Freeland L, Freund R. Feasibility, acceptability, and initial findings from a community-based cultural mental health intervention for American Indian youth and their families. *J Community Psychol* 2012;**40**:381–405. <https://doi.org/10.1002/jcop.20517>
297. Lood Q, Gustafsson S, Dahlin Ivanoff S. Bridging barriers to health promotion: a feasibility pilot study of the 'Promoting Aging Migrants' Capabilities study'. *J Eval Clin Pract* 2015;**21**:604–13. <https://doi.org/10.1111/jep.12345>
298. Im H, Rosenberg R. Building social capital through a peer-led community health workshop: a pilot with the Bhutanese refugee community. *J Community Health* 2016;**41**:509–17. <https://doi.org/10.1007/s10900-015-0124-z>
299. Naidoo L. Developing social inclusion through after school homework tutoring: a study of African refugee students in Greater Western Sydney. *Br J Sociol Educ* 2009;**30**:261–73. <https://doi.org/10.1080/01425690902812547>
300. Frick KD, Carlson MC, Glass TA, McGill S, Rebok GW, Simpson C, Fried LP. Modeled cost-effectiveness of the Experience Corps Baltimore based on a pilot randomized trial. *J Urban Health* 2004;**81**:106–17. <https://doi.org/10.1093/jurban/jth097>
301. Frick KD, McGill S, Tan EJ, Rebok GW, Carson MC, Tanner EK, Fried LP. The costs of Experience Corps (R) in public schools. *Educ Gerontol* 2012;**38**:552–62. <https://doi.org/10.1080/03601277.2011.595311>
302. Fried LP, Carlson MC, McGill S, Seeman T, Xue Q-L, Frick K, et al. Experience Corps: A dual trial to promote the health of older adults and children's academic success. *Contemp Clin Trials* 2013;**36**:1–13. <https://doi.org/10.1016/j.cct.2013.05.003>
303. Morrow-Howell N, Hong S-L, McCrary S, Blinne W. Changes in activity among older volunteers. *Res Aging* 2012;**34**:174–196. <https://doi.org/10.1177/0164027511419371>
304. Hausmann LRM, Ye F, Schofield JW, Woods RL. Sense of belonging and persistence in white and African American first-year students. *Res High Educ* 2009;**50**:649–69. <https://doi.org/10.1007/s11162-009-9137-8>
305. Ong ASJ, Ward C. The construction and validation of a social support measure for sojourners: the Index of Sojourner Social Support (ISSS) scale. *J Cross Cult Psychol* 2005;**36**:639–61. <https://doi.org/10.1177/0022022105280508>
306. Revenson T, Schiaffino K. *Development of a Contextual Social Support Measure for Use with Arthritis Populations*. Proceedings of the Arthritis Health Professionals Association: Seattle, WA; 1990.
307. Walton GM, Cohen GL. A question of belonging: race, social fit, and achievement. *J Pers Soc Psychol* 2007;**92**:82–96. <https://doi.org/10.1037/0022-3514.92.1.82>
308. Cohen S, Hoberman HM. Positive events and social supports as buffers of life change stress. *J Appl Soc Psychol* 1983;**13**:99–121. <https://doi.org/10.1111/j.1559-1816.1983.tb02325.x>
309. Zimet GD, Dahlem NW, Zimet SG, Farley GK. The multidimensional scale of perceived social support. *J Pers Assess* 1988;**52**:30–41. https://doi.org/10.1207/s15327752jpa5201_2
310. Goodenow C. The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychol Schs* 1993;**30**:79–90. [https://doi.org/10.1002/1520-6807\(199301\)30:1<79::AID-PITS2310300113>3.0.CO;2-X](https://doi.org/10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X)
311. Weinert C. Evaluation of the Personal Resource Questionnaire: a social support measure. *Birth Defects Orig Artic Ser* 1984;**20**:59–97.

312. Neuling SJ, Winefeld HR. Social support and recovery after surgery for breast cancer: Frequency and correlates of supportive behaviors by family, friends and surgeon. *Soc Sci Med* 1988;**27**:385–92. [https://doi.org/10.1016/0277-9536\(88\)90273-0](https://doi.org/10.1016/0277-9536(88)90273-0)
313. Sarason IG, Sarason BR, Shearin EN, Pierce GR. A brief measure of social support: practical and theoretical implications. *J Soc Pers Relationsh* 1987;**4**:497–510. <https://doi.org/10.1177/0265407587044007>
314. Glass CR. Educational experiences associated with international students' learning, development, and positive perceptions of campus climate. *J Stud Int Educ* 2012;**16**:228–51. <https://doi.org/10.1177/1028315311426783>
315. Baker RW, Siryk B. *Student Adaptation to College Questionnaire (SACQ)*. Los Angeles: Western Psychological Services; 1989.
316. Rauer W, Schuck KD. [Emotional and social school experiences: Psychology of Music, a diagnostic object of operationalizable pedagogical value.] In Ricken G, Fritz A, Hofmann C, editors. [Diagnosis: Special needs education required.] Lengerich: Papst; 2003. pp. 292–306.
317. Brown MA. Social support during pregnancy: a unidimensional or multidimensional construct? *Nurs Res* 1986;**35**:4–9. <https://doi.org/10.1097/00006199-198601000-00002>
318. Cohen GL, Garcia J, Purdie-Vaughns V, Apfel N, Brzustoski P. Recursive processes in self-affirmation: intervening to close the minority achievement gap. *Science* 2009;**324**:400–3. <https://doi.org/10.1126/science.1170769>

Appendix 1 Search strategy examples

MEDLINE: initial search (October 2017)

1. refugee*.ti,ab.
2. asylum seeker*.ti,ab.
3. (migrant* or immigrant* or emigrant*).ti,ab.
4. Refugees/
5. "Emigrants and Immigrants"/
6. "transients and migrants"/
7. 1 or 2 or 3 or 4 or 5 or 6
8. ((Human or child or people or person) adj traffick*).ti,ab.
9. ("first generation" or "second generation" or "third generation").ti,ab.
10. ("new arrival*" or settler* or newcomer*).ti,ab.
11. ((Multi or trans or cross) adj cultural*).ti,ab.
12. (Multi adj (ethnic or racial or lingual)).ti,ab.
13. diaspora.ti,ab.
14. ethnic groups/
15. 9 or 10 or 11 or 12 or 13 or 14
16. (traveller* or Gypsies or Gypsy or Gipsy or Gipsies or Romany or Romanies or Romani or Romanis or Rromani or Rromanis or Roma).ti,ab.
17. (black or blacks or "Black African*" or "Black British" or "British African" or "Afrocaribbean*" or BME or BAME or afro-caribbean* or african-caribbean* or caribbean or african*).ti,ab.
18. ((European* or arab* or somali* or algeri* or yemini* or Syria* or vietnamese or chinese or caribbean* or Pakistani* or Bangladeshi* or Punjabi* or Somali* or Gujarati* or Japanese or Asian* or Irish or Indian* or Bengali* or Afghanistani* or Turkish or Kurdish or Yemeni* or Albanian* or Polish or Poland or poles or German* or African* or American* or Jamaican* or Nigerian* or Kenyan* or Zimbabwean* or Phillipin* or filipino* or "Sri Lankan*" or French or Italian or Chinese or Cantonese or Australia* or Somalia* or Portugues* or Canadian* or Ghanaian* or Lithuanian* or "Hong Kong" or Spanish or Iranian* or "New Zealand" or Kiwi* or Romania* or Iraqi* or Turkish or Cypriot* or Malaysian* or Dutch or Ugandan* or Bulgarian* or Afghan* or Brazilian* or Slovak* or Mauritan* or Singapore* or Nepales* or Hungarian* or Latvian* or Russian* or Tanzanian* or Thai* or Swedish or Greek or Zambia* or Czech or Egyptia* or Trinidad* or Tobago* or Maltese or Austrian* or Belgian* or Libyan* or Korean* or Danish or Swiss) adj (culture* or men or women or male* or female* or people or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph* or minorities or minority or ethnic*).ti,ab.
19. 16 or 17 or 18
20. 7 or 8 or 15 or 19
21. (loneliness or lonely or alone*).ti,ab.
22. (isolation or isolated).ti,ab.
23. (alienation or alienated).ti,ab.
24. (social adj (inclusion or included or exclusion or excluded or detach* or integrat* or participat* or engage* or interact* or support* or connect* or relations* or coherence or network or assimilat* or acculturat* or accept* or settl*).ti,ab.
25. ((social or bonding or bridging) adj capital).ti,ab.
26. 21 or 22 or 23 or 24 or 25
27. 20 and 26
28. exp Great Britain/
29. (national health service* or nhs*).ti,ab,in.
30. (english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.

31. (gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in.
32. (bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*))) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or ("newcastle's" not (new south wales* or nsw)) or norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worchester not (massachusetts* or boston* or harvard*)) or ("worchester's" not (massachusetts* or boston* or harvard*)) or (york not ("new york*" or ny or ontario* or ont or toronto*)) or ("york's" not ("new york*" or ny or ontario* or ont or toronto*))))).ti,ab,in.
33. (bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in.
34. (aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in.
35. (armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in.
36. 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35
37. (exp africa/or exp americas/or exp antarctic regions/or exp arctic regions/or exp asia/or exp oceania/) not (exp great britain/or europe/)
38. 36 not 37
39. 27 and 3

MEDLINE: additional search (October 2018)

1. refugee*.ti.
2. asylum seeker*.ti.
3. (migrant* or immigrant* or emigrant*).ti.
4. ("first generation" or "second generation" or "third generation").ti.
5. ("new arrival*" or settler* or newcomer*).ti.
6. ((Human or child or people or person) adj traffick*).ti.
7. ((Multi or trans or cross) adj cultural*).ti.
8. (Multi adj (ethnic or racial or lingual)).ti.
9. diaspora.ti.
10. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. "Emigrants and Immigrants"/
12. ethnic groups/
13. Refugees/

14. gypsies/
15. "transients and migrants"/
16. 11 or 12 or 13 or 14 or 15
17. (traveller* or Gypsies or Gypsy or Gipsy or Gipsies or Romany or Romanies or Romani or Romanis or Rromani or Rromanis or Roma).ti.
18. (black or blacks or "Black African*" or "Black British" or "British African" or "Afrocaribbean*" or BME or BAME or afro-caribbean* or african-caribbean* or caribbean or african*).ti.
19. ((European* or arab* or somali* or algeri* or yemini* or Syria* or vietnamese or chinese or caribbean* or Pakistani* or Bangladeshi* or Punjabi* or Somali* or Gujarati* or Japanese or Asian* or Irish or Indian* or Bengali* or Afghanistani* or Turkish or Kurdish or Yemeni* or Albanian* or Polish or Poland or poles or German* or African* or American* or Jamaican* or Nigerian* or Kenyan* or Zimbabwean* or Philippin* or filipino* or "Sri Lankan*" or French or Italian or Chinese or Cantonese or Australia* or Somalia* or Portugues* or Canadian* or Ghanaian* or Lithuanian* or "Hong Kong" or Spanish or Iranian* or "New Zealand" or Kiwi* or Romania* or Iraqi* or Turkish or Cypriot* or Malaysian* or Dutch or Ugandan* or Bulgarian* or Afghan* or Brazilian* or Slovak* or Mauritan* or Singapore* or Nepales* or Hungarian* or Latvian* or Russian* or Tanzanian* or Thai* or Swedish or Greek or Zambia* or Czech or Egyptia* or Trinidad* or Tobago* or Maltese or Austrian* or Belgian* or Libyan* or Korean* or Danish or Swiss) adj (culture* or men or women or male* or female* or people or population* or communit* or neighbourhood* or neighborhood* or group* or area* or demograph* or minorities or minority or ethnic*)),ti.
20. 17 or 18 or 19
21. ("berkman-syme" or "de jong giervald" or "duke adj2 item" or "duke UNC" or ENRICHHD or gijon or litwin or lubben or "medical outcomes study" or "multidimensional scale of perceived social support" or MSPSS or "negative affect scale").ti,ab.
22. ("nottingham health profile social isolation" or "older american* research and service center" or "oslo adj 3" or "personal resource questionnaire" or "UCLA loneliness" or "wenger support network" or "campaign to end loneliness" or selsa).ti,ab.
23. ("social and emotional loneliness scale" or "social disconnectedness scale" or "social adjustment scale" or "health education impact questionnaire" or "scale of perceived social support" or ISEL or "interpersonal support evaluation list" or SPS).ti,ab.
24. 21 or 22 or 23
25. 20 and 24
26. (((((((project* or intervention* or program* or programme* or case) adj study) or case) adj studies) or policy or policies or initiative* or audit or evaluation or evaluative or research or comparison* or comparator* or study) adj design) or data).ti.
27. 20 and 26
28. ((Lunch or conversation or social or conversation or support or activity or discussion or liaison) adj (club or class or group)).ti.
29. (Companion* or befriend or doula or mentor* or home visit* or navigator* or mediator* or navigation* or mediation* or neighbour* or neighbor* or volunteer* or peer support*).ti.
30. (((((((contact zone or organised encounter* or integrative moment* or associational space* or inter) adj faith) or inter) adj cultural) or inter) adj ethnic) or cultural event* or faith tour or walking tour or heritage project).ti,ab.
31. 28 or 29 or 30
32. 20 and 31
33. 25 or 27 or 32
34. limit 33 to (english language and humans and yr = "2000 -Current")

Appendix 2 Early logic models

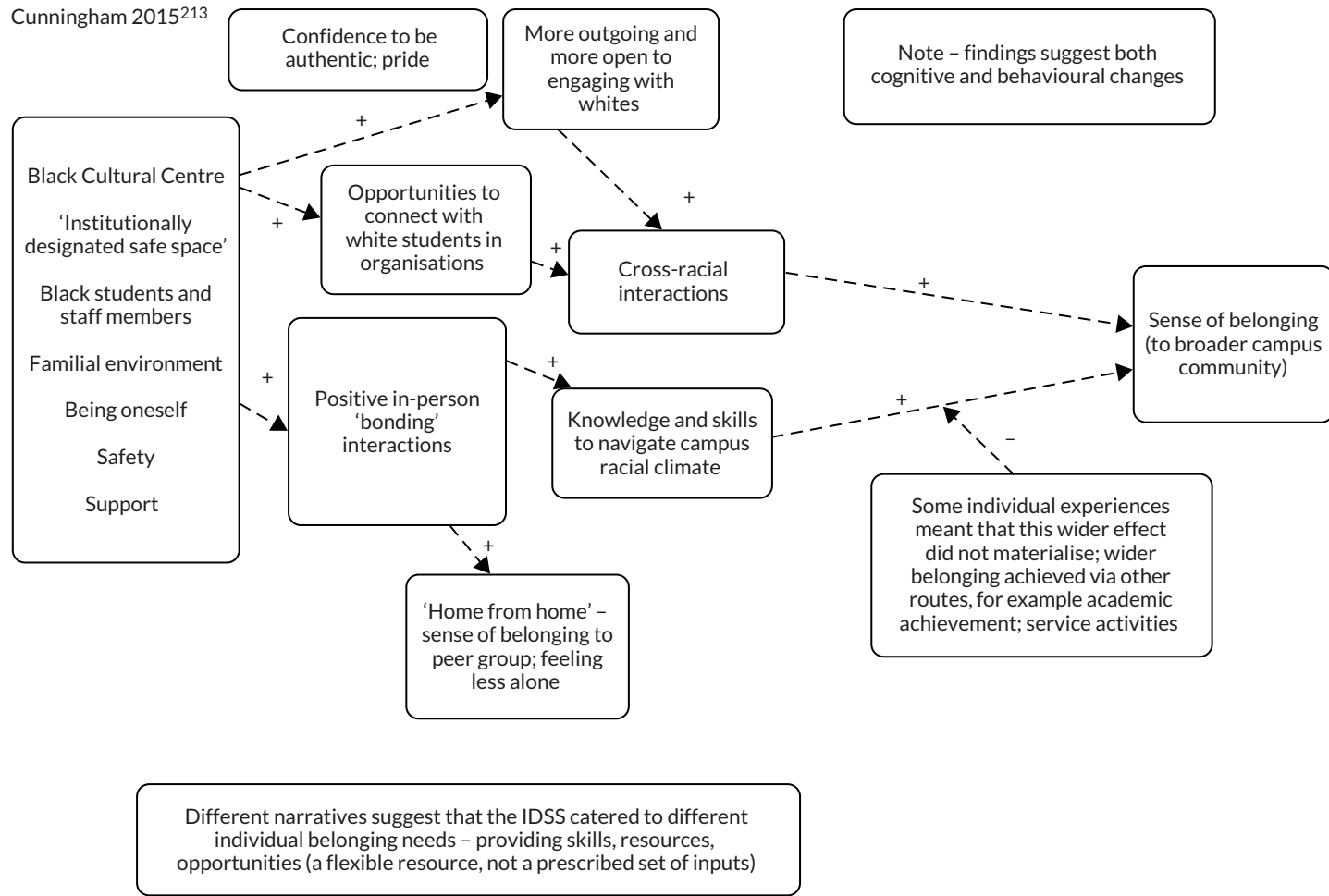


FIGURE 7 Illustrative example of early logic model drawn during extraction of intervention paper. Arrows indicate that qualitative data suggest a relationship. IDSS, institutionally designated safe spaces.

Appendix 3 Consultation panel details: workshop 1

TABLE 11 Characteristics of panel members in workshop 1

Characteristic	Sheffield, June 2018	Leicester, July 2018	Sheffield, July 2018
Life stage	Family-building/working age	Older people	Younger people/university students
Participants (n)	10 (including two one-to-one discussions)	11	6
Age range (years)	25–54	45, ^a ≥ 50	≤ 34
Gender	3 male; 7 female	5 male; 6 female	3 male; 3 female
Migration status and ethnicity	Mix of people with British BME background, both born in the UK and born overseas; migrants from the EU; people with a refugee background	Mix of people with British BME background, born overseas and born in the UK; British black Caribbean; British black African; British Pakistani; British Indian; British Chinese	<ul style="list-style-type: none"> • International students from India (two), Kenya, Indonesia/Malay Chinese, Hong Kong • British black African
Exercise 2 focus	Four interventions discussed: <ol style="list-style-type: none"> 1. Peer support and mobiles phones for refugee women in Australia (Walker <i>et al.</i>²⁴¹) 2. Community gardens for refugee and immigrant communities in the USA (Hartwig and Mason¹⁷⁰) 3. West End Befriending Scheme, Newcastle, UK (Askins²⁰²) 4. Irish project centre in London (Cant and Taket¹⁰⁴) 	Four interventions discussed: <ol style="list-style-type: none"> 1. Group based programme to improve community knowledge and provide networking with other elderly migrants in Japan (Saito <i>et al.</i>¹⁰³) 2. Irish project centre in London (Cant and Taket¹⁰⁴) 3. Seniors CAN – group-based educational programme, USA (Collins and Benedict²⁴⁸) 4. Experience Corps – school volunteering programme – older people have opportunities for ‘giving back’, USA (Fried <i>et al.</i>²⁶⁵) 	Four interventions discussed: <ol style="list-style-type: none"> 1. Under-represented minority undergraduates in science: building capital, USA (Ovink and Veazey⁷⁵) 2. STAR scheme for international students, Australia (Smith and Khawaja¹⁵⁵) 3. Service-learning for Spanish-speaking students, USA (Chin-Sook Pak⁵⁸) 4. Internet-based support network for Chinese immigrants in Toronto, ON, Canada (Lin¹⁰⁷)

STAR, strengths, transitions, adjustments and resilience.

a The youngest member was a community worker with experience of working with ethnic minority and marginalised communities.

Appendix 4 Consultation panel details: workshop 2

TABLE 12 Characteristics of panel members in workshop 2

Characteristic	Sheffield, March 2019	Leicester, April 2019	Sheffield, March 2019
Life stage	Family-building/working age	Older people	Younger people/university students
Participants (n)	8	6	7
Participants (n) in both CP1 and CP2	8	3	3
Age range (years)	25–54	45, ^a ≥ 50	≤ 34
Gender	3 male; 5 female	2 male; 4 female	3 male; 4 female
Migration status and ethnicity	Mix of people with British BME background, both born in the UK and born overseas; migrants from the EU; people with a refugee background	Mix of people with British BME background born overseas and born in the UK; British black Caribbean; British black African; British Pakistani; British Indian	<ul style="list-style-type: none"> • International students from India (two), Jamaica, Nigeria, Indonesia/Malay Chinese • British black African and British Bangladeshi
Exercise focus	<ul style="list-style-type: none"> • Exercise 1: social support group vignettes • Exercise 2: Intercultural exchange vignettes 	<ul style="list-style-type: none"> • Exercise 1: social support group vignettes • Exercise 2: technological connectedness vignettes 	<ul style="list-style-type: none"> • Exercise 1: designing an 'ideal type' social support group using persona prompts • Exercise 2: university life trajectories and opportunities to intervene using visual timelines

a The youngest member was a community worker with experience of working with ethnic minority and marginalised communities.

Appendix 5 Examples of consultation panel workshop exercises

Peer Support and Mobiles Phones for Refugee Women in Australia (Walker et al.²⁴¹)

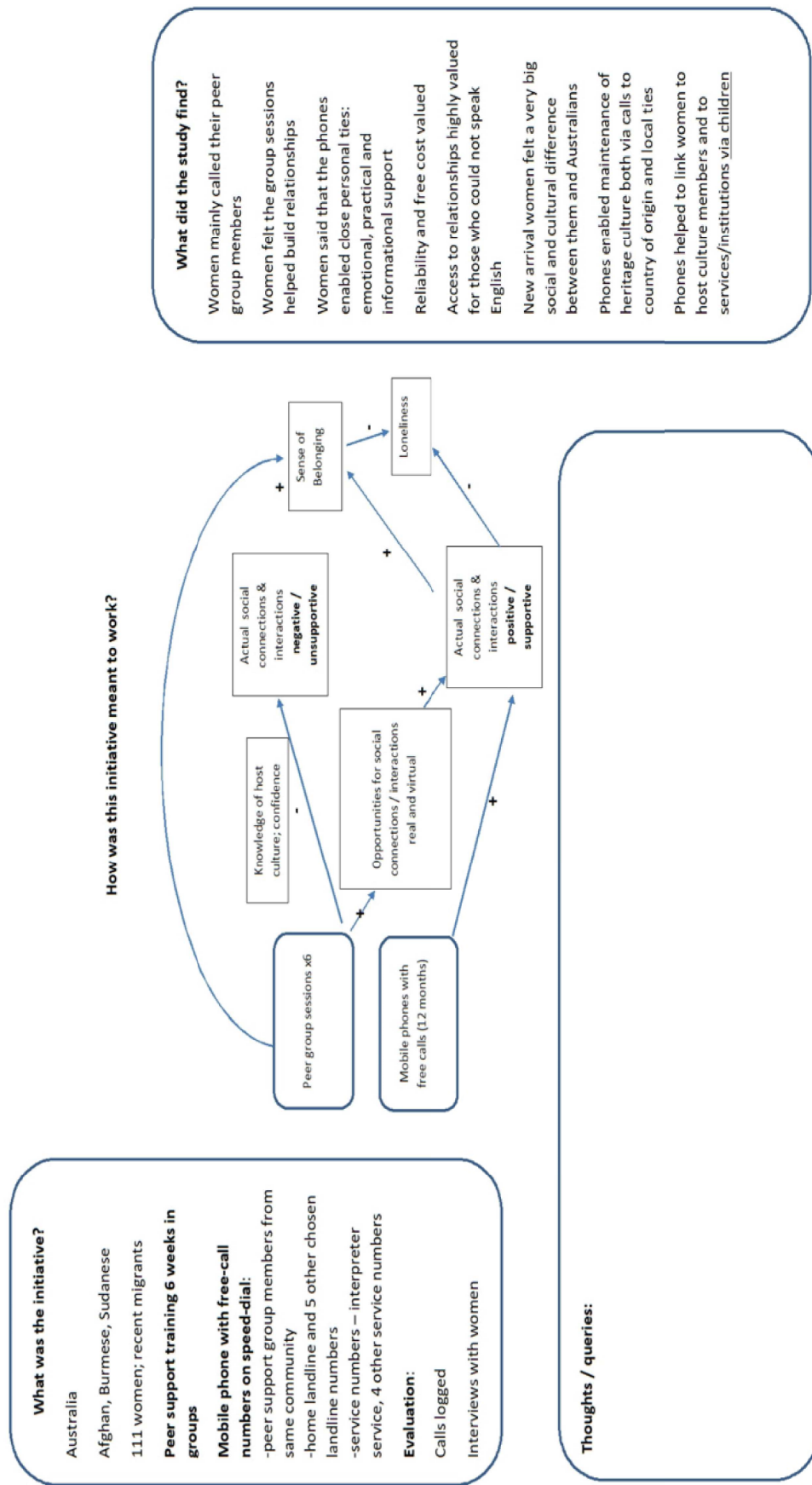


FIGURE 8 Example of visual representation worksheet for CP workshop 1.

Example of small group exercise facilitator notes from workshop 1

FOCUS: Understandings of patterns and causes of social isolation and loneliness.

PART A – INDIVIDUAL THINKING TIME (10 MINS)

1. Facilitator describes the templates and invites participants to choose a diagram to work with – whichever you like – [stick person, timeline or system map]
2. Thinking about people who are migrants and/or of minority ethnic identity, consider the following questions and make notes or draw on your sheet to capture your thoughts:-
 - a. Which types of positive social connections and interactions are important in relation to feeling lonely? Why?
 - b. Which types of negative social connections and interactions are important in relation to feeling lonely? Why?
 - c. Who do you think is most at risk of being isolated and/or lonely? Why?

PART B – DISCUSSION IN THE SMALL GROUP [50 MINS TOTAL] [RECORDER ON]

1. Each person to explain their thoughts on the first 3 questions.
 - a. Facilitator to prompt for examples or illustrations (no need to name people, but stories can help to illustrate the points)
 - b. Facilitator to pick up on and explore heterogeneity in experiences, and reasons for this e.g. by gender; by life-stage; by education
 - c. Facilitator to explore possible differences between ‘fleeting’ loneliness or lack of belonging (e.g. at particular times or in particular places) versus more chronic and persistent loneliness (a feeling that stays with the person most of the time and across space/place)
2. Group discussion - move on to addressing the following questions:-
 - a. What factors help to protect against social isolation or help to connect people in positive ways?
 - b. What factors help to protect against the feelings of loneliness?
 - c. What factors get in the way of connections or make isolation more likely?
 - d. What factors make loneliness more likely?
 - e. Why is it that in the same circumstances some people feel lonely and others do not?

Facilitator to prompt the group to think at all levels – individual, family, community, services, wider society and so on.

One note-taker to use system diagram to record factors and relationships as far as possible.

One note-taker to record commentary/discussion as far as possible.

3. Prepare to share main points with the whole group. Agree on the main things to be mentioned.

Example 3 Vignettes used in Workshop 2**SECTION 1: SUPPORT GROUPS****Support group 1**

This group was set up at a community centre in a medium sized city. The group was open to any women who were new migrants to the country, and met on a weekly basis in the early evening. A volunteer facilitator, who was herself a migrant, convened the group and asked the women for their ideas on what the group sessions should cover. Sessions were held in English and involved a mixture of information giving by the facilitator and sharing of stories, experiences and food among the group participants. From time-to-time, the group also went on excursions to parts of the city. Most group members reported that their sense of belonging had increased and feelings of loneliness lessened after three months of attending the group. For instance, Aamra told us that she had exchanged phone numbers and started to meet group members outside the sessions. She felt more confident to go out and she had shared what she had learned about life in the UK with other people in her community. However, for a few women, the group had less of a positive impact. For instance, Nafisa enjoyed the group sessions but struggled to attend sometimes and said that she did not feel any less lonely or isolated after being in the group for three months.

Why do you think this group was generally quite successful?

Why do you think that it did not work for some women?

How might you change it to make it more successful for women like Nafisa?

What else would you like to know? What details are missing that are important to consider?

SUPPORT GROUPS (continued)**Support group 2**

This group was set up for Black British men with 'low mood' who were considered socially isolated. Group members were referred to the group by their GP or social worker. The group involved a structured 12 week programme using psychological approaches. The weekly sessions were delivered by a health professional. Participants were encouraged to get to know each other and share their experiences. One-to-one support was available at the end of sessions or via telephone in between sessions, so that participants could discuss individual issues. The last session included a 'celebration', with refreshments. At the end of the 12 week programme most participants reported that they thought the group was 'helpful' but they did not feel any less isolated or lonely.

Why do you think this group was generally not successful in reducing feelings of isolation and loneliness?

What aspects of the support group do you think were promising / good?

How would you change it to make it more successful?

What else would you like to know? What details are missing that are important to consider?



Appendix 6 Examples of visual outputs co-created with consultation panels

Logos reproduced with permission from Nifty Fox Creative and The University of Sheffield.



Adding to our stories

MISSING

Family Structure



marriage Culture



Did she have Bereavement counselling?





PARVEEN

INTERVENTION

Put Parveen heart of care



befriending



CONTEXT

Local area & support



Changing family relations



Changing I.D as a WIDOW



FAITH based support



Discovery workshop | 21 August 2019 | University of Sheffield



Appendix 7 Overview of interventions/ initiatives in the three common types

TABLE 13 Befriending papers overview: characteristics of inputs

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
1	Askins 2014; ²⁰² UK (Newcastle upon Tyne, north-east England)	<ul style="list-style-type: none"> Qualitative n = 14 (befrienders and befriendees) <p>Social isolation</p>	<ul style="list-style-type: none"> Asylum-seeking/refugee adults Targeting for isolation or loneliness: 'at risk' of being isolated and/or lonely (no screening mentioned) National/ethnic categories: wide range, 43 different countries in 2012-3 Gender: mixed <p>Other relevant circumstances: most had experienced trauma</p>	<ul style="list-style-type: none"> 'Befrienders'; volunteer Mainly British, some had refugee/asylum-seeking background Interviewed, DBS-checked <p>Training and induction programme</p>	<ul style="list-style-type: none"> Accredited scheme (national Mentoring and Befriending Foundation) Careful matching process <p>Support from Volunteer Co-ordinators</p>	<ul style="list-style-type: none"> Face-to-face and telephone Varied community locations Private homes Very flexible <p>Frequency and duration: flexible, no fixed end</p>	<ul style="list-style-type: none"> ✓ Function 2: information about new context; English language informal practice ✓ Function 3: practical help, navigation and shared outings
2	Government of Canada 2010; ²⁰⁴ Canada	<ul style="list-style-type: none"> Mixed methods, within group n = 260 (survey 92 clients and 168 hosts); 18 focus groups (hosts and clients) 32 interviews (stakeholders) Settlement and adaptation to new country 	<ul style="list-style-type: none"> Any adult newcomer Targeting for isolation or loneliness: assumed to be at risk of isolation National/ethnic categories: China, Colombia Afghanistan, Iran, Sudan, Thailand Gender: mixed Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> 'Hosts'; volunteer Canadian citizens or permanent residents, 59% born in Canada, 96% not previous clients of the programme Careful, but non-standard, selection processes (interview, criminal record check, attributes) 4- to 5-hour training and induction programme 	<ul style="list-style-type: none"> Careful matching process Service provider organisations provide support and monitors the match 	<ul style="list-style-type: none"> Face to face and telephone Varied community locations including private homes Very flexible Frequency and duration: flexible, average of 24 meetings in 8 months; average duration 8 or 9 months (endings flexible according to need) 	<ul style="list-style-type: none"> ✓ Function 2: English language informal practice; information about new context ✓ Function 3: linking to wider community and professional social network
3	Renner 2012; ²²⁴ Austria	<ul style="list-style-type: none"> RCT n = 25 (treatment, nine drop-outs), n = 29 (wait-list control) Settlement and adaptation to new country; mental ill-health 	<ul style="list-style-type: none"> Adult refugees and asylum seekers Targeting for isolation or loneliness: assumed to be at risk of isolation National/ethnic categories: Chechen and Afghan Gender: mixed Other relevant circumstances: trauma symptoms common 	<ul style="list-style-type: none"> 'Sponsors'; volunteer 'lay' (no further information on identity) Most sponsors had more than one person Recruited and selected Four training workshops 	<ul style="list-style-type: none"> Sponsors received monthly supervision Mostly matched for gender 	<ul style="list-style-type: none"> Face to face; meeting locations not described Very flexible Frequency and duration: flexible; 6 months, with option to continue informally later on 	<ul style="list-style-type: none"> ✓ Function 2: information about new context

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
4	Shaw 2014; ²⁷⁸ USA	<ul style="list-style-type: none"> Qualitative, descriptive only n = 9 (case workers) Settlement and adaptation to new country 	<ul style="list-style-type: none"> Asylum seekers/refugees, adult refugees Targeting for isolation or loneliness: assumed to be at risk of isolation National/ethnic categories: no information Gender: mixed Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> 'Case workers'; paid Former refugees Trained and supported 	No information	<ul style="list-style-type: none"> Face to face Tailored to individual clients but constrained by structures of organisation Frequency and duration: unclear 	<ul style="list-style-type: none"> ✓ Function 2: information about new context ✓ Function 3: navigation of systems; referrals
5	Weekes 2011; ⁹⁸ Australia	<ul style="list-style-type: none"> Qualitative n = 62 (interviews, 12 school representatives, 27 tutors; 23 students) n = 43 (survey; 19 school representatives, 24 tutors) Educational persistence and attainment 	<ul style="list-style-type: none"> Asylum seekers/ refugees: school children Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation National/ethnic categories: no information Gender: mixed Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> 'Tutors', volunteer Predominantly experienced teachers, often retired Induction programme 	Support system for tutors in schools	<ul style="list-style-type: none"> Face to face School – in and outside the classroom Tailored to child's needs but within structures of the school setting Frequency and duration: 1 day per week; ≥ 1 school-year 	<ul style="list-style-type: none"> ✓ Function 2: English language informal practice; practise classroom skills; help with homework, providing cultural context and meaning to tasks
6	Ardal 2011; ²⁰⁰ Canada	<ul style="list-style-type: none"> Qualitative n = 8 (mothers) Social support 	<ul style="list-style-type: none"> Pregnant or postpartum women; immigrant mothers with low-birthweight or very preterm infants in a NICU Targeting for isolation or loneliness: assumed to be at risk of lack of support National/ethnic categories: non-English-language speakers – Spanish, Portuguese, Chinese and Tamil Gender: female Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> 'Parent-buddy', volunteer Shared language, culture and experience of NICU Recruitment, selection and a day-long training programme (sufficient English fluency to participate) 	Social worker on the service acted as consultant during the relationship	<ul style="list-style-type: none"> Face to face or, more often, via telephone, sometimes e-mail Flexible interactions (no manual or script) Frequency and duration: duration and frequency of contact was up to the mother; contact ranged from 5 to > 20 conversations over a period of 1–12 months 	<ul style="list-style-type: none"> ✓ Function 2: information provided; support to parenting/being a mother in NICU context

continued

TABLE 13 Befriending papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
7	Campbell-Grossman 2009, ⁶⁶ Hudson 2008 ²⁷⁹ and Hudson 2012; ²²⁸ USA	<ul style="list-style-type: none"> Qualitative $n = 12$ (mothers) RCT $n = 34$ (15 treatment; 19 control) Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women, low-income single mothers Targeting for isolation or loneliness: assumed low level of social support National/ethnic categories: African American Gender: female Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> Nurse; paid Advanced practice nurses Training unclear 	Two research nurses supported by research team	<ul style="list-style-type: none"> Two initial face-to-face home visits to establish rapport and credibility with the single mothers Remote contact, online only Timing of accessing nurse was flexible (but asynchronous) Online tool installed in women's homes, accessed via television screen One-to-one support offered by a nurse via e-mail, any time during first 6 months after birth 	<ul style="list-style-type: none"> Hybrid model 'New Mothers Network' ✓ Function 2: information provided; parenting skills encouraged; communication skills supported ✓ Function 3: asynchronous discussion forum intended to connect new mothers and provide additional social support
8	Brage Hudson 2017; ²⁸⁰ USA	<ul style="list-style-type: none"> Qualitative study; descriptive only Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women Paper describes intervention development process only 	<ul style="list-style-type: none"> Nurse; paid Advanced practice nurses Training unclear 	Research nurses supported by research team	<ul style="list-style-type: none"> Remote contact, text message and online only Frequency and duration: weekly discussion forum topics and 'Just-in-time' text messages sent by nurse to mothers weekly for the first 6 months following the infant's birth Mothers respond to texts and forum posts as they wish 	<ul style="list-style-type: none"> Hybrid model 'Enhanced New Mothers Network' ✓ Function 2: information provided; parenting skills encouraged; communication skills supported ✓ Function 3: weekly discussion forum intended to connect new mothers and provide additional social support
9	Darwin 2017; ²⁰¹ UK, five sites	<ul style="list-style-type: none"> Mixed methods, within group $n = 136$ (questionnaire, mothers) $n = 12$ (interviews, mothers) Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women Targeting for isolation or loneliness: women identified as lacking social support National/ethnic categories: ethnically diverse (33 countries of birth). In two sites, the service was restricted to ethnic minority women; women in the third site were from an ethnically diverse catchment area Gender: female Other relevant circumstances: socioeconomically disadvantaged 	<ul style="list-style-type: none"> 'Doulas', volunteer Women recruited from local community Accredited training 	<ul style="list-style-type: none"> Voluntary sector organisations manage the schemes Matching of volunteer (and, sometimes, a backup volunteer) to each woman according to needs and practicalities Salaried service staff facilitate initial meeting and mentor the volunteer 	<ul style="list-style-type: none"> Face to face and telephone Varied community venues (outings) Health facilities, private homes Very flexible and responsive to need Frequency and duration: typically from the sixth month of pregnancy until 6 weeks postpartum. Policy stipulates no contact beyond end of support period 	<ul style="list-style-type: none"> ✓ Function 2: information provided; parenting skills encouraged; communication skills; coping skills ✓ Function 3: accompanying to appointments; helping find out about other services

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
10	DeJoseph 1996; ²⁶¹ USA	<ul style="list-style-type: none"> Qualitative; descriptive only $n = 15$ (interviews, mothers) $n = 3$ (focus groups professionals, patients, community) Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women Paper describes intervention development process only 	<ul style="list-style-type: none"> 'Support co-ordinators', paid Identity unclear 	Intervention implemented in research context only	<ul style="list-style-type: none"> Face to face Structured sessions scheduled at woman's convenience Frequency and duration: four 30- to 60-minute sessions every 2–4 weeks throughout pregnancy 	<ul style="list-style-type: none"> ✓ Function 2: parenting skills encouraged ✓ Function 3: supporting women to identify and access support
11	Hazard 2009; ¹⁰⁰ USA	<ul style="list-style-type: none"> Qualitative $n = 21$ (12 mothers took part in the programme, nine mothers received usual care) Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women, unmarried or adolescent, limited socioeconomic resources, living in the USA for a short period of time, a short interpregnancy interval and limited maternal education Targeting for isolation or loneliness: women identified as lacking social support National/ethnic categories: self-identified as Hispanic, primarily Spanish-speaking Gender: female Other relevant circumstances: none 	<ul style="list-style-type: none"> 'Labor friend', volunteer Bilingual Hispanic community mothers who were leaders in local community, considered 'wise women' Training, translation certification, orientation to clinic and hospital pregnancy units 	Pregnant women seen in the health centre assigned a 'labor friend' by 32 weeks' gestation	<ul style="list-style-type: none"> Face to face and telephone Varied community venues Health facilities, private homes Less flexible, more structured Frequency and duration: typically one prenatal visit with the patient, support during labour and birth, participated in the discharge teaching on the mother/baby unit, and at least one follow-up postpartum visit 	<ul style="list-style-type: none"> ✓ Function 2: information provision; improved communication with health-care personnel ✓ Function 3: supporting women to access health-care resources, and access to community resources
12	McLeish 2016; ²¹⁸ UK	<ul style="list-style-type: none"> Qualitative $n = 12$ (women who had received or given peer support) Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant women Targeting for isolation or loneliness: assumed low level of social support (many without partner) National/ethnic categories: 11 black African, one black British Gender: female Other special circumstances: living with HIV 	<ul style="list-style-type: none"> 'Mentor mothers'; volunteer Mothers with HIV 36 hours' accredited training – to provide support and advice to pregnant women with HIV 	Programme run by 'Positively UK' voluntary organisation	<ul style="list-style-type: none"> Telephone and face-to-face meetings Very flexible and responsive Frequency and duration: intensity and length of support varied with need (could begin before or during pregnancy, and continued as needed after birth, for 1–12 years) 	<ul style="list-style-type: none"> ✓ Function 2: information to reinforce medical advice; practical strategies and problem-solving

continued

TABLE 13 Befriending papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
13	<ul style="list-style-type: none"> McLeish 2015,⁹⁷ 2017⁹⁶ 2017,²²⁰ UK Nine sites in England (in Bristol, Bradford, Burnley, Halifax, Huddersfield, London and rural North Yorkshire) 	<ul style="list-style-type: none"> Qualitative n = 38–54⁹⁷ volunteers n = 42–47⁹⁶ women Social support for better birth outcomes 	<ul style="list-style-type: none"> Pregnant and postpartum women; disadvantaged mothers (varied across several sites, eight included women with insecure immigration status, recent migrants whose English was poor and/or ethnic minority women) Targeting for isolation or loneliness: assumed low level of social support National/ethnic categories: no information provided Gender: female Other relevant circumstances: some had mental health needs, some were living with HIV and some had experienced trauma 	<ul style="list-style-type: none"> Varied terms: 'mentor', 'buddy', 'companion', 'community parent' and 'community supporter'; umbrella term: 'peer supporters'; volunteer Shared motherhood, some also shared ethnic, linguistic or other shared experience (e.g. past experience of mental ill-health) Training duration and content varied; some accredited 	<ul style="list-style-type: none"> Delivered by local and national charities Varied models Usually one-to-one pairing of mother and supporter (sometimes more than one supporter per mother) Some programmes emphasised support and empowerment of the volunteers as well as the mothers 	<ul style="list-style-type: none"> Telephone and face-to-face meetings Flexible, personalised and responsive Varied models across the programmes, with more/less structure, but also found variation within programmes in the way different individuals and pairs interpreted the role Frequency and duration: pregnancy and onwards for varied durations, some with flexible ending depending on need. Intensity varied from weekly to monthly visits 	<ul style="list-style-type: none"> ✓ Function 2: provision of information; parenting skills supported ✓ Function 3: signposting and supporting women to identify and access other support and services (sometimes groups run by same organisation)
14	Blair 2012; ²⁰³ USA	<ul style="list-style-type: none"> Qualitative n = 20 (community ambassadors) Social isolation and acculturative stress 	<ul style="list-style-type: none"> Older people: older new migrants who have joined adult children in the USA; served by South Asian community organisations Targeting for isolation or loneliness: assumed to be at risk of isolation and inadequate social support National/ethnic categories: Indian Hindu, Pakistani Muslim, Indian and Pakistani Sikh Gender: mixed Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> 'Community ambassadors'; volunteer Shared national and ethnic identity and language; immigrants Trained to provide information, referral and counselling services 	Delivered by seven community organisations	<ul style="list-style-type: none"> Telephone and face-to-face meetings Community venues, private homes Flexible, personalised and responsive Frequency and duration: flexible to meet need, negotiated with client and family 	<ul style="list-style-type: none"> ✓ Function 2: provision of information; sociocultural skills ✓ Function 3: supporting access to social services

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
15	Low 2015; ²²³ Australia	<ul style="list-style-type: none"> • Before-and-after study, within group • <i>n</i> = 189 (clients or family) • <i>n</i> = 162 care workers • Loneliness, social connectedness and depression 	<ul style="list-style-type: none"> • Older people: clients receiving aged care packages at home • Targeting for isolation or loneliness: assumed to be at risk of isolation/ inadequate social activity • National/ethnic categories: various, including Cantonese, Mandarin, Vietnamese, Arabic and Spanish-speaking clients • Gender: mixed • Other relevant circumstances: some clients living with dementia 	<ul style="list-style-type: none"> • 'Care workers'; paid • Care workers trained in four 2- to 3-hour sessions • Incorporation of social support and recreational activities into existing home care service 	<ul style="list-style-type: none"> • Five aged home care providers, including two specialising in care for ethnic minorities • Champions and case managers drove organisational change and supported care workers in new role; buddy visits by champion to support client engagement techniques 	<ul style="list-style-type: none"> • Face-to-face home visits and outings • Flexible and responsive: person-centred, individualised approach • Frequency and type of inputs not fixed 	<ul style="list-style-type: none"> ✓ Function 3: supporting access to other services and social connections
16	LaRosa 2017; ²¹⁹ USA	<ul style="list-style-type: none"> • Qualitative • <i>n</i> = 28 (interviews, students) • <i>n</i> = 10 (interviews, focus groups, peer mentors) • Social adaptation; sense of belonging; academic persistence and performance 	<ul style="list-style-type: none"> • International students: first-year undergraduate international students of business who were participating in a complementary learning skills course • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation • National/ethnic categories: Chinese born • Gender: mixed • Other relevant circumstances: none mentioned 	'Peer coach', volunteer	Anchored in the wider programme of education	<ul style="list-style-type: none"> • Face-to-face contact • University setting, other locations unclear • Flexible but with some structure around support to business learning • Frequency and duration: 4 hours per week over two terms 	<ul style="list-style-type: none"> • Hybrid model: includes group sessions • ✓ Function 2: provision of information, instruction, opportunities to practise, and support to sociocultural skills • ✓ Function 3: support to establish social networks; organising social functions; assist access to services
17	Linley 2018; ²⁸² USA	<ul style="list-style-type: none"> • Descriptive • Qualitative • <i>n</i> = 11 (peer agents, two interviews each) • Sense of belonging; academic persistence and performance 	<ul style="list-style-type: none"> • Ethnic minority students: intervention aimed at black and minority students • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation; lack of belonging • Paper describes experience of black and minority peer socialisation agents 	<ul style="list-style-type: none"> • PSA volunteer • 'Peers' shared black and/or minority ethnic identity in predominantly white institution 	Descriptive study focused on PSA experiences	Descriptive study focused on PSA experiences	Descriptive study focused on PSA experiences

continued

TABLE 13 Befriending papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
18	Menzies 2015; ²⁰⁵ Australia	<ul style="list-style-type: none"> • Qualitative • <i>n</i> = 31 (students) • Isolation; social and academic transition 	<ul style="list-style-type: none"> • International postgraduate students • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation • National/ethnic categories: primarily Asian countries, such as China and India, also European, Middle Eastern, African and South American countries • Gender: mixed • Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Mentor', volunteer • Senior students • One senior student supports four new students • Some mentors are international students but not all • Mentor training 	<ul style="list-style-type: none"> • Programme organised by the university • 'Learning for Success' forum where mentors and mentees discuss academic issues that are different from those in their home country educational system 	<ul style="list-style-type: none"> • Face to face, telephone, e-mail or online messaging • Flexible • Frequency and duration: once a week for first 6 weeks of each semester 	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, instruction, and support to sociocultural skills • ✓ Function 3: assisting students to find part-time employment; linking to societies and networks
19	Quintrell 1994; ²²¹ Australia	<ul style="list-style-type: none"> • Quantitative within group, follow-up measures only • <i>n</i> = 41 (students) • Social relationships; adaptation to new social and academic context 	<ul style="list-style-type: none"> • International first-year students • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation • National/ethnic categories: Malaysia, Singapore, Hong Kong, Korea, Mexico, Indonesia, the Philippines • Gender: mixed • Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Host', volunteer • Later-year students from classes in such areas as Asian studies, multiculturalism, social work, and cross-cultural psychology • 1-day training • Assignment by the International Student Adviser on basis of age, gender, course of enrolment and any preferences 	<ul style="list-style-type: none"> • Some social activities for hosts and peers • Follow-up calls to check on how the pairing is working out 	<ul style="list-style-type: none"> • Face to face or telephone • Flexible • Frequency and duration: twice a month contact over 1 academic year 	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, and support to sociocultural skills • ✓ Function 3: linking to services
20	Tolman 2017; ²²⁵ USA	<ul style="list-style-type: none"> • Non-randomised, control group, follow-up measures only • <i>n</i> = 184 (38 in group 1, 33 in group 2 and 113 controls) • Sense of belonging; social and academic transition 	<ul style="list-style-type: none"> • International first-year students • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation • National/ethnic categories: various (115 countries in total) • Gender: mixed • Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Roommate pair', volunteer • No mention of training 	No further description of institutional support	<ul style="list-style-type: none"> • Face to face – living as roommates • Flexible • Frequency and duration: at least 1 academic year together as roommates 	Nothing explicitly mentioned

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
21	Westwood 1990; ²⁸³ Canada and Australia	<ul style="list-style-type: none"> • Descriptive • Quantitative element did not collect any relevant measures • $n = 47$ (24 experiment, 23 control) • 'Culture shock', social relationships; social and academic transition; academic performance 	<ul style="list-style-type: none"> • International first-year students • Targeting for isolation or loneliness: assumed to be at risk of social and academic isolation • National/ethnic categories: no information • Gender: mixed • Other special circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Host'; volunteer • Recruited from the general student body, typically registered in the social or human sciences programmes. Have indicated interest in the peer project or in cross-cultural projects in general • Matching on gender, language, age, field of study, hobbies and interests, country of origin. Peers are introduced to each other • Screened and trained 	No further description of institutional support	<ul style="list-style-type: none"> • Face to face and remote contact • Flexible, varied activities • Frequency and duration: minimum meet-up twice per month; 8-month programme. International peer can discontinue if he/she wishes 	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, study skills, and support to sociocultural skills • ✓ Function 3: navigation, linking to services and support, social networks
22	Holt 2008; ²²² USA	<ul style="list-style-type: none"> • RCT • $n = 36$ (18 treatment, 18 control) • Sense of belonging, academic persistence and performance 	<ul style="list-style-type: none"> • Children in school: ninth-grade school students receiving a universal prevention programme, 'Peer Group Connection', focused on transition to high school • Targeting for isolation or loneliness: assumed to be at risk of lack of belonging • National/ethnic categories: Latino, African American, white, other • Gender: mixed • Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Mentors', paid (stipend) • Adults, teachers and school counsellors • 3 hours' training 	Co-ordinators met with each mentor individually or in a small group of 2-4 mentors once a week to discuss tasks and any challenges	<ul style="list-style-type: none"> • Face-to-face meetings • Structured format but tailored to student needs • Frequency and duration: 20-minute meeting each week, 5 months during the second semester of the ninth grade year 	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, study skills practice and support to sociocultural skills

continued

TABLE 13 Befriending papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
23	Portwood 2005; ²²⁶ USA	<ul style="list-style-type: none"> • Non-random, before-and-after study, between group • <i>n</i> = 125 (70 intervention, 55 control) • Sense of belonging, academic persistence and performance 	<ul style="list-style-type: none"> • Children in school: grades 4–12 school students • Targeting for isolation or loneliness: assumed to be at risk of lack of belonging • National/ethnic categories: white (including Hispanic), African American, American Indian, Native Hawaiian or Pacific, Asian American • Gender: mixed • Other relevant circumstances: none mentioned 	<ul style="list-style-type: none"> • 'Youthfriends', volunteer • Adult, mainly female • Students recruited via referral and self-uptake 	A district co-ordinator administers and implements the programme at district level, including co-ordination with volunteers, teachers and administrators	<ul style="list-style-type: none"> • Face-to-face meetings • Structured format but tailored to student needs • Frequency and duration: 1 hour each week for 1 academic year (minimum) 	No information provided
24	Haynes-Maslow 2017; ²⁸⁴ USA	<ul style="list-style-type: none"> • Qualitative – descriptive paper • <i>n</i> = 5 (focus groups, 41 participants) • Social support for improved health outcomes 	<ul style="list-style-type: none"> • Women in vulnerable circumstances: cancer survivors • Targeting for isolation or loneliness: assumed lack of adequate social support • National/ethnic categories: African American • Gender: female • Other relevant circumstances: none mentioned 	'Peer supporter'	No information provided	No information provided	No information provided
25	Nápoles-Springer 2008; ²⁸⁵ USA	<ul style="list-style-type: none"> • Qualitative – descriptive paper • <i>n</i> = 89 (telephone survey of referred patients) • <i>n</i> = 29 (semistructured interviews with women living with breast cancer) • <i>n</i> = 17 (semistructured interviews with community advocates) • Social support for improved health outcomes 	<ul style="list-style-type: none"> • Women in vulnerable circumstances: cancer survivors • Targeting for isolation or loneliness: assumed lack of adequate social support • National/ethnic categories: Spanish-speaking Latinas • Gender: female • Other relevant circumstances: none mentioned 	'Community advocates'	No information provided	No information provided	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, and coping skills • ✓ Function 3: navigation, linking to services and support, social networks

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Befriender identity	Organisational set-up and support	Format of interactions; degree of structure, frequency and duration	Inputs provided aimed at additional functions 2 and 3
26	Tran 2014; ²²⁹ USA	<ul style="list-style-type: none"> • Before-and-after study, within single group • <i>n</i> = 32 (survey, women) • Social isolation, mental ill-health, adaptation to new country 	<ul style="list-style-type: none"> • Women in vulnerable circumstances: Latinas aged > 18 years • Targeting for isolation or loneliness: assumed lack of adequate social support and at risk of isolation • National/ethnic categories: Spanish-speaking Latinas • Gender: female • Other relevant circumstances: at risk of poor mental health, newly migrated 	<ul style="list-style-type: none"> • 'Promotoras' • Lay health educators • Recruited and trained – (six 2- or 3-hour sessions facilitated by bilingual/bicultural licensed clinical social worker) 	Monthly support meetings with the facilitator for four to nine booster sessions, to completion of monthly activity log and discuss experience	<ul style="list-style-type: none"> • Face-to-face meetings • Linguistically and culturally tailored curriculum on mental health and coping skills; use of handouts and guides – selected according to woman's need • Frequency and duration: at least three contacts with each woman 	<ul style="list-style-type: none"> • ✓ Function 2: provision of information, and coping skills • ✓ Function 3: navigation, linking to services and support, building social networks to alleviate loneliness and lack of support
27	Gray 2002; ⁹⁹ UK	<ul style="list-style-type: none"> • Qualitative • <i>n</i> = 9 (in-depth interviews) plus 30 case reviews and ethnographic data • To strengthen parenting, support family ties and give opportunity to take part in community 	<ul style="list-style-type: none"> • General migrant/minority population, no age or life-stage focus • Inclusion criteria: parents and families • National/ethnic categories: ethnically diverse geography; Bangladeshi, Somali, white British • Gender: mixed (although mothers were often a focus) • Other special circumstances: vulnerable families (e.g. experiences of racism, bullying, mental health difficulties, domestic violence or child abuse) 	<ul style="list-style-type: none"> • 'Family Support Worker'; voluntary • Linguistic and cultural matching; majority women • Trained; professional backgrounds 	Regular supervision and debriefing sessions by managers	<ul style="list-style-type: none"> • Face-to-face home visits • Tailored to needs, but some structure via development of mutually agreed family work plans • Usually twice a week; over 3–6 months' duration • Relationships formed with several family members, often via mother first 	<ul style="list-style-type: none"> • ✓ Function 2: support to develop communication skills; information and navigational support in new context • ✓ Function 3: signposting to local services; advocacy with other agencies

DBS, Disclosure and Barring Service; NICU, neonatal intensive care unit; PSA, peer socialisation agent.

a The sample sizes reported varied between papers as different subsets of data were drawn on in analyses.

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
1	Adam 2011; ¹⁰¹ Canada	<ul style="list-style-type: none"> • Pre-post single group and qualitative • $n = 41$ • Sexual health and social isolation and belonging 	<ul style="list-style-type: none"> • Asylum seekers/ refugees: adults; within 3 years of arrival, gay/ MSM • Targeting for isolation or loneliness: assumed to be at risk of isolation • National/ethnic categories: Latino, Spanish-speaking, various countries • Gender: men • Other relevant circumstances: none reported 	<ul style="list-style-type: none"> • 'Mano en Mano' Latino and LGBT identity • Linguistically and culturally matched facilitator (unclear whether lay or professional) • Input from Latino gay men to initial design, but no user involvement in delivery reported 	<ul style="list-style-type: none"> • Centre for Spanish Speaking Peoples, close to gay village • Food and refreshments at breaks, transport tokens, incentives to take part 	<ul style="list-style-type: none"> • Face-to-face sessions • Semistructured content: a fotonovela served as springboard for role play and critical discussion. Post-workshop social time • Frequency and duration: one day-long session, four 2-hour evening sessions, rolling programme (recipients can attend multiple times) • No one-to-one support mentioned 	<ul style="list-style-type: none"> • ✓ Function 2: enhanced self-esteem; promote critical awareness of social and cultural forces affecting lives; facilitate activism • ✓ Function 3: self-knowledge, self-efficacy, coping skills
2	Chase 2018; ²³⁶ Canada	<ul style="list-style-type: none"> • Qualitative • Social isolation 	<ul style="list-style-type: none"> • Asylum seekers/ refugees: adults • Targeting for isolation or loneliness: assumed to be at risk of isolation • National/ethnic categories: various countries of origin • Gender: mixed • Other relevant circumstances: none reported 	<ul style="list-style-type: none"> • Community-based centre with visible identity for asylum seekers/refugees • Majority of services facilitated by trained volunteers currently or formerly seeking asylum • Users act as the primary agents in modifying their engagement to reflect shifts in their priorities over time 	<ul style="list-style-type: none"> • Day centre situated in a shelter for recently arrived asylum seekers • One on-site social worker oversees volunteers 	<ul style="list-style-type: none"> • Face-to-face sessions • Variety of support groups, for example discussion group in which users choose discussion topic • Flexible frequency and duration • One-to-one support available for particular needs; referrals to health/social services 	<ul style="list-style-type: none"> • ✓ Function 2: discussion sessions to highlight social injustice and discrimination; advocacy to combat injustice; valorising cultural identities • ✓ Function 3: information, resources, and services; navigational support and advocacy • Access to range of resources and activities

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
3	Christodoulou; ²³⁹ UK	<ul style="list-style-type: none"> Mixed methods; interviews, routine data and observations ≈200 respondents Social isolation and loneliness; general well-being 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults Targeting for isolation or loneliness: self-referral to activities and groups; support to 'traumatised, isolated and vulnerable' people Varied migration statuses and length of stay National/ethnic categories: various countries of origin Gender: mixed Other relevant circumstances: none reported 	<ul style="list-style-type: none"> 'The Forum', visible identity as a place for asylum seekers/refugees and migrants Users select activities that they wish to engage in. Volunteering opportunities for users 	<ul style="list-style-type: none"> Community venue Holistic community-based centre offering a variety of groups and activities 	<ul style="list-style-type: none"> Face-to-face sessions and activities Frequency and duration flexible One-to-one support and mentoring also offered 	<ul style="list-style-type: none"> ✓ Function 2: strategic advocacy; opportunity and support for individual mentees to speak out and share stories to gain empowerment and recognition ✓ Function 3: advice, signposting and support to access to services, English-language classes and other educational activities to overcome barriers and increase knowledge and confidence
4	Cochrane 2015; ²⁸⁶ USA	<ul style="list-style-type: none"> Mixed methods, questionnaire and focus groups (very brief report only) Social isolation and loneliness; general well-being 	<ul style="list-style-type: none"> Asylum seekers/refugees: aged ≥ 55 years, varied length of stay Targeting for isolation or loneliness: assumed to be socially isolated National/ethnic categories: Bhutanese Gender: mixed Other relevant circumstances: none reported 	Details unclear	In Champlain Senior Center providing services and a community space	<ul style="list-style-type: none"> Face-to-face Details unclear Frequency and duration appear to be flexible One-to-one support unclear 	<ul style="list-style-type: none"> Function 2: no relevant input reported ✓ Function 3: educational programming; interactions with Americans, field trips
5	Frost 2016; ²³¹ USA	<ul style="list-style-type: none"> Qualitative General well-being and adaptation to new home 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults Targeting for isolation or loneliness: assumed to be socially isolated National/ethnic categories: Burmese Gender: women Other relevant circumstances: none reported 	<ul style="list-style-type: none"> Group designated for Burmese-speaking women Facilitator – public health social workers and with an interpreter Topics identified via a focus group initially, no further involvement in delivery reported 	Refugee resettlement agency premises – classroom	<ul style="list-style-type: none"> Face to face Workshops at the centre based around set of predefined topics (identified via focus groups with refugees), peer-to-peer learning Frequency and duration: 1-hour sessions weekly for 1 year (fixed) One-to-one element: home visits twice per month 	<ul style="list-style-type: none"> Function 2: no relevant input reported ✓ Function 3: health education and life skills coaching, navigation of health-care system; excursions to different places around the city

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
6	Koh Lee 2018, ²⁴³ Liamputtong 2016, ²³⁴ Walker 2015, ²⁴¹ Wollersheim 2013 ²⁴⁷ and Wollersheim 2017; ²⁴⁶ Australia	<ul style="list-style-type: none"> • Five linked papers, mixed methods; pre-post questionnaire • <i>n</i> = 111 (call logs) • <i>n</i> = 29 (interviews) • Social isolation, social connections and social support 	<ul style="list-style-type: none"> • Asylum seekers/ refugees: adults, newly arrived refugees • Targeting for isolation or loneliness: assumed socially isolated • National/ethnic categories: Afghan (31), Burmese (36) and Sudanese (44) • Gender: women • Other relevant circumstances: none reported 	<ul style="list-style-type: none"> • Single heritage groups • Research team delivered the sessions • Sessions highly structured to increase trust. Users' concerns guided some parts of the discussions; but no direct involvement of users in delivery 	<ul style="list-style-type: none"> • Recruitment supported by community leaders • Child care, transport and post-group meal provided to one group who were particularly isolated 	<ul style="list-style-type: none"> • Face-to-face and telephone contact • Nine groups with 9–15 members • Peer support training (listening skills), open-ended discussions and a fixed-dial mobile phone; free unlimited calls to the peer support group numbers, and to limited set of local and overseas numbers, for 12-months • Certificates of completion • No one-to-one support via programme 	<ul style="list-style-type: none"> • Function 2: no relevant activities reported • ✓ Function 3: provision of mobile phone; English-language practice, knowledge of surroundings
7	Logie 2016; ¹⁰² Canada	<ul style="list-style-type: none"> • Qualitative • Addressing social and structural drivers including lack of social support, stigma and discrimination 	<ul style="list-style-type: none"> • Asylum seekers/ refugees: adults, newcomers and refugees, LGBT • Targeting for isolation or loneliness: assumed to be at risk of social isolation • National/ethnic categories: African and Caribbean • Gender: mixed • Other relevant circumstances: living with AIDS 	<ul style="list-style-type: none"> • Ethnic-specific identity of serving the African Caribbean community and AIDS service • Organisation staff or outside experts facilitate sessions • Volunteering opportunities for users 	African Caribbean community and AIDS service	<ul style="list-style-type: none"> • Face to face • Informal discussions as well as organised workshops • Monthly groups • Frequency and duration: 3-hour sessions each month, duration appears unlimited. Community room open all day every day for drop in • No individual one-to-one support mentioned 	<ul style="list-style-type: none"> • ✓ Function 2: discussion and exchange of strategies to navigate intersecting stigma and discrimination linked to minority sexual and minority ethnic/migrant identity • ✓ Function 3: some inputs, unclear how structured: employment workshops, help with housing

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
8	Msengi 2015; ²⁴² USA	<ul style="list-style-type: none"> Mixed methods, focus groups and evaluation forms Providing support and assistance with integration 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults, newcomers and refugees Targeting for isolation or loneliness: assumed to be at risk of social isolation National/ethnic categories: various countries, including Bosnia; African; and Hispanic Gender: women Other relevant circumstances: none reported 	<ul style="list-style-type: none"> 'The Women of Care Project' Groups facilitated by staff and with translators Volunteers also involved Some opportunities for users to contribute to sessions; share skills and share stories 	Project directors advertise programme and guide activities for participants	<ul style="list-style-type: none"> Face to face Main activities of the group included cooking, dancing, conducting presentations, and offering social support Biweekly for first year, then monthly Individual inputs – matched with local volunteer as conversational partner for English-language practice and meeting individual needs. Home visits in early stages 	<ul style="list-style-type: none"> Hybrid – befriender elements in early stages Function 2: no relevant activity reported; reference to overcoming discrimination ✓ Function 3: language skills, links to educational and employment opportunities, empowering women; welcome tours
9	Pejic 2016; ²³⁵ USA	<ul style="list-style-type: none"> Qualitative Adaptation and settlement new context, parenting and family well-being 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults, parents Targeting for isolation or loneliness: assumed to be at risk of social isolation National/ethnic categories: Somali Gender: women Other relevant circumstances: none reported 	<ul style="list-style-type: none"> 'Somali Parent Program' Facilitated by researcher with a Somali Cultural Navigator providing translation No user involvement in delivering sessions 	<ul style="list-style-type: none"> Community venue identified as serving Somali community Somali food incorporated in some sessions Meeting times and dates were scheduled based on participant availability 	<ul style="list-style-type: none"> Face to face Seven sessions, each structured around different topic, and including a collective activity, eighth session a celebration Weekly, 2 hours (11.30 a.m. to 1.30 p.m., after the English-language class) No one-to-one input 	<ul style="list-style-type: none"> Function 2: no relevant activity reported ✓ Function 3: sessions on community resources, building social support, psychoeducational approach
10	People's Health Trust 2018; ²¹² UK	<ul style="list-style-type: none"> Mixed methods, interviews and monitoring data Isolation and well-being of people who have experienced trauma 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults; many newly arrived Targeting for isolation or loneliness: assumed to be socially and emotionally isolated National/ethnic categories: Africa, Asia, Syria and Albania Gender: mixed (separate groups for men and for women) Other relevant circumstances: trauma 	<ul style="list-style-type: none"> Pamoja, Active Communities Programme 'Togetherness' – group for people seeking asylum and refugees of all national backgrounds Free Creche provided 	<ul style="list-style-type: none"> Project manager and counsellor – paid members of staff Paid sessional staff/visiting speakers to deliver arts and environmental sessions Volunteers also involved with similar background to participants Group members collectively control the focus of activities to some extent and aim is for this to increase over time 	<ul style="list-style-type: none"> Based at African community centre Range of arts and environmental activities 1 hour per week for group sessions Regular attendance by the same people is encouraged to build peer support 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: aiming to overcome obstacles to engagement in community

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
11	Stewart 2011 ²¹⁴ and Stewart 2012; ²¹⁵ Canada	<ul style="list-style-type: none"> Pre-post single group, plus qualitative n = 58 Improving social support 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults, ≤ 10 years since migration Targeting for isolation or loneliness: assumed low level of social support National/ethnic categories: Southern Sudanese and Somali Gender: mixed Other relevant circumstances: none reported 	<ul style="list-style-type: none"> Ethnic- and gender-matching in groups Peer and professional facilitators. Peer facilitators were Sudanese/Somali, had settled in Canada ≥ 10 years and had experience of refugee settlement challenges Culturally appropriate intervention model Participants selected topics for each session 	<ul style="list-style-type: none"> Community venue Transportation and child care provided 	<ul style="list-style-type: none"> Face to face Groups of 5–12 participants Frequency and duration: biweekly for 12 weeks, 60- to 90-minute sessions One-to-one telephone call support also by peer helpers (20 minutes), unclear how frequent 	<ul style="list-style-type: none"> Hybrid befriending (peer helpers) ✓ Function 2: sessions included focus on ethnic identity support; overcoming racism and discrimination; coping strategies for dealing with challenges ✓ Function 3: enhancing cultural understanding and social integration; navigating system, promoting new skills, seeking employment, improving family dynamics
12	Stewart 2015 ⁶³ and Stewart 2018; ²¹⁶ Canada	<ul style="list-style-type: none"> Pre-post single group, plus qualitative n = 85 Improving social support 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults, parents of young children Targeting for isolation or loneliness: assumed low level of social support National/ethnic categories: Sudanese (57%) and Zimbabwean (43%) Gender: mixed Other relevant circumstances: none reported 	<ul style="list-style-type: none"> Groups ethnically specific Led by professional mentors and co-led by peer mentor (all were Sudanese or Zimbabwean) Ethnic- and gender-matching in support groups Group members took ownership by shaping content, location and frequency of meetings 	<ul style="list-style-type: none"> Familiar community venues (halls, parks) Transportation – bus tickets or rides provided by mentors; child care – babysitting by older children of participant mothers; refreshments 	<ul style="list-style-type: none"> Face-to-face groups Discussion sessions, presentations, online videos and reading materials Frequency and duration: 1 or 2 hours biweekly, 7-month intervention One-to-one support included 	<ul style="list-style-type: none"> ✓ Function 2: sessions on teaching native languages and culture to children; sharing experiences of racism and discrimination ✓ Function 3: information about available services, cultural information, parenting across cultures
13	Weine 2003; ²³⁷ USA	<ul style="list-style-type: none"> Pre-post no comparator, n = 86 Strengthening families and protecting mental well-being 	<ul style="list-style-type: none"> Asylum seekers/refugees: adults, recently arrived Targeting for isolation or loneliness: none, assumed to be at risk of low level of social support National/ethnic categories: Kosovar (100%) Gender: mixed Other special circumstances: potential for trauma 	<ul style="list-style-type: none"> 'Tea and Family Education and Support' Paid Kosovar facilitators who were immigrants, trained Attention to cultural values 	Weekly supervision of facilitators	<ul style="list-style-type: none"> Face-to-face community venues Supplementary home visits if requested for mental health support 	<ul style="list-style-type: none"> Function 2: no relevant activity mentioned ✓ Function 3: problem-solving skills; communication and negotiation skills; help-seeking

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
14	Canuso 2003; ⁶⁸ USA	<ul style="list-style-type: none"> Qualitative n = 7 Support for mothers to enhance maternal and infant health 	<ul style="list-style-type: none"> Pregnant and postpartum women Targeting for isolation or loneliness: assumed at risk of low level of social support National/ethnic categories: four mothers were African American, one was Native American, one was white and one was Latina Gender: women Other special circumstances: none 	<ul style="list-style-type: none"> Baby shower luncheon Professional facilitators plus community experts in maternal-child nursing, nurse midwifery, and family support on hand to act as an additional resource No user involvement 	Pregnancy Care Campaign – group event as central organising feature	<ul style="list-style-type: none"> Face to face Frequency and duration: one-off events [two events, each one day, in April 2000 and October 2000; plus a third event (unclear)] Limited one-to-one inputs (although professionals on hand for individual questions) 	<ul style="list-style-type: none"> Function 2: no relevant activities reported ✓ Function 3: information about healthier pregnancy; 'Care Card' to record antenatal visits
15	Kieffer 2013; ²⁸⁷ USA	<ul style="list-style-type: none"> RCT (not review outcomes of interest) Social support and postpartum mental well-being 	<ul style="list-style-type: none"> Pregnant and postpartum women: early postpartum Targeting for isolation or loneliness: assumed at risk of low level of social support National/ethnic categories: Latinas Gender: women Other special circumstances: more than one-third of participants were at risk of depression at baseline 	<ul style="list-style-type: none"> Healthy MOMs Healthy Lifestyle Intervention Facilitated by trained, Spanish-speaking community health workers Programme culturally tailored to respect the language, culture and community context of participating women No user engagement in delivery 	Community venue at community organisations, and private homes	<ul style="list-style-type: none"> Face to face Frequency and duration: 14 sessions in total, weekly during pregnancy (two home visits and nine group meetings); and two home visits and one group meeting between 2 and 6 weeks postpartum Group and one-on-one meetings 	<ul style="list-style-type: none"> Function 2: no relevant activities reported Function 3: development of knowledge and skills focused here on diet and exercise, limited relevance to social connectedness
16	Rooney 2014; ²³⁸ Australia	<ul style="list-style-type: none"> Pre-post, no comparator, n = 12 Social support and mental well-being in postpartum period 	<ul style="list-style-type: none"> Pregnant and postpartum women: (probably asylum seekers or refugees) Iraqi women who gave birth in Australia in the previous 12 months 	<ul style="list-style-type: none"> Four facilitators: child health nurse, psychologist and two Arabic- and English-speaking bilingual workers (trained) Lunch at the third session, celebration of Iraqi culture and sharing of food 'Culturally sensitive' – the programme was based on Iraqi women's explanatory models 	Location unclear	<ul style="list-style-type: none"> Six sessions, structured content with open discussion Same day of the week and time convenient to participants Frequency and duration: 2-hour duration, six sessions Reunion meeting and follow-up picnic session approximately 6 weeks after the final session No one to one 	<ul style="list-style-type: none"> Function 2: no relevant activities reported ✓ Function 3: sessions on pregnancy and parenting in new context; services; health and well-being; causes of depression and coping

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
17	Cant 2005; ¹⁰⁴ UK	<ul style="list-style-type: none"> Qualitative n = 19 (semistructured interviews, eight with members) Building social networks and tackling social isolation 	<ul style="list-style-type: none"> Older people Targeting for isolation or loneliness: some referral by agencies and outreach to isolated individuals National/ethnic categories: Irish Gender: mixed Other special circumstances: poor health common, 69% lived alone, deprived borough 	<ul style="list-style-type: none"> Irish-led voluntary-sector project 'Members' Volunteers (trained in mental health awareness, benefits rights etc.) Focus on culturally authentic social activity 	<ul style="list-style-type: none"> Irish centre Group activities part of a comprehensive community offer 	<ul style="list-style-type: none"> Face to face Informal interactions, as well as more structured activities Flexible activities, including lunches and groups; card playing One-to-one befriending available as an additional service 	<ul style="list-style-type: none"> ✓ Function 2: patterns of cultural specificity and positive Irish role models; Irish newspapers were available, traditional ceildh and set dancing; notices about funerals of former members; positive Irish identity ✓ Function 3: practical guidance and support in navigating housing, welfare benefits and health and social care services provided on a one-to-one basis, not via group sessions
18	Collins 2006 ²¹¹ and Collins 2006; ²⁴⁸ USA	<ul style="list-style-type: none"> Pre-post; no comparator n = 339 Improve quality of life by enhancing sense of mastery; decreasing loneliness and stress through peer interaction 	<ul style="list-style-type: none"> Older people Targeting for isolation or loneliness: none National/ethnic categories: white (68%), Latino (14%), African American (10%), Asian American (6%) and Native American (2%) Gender: mixed Other special circumstances: none 	<ul style="list-style-type: none"> 'Seniors CAN' Some peer educators and some agency staff Co-operative extension paraprofessionals, volunteer peer educators and on-site staff No ethnic or linguistic matching 	<ul style="list-style-type: none"> Primarily senior centres and senior housing developments Classroom and encouragement to apply skills at home Research programme support to delivery 	<ul style="list-style-type: none"> Face to face Frequency and duration: weekly; 16 weeks (average of 32 hours of instruction for each participant) 	<ul style="list-style-type: none"> ✓ Function 2: no relevant activities ✓ Function 3: sessions designed to convey information and skills that aid health promotion and provide sense of mastery, as well as encourage development of social support
19	Phinney 2014; ²⁴⁹ USA	<ul style="list-style-type: none"> Only qualitative data reported Chinese group, 17 people 	<ul style="list-style-type: none"> Older people Targeting for isolation or loneliness: none National/ethnic categories: diverse neighbourhoods; one group Chinese-speaking women's group Gender: women (Chinese group) Other special circumstances: none 	<ul style="list-style-type: none"> Pre-existing Chinese-speaking women's group that already met regularly Arts experts delivered workshops; seniors' worker looked after their comfort during the workshops User involvement was high; focus of artwork chosen by group members 	<ul style="list-style-type: none"> Community venues Public exhibition also included at end of the programme 	<ul style="list-style-type: none"> Face to face Community-engaged arts programme Frequency and duration: weekly for 2 hours, 1 year long No one-to-one input 	<ul style="list-style-type: none"> Function 2: no relevant activities reported Function 3: no relevant activities reported

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
20	Saito 2012; ¹⁰³ Japan	<ul style="list-style-type: none"> • RCT • $n = 20$ (treatment), $n = 40$ (control) • Social isolation on loneliness, depression, and subjective well-being of older adults 	<ul style="list-style-type: none"> • Older people • Targeting for isolation or loneliness: assumed the elderly relocated within 2 years tend to be socially isolated • National/ethnic categories: Japanese internal migrants to Tokyo • Gender: mixed • Other special circumstances: none 	<ul style="list-style-type: none"> • Group label unclear; new arrivals to the city • Professional facilitators and community 'gatekeepers' • No user involvement in delivery 	<ul style="list-style-type: none"> • Public facility • Supported by research team 	<ul style="list-style-type: none"> • Face to face • Group-based educational, cognitive and social support programme designed to prevent social isolation • Frequency and duration: four 2-hour sessions; every 2 weeks • One session involved one-to-one consultations and information provision 	<ul style="list-style-type: none"> • Function 2: no relevant activities (may not be as relevant as internal migrants) • ✓ Function 3: improving community knowledge, networking with community 'gatekeepers,' connections to community services; sightseeing tour
21	Carr 2003; ²⁸⁸ USA	<ul style="list-style-type: none"> • Qualitative intervention description only • Sample sizes not reported • Social and academic adjustment; mental well-being and social support 	<ul style="list-style-type: none"> • International students (aged 20–55 years, undergraduate and graduate) • Targeting for social isolation or loneliness: anyone in target group • National/ethnic categories: female international students, initially Japanese, now broader • Gender: female • Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> • Female Asian international students • Group facilitators are counselling centre faculty and doctoral trainees from Japan, India, South Korea and the USA (selected on the basis of their interest in and experience with international students) • Students to share their positive and troubling experiences as an icebreaker, then converse about their concerns with no set agenda 	<ul style="list-style-type: none"> • University counselling centre library • Refreshments from time to time or authentic ethnic dishes or snacks and Asian teas • Counselling centre collaborates with Office of International Student Services to advertise the group's activities (flyers and articles in the student newspaper) 	<ul style="list-style-type: none"> • Unstructured • Frequency and duration: group meets for 90 minutes weekly at the university counselling centre library. No fixed duration • No one-to-one input 	<ul style="list-style-type: none"> • ✓ Function 2: topics include prejudice and discrimination • ✓ Function 3: topics include problems in cross-cultural communication, friendship and dating, family pressures and expectations, academic and career issues, stress management, immigration and language, how to obtain a driver's licence, communicating with US students, and coping with loneliness
22	Chalungsooth 2009; ¹⁶⁸ USA	<ul style="list-style-type: none"> • Description of intervention only • Sample sizes not reported • Cross-cultural adjustment, transition to new academic and social roles; 'homesickness' 	<ul style="list-style-type: none"> • International students • Targeting for social isolation or loneliness: none, assumed at risk • National/ethnic categories: other migrants international students (migrants arriving for study) • Gender: mixed • Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> • International students • Members of two university offices (Counselling and Psychological Services and International Students and Scholars) collaborated to form a support group for international students • No user involvement described 	The group convened at the university's coffee house, a location that was easily accessible and familiar to most students	<ul style="list-style-type: none"> • Face to face • People attend and discuss predefined topics • Frequency and duration: 8-week support group • No one to one 	<ul style="list-style-type: none"> • Function 2: no relevant activities reported • ✓ Function 3: discussion topics include: friendship; American culture; homesickness and loneliness; America's educational system; money management, time and stress management; holiday isolation; and cross-cultural dating

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
23	Clauss-Ehlers 2007; ²³⁰ USA	<ul style="list-style-type: none"> • Before-and-after, single group • 95 students (63 women, 32 men) • Sense of belonging to promote educational resilience 	<ul style="list-style-type: none"> • Minority students • Targeting for social isolation or loneliness: none • National/ethnic categories: 27 African Americans, 18 white Americans, 16 Asian Americans and 34 Latinos • Gender: mixed • Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> • Under-represented groups • Intended to increase: resilience; social support (and perceptions of being supported); and ethnic identity. • Diverse faculty and staff, teaching assistant; counsellor; peer counsellors (academically successful undergraduate students) 	University premises	<ul style="list-style-type: none"> • A full-day orientation, a three-day retreat, academic coursework, and concluded with an awards ceremony • Mandatory attendance • Frequency and duration: 6 week institute, 5 days per week, 7.5 hours per day • Each student assigned a counsellor – met with students one-on-one or in a group format 	<ul style="list-style-type: none"> • ✓ Function 2: curriculum with authors who represented diverse group memberships; diverse faculty, peer role models • ✓ Function 3: activities intended to build trust, and develop leadership skills; develop academic skills; a public speaking course
24	Cunningham 2015; ²¹³ USA	<ul style="list-style-type: none"> • Qualitative study only • Six men and six women • Sense of belonging in the context of a negative racial environment on campus 	<ul style="list-style-type: none"> • Minority students • Targeting for social isolation or loneliness: none • National/ethnic categories: black Americans • Gender: mixed • Other relevant circumstances: black students who had experienced a negative racial incident on campus 	<ul style="list-style-type: none"> • Black Cultural Center • Safe space occupied by black students and staff members 	University premises; 'Institutionally Designated Safe Space'	<ul style="list-style-type: none"> • A multicomponent centre • Frequency and duration: flexible frequency and duration 	<ul style="list-style-type: none"> • ✓ Function 2: focus on developing positive racial identity via exchange with other black students and faculty 'deep critical conversations' • Function 3: no relevant activities mentioned
25	Delgado-Romero 2010; ²⁸⁹ USA	<ul style="list-style-type: none"> • Descriptive study of intervention development • Marginalisation of international students, sense of belonging, social justice 	<ul style="list-style-type: none"> • International students • Details of participants unclear 	<ul style="list-style-type: none"> • 'Conversation Group' • Facilitator – faculty member with immigrant parents • User-led development and increased participation over time 	Campus location	<ul style="list-style-type: none"> • Face to face • Unstructured discussions around user-led concerns • Frequency and duration: unclear • No one to one 	<ul style="list-style-type: none"> • ✓ Function 2: social justice focused; fostering critical consciousness, awareness of discrimination; advocacy • ✓ Function 3: improving communication and English-language confidence as a by-product of discussions

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
26	Dipeolu 2007; ¹⁶⁷ USA	<ul style="list-style-type: none"> • Descriptive study of intervention development • Psychological adjustment; social support; isolation 	<ul style="list-style-type: none"> • International students • Targeting for social isolation or loneliness: none • National/ethnic categories: varied national origins • Gender: female • Other relevant circumstances: none 	<ul style="list-style-type: none"> • 'Support group' for international students • Co-leaders were international students • Initial sessions co-leaders had prepared topics, and used icebreakers to build trust, later sessions content led more by students 	<ul style="list-style-type: none"> • Non-stigmatising venue – women's centre (away from counselling centre); comfortable room with pillows instead of chairs • Long, iterative process to identify effective recruitment process – personalised mailing to all students worked best • Collaborative support to the group co-leaders 	<ul style="list-style-type: none"> • Face to face • Facilitated discussions around adjustment in non-evaluative context, foster information-sharing • Brief psychoeducational elements • Frequency and duration: weekly, 1 hour, one semester • One-to-one pre-group interviews to develop therapeutic alliance and shape member expectations 	<ul style="list-style-type: none"> • Function 2: limited discussions around negative interactions with Americans, not a focus • ✓ Function 3: informal information-sharing, improving communication and English-language confidence as a by-product of discussions; discussions relating to academic and social fit in US context; some signposting
27	Grier-Reed 2008, ²⁴⁰ 2010, ²⁰⁹ 2013, ²¹⁰ 2016; ²⁰⁸ USA	<ul style="list-style-type: none"> • Qualitative • Interviews and observation (data volume unclear) • Informal social support for academic retention and student well-being 	<ul style="list-style-type: none"> • Minority students • National/ethnic categories: African American • Gender: mixed 	<ul style="list-style-type: none"> • African American Student Network • Facilitated by black staff member and a black graduate student • 'Safe space for black students' • Facilitated but with strong user direction over time 	<ul style="list-style-type: none"> • Campus location • Always open to newcomers, typically 30 participants at a time 	<ul style="list-style-type: none"> • Face to face • Topics emerge from students' sharing, and students socialise one another into the norms of the group • Semistructured, begins with introduction and sharing; discussion based; underpinned by group work theory • Weekly at lunchtime; 60 minutes • No one-to-one support 	<ul style="list-style-type: none"> • ✓ Function 2: strong focus on countering hostile wider campus environment and deficit notions of racial minorities • ✓ Function 3: no formal skills or knowledge element; interpersonal learning in the peer group only

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
28	Johnson 2011; ²⁹⁰ USA	<ul style="list-style-type: none"> • Cross-sectional survey data (unable to examine particular interventions) • Final sample contained 23,910 students, representing a 33.3% response rate • Sense of belonging as a critical factor in the adjustment and persistence of students of colour in predominantly white institutions 	<ul style="list-style-type: none"> • Minority students • Targeting for social isolation or loneliness: none • National/ethnic categories: black/African American, Asian Pacific American, Latina, multiracial/multiethnic and white/Caucasian) • Gender: female • Other relevant circumstances: none 	<ul style="list-style-type: none"> • Varied • Guided by core principles of community, integration, active learning, reflection and assessment, and diversity. Learning communities are inclusive and collaborative programmes where the community itself serves as the site of learning for students and the development of teaching for faculty 	Varied	<ul style="list-style-type: none"> • Varied • Several institutions have developed living-learning programmes for women in STEM to increase their enrolment and retention in these majors • These programmes offer many activities to support women, including colloquia, special introductory, paid research experiences, academic and career workshops, tutoring, study groups and activities that promote social interaction between students and faculty 	<ul style="list-style-type: none"> • Function 2: no relevant activities mentioned • ✓ Function 3: core focus on equipping students to function well in new academic setting
29	Jones 2012; ¹⁰⁵ USA	<ul style="list-style-type: none"> • Qualitative • $n = 6$ students (interviews with the AASC counsellor, focus group session and non-participant observations) • Cultural centres in universities and their role in student adjustment and belonging in hostile campus environments 	<ul style="list-style-type: none"> • Minority students • Targeting for social isolation or loneliness: not delivered at individual/group level • National/ethnic categories: black students • Gender: male. Programme open to all but respondents in this study were male only • Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> • AASC • Lack of detail 	University premises, and outings elsewhere	<ul style="list-style-type: none"> • Multicomponent centre • Varied activities, flexible attendance, for example black graduation, family picnics, black student annual trips, peer interaction, faculty-student relations and student mentoring • May be some one-to-one elements (unclear) 	<ul style="list-style-type: none"> • ✓ Function 2: core focus is to create affirmative space for black students and counter hostile environment • ✓ Function 3: no relevant activities described

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
30	Lin 2014 ²⁹¹ USA	<ul style="list-style-type: none"> Very small qualitative study sample sizes, $n = 3$ (including author) Co-ethnic social support groups; acculturative stress and reduce isolation 	<ul style="list-style-type: none"> International students Targeting for social isolation or loneliness: assumed at risk of isolation National/ethnic categories: 'Asian communities' (China, Hong Kong, Japan, Korea, Singapore, Taiwan) – unclear if born in USA/overseas Gender: mixed Other relevant circumstances: none 	<ul style="list-style-type: none"> Asian cultural orientation User-led initiative 	Homes of group members	<ul style="list-style-type: none"> Music-making, role-playing and small group discussions Frequency and duration: meetings lasted about 1.5 hours, once a week No one to one 	<ul style="list-style-type: none"> Function 2: no relevant activities described Function 3: no relevant activities described
31	Liptow 2016; ¹⁰⁹ USA	<ul style="list-style-type: none"> Before-and-after single group Retention, performance, and satisfaction between students of under-represented minority groups; sense of belonging 	<ul style="list-style-type: none"> Minority students None National/ethnic categories: Hispanic/Latino, Asian and Middle Eastern Gender: mixed Ten students identified as male (59%) and seven (41%) identified as female Other relevant circumstances: none 	<ul style="list-style-type: none"> Under-represented minority student focus Three instructors: an engineering professor, an engineering academic advisor and an AmeriCorps VISTA member. Political sciences faculty member spoke during week 9 No user involvement 	<ul style="list-style-type: none"> Location described on campus, outreach was, in some cases, at high schools The course curriculum emphasised career exploration, collaboration with peers, written reflections, and diversity and global learning opportunities 	<ul style="list-style-type: none"> Structured, face to face Frequency and duration: 10-week course each meeting 2 hours in the evening; seven reflections; one outreach activity Some one to one 	<ul style="list-style-type: none"> ✓ Function 2: some focus on addressing stereotypes and discussions on race, gender, culture ✓ Function 3: large focus on equipping with knowledge, skills and confidence for academic context
32	Means 2017; ¹⁷⁷ USA	<ul style="list-style-type: none"> Qualitative study only $n = 10$ (students, multiple interviews) Retention and academic success in hostile academic environments, sense of belonging 	<ul style="list-style-type: none"> Minority students Targeting for social isolation or loneliness: none National/ethnic categories: eight of the 10 students were students of colour Gender: mixed Other relevant circumstances: none 	<ul style="list-style-type: none"> Multicultural centres and needs-based scholarship programmes (study includes students who have experienced several different student support centres) 	Centres were provided in the context of a broader programme of support to under-represented students in their transition to university	<ul style="list-style-type: none"> Varied Some may include one-to-one mentoring 	<ul style="list-style-type: none"> ✓ Function 2: centres often included a core focus on raising awareness of racism and tackling stereotypes ✓ Function 3: programmes include core focus on equipping students for academic context

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (*continued*)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
33	Page 2015; ²⁴⁴ USA	<ul style="list-style-type: none"> • Multisite qualitative study • Interviews with six group leaders (five licensed staff psychologists and one doctoral trainee) • Group member interviews with 10 international students from four universities • Challenges in social, academic, and emotional adjustment, homesickness and lack of social support 	<ul style="list-style-type: none"> • International students • Targeting for social isolation or loneliness: assumed at risk • National/ethnic categories: Asian countries (China, Macau, South Korea, Taiwan, Malaysia) and Saudi Arabia • Gender: mixed • Other relevant circumstances: none 	<ul style="list-style-type: none"> • Seven different groups, all designed specifically for international students • Licensed staff psychologists and doctoral trainees • User involvement unclear 	Four groups met in a room in the counselling centre and three groups met in locations outside the counselling centre	<ul style="list-style-type: none"> • Most of the groups provided mixture of support and psychoeducation; some included task-oriented or process-oriented components • Four groups had a closed enrolment format whereas three had open (e.g. 'drop-in') group formats • Frequency and duration: weekly for 60–90 minutes. Durations unclear (but seem open ended) • Group approaches to counselling – no one to one 	<ul style="list-style-type: none"> • Function 2: no relevant activities mentioned • ✓ Function 3: some groups included relevant elements focused on academic adjustment
34	Smith 1999; ²⁹² USA	<ul style="list-style-type: none"> • Descriptive study • Challenges in social, academic, and emotional adjustment, and lack of social support 	<ul style="list-style-type: none"> • International students • No detail on particular participants – a general discussion about group characteristics 	<ul style="list-style-type: none"> • 'Outreach support groups' • Facilitators with affiliation to counselling service (both genders) • Topics led by student concerns; input sought via confidential evaluation forms 	Non-stigmatising venues, for example cultural centres, English as a second language departments	<ul style="list-style-type: none"> • Face to face • Semistructured discussion format; some therapeutic techniques (e.g. reframing) used but no scripted or in-depth emotional exercises • Frequency and duration: weekly 	<ul style="list-style-type: none"> • Function 2: nothing relevant reported • Function 3: nothing relevant reported

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
35	Williams 2017; ²³³ USA	<ul style="list-style-type: none"> Qualitative study only 96 interviews from 33 participants conducted over 3 years PhD students' persistence into academic careers, with a particular focus on encouraging and supporting under-represented students 	<ul style="list-style-type: none"> Minority students. Students just about to start their PhDs Targeting for social isolation or loneliness: none National/ethnic categories: Asian, black, white and Hispanic, Native American Gender: mixed Other relevant circumstances: none 	<ul style="list-style-type: none"> Academy for Future Science Faculty Coaches were selected on the basis of their track record of mentoring young scientists, including URM students (mixed ethnicities). Coaches and students came from different institutions 	Venue unclear, Chicago, IL	<ul style="list-style-type: none"> 'Coaching groups' in which a diverse mix of 10 students were guided by a faculty coach. Students interacted with coaches and peers Frequency and duration: annual, intensive 2- or 3-day in-person meetings supplemented by between-meeting distance communication; 3-year duration. Students interacted with coaches and peers 6.6 times per year, on average. Coaching was delivered both in small groups and on an individual basis 	<ul style="list-style-type: none"> ✓ Function 2: promote engagement and difficult discussions across gender, racial and ethnic boundaries; diversity, discrimination, and 'being different' in science ✓ Function 3: coaching group discussions focused primarily on issues related to career planning and professional development
36	Yakunina 2010; ¹⁶⁶ USA	<ul style="list-style-type: none"> Overview paper describing intervention characteristics across multiple initiatives Adjustment issues, including acculturative stress, language difficulties, cultural misunderstandings, racial discrimination, and loss of social support 	International students	<ul style="list-style-type: none"> 'Counselling groups' Facilitators with international or minority background, interest in working with foreign students Tailored to international student needs and experiences Degree of direction should meet participant expectations 	Non-stigmatising venues; welcoming atmosphere	<ul style="list-style-type: none"> Group may combine three elements: psychoeducation, social support and counselling 'Therapeutic relationships' between leaders and participants Boundaries to relationships identified as important Weekly meetings typical 	<ul style="list-style-type: none"> Function 2: limited reference to the use of 'critical incidents' to prompt discussion of racial discrimination Function 3: psychoeducation is one element of groups, but little information provided
37	Ashing-Giwa 2012; ²⁹³ USA	<ul style="list-style-type: none"> Qualitative – exploration of experience with range of peer support groups (difficult to examine particular groups) n = 62 Emotional and physical impacts of breast cancer increase women's need for support 	<ul style="list-style-type: none"> Women in vulnerable circumstances: diagnosed with breast cancer Assumed lacking social support and socially isolated, assumed conflictual relationships National/ethnic categories: African American (100%) Gender: women 	<ul style="list-style-type: none"> Cancer survivor and African American identity Provider not described Peer support groups 	Varied, community-based health centres, cancer centres and churches	<ul style="list-style-type: none"> Peer-based support groups Cultural-based groups rooted in spiritual, linguistic, experiential and historical contexts of participants One to one – unclear 	Insufficient detail – varied groups

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
38	Chaudhry 2009 ²⁵² and Gater 2010; ²⁶⁸ UK	<ul style="list-style-type: none"> Qualitative n = 9 (attending the social group) Depression 	<ul style="list-style-type: none"> Women in vulnerable circumstances: diagnosed with persistent depression Assumed lacking social support and socially isolated, assumed conflictual relationships National/ethnic categories: British Pakistani (100%), migrant and non-migrant Gender: women 	<ul style="list-style-type: none"> For Pakistani women 'Culturally sensitive' Professional facilitator Preferred group activities identified in consultation with group members 	<ul style="list-style-type: none"> Local Pakistani community centre, culturally acceptable Free taxi with female companion; support to overcome barriers to attendance 	<ul style="list-style-type: none"> Face to face 10 sessions: one psychoeducation, three indoor activities, four outdoor visits Refreshments at end No one to one mentioned 	<ul style="list-style-type: none"> Function 2: no mention ✓ Function 3: some equipping to understand and cope with depression
39	Hatzidimitriadou 2009; ⁶⁹ UK	<ul style="list-style-type: none"> Qualitative; several groups explored (difficult to examine particular groups) Two focus groups, with four or five participants in each group Barriers to integration of immigrant women, community self-help 	<ul style="list-style-type: none"> Women in vulnerable circumstances: migrants, aged 30-44 years Assumed lacking social support and socially isolated National/ethnic categories: Turkish speaking Gender: women 	<ul style="list-style-type: none"> No detail Self-help groups; user led 	Community-based venues	<ul style="list-style-type: none"> Face to face Varied focus and activities Flexible, ongoing One to one – unclear 	<ul style="list-style-type: none"> ✓ Function 2: varied – some groups include advocacy elements ✓ Function 3: varied – some group provide navigational support and information to enable integration
40	Ismail 2003; ²⁶⁶ UK	<ul style="list-style-type: none"> Descriptive paper only Limited support for carers of people with dementia from minority ethnic groups 	<ul style="list-style-type: none"> Women in vulnerable circumstances (and some men) Assumed lacking social support and socially isolated National/ethnic categories: South Asian (migrant and non-migrant) Gender: mainly women Other circumstances: carers of people living with dementia 	<ul style="list-style-type: none"> Not labelled as dementia related – non-stigmatising Facilitator who could speak preferred language of participants; community nurse to provide NHS information; other speakers on particular topics Carers encouraged to take a participatory role in the groups Topics identified via pre-group interviews 	Venue chosen by participants – generic day-care centre known and respected; informal setting; not labelled as dementia related	<ul style="list-style-type: none"> Face to face Varied sessions involving information provision, social support and caring activities (e.g. massage) Sharing of experiences and insights 10 weeks, weekly session One-to-one pre-group interview to identify needs; one-to-one contact in between group sessions 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: yes, sessions provided information of relevance to coping with circumstances

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
41	Morales-Campos 2009; ²³² USA	<ul style="list-style-type: none"> Qualitative Observation of 5 group sessions n = 30 (interviews) 	<ul style="list-style-type: none"> Women in vulnerable circumstances (and some men) Assumed lacking social support and socially isolated National/ethnic categories: immigrant Hispanic; 90% Mexican/American Mexican Gender: women Other circumstances: experienced gender-based violence 	<ul style="list-style-type: none"> Support group Professional provider Spanish language used 	Community-based organisation	<ul style="list-style-type: none"> Face to face Frequency and duration unclear 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: focus on equipping women to manage difficult social relationships, gain independence, coping strategies
42	Nieuwboer 2016; ¹⁰⁸ Sweden and the Netherlands	<ul style="list-style-type: none"> Qualitative Two groups across two countries 16 participants (10 in the Dutch group and six in the Swedish group) Migrants without education vulnerable to alienation and without support for social integration 	<ul style="list-style-type: none"> Women in vulnerable circumstances Assumed lacking social support and socially isolated National/ethnic categories: immigrant Berber and Arabic Gender: women Other circumstances: Illiteracy; limited knowledge of host society, limited command of host language, low self-esteem and self-confidence, physical or mental ill-health 	<ul style="list-style-type: none"> IDEAL programme Netherlands: all Berber-speaking, from Morocco; Sweden: heterogeneous participants from different countries, all Arabic-speaking Female facilitators speak participant language 	<ul style="list-style-type: none"> Educational venues – classroom and out-of-class activities also (outings) Facilitators are trained and supervised during the first implementation of the programme 	<ul style="list-style-type: none"> Face to face Semistructured programme – five modules with lesson plans and teaching materials – discussion topics pictograms, handbook for facilitator Frequency and duration: an average of 3 hours per session, 3 days a week during 1 year, amounting to approximately 350 contact hours in total No one to one 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: focus on equipping women to manage new setting; outings, information, learning host language (functional)
43	Siller 2017; ²⁵⁰ Austria	<ul style="list-style-type: none"> Qualitative (quantitative elements not review outcomes of interest) 30 interviews with participants, protocols of 60 group (15 sessions × 4 groups), and four supervision sessions for group leaders Importance of social bonds in treating depression in immigrants 	<ul style="list-style-type: none"> Women in vulnerable circumstances Assumed lacking social support and socially isolated National/ethnic categories: Turkish (immigrants of the first and second generation) Other circumstances: recurrent depressive disorder 	<ul style="list-style-type: none"> Self-help groups All group leaders were female and of Turkish descent Conducted in the mother tongue of the participants Initiation ritual for each group. Confidentiality rules established 	Location unclear	<ul style="list-style-type: none"> Face to face Maximum of 10 participants per group 15 sessions, over a period of 4 months No one to one mentioned 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned Function 3: no relevant activities mentioned

continued

TABLE 14 Shared-identity social support group papers overview: characteristics of inputs (continued)

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
44	Tam 2008; ²⁹⁴ Canada	<ul style="list-style-type: none"> Qualitative, descriptive report only n = 3 Unmet needs of migrant parents with children with disabilities 	<ul style="list-style-type: none"> Parents of children with disabilities Assumed lacking social support and socially isolated National/ethnic categories: Chinese Gender: mixed Other circumstances: none 	Self-help type group	Chinese immigrant church	<ul style="list-style-type: none"> Face to face Little information provided Once a month on Sunday afternoons No one to one mentioned 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned Function 3: no relevant activities mentioned
45	Williams 2003; ²⁹⁵ USA	<ul style="list-style-type: none"> Qualitative, descriptive only Unmet needs of African American caregivers 	<ul style="list-style-type: none"> Adult carers of people with Alzheimer's disease Assumed lacking social support and socially isolated National/ethnic categories: African American Gender: mixed (mainly women) Other circumstances: none 	<ul style="list-style-type: none"> Alzheimer charity Cultural and linguistic appropriateness Facilitators of African American identity Surveys informed design – importance of creating comfort and supportive environment via ethnic-specific groups 	<ul style="list-style-type: none"> Accessible, safe and welcoming venues Transportation issues addressed Working advisory committee supported development Specific marketing and recruitment approach to attract African American members via informal network 	<ul style="list-style-type: none"> Face to face Group sharing and bonding activities; 'venting'; social setting and refreshments No fixed duration Mainly group based but some one-to-one telephone calls in between from facilitator and between group members 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned Function 3: educational element, equipping people to live with the disease, sense of control
46	Local Government Association; ¹⁰⁶ UK	<ul style="list-style-type: none"> Qualitative; routine data; website feedback (very limited) Rapidly growing BME population that is isolated and marginalised, with poor access to services 	<ul style="list-style-type: none"> All ages No targeting for social isolation or loneliness; open to anyone National/ethnic categories: open to all in geographical area; BME and migrants Gender: mixed 	<ul style="list-style-type: none"> Devon Grapevine 'People from other cultures living in Devon' Users participate but unclear if involved in project per se 	<ul style="list-style-type: none"> Online Devon County Council funded and supported, with use of existing partnerships with BME support groups 	<ul style="list-style-type: none"> Online private social network IT training courses offered Engagement intensity and duration flexible No one to one personalisation 	<ul style="list-style-type: none"> ✓ Function 2: aiming to encourage reporting of racially motivated crime ✓ Function 3: information-sharing about local area, services and opportunities including English classes

Number	Study and location	Study design, sample size; main outcome/focus	Recipients	Group identity/label; facilitation; user involvement	Location, venues; organisational set-up and support	Format and content of group interactions; intensity, frequency and duration; degree of flexibility; any one-to-one inputs?	Inputs provided aimed at additional functions 2 and 3
47	People's Health Trust 2017; ²⁴⁵ UK	<ul style="list-style-type: none"> Mixed methods; interviews and monitoring data Job support for those furthest from labour market; self-confidence and well-being 	<ul style="list-style-type: none"> Designed for 'isolated' parents National/ethnic categories: open to all in geographical area; BME and migrants participated (Latvian and Polish) Gender: mixed Other relevant characteristics: people from most disadvantaged area; single parents 	<ul style="list-style-type: none"> 'Sunshine Club', Active Communities Programme No ethnic or migrant identity, open to all in geographical area Manager and project co-ordinator (paid) Bespoke and informal pre-employment support, co-designed by beneficiaries Some beneficiaries providing volunteer input also 	<ul style="list-style-type: none"> Based at Signpost, an independent charitable organisation Creche facilities onsite 	<ul style="list-style-type: none"> Face to face Weekly coffee mornings; 1-hour workshop Around 12 regular attendees; flexible to join and leave as wish; no fixed duration of attendance Participants choose the activities that are relevant to them One-to-one support with CV and job search 	<ul style="list-style-type: none"> Function 2: no mention ✓ Function 3: practical skills and information aimed at increasing confidence and getting people closer to labour market; signposted to other services at the centre and beyond
48	Lin 2009; ¹⁰⁷ Canada	<ul style="list-style-type: none"> Mixed Interviews ($n = 10$), survey ($n = 61$), review of online messages Social support, acculturative stress, social capital 	<ul style="list-style-type: none"> Recent immigrants No targeting for isolation or loneliness; open to all newcomers National/ethnic categories: Chinese Gender: mixed Other relevant characteristics: none 	<ul style="list-style-type: none"> NewBridger Founder and list owner is also the moderator Members provide information to the online group; unclear how involved they are in its direction Posts made in simplified Chinese 	Online, and various venues	<ul style="list-style-type: none"> Online and offline A moderated e-mail list. Moderator receives requests and information from people on the list and gathers information from other sources. Sends packaged information to the list. Members respond to requests from other members Flexible degree and duration of interaction Offline groups have been formed by members also 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: e-mail list has strong focus on sharing of useful information for newcomers, employment, housing, education, health care, daily living, and community participation and recreational activities
49	Goodkind 2012; ²⁹⁶ USA	<ul style="list-style-type: none"> Qualitative description of intervention only Promotion of mental health of American Indian youth and families by addressing root causes of violence, trauma and substance abuse 	<ul style="list-style-type: none"> All ages Native Americans No targeting for isolation or loneliness; whole-community approach 	<ul style="list-style-type: none"> Our Life A community-based participatory research partnership – user involvement throughout 	Various locations; multicomponent initiative	<ul style="list-style-type: none"> A psychoeducational group structure of four components: <ol style="list-style-type: none"> Recognising/healing historical trauma Reconnecting to traditional culture Parenting/social skill-building Strengthening family relationships through equine-assisted activities (listening to one another, building trust) 6-month intervention 	<ul style="list-style-type: none"> ✓ Function 2: strong focus on dealing with historical trauma and promoting positive cultural identity and self-esteem Function 3: skills-building for improved family relationships

AASC, African American Student Center; AIDS, acquired immunodeficiency syndrome; CV, curriculum vitae; IDEAL, Integrating Disadvantaged Ethnicities through Adult Learning; IT, information technology; MSM, men who have sex with men; STEM, science, technology, engineering and mathematics; URM, under-represented minority; VISTA, Volunteers in Service to America.

TABLE 15 Intercultural encounters papers overview: characteristics of inputs

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
1	Askins 2011; ¹¹⁰ UK	<ul style="list-style-type: none"> Qualitative; participatory action research project 21 young people Everyday exclusions and notions of belonging 	<ul style="list-style-type: none"> Asylum seekers/ refugees: children outside school African children assumed to be at risk of social isolation African refugee and white British-born backgrounds Mixed gender 	<ul style="list-style-type: none"> Researchers were facilitators initially; later, a professional artist was involved Degree of user involvement varied between two stages: more in the first (young people worked where they wanted and with whom they wanted), less in the second 	<ul style="list-style-type: none"> Supported by researchers Artistic materials provided 	<ul style="list-style-type: none"> Face to face, arts based One evening per week Several months Children attended as they wished 	<ul style="list-style-type: none"> Function 2: no direct inputs Function 3: no direct inputs
2	Borgogni 2015; ¹¹¹ Italy	<ul style="list-style-type: none"> Qualitative case study Direct observations ($n = 8$) of programmes, semistructured interviews ($n = 80$) with participants, in-depth interviews ($n = 8$) with project managers, focus groups ($n = 8$) with key actors, and documentary analysis Role of sport organisations and voluntary sector in socialisation and integration of migrants 	<ul style="list-style-type: none"> Asylum seekers/ refugees: adults and young people Migrants and host; Eastern European and North African migrants Predominantly male 	<ul style="list-style-type: none"> Italian Union of Sport for All User involvement intended to be high – training and support to migrant individuals to get involved and establish their own groups going forward 	Complex, multilevel intervention targeting local districts with high levels of migrant settlement; close partnership with existing stakeholders and organisations	<ul style="list-style-type: none"> Sport activities were a central programme element, with training sessions and competition regularly offered to migrants and members of the host Intensity and duration not described 	<ul style="list-style-type: none"> Function 2: no direct inputs Function 3: training modules for sport coaches and sport managers, and management and leadership development workshops – sustainability: the project aimed to create the right conditions to enable migrants to establish their own sport club

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
3	Goodkind 2014 ¹¹³ and Hess 2014; ²⁵⁵ USA	<ul style="list-style-type: none"> Mixed methods, linked studies, including before-and-after no comparator 158 interviews; 36 qualitative data Refugee Well-being Project; mental ill-health 	<ul style="list-style-type: none"> Asylum seekers/ refugees: refugee African adults and children Assumed at risk of isolation From the Great Lakes region of Africa – Burundian, Democratic Republic of Congo, Liberian, Eritrean Men and women 	<ul style="list-style-type: none"> Refugee Well-being Project 53 undergraduates trained (manualised curriculum) as paraprofessionals; unpaid (receive course credit); mainly non-Hispanic white and Latina/o 	Refugee–student pairs fixed over time; fostering comfort and trust	<ul style="list-style-type: none"> Face-to-face group-based learning circles – discussion sessions – cultural exchange, mutual learning; twice weekly for 2 hours Plus paired advocacy/ navigation element to address individual issues and goals – a minimum of 2–4 hours each week together to mobilise community resources to address unmet needs identified by the refugee partner 6 months One-to-one advocacy and problem-solving – large degree of tailoring 	<ul style="list-style-type: none"> Hybrid – SSG/ befriending ✓ Function 2: intensive cultural exchange intended to shift attitude of refugees and students – transformative learning intended; experiences out and about with refugee gives student experience of their world of exclusions ✓ Function 3: advocacy, navigation, English language; intergenerational conflict and communication – intended to sustain
4	Goodkind 2004, ¹¹² 2005 ²⁵⁴ and 2006; ²⁵⁶ USA	<ul style="list-style-type: none"> Mixed methods; before-and-after single group (not review outcomes of interest) 28 Hmong participants; 27 undergraduate students Refugee psychological distress, daily stressors of life in exile 	<ul style="list-style-type: none"> Asylum seekers/ refugees: adult refugees Hmong (from Laos) Men and women 	<ul style="list-style-type: none"> Undergraduate students trained as paraprofessionals Intervention design to be culturally relevant, responsive to collective orientation of Hmong culture Joint facilitation by undergraduate student and Hmong participant Translation by Hmong User-led learning 	<ul style="list-style-type: none"> Developed and delivered by research team Undergraduates supervised Community centres of two public housing developments Natural pairing over time for the advocacy component 	<ul style="list-style-type: none"> Learning circles (cultural exchange and one-on-one mutual learning opportunities) plus paired advocacy/ navigation element also Learning circles twice weekly; partly group-based, partly one-to-one learning 6–8 hours per week for 6 months (5 months' advocacy component) Large degree of tailoring 	<ul style="list-style-type: none"> Hybrid – SSG/ befriending ✓ Function 2: aim to improve community's responsiveness to needs of refugees; shift attitudes of students ✓ Function 3: advocacy and skills transfer; English skills, instrumental learning to participate in community
5	Naidoo 2011; ¹¹⁴ USA	<ul style="list-style-type: none"> Descriptive qualitative – details limited Supporting successful transition to mainstream education, broader social cohesion and sense of place via museums; inclusivity 	<ul style="list-style-type: none"> Asylum seekers/ refugees: children -refugee high school students At risk of social and academic isolation in school system African Mixed gender 	<ul style="list-style-type: none"> Refugee Action Support Program Tutors – pre-service teachers; volunteers 	<ul style="list-style-type: none"> A school–university–community partnership; Australian Literacy and Numeracy Foundation Museums and other places 	<ul style="list-style-type: none"> In-school and after-school literacy support in Greater Western Sydney Discussions and experiences involving the broader community – exhibitions in museum (details unclear) 	<ul style="list-style-type: none"> Function 2: unclear ✓ Function 3: core aim is to support transition to mainstream education; language; enrichment activities; workshops

continued

TABLE 15 Intercultural encounters papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
6	Nathan, 2013; ¹¹⁵ Australia	<ul style="list-style-type: none"> Mixed methods, with non-randomised comparator group Survey (63 intervention, 79 comparison) and small group interviews Sport as a mechanism to build relationships; health and well-being, social inclusion, connectedness, and cross-cultural engagement 	<ul style="list-style-type: none"> Asylum seekers/refugees, inclusion criteria: children and young people National/ethnic categories: other migrants (20%); Iraq, Iran, Afghanistan, Sierra Leone other African nations, Burma, Pakistan and Thailand; other 6% (unclear if any white Australian-born participants – seems not) Gender: mixed (but few girls took part) Other special circumstances: some may have experienced trauma 	<ul style="list-style-type: none"> Football United (13 sites) Paid and volunteer coaches Football as cross-culturally appealing Young people as volunteer or paid coaches and project co-ordinators 	<ul style="list-style-type: none"> Complex, multilevel intervention. Dialogue and partnership with schools, asylum seeker/ refugee support organisations, community groups and young people 	<ul style="list-style-type: none"> Face to face Football – regular Saturday and after-school training, school holiday camps, competitions and festivals Schools, community venues Weekly, no fixed duration 	<ul style="list-style-type: none"> Function 2: no relevant activities reported ✓ Function 3: training, life skills, leadership development workshops
7	British Academy, 2017; ¹¹⁶ UK	<ul style="list-style-type: none"> Case study, descriptive qualitative only Social cohesion, in school and wider community in an area of high deprivation and rapid population change; addressing ‘high tension’ 	<ul style="list-style-type: none"> Asylum seekers/ refugees: children and young people plus families and wider population Some elements targeted at those at risk of social isolation or loneliness (primary school scheme) Mixed gender 	<ul style="list-style-type: none"> RUBIC 2-year consultation period with local people to develop the programme 45 young people trained to be community influencers 	<ul style="list-style-type: none"> Multipartner project in north Sheffield. Centred on a local secondary school. Supported by Sheffield Cohesion Advisory Group Schools and community venues 	<ul style="list-style-type: none"> School focus but within wider community Leadership scheme for young people – community influencers Safe Space Dialogues – intercommunity ones enable people from different backgrounds to understand each other Awareness sessions and befriending scheme for newcomers in primary schools Young Community Leaders – 15-week course 3-year project with funding from the National Lottery 	<ul style="list-style-type: none"> ✓ Function 2: Safe Space Dialogues – intracommunity ones may contribute to this aspect; Young Community Leaders trained in relevant issues ✓ Function 3: Community Guardians – conflict resolution skills; New Arrivals Support Group (every 2 weeks)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
8	British Academy, 2017; ¹¹⁷ UK	<ul style="list-style-type: none"> Case study, qualitative, very limited evaluation; nature and number of data unclear Enhancing social connectedness of migrant and asylum-seeking women; 'two-way social integration'; tackling isolation 	<ul style="list-style-type: none"> Asylum seekers/ refugees: migrants including those seeking asylum and refugees Migrant women assumed to be at risk of social isolation Women only – migrants and British women 	<ul style="list-style-type: none"> Xenia, Hackney Volunteers – qualified language teacher plus unqualified facilitators; female Initiated by group of local young women English speakers encouraged and supported to assist language acquisition of newcomers 	<ul style="list-style-type: none"> Initiated by group of young women Partnership with ESOL providers and other organisations Child care provided Museum that celebrates lives of local people 	<ul style="list-style-type: none"> English language via workshops that connect across divides; themed, small group work; focus on sharing and building connections 3-hour workshops, weekly, drop-in; whiteboards and pens Plus biweekly sessions and social activities with other local partners Follow-up telephone calls to some individual women, as needed, by volunteers 	<ul style="list-style-type: none"> Hybrid: SSG (women based) ✓ Function 2: part and parcel of the themed workshops ✓ Function 3: English skills are core focus
9	British Academy, 2017; ¹¹⁸ UK	<ul style="list-style-type: none"> Case study, qualitative, very limited evaluation; number of data unclear Two-way integration; embracing newcomers as part of the city; tackling social isolation 	<ul style="list-style-type: none"> Asylum seekers/ refugees: adults and families, people seeking asylum and new refugees in Glasgow Assumed to be at risk of social isolation Mixed genders 	<ul style="list-style-type: none"> Refugeegee – from 'Weegie' meaning a Glaswegian – 'a person who on arrival in Glasgow is embraced by the people of the city, a person considered to be a local' Run by small dedicated team Volunteers (around 200) and donations Refugees often go on to become volunteers themselves over time 	<ul style="list-style-type: none"> Volunteer-led social action campaign Strong partnerships across public, private and voluntary sectors Crowdfunding; small grants Social media used to mobilise people en masse 	<ul style="list-style-type: none"> Campaign approach Welcome packs for new arrivals (useful, Scottish and personal e.g. a letter or postcard written by a Glaswegian, plus stamped addressed envelope to allow a response) Tangible support, material donations Social activities 	<ul style="list-style-type: none"> ✓ Function 2: use of social media and clever branding to empower local citizens – aiming for alternative positive narrative about refugees – commonalities and connections to place ✓ Function 3: social activities that introduce newcomers to places and resources in the city; trips out of the city
10	Phillimore 2017; ²⁵³ UK	<ul style="list-style-type: none"> Qualitative – mini ethnography Data number unclear 	<ul style="list-style-type: none"> Asylum seekers/refugees, but open to all in the area Assumed to be at risk of isolation Mixed gender Some have experienced trauma, some mental health issues 	<ul style="list-style-type: none"> The Welcome Project Leader recruits volunteers and promotes non-judgemental atmosphere; diffuses cultural tensions or misunderstandings Opportunities for attendees to help out preparing and serving meals; very flexible format and interactions 	<ul style="list-style-type: none"> Self-organised civil society project, initiative by church network Church (but access via side, no need to enter church) Linked activities take place at leisure centre, allotment, other community venues 	<ul style="list-style-type: none"> Safe space to meet across immigration, ethnic and religious divides Informal, weekly lunch group; drop in, no fixed duration Informal individual support to solve problems as needed 	<ul style="list-style-type: none"> Hybrid – elements of social support group Function 2: no explicit inputs ✓ Function 3: English-language classes to support network building

continued

TABLE 15 Intercultural encounters papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
11	Whyte 2017; ¹²⁰ Denmark	<ul style="list-style-type: none"> Ethnography (4 months) Cultural encounters as potentially transformative 	<ul style="list-style-type: none"> Asylum seekers/ refugees: children; asylum seeking Younger cohort with family; older unaccompanied cohort Mixed gender 	<ul style="list-style-type: none"> 'Travelling with art' Museum art educator, Red Cross teachers Only Danish and English, no other languages available; some children played role of translators 	<ul style="list-style-type: none"> Linked to Red Cross Museum Lunch provided 	<ul style="list-style-type: none"> Arts-based – creating and discussing artwork; exploring exhibits at museum; scrap books; group and individual exercises Twice a week, 4 hours; 6–8 weeks 	<ul style="list-style-type: none"> Function 2: no explicit inputs Function 3: no explicit inputs
12	Wilson 2008; ¹²¹ UK	<ul style="list-style-type: none"> Qualitative, participatory Sense of community and neighbourliness 	<ul style="list-style-type: none"> New (asylum seekers/ refugees) and established communities (white, BME and settled refugees) Mixed gender 	<ul style="list-style-type: none"> Communities R Us Led by a local agency; community development workers Resident-led initiatives; priorities and plans decided by local people in two areas; voluntary and community sector led in one area. Local people involved in information-gathering 	Part of a larger Refugee Housing Integration Programme. Small-scale community-based projects, funded under larger scheme	<ul style="list-style-type: none"> Three pilot projects, different forms All began with outreach and information-gathering by local residents, followed by participatory planning; collective activities, for example litter picks, hanging baskets, community festival, sports activity week, community art day Duration unclear, but time limited 	<ul style="list-style-type: none"> Function 2: no explicit inputs Function 3: no explicit inputs
13	Parks 2015; ¹²² UK	<ul style="list-style-type: none"> Qualitative; two children's centres, 50 interviews with parents/carers How ethnicity and other factors relating to migration shape encounters in these spaces; benefits of interactions 	<ul style="list-style-type: none"> Pregnant and postpartum women. New migrants to the UK (some seeking asylum), established BME groups and white English Mixed – 32/50 female in this study 	<ul style="list-style-type: none"> SureStart Children's Centres Centres are run by paid and volunteer staff Involvement of users not described 	<ul style="list-style-type: none"> Activities in centres are largely organised by professionals Community venues 	<ul style="list-style-type: none"> Centres offer a variety of drop-in and more structured activities for parents of young children Varied intensity; duration up to parents 	<ul style="list-style-type: none"> Function 2: no relevant inputs Function 3: English-language acquisition and navigational support important to new arrivals

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
14	Abe 1998 ¹⁴⁴ and Geelhoed 2003; ¹²³ USA	<ul style="list-style-type: none"> Two linked studies, qualitative and quantitative Pre-post, comparator group $n = 28$ (participants), $n = 32$ (non-participants) Focus group $\times 4$ (16 participants) Intercultural adjustment; international and host student transformation 	<ul style="list-style-type: none"> International students. Newly arrived international and host students Asian countries (62%), Europe (18%), South America (10%), Africa (7%), Middle East (3%) Mixed gender (both hosts and international students) 	<ul style="list-style-type: none"> International Peer Program Volunteer hosts were returning students, mainly white, some ethnic minority or returning international students Student pairs develop their own plans for how they will interact 	<ul style="list-style-type: none"> Office of Residence Life and the Office of International Student Services at a public university Various within and beyond the university; activities determined by the student pair 	<ul style="list-style-type: none"> Face-to-face paired interactions International students-host student peer programme Ongoing interactions between host and international student; varied intensities Monthly organised social activities also E-mail communication prior to arrival; one-semester duration 	<ul style="list-style-type: none"> Function 2: international student is supposed to increase host students' knowledge and appreciation of foreign cultures, customs and languages Function 3: host aims to increase knowledge and familiarity with university
15	Anderson 2008; ¹²⁴ New Zealand	<ul style="list-style-type: none"> Qualitative interviews – 11 interviews with 16 participants Interaction and integration of international students; challenging notions of sameness and difference 	<ul style="list-style-type: none"> International students Assumed to be at risk of isolation Women only, international and host students 	Women Across Cultures		Fortnightly low-key meetings and activities as well as occasional larger events that were also open to family and friends	<ul style="list-style-type: none"> Function 2: no relevant inputs Function 3: no formal inputs; some exchange of information and navigational input informally
16	Gilboa 2009; ¹²⁶ Israel	<ul style="list-style-type: none"> Mixed methods $n = 12$ Reducing intergroup tension; acculturation and integration via musical engagement 	<ul style="list-style-type: none"> Ethnic minority students Immigrants and Israeli-born (children of immigrants) students (Sabras) Varied national origins Mixed gender 	<ul style="list-style-type: none"> Let's Talk Music Conducted by a music therapist Hebrew language (all could speak) 	<ul style="list-style-type: none"> University initiated and supported Comfortable room, mattresses on floor 	<ul style="list-style-type: none"> Music-based multicultural communal project Musical presentations; vehicle to share with group important personal experiences, concerns and cultural background. Plus improvisation, dancing; guest lectures Personal reflection exercises 24 weekly sessions 	<ul style="list-style-type: none"> ✓ Function 2: music therapist encouraged the sharing of feelings and insights, debate and discussion around conflicts; as well as improvisation and dancing together; lectures on cultural bridging Function 3: no relevant inputs
17	Sakurai 2010; ¹²⁵ Australia	<ul style="list-style-type: none"> Pre-post, comparator group $n = 47$ (participants), $n = 51$ (non-participants); surveys 1 week and 4 weeks after excursion Social inclusion and cultural integration of international students in the host culture 	<ul style="list-style-type: none"> International students. Newly arrived All Asian international students: China (22%), Malaysia (15%), Hong Kong (11%), remainder other Asian countries Mixed gender 	Supervisor (academic), a few senior international students	<ul style="list-style-type: none"> Organised by researcher Tourist location; bus ride 	<ul style="list-style-type: none"> Bus excursion to a popular tourist spot roughly 1 hour from university Introductions and informal conversation on bus One-off event; around 100 students 	<ul style="list-style-type: none"> Function 2: no relevant inputs Function 3: no relevant input

continued

TABLE 15 Intercultural encounters papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
18	Frankenberg 2016; ¹²⁸ Germany	<ul style="list-style-type: none"> Pre-post with comparator $n = 159$ (62 exposed for 2 years; 23 also in choir); control $n = 97$ (41 of whom in choir) Potential of music to increase group cohesion and social support 	<ul style="list-style-type: none"> Children in school: elementary school children Turkish descent (30%), Russian or Ukrainian (24%), Polish descent (6%) Gender: mixed, 55% girls 	<ul style="list-style-type: none"> JeKi, An Instrument for Every Child School teachers No involvement 	<ul style="list-style-type: none"> School based School 	<ul style="list-style-type: none"> Small groups; music programme Year 1: introduction to musical instruments and basic elements of music Year 2: weekly, 45-minute music lessons on the instrument of their choice Year 3: two lessons per week and playing in ensemble 	<ul style="list-style-type: none"> Function 2: no inputs Function 3: no extra inputs; although music programme is intended to increase 'social competencies'
19	Raw; ¹²⁷ UK	<ul style="list-style-type: none"> Mixed methods including participatory $n = 350$ (206 full evaluation) Intergroup contact; potential for meaningful contact and relationship-building for children who attend non-diverse schools 	<ul style="list-style-type: none"> Children in school: schoolchildren (and adults who work with them, and, indirectly, parents) Mixed gender 	<ul style="list-style-type: none"> Central team: one full-time co-ordinator, one part-time teacher/ adviser, and one full-time administrator/web designer Teachers – training and ongoing support 	<ul style="list-style-type: none"> Website supports communication across schools Schools and cultural venues 	<ul style="list-style-type: none"> Schools linkage project; 61 primary and 12 secondary schools Initial day together in neutral venue; at least two contacts per term; range of creative and sports activities; facilitated contact and team work 	<ul style="list-style-type: none"> Function 2: no inputs Function 3: no inputs
20	Franz 2015; ¹²⁹ Austria	<ul style="list-style-type: none"> Action research $n = 26$ participants, $n = 13$ non-players Promotion of community exchange via online platform employing creative, collaborative activity and culturally intersecting elements 	<ul style="list-style-type: none"> Children and young people outside school: teenagers Turkish, south-east European, Austrian Mixed gender 	<ul style="list-style-type: none"> YourTurn! None Qualitative work informed game development but no ongoing involvement 	<ul style="list-style-type: none"> Part of a larger research project Varied, on home computers or other 	<ul style="list-style-type: none"> Online collaborative game – YourTurn!, music-based video editing competition; links to Facebook (Facebook, Inc., Menlo Park, CA, USA) account. Playing against opponent results in a shared, creative product. Points scored through collaboration. Identities of players revealed 3-month period; intensity dependent on user, very varied 	<ul style="list-style-type: none"> Function 2: game aims to foster acceptance, understanding of cultural diversity but unclear whether or not direct inputs Function 3: no relevant inputs

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
21	Mayblin 2016; ¹³⁰ UK	<ul style="list-style-type: none"> Case study Five interviews with adults; 15 interviews with young people; two mixed focus groups; observation Meaningful contact across faiths 	<ul style="list-style-type: none"> Children and young people outside school: young people Muslim and Jewish All male (some female involvement in other activities) 	<ul style="list-style-type: none"> Not named Idea from adult member of the Jewish community; worked with a member of Muslim community to secure funds Professional facilitator, principles of conflict resolution and mediation 10 young leaders run the project 	<ul style="list-style-type: none"> The project was primarily funded by Faiths in Action Adult organisers engaged in other interfaith activities, for example Faiths Forum 	<ul style="list-style-type: none"> Cricket based Cricket practice and matches and an annual community day No structured formats in relation to intercultural exchange 	<ul style="list-style-type: none"> ✓ Function 2: interfaith dialogue meetings; a weekend away, and a series of events including a visit to synagogue and mosque Function 3: no relevant activities
22	Mills 2017; ¹³¹ UK	<ul style="list-style-type: none"> Qualitative; survey n = 407; interviews – 30; complemented by other methods Citizenship and social cohesion; social mixing; encounters 	<ul style="list-style-type: none"> Children and young people outside school: secondary school kids – out of school No targeting for isolation or loneliness No information on ethnic make-up; mixed including majority white Mixed 	<ul style="list-style-type: none"> A mainly seasonal workforce of adult mentors and volunteers Participants can undertake some or all of the programme Weeks 3 and 4: participants choose their activities 	<ul style="list-style-type: none"> Contracted providers organise regional and local National Citizenship Service delivery £50 to join (bursaries offered) 	<ul style="list-style-type: none"> Citizenship service 3–4 weeks of programmed activities during the summer holidays Week 1: adventure – diverse outdoor activities. Week 2: 'skills' or 'future' – an indoor residential often based at a university campus, workshops, debates and group tasks. Weeks 3 and 4: 'social action project' group work, for example community gardening, fundraising, voluntary scheme 	<ul style="list-style-type: none"> Function 2: no relevant inputs (encounters with difference assumed to happen naturally or organically) Function 3: no relevant inputs
23	British Academy 2017; ¹³² UK	<ul style="list-style-type: none"> Case study, qualitative, very limited evaluation; number of data unclear Community cohesion and young people's empowerment; increasing feeling of welcome among marginalised groups; belonging 	<ul style="list-style-type: none"> Children and young people outside school: young-people focused, but activities involve wider community also No targeting by social isolation All community members; some activities specifically addressed Polish and Roma communities Mixed 	<ul style="list-style-type: none"> Aik Saath 'Together as One' Founded by young people; run by team of four all aged < 25 years Young people aged 11–19 are empowered to build cohesion in their communities (40–70 active at any one time) 	<ul style="list-style-type: none"> Youth-led charity, Slough Various venues around the city; strong Slough identity 	<ul style="list-style-type: none"> Heritage projects; arts based – people brought together to learn about each other's cultures and histories Oral history projects; young people interviewing residents Youth cafes – drop-ins Peer-led education projects; skills 	<ul style="list-style-type: none"> ✓ Function 2: workshops and assemblies; enabling people to think critically about ethnic identity, community and belonging ✓ Function 3: training of young people to act as community catalysts; teamwork skills

continued

TABLE 15 Intercultural encounters papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
24	Slatcher 2017 ¹³³ UK	<ul style="list-style-type: none"> • Descriptive • Ethnography; focused on one dimension only – misrepresentation of the initiative by the media; ‘co-opting’ peace-building initiatives into narrative of securing communities • ‘Bridge-building’; improving the local community 	<ul style="list-style-type: none"> • Children and young people outside school: 16- to 25-year-olds, ‘peace ambassadors’, different faiths • No targeting around social isolation • Mixed 	<ul style="list-style-type: none"> • Peace ambassadors • Facilitators also involved (identity and training unclear) 	<ul style="list-style-type: none"> • Part funded by Near Neighbours, a partnership between DCLG and the Anglican Church’s charity Church Urban Fund, advertised in churches, synagogues, mosques, youth clubs and community organising schemes • Leeds; five different locations including community and faith venues 	<ul style="list-style-type: none"> • Interfaith project • Face-to-face; structured sessions involving exercises to prompt discussion • Five sessions in different sites; safe spaces 	<ul style="list-style-type: none"> • ✓ Function 2: activities to nurture positive connections (details unclear) • ✓ Function 3: equip young people with confidence and leadership skills to build bridges across community
25	Berryhill 2006; ¹⁴¹ USA	<ul style="list-style-type: none"> • Ethnographic, descriptive • Addressing intergroup tensions in a deprived community; building a sense of belonging 	<ul style="list-style-type: none"> • General migrant/minority population, no age or life-stage focus. All community residents • African American and Latino residents • Mixed gender 	<ul style="list-style-type: none"> • Unity • Bilingual meeting organiser • Ethnographic research underpinned establishment of community group 	<ul style="list-style-type: none"> • Researcher-led initiative in early stages • Community venues 	<ul style="list-style-type: none"> • Neighbourhood group; intercultural; aiming for community empowerment • Initial meeting to discuss improving community. Identification of common goals. Variety of community improvement projects • Weekly meetings to plan strategy 	<ul style="list-style-type: none"> • Function 2: no relevant inputs • Function 3: no relevant inputs
26	Mayblin 2016; ¹⁴² Poland	<ul style="list-style-type: none"> • Qualitative case study • 22 interviews; two focus groups (30 participants in total), observation • Football as a bridging activity to facilitate integrative encounters 	<ul style="list-style-type: none"> • Whole population, including minority and majority ethnicity. Adults of any age • Open to all, no migrant or nationality focus (260 participants from 44 countries) – but this study focuses on experiences of Polish participants • Mixed gender 	A grass-roots project	Commitment to antiracism, antisexism and antihomophobia	City-wide football league; teams must include players from at least three different nationalities	<ul style="list-style-type: none"> • Function 2: no relevant activities mentioned • Function 3: no relevant activities mentioned

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
27	Caponio 2017; ¹³⁵ Italy	<ul style="list-style-type: none"> Qualitative policy analysis, three case studies Immigrant integration; promotion of interculturalism 	<ul style="list-style-type: none"> Whole population, including minority and majority ethnicity. Anyone in local community No targeting for social isolation Mixed gender 	<ul style="list-style-type: none"> Varied staffing, paid and unpaid, varied skills across the Neighbourhood Houses, no one model Varied levels of involvement of local people and migrants in the initiative across locations; some work as volunteers or in paid roles 	<ul style="list-style-type: none"> Network of initiatives across the city of Turin, local government supported Local community venues 	<ul style="list-style-type: none"> Neighbourhood Houses Cultural activities aimed at fostering interaction between immigrants and local community – varied levels of activity and participation; some more focused on this than others, for example immigrant art and music Varied focus and activities in different Neighbourhood Houses 	<ul style="list-style-type: none"> Function 2: no relevant activities mentioned ✓ Function 3: some of the Neighbourhood Houses provide information and assistance to asylum seekers/refugees, language courses, training etc.
28	de Quadros 2017; ¹³⁶ Sweden	<ul style="list-style-type: none"> Qualitative description via interviews with choir leaders Intercultural understanding; welcoming refugees and people seeking asylum 	<ul style="list-style-type: none"> Whole population, including minority and majority ethnicity. People seeking asylum and refugees and wider population No targeting for social isolation Mixed gender 	<ul style="list-style-type: none"> Varied models Choir leaders are experienced 	<ul style="list-style-type: none"> Variety of initiatives Schools and community venues, for example women's community centre 	<ul style="list-style-type: none"> Hospitable community music – choral societies Regular practices, performances, socialising alongside 	<ul style="list-style-type: none"> Function 2: no relevant activities Function 3: no other activities – but singing intended to also develop language
29	Philipp 2015; ¹⁴³ UK	<ul style="list-style-type: none"> Brief descriptive report Health promotion via arts for excluded groups 	<ul style="list-style-type: none"> Whole population, including minority and majority ethnicity. Newcomers including people seeking asylum and refugees and wider population No targeting for social isolation Mixed gender 	<ul style="list-style-type: none"> The Portents – Art Giving Voice to Community project Over 1000 people involved in creating the images and words in the exhibition; > 11,000 people attended the exhibition 	<ul style="list-style-type: none"> Part of a 2-year campaign for Bristol, in support of its record on helping refugees, to become a City of Sanctuary Centre of city 	<ul style="list-style-type: none"> Community arts installation 9-day outdoor exhibition comprised 50 tents in the form of a tent city, each tent printed with a design by a different group expressing its images, stories and dreams 	<ul style="list-style-type: none"> Function 2: exhibition may indirectly aim at achieving shift in attitudes Function 3: no other activities
30	DCLG; ¹⁴⁵ UK	<ul style="list-style-type: none"> Qualitative, descriptive, data number unclear Community cohesion, positive relations between diverse communities, civic participation by all 	<ul style="list-style-type: none"> Whole population, including minority and majority ethnicity. All ages across local area Ethnic mix unclear Mixed gender 	<ul style="list-style-type: none"> Blackburn with Darwen Belonging Campaign 'Many lives; many faces; all belonging' 'My home town' project 100 Voices discussion and consultation events 	Area-wide initiative involving various local partner organisations, led by Local Strategic Partnership	<ul style="list-style-type: none"> Main elements of the Belonging work have been a poster campaign and a charter of belonging promoted and signed in schools, by public and private sector partners and in the voluntary and community sectors School twinning Public discussion and consultation events 	<ul style="list-style-type: none"> ✓ Function 2: reaffirming commonality; celebrating richness of culture and faith; recognise equal rights of all those who belong to area; reject racism, blame-casting and violence Function 3: no relevant inputs

continued

TABLE 15 Intercultural encounters papers overview: characteristics of inputs (continued)

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
31	Matejskova 2011; ¹³⁷ Germany	<ul style="list-style-type: none"> Participant observation; informal interviews; focus group discussions (25 practitioners; 43 residents) Interethnic encounters in urban contexts; potential for improved relations 	<ul style="list-style-type: none"> All community residents. Multiethnic area Social isolation of immigrants recognised; facilities open to all residents Various immigrants including Russian speakers of German heritage, Germans Mixed gender 	<ul style="list-style-type: none"> Volunteers and paid members of staff User involvement varied; but some examples of positive working of immigrants and hosts side by side 	Community venues	<ul style="list-style-type: none"> Local integration projects – Neighbourhood centres Varied activities – some intended for migrant groups alone to increase knowledge and others intended to raise awareness among Germans of immigrant groups 	<ul style="list-style-type: none"> ✓ Function 2: some relevant activities (little detail provided) ✓ Function 3: some relevant activities (little detail provided)
32	Shinew 2004; ¹³⁹ USA	<ul style="list-style-type: none"> Telephone interviews ($n = 195$ community gardeners) Interethnic encounters in urban contexts; potential for improved relations 	<ul style="list-style-type: none"> African American ($n = 52$) and white Americans ($n = 128$) Mixed gender 	Gateway Greening	Various neighbourhood gardening plots	<ul style="list-style-type: none"> Leisure spaces – community gardens Provision of tools, training and material resources to neighbourhood associations 	<ul style="list-style-type: none"> Function 2: no relevant activities Function 3: no relevant activities
33	Thomas 2016; ⁷² USA	<ul style="list-style-type: none"> Qualitative participant–observer methodology, in-depth interviews ($n = 25$) Fostering immigrant integration – cultural navigators as a bridge to connect newcomers 	<ul style="list-style-type: none"> Any age immigrants, < 3 years since arrival Assumed to be at risk of social isolation, no targeting More than 12 countries spanning four continents Mixed gender 	<ul style="list-style-type: none"> Trained volunteers; most had different ethnic backgrounds from immigrant participants Careful matching 	<ul style="list-style-type: none"> Hartford Public Library, Connecticut Most matched one to one; some matched with whole families Recruitment through existing programmes at the library and other community-based organisations Part-time case manager at the library to address needs for essential resources or services 	<ul style="list-style-type: none"> Library – shared community space which de-emphasises hierarchical social structures Cultural Navigator Program 3-month commitment, but many extended beyond Flexible to individual needs 	<ul style="list-style-type: none"> Hybrid: befriending – relationship development is central element Function 2: expected to happen organically ✓ Function 3: advocacy, navigation, tangible assistance; outings; library as setting for sociocultural learning and support

Number	Study and location	Study design; sample size; main outcome/focus	Recipients	Initiative label/identity; facilitation; user involvement	Organisational set-up and support; location, venues	Format and content of interactions; intensity, frequency and duration; degree of flexibility/ tailoring	Inputs provided aimed at additional functions 2 and 3
34	Riis 2017; ¹³⁸ Denmark	<ul style="list-style-type: none"> Qualitative Seven dialogue meetings observed; six semistructured interviews; informal conversations; 90-minute interview with project manager Social cohesion through 'people's enlightenment' (transformative learning) 	<ul style="list-style-type: none"> Any age, general population No targeting for isolation or loneliness Variety of ethnic/national identities including majority white Mixed gender 	<ul style="list-style-type: none"> Ambassadors – 'hyphenated Danes' – the CEA project attempts to rework the minority category by using visible and invisible minority ambassadors; young people (usually in their 20s), often at university, voluntary No user involvement 	<ul style="list-style-type: none"> The CEA project consists of approximately 40 young people, who tour around Denmark to conduct what they call 'dialogue meetings' 	<ul style="list-style-type: none"> Dialogue meetings – highly structured but participatory; group face to face Typically held in educational institutions at various levels One-off dialogue meetings; lasting at least a few hours (unclear) 	<ul style="list-style-type: none"> ✓ Function 2: orchestrated encounters designed to prompt debate and discussion about belonging, values, cultural differences – seeking to disturb stereotypes and engage participants in solutions Function 3: no relevant inputs
35	Wilson 2013; ¹⁴⁰ UK	<ul style="list-style-type: none"> Qualitative exploration of dynamics of initiative; no focus on review outcomes of interest Tackling prejudice; cultivating new knowledge practices; relations across difference 	<ul style="list-style-type: none"> No particular target groups – workshops organised by institutions and individuals can sign up too Mixed gender 	<ul style="list-style-type: none"> Trained facilitators No involvement of participants 	International not-for-profit network	<ul style="list-style-type: none"> Face to face Diversity training and managed encounters Highly orchestrated and guided by a handbook 	<ul style="list-style-type: none"> ✓ Function 2: core focus is on revealing and challenging cultural domination and violence against minorities Function 3: no relevant inputs

CEA, Cultural Encounters Ambassadors; DCLG, Department for Communities and Local Government; ESOL, English for speakers of other languages; RUBIC, Respect and Understanding – Building Inclusive Communities.

Appendix 8 Overview of other interventions/initiatives

TABLE 16 Psychotherapy interventions

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Beeber 2013; ¹⁶² USA	<ul style="list-style-type: none"> • RCT (no data on review outcomes of interest) • Depression during early parenting 	<ul style="list-style-type: none"> • Mothers of Early Head Start infants and toddlers (6 weeks to 36 months old) • Screened positive for depression • Targeting for isolation or loneliness: Assumed at risk of low support and relationship conflict • 69% reported their ethnicity as Black or African American, Native American, or mixed race • Very limited economic resources 	Health-care professional – nurse	<ul style="list-style-type: none"> • Face to face and telephone • Individual • Interpersonal therapy – focused on one of four areas (disputes, role transitions, grief, or interpersonal deficits) to determine interpersonal sources of depressive symptoms • One-page modules written in the vernacular. Plus some personalised parenting support 	<ul style="list-style-type: none"> • Private homes • Weekly for 20 weeks • 10 face-to-face in-home visits followed by 1 month of booster telephone calls • Final visit to plan for continuing treatment if needed 	<ul style="list-style-type: none"> • 1, 2 • Encourage identification and take-up of social support • Improving interactions with existing ties
Eisdorfer 2003; ¹⁵⁶ USA	<ul style="list-style-type: none"> • RCT (no data on review outcomes of interest) • Support and well-being of carers 	<ul style="list-style-type: none"> • Women in vulnerable circumstances; adults carers • Targeting for isolation or loneliness: assumed at risk of low support and relationship conflict • National/ethnic categories: white American (49%) and Cuban American (51%) • Gender: mixed, but 75% women • Other relevant circumstances: at risk of poor mental health 	Health-care professional – therapist	<ul style="list-style-type: none"> • Individual or family group • Face to face alone or face to face plus remote contact • Structured therapy alone or combined with computer telephone interactive system • Technology allows recipient to interact with both therapist and other friends and family members 	<ul style="list-style-type: none"> • Private homes • Therapy: 60- to 90-minute sessions; 12 months, weekly sessions for first 4 months, biweekly for next 2 months, and monthly for final 6 months 	<ul style="list-style-type: none"> • 1, 2 • Creating opportunities to develop new supportive ties • Improving interactions with existing ties

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Elligan, 1999; ¹⁵⁷ USA	<ul style="list-style-type: none"> • Qualitative • Well-being in the face of structural racism 	<ul style="list-style-type: none"> • Adults • Targeting for isolation or loneliness: assumed at risk of low level of social support • National/ethnic categories: African American • Gender: men • Other relevant circumstances: none 	Health-care professional – clinical psychologist, African American male	<ul style="list-style-type: none"> • Group based • Face to face • African-based and spiritually based framework • 2 weeks – sharing autobiographical experiences; awareness stage – exploring connections between racism and aspects of life; alignment – fears and anxiety, restructuring guilt; synthesis stage – develop and share coping mechanisms 	<ul style="list-style-type: none"> • Venue unclear • Once a week, 1.5-hour formal session, plus contact by telephone and informal supportive social gatherings in between; 3 months, 12 regular sessions and one social outing to jazz club 	<ul style="list-style-type: none"> • 1, 2, 3, 4 • Improving interactions with existing ties • Buffering hostile racist environment • Validation of ethnic identity • Changed thinking about existing intimate relationships
Gray, 2104; ¹⁶³ USA	<ul style="list-style-type: none"> • Qualitative descriptive only • Parenting enhancement and mental well-being 	<ul style="list-style-type: none"> • New mothers • Targeting for isolation or loneliness: assumed at risk of low support and relationship conflict • National/ethnic categories: African American • Gender: women • Other relevant circumstances: low income 	Social worker, with enhanced role	<ul style="list-style-type: none"> • Social-emotional assessment followed by structured modules according to need • One-to-one 	<ul style="list-style-type: none"> • In private homes • Face to face • Up to four modules, each of 6–8 sessions 	<ul style="list-style-type: none"> • 1, 2 • Creating opportunities to develop new supportive ties • Improving interactions with existing ties

continued

TABLE 16 Psychotherapy interventions (continued)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Grote 2009; ¹⁵⁸ USA	<ul style="list-style-type: none"> • RCT • Depression during pregnancy 	<ul style="list-style-type: none"> • Pregnant and postpartum women • Targeting for isolation or loneliness: assumed at risk of low support and relationship conflict • African American (62%) and white patients • Gender: women • Other relevant circumstances: low income; depressed 	Health-care professional	<ul style="list-style-type: none"> • Culturally relevant, enhanced IPT-B • One-to-one • Manualised treatment • Free bus passes, child care and facilitation access to social services (food, job training, housing, and free baby supplies) 	<ul style="list-style-type: none"> • Office in the large obstetrics and gynaecology clinic to make treatment more accessible and less stigmatising • Face to face and telephone • Educational materials also provided • One engagement session, followed by eight acute IPT-B sessions before the birth and maintenance IPT up to 6 months postpartum 	<ul style="list-style-type: none"> • 1, 2 • Improving interactions with existing ties • Buffering stressful socioeconomic circumstances
Jesse 2016; ¹⁵⁹ USA	<ul style="list-style-type: none"> • RCT; • <i>n</i> = 39 (treatment); <i>n</i> = 71 (control) • Depression during pregnancy 	<ul style="list-style-type: none"> • Pregnant women • Targeting for isolation or loneliness: assumed at risk of low support • National/ethnic categories: rural low-income African American, Caucasian and Hispanic • Other relevant circumstances: low income; depressed or at risk of depression 	Health-care professional plus 'Resource Mom' support staff	<ul style="list-style-type: none"> • Group sessions plus one-to-one booster • Face to face • Insight-Plus, culturally tailored cognitive-behavioural Intervention • Transport and child care 	<ul style="list-style-type: none"> • Session number unclear • Weekly booster session from support worker 	<ul style="list-style-type: none"> • 1, 3 • Encourage identification and take-up of social support • Reduce negative thinking (generally)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Masood 2015; ¹⁶⁴ UK	<ul style="list-style-type: none"> Qualitative, focused on acceptability and experience n = 17 (interviews, received intervention) Depression 	<ul style="list-style-type: none"> Adults, mixed ages Targeting for isolation or loneliness: assumed at risk of low support and relationship conflict National/ethnic categories: South Asian, some migrant, some UK born Gender: women Other relevant characteristics: confirmed depression 	<ul style="list-style-type: none"> Trained research staff South Asian origin, Urdu speaking, sociocultural understanding 	<ul style="list-style-type: none"> Group 'Positive Health Programme' – culturally adapted CBT Assertiveness skills Child care provided, transport costs covered 	<ul style="list-style-type: none"> Community children's centre – Sure Start 12-weeks 	<ul style="list-style-type: none"> 1, 2, 3 Improving interactions with existing ties Increasing self-confidence and coping behaviours Reduce negative thinking (generally)
Muñoz 2007; ¹⁶¹ USA	<ul style="list-style-type: none"> Pilot RCT (not review outcomes of interest) n = 21 (treatment), n = 20 (control) Plus focus group Postpartum depression 	<ul style="list-style-type: none"> Pregnant women (12–32 weeks) Targeting for isolation or loneliness: assumed at risk of low support National/ethnic categories: Latina Gender: women Other relevant characteristics: at high risk of major depressive episode 	Facilitators with training in clinical psychology and supervised by licensed clinical psychologist	<ul style="list-style-type: none"> Mamás y Bebés/ Mothers and Babies course, English and Spanish Group and individual; face to face and homework Preventative, not treatment Sociocultural issues relevant to a low-income, culturally diverse population, racism, cognitive-behavioural mood management framework, incorporates social learning concepts, attachment theory, and sociocultural issues 	<ul style="list-style-type: none"> Venue unclear 12 weeks plus four individual booster sessions conducted at approximately 1, 3, 6 and 12 months' postpartum 	<ul style="list-style-type: none"> 1, 2 Opportunity for new social ties Improve social skills, and assertiveness Improving interactions with existing ties Reduce negative thinking (generally) Validation of Latina immigrant experience

continued

TABLE 16 Psychotherapy interventions (continued)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Mynatt 2008; ¹⁶⁵ USA	<ul style="list-style-type: none"> • Pre-post quantitative • $n = 7$ • Depression 	<ul style="list-style-type: none"> • Adults, various ages • Targeting for isolation or loneliness: assumed at risk of low support • National/ethnic categories: African American • Gender: women • Other relevant characteristics: mild to moderate depression and anxiety; highly educated 	Church counsellor	<ul style="list-style-type: none"> • INSIGHT therapy • Group, face to face • Readings, exercises, and discussions within the group; homework booklet • Interactive. Members were encouraged to share stories and views on the content • Goal-setting, weekly reporting to group 	<ul style="list-style-type: none"> • Church – convenient location • Weekly 2-hour sessions for 12 weeks 	<ul style="list-style-type: none"> • 1, 2, 3 • Improving interactions with existing ties • Increasing self-confidence and coping behaviours • Reduce negative thinking (generally)
Smith 2014; ¹⁵⁵ Australia	<ul style="list-style-type: none"> • RCT • $n = 7$, $n = 9$ (two treatment groups) • Social and academic adjustment 	<ul style="list-style-type: none"> • International students • Targeting for isolation or loneliness: assumed to be at risk of isolation and poor mental well-being • National/ethnic categories: Asian countries – China (5), Malaysia (2), Hong Kong (1), Vietnam (1) and Taiwan (3); plus other countries • Gender: mixed 	Psychology-trained facilitators; local and international students (role models)	<ul style="list-style-type: none"> • STAR programme • Face to face • Groups • Cognitive restructuring activities for negative thoughts associated with low mood and anxiety • Exercises with fictional case studies; homework 	<ul style="list-style-type: none"> • University premises, no detail given • Four 2-hour weekly sessions 	<ul style="list-style-type: none"> • 1, 2 • Creating opportunities to develop new supportive ties • Reduce negative thinking (generally) • Equipping to function in new social setting and build new social ties • Encouraging support and help seeking when needed

Study and location	Study design, sample size; main outcome/focus	To whom	By whom	What	Where; intensity, frequency, duration	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Toth 2013; ¹⁶⁰ USA	<ul style="list-style-type: none"> • RCT • <i>n</i> = 99 (treatment - IPT) • <i>n</i> = 29 (control - enhanced community standard) • Depression 	<ul style="list-style-type: none"> • Adult women with child aged 12 months; screened - confirmed depressed (majority long term) • Targeting for isolation or loneliness: assumed to be at risk of poor social support • National/ethnic categories: 59.4% black and 21.1% Hispanic • Gender: women • Other relevant characteristics: below poverty level; histories of maltreatment and trauma common 	Trained therapists, experienced, weekly supervision	<ul style="list-style-type: none"> • IPT • Face to face • Manualised treatment addressing symptoms associated with interpersonal aspects of depression; problem-solving; goal-setting 	<ul style="list-style-type: none"> • Clinic or home (client preference; avoid child care and transport costs) • 14 × 1-hour sessions 	<ul style="list-style-type: none"> • 1, 2 • Reduce perceived stress • Improving interactions with existing ties • Enhance self-efficacy and control

CBT, cognitive-behavioural therapy; IPT, interpersonal psychotherapy; IPT-B, brief interpersonal psychotherapy; STAR, strengths, transitions, adjustments and resilience.

TABLE 17 Equipping and training interventions

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Arola 2019, ¹⁵³ Barenfeld, 2015, Gustafsson 2017 ²⁶³ and Lood 2015; ²⁹⁷ Sweden	<ul style="list-style-type: none"> • RCT, <i>n</i> = 56 (treatment) <i>n</i> = 75 (control) • Engagement in meaningful activities for health and well-being in migrant context 	<ul style="list-style-type: none"> • Older people aged ≥ 70 years. Migrants • Targeting for social isolation or loneliness: none • National/ethnic categories: Balkan Peninsula and Finland • Gender: mixed • Other special circumstances: none 	<ul style="list-style-type: none"> • Professional facilitator (from a team of occupational therapist, a physiotherapist, a registered nurse and a social worker) • Patient-centred ethos but no evidence of user involvement 	<ul style="list-style-type: none"> • 'Senior meetings' • Health-related information provision and discussions on living well in context of ageing • Ethnically specific groups, bilingual discussion via interpreter if needed • Guided by a booklet of information generated by professionals, not based on migrant experience 	<ul style="list-style-type: none"> • Community venue • Four group meetings, held over a period of 4 weeks • One follow-up home visit offered to allow discussion of any individual issues 	<ul style="list-style-type: none"> • 1 • Equipping with knowledge and skills
Batra 2012; ²¹⁷ USA	<ul style="list-style-type: none"> • Before-and-after single group • 115 MOB participants and 276 ADE participants completed the evaluation questionnaire • Falls and fear of falling; anxiety and social isolation, quality of life 	<ul style="list-style-type: none"> • Age/life-stage group: aged ≥ 60 years • Targeting for social isolation or loneliness: none • National/ethnic categories: most MOB participants were non-Hispanic white, most ADE participants were Hispanic • Gender: mixed • Other relevant circumstances: none 	<ul style="list-style-type: none"> • Community-based agencies offered MOB and ADE through grants. Provider agencies identified master trainers and lay leaders for training. Master trainers required 2 days' training with comprehensive curriculum material • User involvement: none reported 	<ul style="list-style-type: none"> • Face-to-face structured workshops. Recommended class size of 8–14 participants. Initial sessions focused on helping participants view falls/fear of falling as controllable. Later sessions involved simple exercises to improve strength/balance. Encouragement to continue exercises in future. Goal-setting • Participant workbook 	<ul style="list-style-type: none"> • Community-based settings (day care, older adult centres, clinics, hospitals, skilled nursing facilities, assisted living facilities, community centres or housing for older adults) • Eight 2-hour sessions offered once or twice per week for a total of 16 hours of class time • No personalisation 	<ul style="list-style-type: none"> • 1 • Equipping with skills; increased confidence to move about

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Brunsting 2018; ²⁶⁴ USA	<ul style="list-style-type: none"> • Non-randomised comparison study • Sample size: 43; 97.67% completed both surveys • Intervention group (n = 42), comparison group (n = 32) • Campus belonging and social support 	<ul style="list-style-type: none"> • Age/life-stage group: students and young adults • Targeting for social isolation or loneliness: none • National/ethnic categories: range of countries (China, France, Canada, Egypt, India, Germany, Italy, Russia, South Korea, Uzbekistan, UK); Chinese over-represented • Gender: mixed, male over-represented • Other relevant circumstances: none 	<ul style="list-style-type: none"> • Provider not described • User involvement: none reported 	<ul style="list-style-type: none"> • Participants learned intercultural competence skills and how to use them in critical contexts for academic and social success at US colleges and universities • Content outline of the academic and cultural transition core curriculum • Academic interaction, group work, resolving conflict, suspending judgement, shifting perspective, self-advocacy, interacting across cultures, communicating with professors, social interactions/norms, making friends across cultures, navigating roommate issues • Group of 24 students 	<ul style="list-style-type: none"> • Classroom setting • Frequency and duration: students met for 1 hour once a week for 15 weeks during the fall semester of the participants' first year at the institution • No personalisation 	<ul style="list-style-type: none"> • 1 • Equipping for new social context; increased self-confidence in social and academic settings
Doikou-Avlidou 2013; ¹⁴⁹ Greece	<ul style="list-style-type: none"> • Pre and post qualitative and quantitative design • Seven teachers; seven immigrant pupils • Enhancing social integration of immigrant pupils 	<ul style="list-style-type: none"> • Immigrant children at risk of social behavioural difficulties • Teachers identified pupils with difficulties 	<ul style="list-style-type: none"> • Teachers; short training in counselling techniques; listening, showing empathy • User involvement: none 	<ul style="list-style-type: none"> • Social and emotional learning programme • Activities aimed at encouraging pupils to recognise their strengths and/or difficulties; express thoughts and feelings; develop empathy and acceptance; and co-operate and help other pupils 	<ul style="list-style-type: none"> • School, classroom based – whole class activity • Four or five activities over 2-month period 	<ul style="list-style-type: none"> • 1, 2, 3 • Increased trust; self-confidence; social skills

continued

TABLE 17 Equipping and training interventions (continued)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Im 2015; ²⁹⁸ USA	<ul style="list-style-type: none"> Qualitative study only, participatory methods; 22 participants' group discussions Address complex physical and mental health needs of refugee population 	<ul style="list-style-type: none"> Asylum and refugees (mixed group) Mixed-age adults Bhutanese No targeting for loneliness Mixed gender Other relevant circumstances: identified as in need of education/support by peer trainers 	<ul style="list-style-type: none"> Six community leaders and active community members; 4-day training User involvement – trained refugee Leaders actively involved in the development and adaptation process 	<ul style="list-style-type: none"> Peer-based health education Community Health Workshop curriculum based on psychoeducation modules, plus nutrition and healthy eating, daily stressors of resettlement, healthy coping, common psychological distress and mental health issues Social capital framework 	<ul style="list-style-type: none"> Community venue Eight sessions, 2-month period No personalisation 	<ul style="list-style-type: none"> 1, 3 Equipping with skills; building sense of community (ethnic identity)
Kanekar 2009; ¹⁴⁶ USA	<ul style="list-style-type: none"> RCT Sample size of 30 students in each group (the intervention and the comparison); 39 completed measurements Distressing life event, enhancing social support 	<ul style="list-style-type: none"> Age/life-stage group: students (all age groups eligible) and young adults Targeting for social isolation or loneliness: none National/ethnic categories: Asian Indian Gender: mixed, male over-represented (87.2%) Other relevant circumstances: no particular circumstances Location: a large research university in Ohio 	<ul style="list-style-type: none"> Online instruction No user involvement 	<ul style="list-style-type: none"> Instruction delivered through Blackboard® (Blackboard Inc., Washington D.C., USA), reminder e-mails were sent once every 2 weeks encouraging participation in online modules and activities First session: social support (types, benefits, effects on mental health, activities on how to identify and build). Second session: hardiness (component, benefits, activities on increasing commitment, control, and challenge). Third session: acculturation (components, benefits, ways to increase) 	<ul style="list-style-type: none"> Online instruction Three session intervention to be completed over 2 months No personalisation 	<ul style="list-style-type: none"> 1, 4 Equipping with skills and knowledge for new social context

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Kukulska-Hulme 2015; ¹⁵⁴ Austria, Italy and the UK	Descriptive study only	Immigrants; all ages	<ul style="list-style-type: none"> • Online instruction • No user involvement 	<ul style="list-style-type: none"> • Online tool – MApp^a delivers language-learning activities, image-to-text translation, context-aware and interest-based recommendations, local information, game-based cultural learning and social support to immigrants in cities 	<ul style="list-style-type: none"> • Online • Intensity and duration determined by user 	<ul style="list-style-type: none"> • 1 • Equipping for new social context
Mak 2007; ¹⁴⁷ Australia	<ul style="list-style-type: none"> • Non-randomised comparison study (quasi experimental) • 26 students in each group • Multicultural classrooms creating social interaction difficulties 	<ul style="list-style-type: none"> • University students • Migrants • No targeting • 14 Australian born; 10 international students; two migrants; Asia, Pacific islands, Africa, Europe • Mixed gender • Other relevant circumstances: none 	<ul style="list-style-type: none"> • Teachers • No user involvement 	<ul style="list-style-type: none"> • Skills-based sociocultural competency training module (add on to a general communication course) • Group based; social learning theory; contact theory 	<ul style="list-style-type: none"> • University classroom based • Six weekly 2-hour sessions (on top of the core communication programme) • No personalisation 	<ul style="list-style-type: none"> • 1, 2 • Equipping for new social setting; increased self-confidence and mastery (social competence)
Michael 2008; ²⁶² USA	<ul style="list-style-type: none"> • Before-and-after, no comparator group, qualitative interviews • <i>n</i> = 113 survey (66% response); 14 in-depth interviews 	<ul style="list-style-type: none"> • General population all ages • Whole populations • African American (32%), other, Latino (67%) 	<ul style="list-style-type: none"> • ‘Power for Health’ programme • Community health workers • Strong community involvement – identifying needs and priorities for action 	<ul style="list-style-type: none"> • Trained community health workers providing health promotion support at community level; varied activities and diffuse locations – principles of popular education • Partner communities and local organisations in three partner areas 	<ul style="list-style-type: none"> • Varied diffuse locations • Intensity and frequency varied between participants – people engage as they see fit • Duration of the programme: 8 months 	<ul style="list-style-type: none"> • 1 • Increase positive social ties (reciprocity, social and instrumental support)

continued

TABLE 17 Equipping and training interventions (continued)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Mitschke 2013 ²⁵⁷ and Praetorius 2016; ²⁶⁰ USA	<ul style="list-style-type: none"> Quasi experimental (mental health outcomes); mixed methods n = 65 Mental health linked to trauma, equipping women with productive skill and basic income 	<ul style="list-style-type: none"> Adults, asylum seekers/ refugees Targeting for isolation or loneliness: none National/ethnic categories: Bhutanese Gender: women Other relevant circumstances: none reported 	<ul style="list-style-type: none"> Delivered by a Nepalese member of the research team and an agency interpreter No user involvement 	<ul style="list-style-type: none"> Manualised financial education curriculum and skills training programme Face-to-face meetings in small groups with an agency employee 	<ul style="list-style-type: none"> Community centre in the apartment complex where the refugees lived Twice a week for 2 hours; 12 weeks No personalisation 	<ul style="list-style-type: none"> 1, 3 Self-confidence; skills
Naidoo 2009; ²⁹⁹ Australia	<ul style="list-style-type: none"> Qualitative only; group discussions and interviews Sample size: 37 Schools as sites of integration and cultural learning 	<ul style="list-style-type: none"> Refugee schoolchildren No targeting African Mixed gender 	<ul style="list-style-type: none"> Student teachers played the role of mentors No user involvement evident 	<ul style="list-style-type: none"> After-school homework tutoring programme; Refugee Action Support Group based 	<ul style="list-style-type: none"> Schools, libraries Term-based; dependent on student engagement Individually responsive 	<ul style="list-style-type: none"> 1, 3 Equipping for social and academic setting
Ovink 2011; ⁷⁵ USA	<ul style="list-style-type: none"> Qualitative study only: interviews Total sample size: 106 Cultural and social capital in minority students' sense of belonging and academic success 	<ul style="list-style-type: none"> Age/life-stage group: students, young adults Targeting for social isolation or loneliness: none National/ethnic categories: majority ethnic minority (African American, Hispanic/Latino, Asian American/Pacific Islander, Native American, white) Gender: mixed, male over-represented Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> University teachers Involvement in the programme – membership, peer-to-peer support 	<ul style="list-style-type: none"> BUSP involves supplemental instruction in core 'gatekeeper' courses, quarterly academic and personal advising, and paid undergraduate research experiences BUSP Honours Program involves conducting original research, writing and presentation skills, and preparing students to apply to graduate programmes Offers membership to a subculture of the 'BUSPers' (study groups, socialising, supportive community) 	<ul style="list-style-type: none"> Admits 45–65 entering students each year Students take classes from the summer prior to their first year through to the end of their sophomore year. Students may also apply to take part in the BUSP Honours Program Personalisation: quarterly academic and personal advising, conducting original research 	<ul style="list-style-type: none"> 1, 3 Equipping for social and academic setting

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Rania 2014; ²⁶¹ Italy	<ul style="list-style-type: none"> Qualitative study only, semistructured interviews, 10 separated and unaccompanied migrant adolescents Social support as a buffering effect on the psychological stress of acculturation 	<ul style="list-style-type: none"> Age/life-stage group: schoolchildren, students, young adults Migrants Targeting for social isolation or loneliness: none (group assumed lacking social support and social ties) Albania, Egypt, Kosovo, Greece, and Senegal Gender: mixed, majority male Other relevant circumstances: unclear (likely to have experienced trauma) 	<ul style="list-style-type: none"> Host – community social workers. Social and educational agencies User involvement: adolescents identified some dimensions 	<ul style="list-style-type: none"> Educational intervention proposed by community centres Adolescents identified some dimensions: the school, the stage, the rules of the community, the training activities, work grant, the gym 	<ul style="list-style-type: none"> Community centres for young people Intensity, frequency, duration not described – probably flexible Personalisation limited 	<ul style="list-style-type: none"> 1, 3 Equipping for social and academic setting
Rejeski 2014; ¹⁵⁰ USA	<ul style="list-style-type: none"> Parallel design randomised controlled clinical trial Sample size: 194 participants, of whom 178 completed the baseline and 6-month follow-up visits The importance of social relations and pain acceptance for people living with PAD 	<ul style="list-style-type: none"> Age/life-stage group: older people Targeting for social isolation or loneliness: none National/ethnic categories: minorities; indigenous peoples, African American (close to half of cohort) Gender: mixed Other relevant circumstances: physical ill health or disability; PAD 	<ul style="list-style-type: none"> Trained facilitator for home-based physical activity Physicians and other health-care professionals for the health education attention control group No user involvement 	<ul style="list-style-type: none"> Home-based physical activity intervention: participants completed walking exercises to the point of pain. Participants recorded walking exercise each day, severity leg pain, and Rating of Perceived Exertion. Facilitator reviewed records weekly, provided brief individualised feedback. Individuals increased activity over time Health education attention control group: educational information on health-related topics (management of hypertension, cancer screening, preventing falls, and vaccinations, but not exercise or behaviour change) 	<ul style="list-style-type: none"> Location not described Home-based physical activity intervention: 90-minute weekly sessions (45-minute facilitator-led discussions, 45 minutes' walking exercise) The health education attention control group: weekly 60-minute group sessions Personalisation: facilitator reviewed records and provided brief individualised feedback, weekly 	<ul style="list-style-type: none"> 1 Equipping for new context (living with chronic illness); self-confidence

continued

TABLE 17 Equipping and training interventions (continued)

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Riggs 2014; ¹⁴⁸ Australia	Qualitative study; nine mentees and two mentors	Asylum seekers/refugees; adults	<ul style="list-style-type: none"> Professional instructors and volunteers from host community (mentors) No user involvement in design or delivery 	<ul style="list-style-type: none"> Driver education Six weeks of theory classes delivered by Victoria Police, followed by 'driving skills' with a qualified driving instructor before participants were matched with a volunteer mentor driver 	<ul style="list-style-type: none"> Community venues; cars Flexible – mentor works with the mentee until they are ready for their road test 	<ul style="list-style-type: none"> 1 Equipping to be able to make/sustain social contacts
Shorey 2018; ¹⁵¹ Singapore	<ul style="list-style-type: none"> Qualitative study only Sample size: five couples, four fathers and three mothers ($n = 17$) Postnatal period as challenging 	<ul style="list-style-type: none"> Age/life-stage group: pregnant or postpartum women Targeting for social isolation or loneliness: none National/ethnic categories: Chinese, Malay, Indian, other ethnicities Gender: mixed Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> Midwife No user involvement 	<ul style="list-style-type: none"> 'Home but not Alone' mHealth app-based educational programme. Included discussion forum between parents and midwives, extensive information resource, daily notifications on the baby's milestones/needs. Access for 4 weeks after discharge from hospital Routine care by nurses/midwives throughout hospital stay. Follow-up appointment with their obstetricians 	<ul style="list-style-type: none"> Mobile technology Access to app for 4 weeks after discharge Individualised support through routine care, and asynchronous communication on the app Group support through app-based educational programme 	<ul style="list-style-type: none"> 1, 3 Equipping for new role and context; self-confidence; part of new network
Sporting Equals 2012; ²⁵⁸ UK	<ul style="list-style-type: none"> Mixed-method evaluation of a portfolio of local activities under umbrella programme (> 200 organisations in total) – review of existing evaluative reports plus case studies Healthy eating, physical activity and mental well-being for older people 	<ul style="list-style-type: none"> Age/life-stage group: older people Targeting for social isolation and loneliness: not explicit, but referrals Various minority ethnic groups Mixed gender Other relevant circumstances: ill-health in some cases 	<ul style="list-style-type: none"> Professional and lay deliverers User involvement is core characteristic of many programmes, involvement of volunteers in design and delivery 	<ul style="list-style-type: none"> 'Fit as a fiddle'; group-based physical activity sessions Many are group based 	<ul style="list-style-type: none"> Community venues Variable. Large programme, unable to document details here 	<ul style="list-style-type: none"> 1, 3 Self-confidence, empowerment; physical skills for greater social engagement; membership of groups

Study and location	Study design, sample size; main outcome/focus	To whom	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Taylor-Piliae 2006; ¹⁵² USA	<ul style="list-style-type: none"> • Before-and-after, single group • Quasi-experimental study • Sample size: 39 participants, 97% completed the study • Impact of a tai chi (a mind-body exercise) intervention on psychosocial status 	<ul style="list-style-type: none"> • Age/life-stage group: older people, average age 66 years • Targeting for social isolation or loneliness: none • National/ethnic categories: Chinese • Gender: mixed, majority women • Other relevant circumstances: at least one major cardiovascular disease risk factor 	<ul style="list-style-type: none"> • An experienced tai chi instructor • A registered nurse • No user involvement 	<ul style="list-style-type: none"> • 20 participants per group • Participants had to replicate the instructor. Participants monitored for safety and given corrections. 20-minute warm-up, 30-minutes of tai chi exercise, 10-minute cool-down; '24-posture short-form' taught gradually. Participants encouraged to practise routine at home twice weekly • After the 12 weeks, participants received a CD-ROM of the tai chi master's performance 	<ul style="list-style-type: none"> • Community centre in San Francisco Bay Area with a high density of ethnic Chinese people • 60-minute tai chi exercise class three times a week for 12 weeks. Participants encouraged to practise routine at home twice weekly • No personalisation 	<ul style="list-style-type: none"> • 1, 3 • Empowerment, self-confidence, social group; physical skills; reduced stress and worry

ADE, Un Asunto de Equilibrio; app, application; BUSP, Biology Undergraduate Scholars Program; CD-ROM, compact disc read-only memory; mHealth, mobile health; MOB, matter of balance; PAD, peripheral artery disease.

a Developed within the European Union's MASELTOV project, see www.maseltov.eu.

TABLE 18 Meaningful activity interventions

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Bishop 2013; ¹⁷² UK	<ul style="list-style-type: none"> Qualitative – ethnographic methods Five interviews, observations Role of horticulture and the social environment on health, well-being and social inclusion 	<ul style="list-style-type: none"> Age/life-stage group: adults, working age Refugees Targeting for social isolation/loneliness: none No information on national/ethnic categories Mixed gender No other relevant circumstances 	<ul style="list-style-type: none"> Organised by a charity; project staff support activities No user involvement in design mentioned 	Weekly allotment group for refugees	<ul style="list-style-type: none"> Community allotment site Weekly; open-ended Activity is self-directed 	<ul style="list-style-type: none"> 1, 3 Self-confidence; demonstrating value; new social ties; signposting (linking to support); reduce worry and stress
Harris 2014; ¹⁷³ Australia	<ul style="list-style-type: none"> Qualitative approach; semistructured interviews Single critical case study Sample size: 12 Refugee population undergo nutrition transition due to forced migration. Community food garden supports connectedness with new country 	<ul style="list-style-type: none"> Age/life-stage group: adults, all ages Refugees/humanitarian migrants Targeting for social isolation and loneliness: none National/ethnic categories: African Mixed gender No other relevant circumstances 	<ul style="list-style-type: none"> Resources funded by university, government departments and community organisations Gardeners work on individual plots using their own and provided resources. Members of local African refugee communities participated in building of garden. Gardeners, family, friends involved in the communal spaces 	<ul style="list-style-type: none"> Community food garden Gardeners work on individual plots using their own and provided resources. Gardeners, family, friends involved in the communal spaces 	<ul style="list-style-type: none"> Campus-based community food garden Four or five times a week in growing season Gardeners work on individual plots using their own and provided resources 	<ul style="list-style-type: none"> 1, 3 Self-confidence; demonstrating value; new social ties; reduce worry and stress

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Hartwig 2016; ¹⁷⁰ USA	<ul style="list-style-type: none"> Mixed methods; focus groups, individual/group interviews, surveys Sample size: 8 church gardens, focus groups: 3-10 per garden (48 total), 24 respondents to individual/group interviews, 214 gardeners, 44% and 45% response to each round of surveys Act of gardening, nature of gardens and increased social connectedness of community gardens may reduce mental and emotional health impacts of immigrating to a new country 	<ul style="list-style-type: none"> Age/life-stage group: mixed age and life-stage group Immigrants and refugees Targeting for social isolation or loneliness: none National/ethnic categories: Karen (Burma/Myanmar), Bhutanese (Nepalese), Lisu (Burma/Myanmar), Hmong (Laotian) Gender: mixed Other relevant circumstances: 12% possible depression 	<ul style="list-style-type: none"> No facilitator/leader of activity per se No user involvement in design or delivery 	<ul style="list-style-type: none"> Provision of community garden plots Arrive Ministries (a non-profit organisation) plays a facilitation, orientation and training role between churches and other refugee organisations 	<ul style="list-style-type: none"> Church/community gardens Flexible timing and duration Gardeners engage as they see fit, no one-to-one support 	<ul style="list-style-type: none"> 1, 3 Self-confidence; demonstrating value; new social ties; reduce worry and stress
Porter 2018; ¹⁷¹ USA	<ul style="list-style-type: none"> Qualitative study only – case studies with five community-based organisations over 5 years 	<ul style="list-style-type: none"> Adults, all ages Targeting for social isolation/loneliness: none Varied national/ethnic categories across projects Mixed gender No other relevant circumstances 	Mix of staff and volunteers; community-based organisations	Community gardening; community-based organisations	<ul style="list-style-type: none"> Community venues Flexible timing and duration Gardeners engage as they see fit 	<ul style="list-style-type: none"> 1, 3 Self-confidence; demonstrating value; new social ties; reduce worry and stress

continued

TABLE 18 Meaningful activity interventions (continued)

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
van de Venter 2015; ¹⁶⁹ UK	<ul style="list-style-type: none"> • Before-and-after, single group • Pre-post intervention pilot study • Sample size: pilot sample of 6/36. Linked baseline and follow-up WEMWBS scores available for 44 participants. Art interventions may provide a cost-effective approach to improving mental well-being 	<ul style="list-style-type: none"> • Age/life-stage group: parents (not postpartum/early days), mixed age and life-stage group • Targeting for social isolation or loneliness: 'at risk' of being isolated and/or lonely • National/ethnic categories: racial or ethnic minorities; indigenous • Gender: mixed • Other relevant circumstances: mild to moderate mental health problems, variation in measured change in WEMWBS scores 	<ul style="list-style-type: none"> • Artist-facilitated groups • User involvement – none reported 	<ul style="list-style-type: none"> • Arts on referral • Group-based activity • Painting, textiles, music, photography and film • One group for mothers with infants, others open to all • Collective engagement in creative arts, increased social contact and community engagement 	<ul style="list-style-type: none"> • Inner-city general practices or community centres • 20 weeks • No one to one or personalisation mentioned 	<ul style="list-style-type: none"> • 1, 3 • Note that similar causal chains to SSGs • Sharing experiences leading to normalising emotions • Self-confidence via acquisition of new skills • 'Deliberate creativity' leading to reduced rumination • Positive group interactions leading to increased trust and sense of belonging

WEMWBS, Warwick-Edinburgh Mental Wellbeing Scale.

TABLE 19 Volunteering interventions

Study	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Fried 2004, ²⁶⁵ Frick 2004, ³⁰⁰ Glass 2004, ¹⁷⁴ Martinez 2006, ¹⁷⁵ Frick 2012, ³⁰¹ Fried 2013, ³⁰² Parisi 2015, Varma 2015 ²⁵⁹ and Morrow-Howell 2012 ³⁰³	<ul style="list-style-type: none"> • Three sets of linked papers: four papers relating to first trial, four papers relating to second trial, final paper relating to multisite evaluation • Fried 2004²⁶⁵ – RCT 	<ul style="list-style-type: none"> • Older people • Mixed ethnicities; black Americans well represented • Mixed gender • No targeting for isolation or loneliness 	<ul style="list-style-type: none"> • Training provided • Older people formed into peer support groups 	<ul style="list-style-type: none"> • ‘Experience Corps’; well-established programme in which older adults are trained to act as mentors in primary schools supporting young children • Mentors receive small payment to cover expenses • Initiative is intended to benefit both schoolchildren and older adults 	<ul style="list-style-type: none"> • Schools; some contact outside schools also • No personalisation for the older adult participants 	<ul style="list-style-type: none"> • 1, 3 • ‘Generativity’ – showing value and competence; self-confidence; new social ties; physical activity and engagement; reduced stress and worry
Means 2017 ¹⁷⁷	<ul style="list-style-type: none"> • Qualitative study only • Repeated interviews × 3. n = 10 	<ul style="list-style-type: none"> • Minority students • No targeting for isolation or loneliness • Mixed ethnicities 8/10 were students of colour • Mixed gender • No other particular circumstances 	<ul style="list-style-type: none"> • University teachers provide training and support • No user involvement in design 	<ul style="list-style-type: none"> • International service learning programme • Leadership development training. Volunteer opportunity in local community 	<ul style="list-style-type: none"> • University and community based. International trip to volunteer • Duration unclear 	<ul style="list-style-type: none"> • 1, 3 (4) • Showing value and competence; new social ties; self-confidence

continued

TABLE 19 Volunteering interventions (continued)

Study	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Pak 2018 ⁵⁸	<ul style="list-style-type: none"> • Post only, mixed methods, no comparator, <i>n</i> = 16 • Academic and social belonging 	<ul style="list-style-type: none"> • Minority students • Targeting for isolation or loneliness: assumed to be at risk of low level of social and academic belonging • National/ethnic categories: Hispanic/Latino (100%) • Gender: mixed • Other relevant characteristics: none 	<ul style="list-style-type: none"> • Taught class – university teachers • Volunteer component matched by university but then delivered by students working together in pairs 	<ul style="list-style-type: none"> • Face-to-face classes; face-to-face encounters at community level • Taught Spanish course focused on creating meaningful contexts for language acquisition, as well as academic and civic learning. Hispanic community in the USA • Delivery of tutoring sessions to parents in the community and their children • Students matched and then worked in pairs to visit families • Self-reflective journals 	<ul style="list-style-type: none"> • University premises and private homes in community • One-semester time frame; a minimum of 10 hours of direct contact with families 	<ul style="list-style-type: none"> • 1, 3 • Creating opportunities to develop new supportive ties • Skills • Demonstrating competence; increasing confidence • Validating ethnolinguistic identity
Vickers 2016 ¹⁷⁶	<ul style="list-style-type: none"> • Qualitative study only; descriptive • <i>n</i> = 18; interviews and group discussions 	<ul style="list-style-type: none"> • Asylum seekers/refugees, adults • No additional targeting for isolation or loneliness • Mixed gender • People with leave to remain 	Provider not described	Varied opportunities to volunteer, particularly supporting newly arrived asylum seekers and migrants	Voluntary-sector organisations	<ul style="list-style-type: none"> • 1, 3 • Details limited

TABLE 20 Light-touch psychological inputs

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Broda 2018; ¹⁷⁸ USA	<ul style="list-style-type: none"> RCT (not outcomes of interest) 7686 students Academic retention and achievement among disadvantaged students 	<ul style="list-style-type: none"> University students about to begin freshman year No targeting for isolation/loneliness White, Latino/a, African American, Asian and multiracial. international students Mixed gender No other relevant characteristics 	<ul style="list-style-type: none"> Online courses designed by researchers No user involvement 	Online social belonging intervention (or growth mind-set or comparison)	<ul style="list-style-type: none"> At home/university location, individually, online One-time online survey/exercise No personalisation 	4
Cook 2012; ¹⁸² USA	<ul style="list-style-type: none"> RCT, 361 before randomisation, group size not reported Sense of belonging easily undermined by interactions with teachers and peers for minority students; need to buffer 	<ul style="list-style-type: none"> Middle-school students No targeting for isolation/loneliness African American; white Mixed gender No other relevant characteristics 	<ul style="list-style-type: none"> Designed by researchers No user involvement 	Brief 'values affirmation' – scripted exercises for students to complete presented by teachers as if normal school exercise	<ul style="list-style-type: none"> School Written exercise, repeated 3–5 times over the course of the academic year 	<ul style="list-style-type: none"> 3, 4 Insulation from 'threat' to self-confidence and positive self-identity
Gehlbach 2016; ¹⁸³ USA	<ul style="list-style-type: none"> 315 students and 25 teachers Perception of similarity leads to increased liking and closer relationships 	<ul style="list-style-type: none"> Ninth-grade students No targeting for isolation/loneliness 51% white, 19% Latino, 11% Asian, 6% black, and 10% reporting multiple categories or 'other' Mixed gender No other relevant characteristics 	<ul style="list-style-type: none"> Designed by researchers No user involvement 	Students in the treatment condition received feedback on five similarities that they shared with their teachers; each teacher received parallel feedback regarding about half of his or her ninth-grade students	<ul style="list-style-type: none"> Feedback sheets comprise 'get-to-know-you' surveys completed by students and teachers Students and teachers then asked to respond to a series of brief questions on their feedback sheets – intended to prompt deeper consideration and better recall of points of commonality with one another 	<ul style="list-style-type: none"> 4 More positive ties

continued

TABLE 20 Light-touch psychological inputs (continued)

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Hausmann 2007 ⁶⁰ and Hausmann 2009; ³⁰⁴ USA	<ul style="list-style-type: none"> • RCT, longitudinal experimental design • Sample size: 365 (220 white, 145 African American) for survey 1, 94% response rate for surveys 2 and 3 • Sense of belonging as an overlooked dimension in student persistence with college 	<ul style="list-style-type: none"> • Age/life-stage group: students, young adults, aged 16–21 years, freshmen • Targeting for social isolation or loneliness: none • National/ethnic categories: African American, white • Gender: mixed, majority female • Other relevant circumstances: no particular circumstances 	<ul style="list-style-type: none"> • University administrators (e.g. the provost and/or vice-provost for student affairs) • No user involvement 	<ul style="list-style-type: none"> • Designed to increase sense of belonging in students • After returning survey, students randomly assigned to one of three groups: an enhanced sense of belonging group or one of two control groups • Several written communications from university administrators emphasising that students were valued members of the community, and the usefulness of their survey responses • Students received small university-branded gifts (e.g. identification holders, magnets, decals) to surround students with items emphasising their connection to their university 	<ul style="list-style-type: none"> • Implied location was students' residence • Total of seven mailings delivered to participants in the enhanced sense of belonging group. Mailings sent at roughly equal time increments of 3–5 weeks, throughout fall and spring semesters • Received individually, but not personalised 	4

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Walton 2011; ¹⁷⁹ USA	<ul style="list-style-type: none"> • RCT • Cohort 1 recruited through convenience sampling, cohort 2 recruited through random sampling • Sample sizes: unclear, varied throughout follow-up period • Social isolation, loneliness, and low social status harm intellectual achievement and immune function and health, as well as subjective well-being 	<ul style="list-style-type: none"> • Age/life-stage group: students and young adults • Targeting for social isolation or loneliness: none • National/ethnic categories: African American, European American • Gender: mixed • Other relevant circumstances: students in the second semester of their first year at a selective college 	<ul style="list-style-type: none"> • Designed by researchers • Provider not described, unclear who administered exercise • No user involvement 	<ul style="list-style-type: none"> • Participating students were randomly assigned to either the belonging-treatment condition or a control condition • Participants read a report of a survey of more senior students, which indicated that worries about belonging were common, temporary and consistent across ethnic and gender groups. Participants were encouraged to internalise the message by writing a speech on their own experiences and delivering it to a camera, which they were told would be used to help future students 	<ul style="list-style-type: none"> • Research laboratory, presumably on campus • Intervention lasted about 1 hour • Individual exercise involving reading, writing and preparing a video speech in laboratory-based environment 	4
Silver Wolf 2017; ¹⁸⁰ USA	<ul style="list-style-type: none"> • Descriptive only (no data on relevant outcomes); report on a pilot programme • 128 students (63 intervention; 65 comparison) • Toxic college environment can undermine retention, achievement and belonging 	<ul style="list-style-type: none"> • University students • No targeting for isolation or loneliness • White and African American • Mixed gender • No other relevant characteristics 	Designed and administered by researchers	<ul style="list-style-type: none"> • Social belonging intervention • (1) A structured introduction video: You Are College Material— You Belong. Key messages: every new student feels out of place at first; each student worries about making friends; all students worry that they are unprepared for college, and these feelings disappear after a brief time 	<ul style="list-style-type: none"> • University premises • 13-minute video; plus 10–15 minute discussion – 30 minutes' total duration 	<ul style="list-style-type: none"> • 3, 4 • Self-confidence; positive ethnic identity; reduce worry and stress

continued

TABLE 20 Light-touch psychological inputs (continued)

Study and country	Study design and sample size; main outcome/focus	Recipients	By whom; user involvement?	What	Where; intensity, frequency, duration; personalisation?	Proximate determinants targeted (explicitly or implicitly); main broad strategies intended
Yeager 2016; ¹⁸¹ USA	<ul style="list-style-type: none"> • RCT • Three double-blind, randomised experiments, each with one control and three interventions • Sample sizes: experiment 1, $n = 584$; experiment 2, $n = 7335$; experiment 3, $n = 1592$ • Improving the college transition, particularly for students with social and economic disadvantages 	<ul style="list-style-type: none"> • Age/life-stage group: students and young adults pre matriculation • Targeting for social isolation or loneliness: none • National/ethnic categories: experiment 1, majority African American; participants not completely clear in other experiments • Gender: mixed • Other relevant circumstances: students were identified as 'college ready'; experiment 1, majority first-generation college students 	<ul style="list-style-type: none"> • Designed by researchers • Provider not described • No user involvement 	<ul style="list-style-type: none"> • Experiment 1: survey about transition to college given to students while seniors in high school • Experiment 2: online orientation materials (growth mind-set and upper-year student stories) embedded in pre-orientation tasks • Experiment 3: materials on social and academic belonging (cultural fit intervention and critical feedback intervention) embedded as link on matriculation website 	<ul style="list-style-type: none"> • Classrooms in high school, online • Experiment 1 in May of senior year at high school, experiment 2 in May–August before starting college, experiment 3 in mid-May to early June before starting college • Received individually, not personalised 	4

Appendix 9 Befriending: evaluative papers

TABLE 21 Befriending interventions causal chains and outcomes (n = 19, qualitative and quantitative)

Study; population group	Inputs linked to functions			Causal chains demonstrated	Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)				Outcome ↑ ← → ↓
	Function 1	Function 2	Function 3		Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	
Askins; ²⁰² asylum seekers/refugees	Trained; careful pairing; long term, committed, flexible and personalised; face to face; reciprocal exchanges; 'active listening'	Advice and information about new context; English-language practice	Practical help; navigation; shared outings	1a, 1b, 2a, 3a, 3b	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation (qualitative)
Government of Canada; ²⁰⁴ asylum seekers/refugees	Trained; careful matching; support from organisation; flexible and personalised; face to face	Advice and information about new context; English-language practice	Practical help; navigation; shared outings; introductions and links to community and professional networks	1a, 1b, 2a, 2b, 3a, 3b	Yes; ↑ (qualitative and quantitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (17% reported this as unexpected outcome) (quantitative)
Renner <i>et al.</i> ; ²²⁴ asylum seekers/refugees	Trained in counselling techniques; gender-matching; supervision; no further details	Information provision implied; no details	Unclear	1a not demonstrated No data	Yes; ← →	No; no data	No; no data	No; no data	← → Feeling supported
Weekes <i>et al.</i> ; ⁹⁸ asylum seekers/refugees, children in school	Induction; tailored input; school setting; face to face; lack of social activity element	English-language practice; classroom skills; cultural context; direct teaching	None	1a not demonstrated 1b, 2a, 2c	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	No relevant outcomes assessed
Ardal <i>et al.</i> ; ²⁰⁰ pregnant and postpartum women	Training in empathetic listening; shared language, culture and experience; some face to face, more telephone	Information provision; support to understand clinical context	None	1a, 1b, 1c, 1d, 2a, 2b, 2c	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation (qualitative)
Campbell-Grossman <i>et al.</i> ⁶⁶ and Hudson <i>et al.</i> ; ²²⁸ pregnant and postpartum women	Professionals; two home visits (research focused) then all communication via e-mail; affirmation and emotional support intended	Information provision; support with parenting skills	Facility provided for online network of new mothers	1a not demonstrated No data	Yes; no data	Yes; no data	Yes; ↓	No; no data	← → Feeling supported ← → Loneliness

Study; population group	Inputs linked to functions				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)				
	Function 1	Function 2	Function 3	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓
Darwin <i>et al.</i> , ²⁰¹ pregnant and postpartum women	Trained; active, non-judgemental listening; face to face	Information provision; coping skills; communication skills	Practical help; navigation; advocacy with professionals	1a, 1b, 1b, 1d, 2a, 2b, 3b, 4	Yes; ↑ (qualitative and quantitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation (qualitative)
Hazard <i>et al.</i> , ¹⁰⁰ pregnant and postpartum women	Trained; shared cultural and linguistic identity; 'wise women'; face to face	Information provision; cultural context of clinical care; communication skills	Practical help; navigation; advocacy with professionals	1a, 1b, 2a, 2b, 3a	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	No; no data	No; no data	↓ Feelings of isolation (qualitative)
McLeish and Redshaw, ²¹⁸ pregnant and postpartum women	Trained; shared ethnic and HIV status; flexible and open-ended; non-judgemental; face to face; faith as resource	Information provision; practical strategies and problem-solving skills	Unclear	1a, 1b, 1c, 2a, 2b, 3a	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation (qualitative)
McLeish and Redshaw, ^{96-97,220} pregnant and postpartum women	Trained; flexibility; face to face; active listening	Information provision; practical strategies and problem-solving skills	Signposting; tangible, practical support	1a, 1b, 1c, 2a, 3a, 3b	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation and loneliness (qualitative) ↑ Feeling supported (qualitative)
Low <i>et al.</i> , ²²³ older people	Trained professionals; face to face; responsive; intended to engage older person more actively in enjoyable activities	No details	Supporting access to other services and social connections; tangible help, for example transport	1a not demonstrated, no data 3a (limited)	Yes; unclear	No; no data	Yes; no data	No; no data	↔ Loneliness
LaRosa, ²¹⁹ international students	Anchored within wider educational programme; flexible within structure; encouraging and friendly; clear social components	Information provision, instruction, opportunities to practice, support to sociocultural skills	Support to establish social networks; organising social functions; assist access to services	1a, 1b, 2b, 3a, 3b	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
Menzies <i>et al.</i> , ²⁰⁵ international students	Trained senior student; flexible; face-to-face and other	Information provision, instruction, support to sociocultural skills	Assisting students to find part-time employment; linking to societies and networks	1a, 1b, 2a, 2b, 3a	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	No data on review outcomes of interest
Quintrell and Westwood, ²²¹ international students	Trained; careful pairing; flexible; face to face and other	Information provision, support to sociocultural skills	Linking to services	1a (limited)	Yes; ↔	No; no data	No; no data	No; no data	↔ Reporting first year as 'lonely' (quantitative)

continued

TABLE 21 Befriending interventions causal chains and outcomes (n = 19, qualitative and quantitative) (continued)

Study; population group	Inputs linked to functions				Proximate determinants; clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)				
	Function 1	Function 2	Function 3	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ← → ↓
Tolman; ²²⁵ international students	Paired roommates	No details	Intended but no detail	1a not demonstrated, no data 3a negative association suggested	Yes; ↓ (quantitative)	No; no data	No; no data	No; no data	No data on review outcomes of interest
Holt <i>et al.</i> ; ²²² children in school	Adult mentor; affirmation; tailored support within school	Information provision, study skills practice and support to sociocultural skills	No details	1a (variable) Relationship quality related to sense of belonging No other data	Yes; no data	Yes; ↓ (qualitative)	Yes; less decline ^a	No; no data	↑ Sense of belonging (small – quantitative)
Portwood <i>et al.</i> ; ²²⁶ children in school	Adult mentor; affirmation; tailored support in school	No details	No details	1a not demonstrated No data	Yes; no data	No; no data	Yes; ↑ (boys only, quantitative)	No; no data	↑ Sense of belonging (school membership) (quantitative)
Tran <i>et al.</i> ; ²²⁹ women in vulnerable circumstances	Trained; culturally and linguistically matched; structured resources but tailored to need	Information provision, and coping skills; cognitive reframing skills	Navigation, linking to services and support, focus on building social networks to alleviate loneliness and lack of support	1a not demonstrated; no data	Yes; no data	No; no data	Yes; no data	No; no data	↑ Feeling supported (quantitative)
Gray; ⁹⁹ general migrant/minority population, no age or life-stage focus	Trained; culturally and linguistically matched; some structured methods but tailored to need	Information provision, communication and coping skills	Practical help, navigation, linking to services and support, advocacy	1a, 1b, 2a, 2b, 3a	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	↓ Feelings of isolation (qualitative) ↑ Feeling supported (qualitative)

a Holt *et al.*;²²² authors talk about confidence and academic self-efficacy, and measure a teacher support subscale ('Teachers here are interested in me', 'Teachers respect me', 'I can talk to one teacher' and 'Most teachers here are not interested in people like me'), which could be argued to be a measure of perceived self-worth.

Proximate determinants clearly intended: Yes, the intervention logic clearly identifies this intended proximate determinant (inputs may be intended to impact directly or indirectly); No, no mention of this proximate determinant and effect demonstrated; ↑ ↓ (quantitative), a statistically significant ($p \leq 0.05$) increase or decrease demonstrated; ↑ ↓ (qualitative), qualitative data supports an increase or decrease; ← → (quantitative and qualitative), data shows no (statistically significant) change; no data, no qualitative or quantitative data relating to this determinant reported in the study.

Outcome effect reported quantitatively: ↑, significant increase ($p \leq 0.05$); ← →, no significant change; ↓, significant decrease ($p \leq 0.05$); (qualitative), qualitative data supports an increase or decrease as indicated.

Appendix 10 Shared-identity social support groups: evaluative papers

TABLE 22 Shared-identity social support group interventions causal chains and outcomes (n = 31; qualitative and quantitative)

Study; location population group	Inputs linked to functions			Causal chains demonstrated	Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)				Outcome ↑ ← → ↓ and follow-up period if available
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills		Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	
Adam 2011; ¹⁰¹ Canada; asylum seekers/refugees	'Mano en Mano', Latino and LGBT identity group programme, sharing	Sessions promote critical awareness of social and cultural forces affecting lives; facilitate activism	Sessions encourage self-knowledge, self-efficacy, develop coping skills	1a, 1b, 3a, 3b (data limited)	<ul style="list-style-type: none"> • Yes; ↑ (qualitative) • Within and beyond group (data limited) 	Yes; no data	Yes; ↑ (qualitative) (data limited)	No; no data	← → Loneliness (UCLA Loneliness Scale ⁵⁷) (quantitative)
Chase 2018; ²³⁶ Canada; asylum seekers/refugees	Day centre situated in a shelter for recently arrived asylum seekers, sharing, safety	Sessions to highlight social injustice and discrimination; advocacy; support access to fair immigration trial	Information, resources and services; navigational support and advocacy	1a, 1b, 3a, 3b, 3d, 4	<ul style="list-style-type: none"> • Yes; ↑ (qualitative) • Within and beyond centre 	No; no data	Yes; ↑ (qualitative) through giving back as volunteers	No; no data	↓ Feeling socially isolated (qualitative)
Christodoulou 2015; ²³⁹ UK; asylum seekers/refugees	Holistic community- based centre offering variety of groups and activities for asylum seekers/refugees; safe space	Strategic advocacy; support for individual mentees to publicly share stories to gain recognition	Advice, signposting and support to access services, English classes; educational activities	1a, 1b, 1c, 1d, 2a, 3a, 3b, 3d, 4, 5	<ul style="list-style-type: none"> • Yes; ↑ (qualitative) • Centre and beyond 	Yes; no data	Yes; ↑ (qualitative)	No; no data	↓ Feeling socially isolated (qualitative) ↓ Feeling lonely (qualitative)
Frost 2016; ²³¹ USA; asylum seekers/ refugees	Professional-led group designated for Burmese-speaking women; peer learning; sharing	No relevant inputs mentioned	Health education and life skills coaching, navigation of health-care system; excursions	1a, 1c, 3a, 3b, 4 Practical knowledge as currency to initiative exchanges	<ul style="list-style-type: none"> • Yes; ↑ (qualitative) • Group and beyond 	No; no data	No; no data	No; no data	↑ Sense of belonging (qualitative)
Liamputtong 2016, ²³⁴ Walker 2015, ²⁴¹ Koh Lee 2018, ²⁴³ Wollersheim 2017 ²⁴⁶ and Wollersheim 2013; ²⁴⁷ Australia; asylum seekers/ refugees	Peer support group, with training in peer support; ethnic and language groups	No relevant inputs mentioned	Understanding new ways of interacting socially; English-language skills; mobile phones facilitated connections	1a; 1b (feeling 'free'); 1c (social validate) 1d; 3a; 3b; 4 4. Feedback loop (see Figure 5) Confidence, safety	Yes; ↑ (qualitative)	No; (limited data on reduced familial negative interactions)	Yes; ↑ (qualitative) (limited)	No; no data	↓ Feeling socially isolated (qualitative) ↑ Social support (qualitative)

Study; location population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)					
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ← → ↓ and follow-up period if available
Logie 2016; ¹⁰² Canada; asylum seekers/refugees	Ethnic-specific and HIV identity group serving African Caribbean, safe space, sharing	Strategies to navigate intersecting stigma and discrimination linked to minority identities	Some inputs, unclear how structured: employment workshops, help with housing	1a, 1c, 9	Yes; ↑ (qualitative) group and beyond	Unclear	Yes; ↑ (qualitative) 'giving back'	No; no data	↑ Sense of belonging (qualitative) ↓ Feeling isolated (qualitative)
Msengi 2015; ²⁴² USA; asylum seekers/ refugees	'The Women of Care Project'; refugee women; sharing. Some befriending elements	No relevant inputs mentioned	Language skills, links to educational and employment opportunities, welcome tours	1a; 1d; 3a; 3d 8, 9	Yes; ↑ (qualitative) within and beyond	No; no data	Yes; ↑ (qualitative)	No; no data	No relevant outcomes clearly reported
Pejic 2016; ²³⁵ USA; asylum seekers/ refugees	'Somali Parent Program'; all mothers, own language; sharing space; culturally sensitive	No relevant inputs mentioned	Sessions on community resources, building social support, psychoeducational approach	1a, 1b, 1c, 1d, 3a, 4, 5	Yes; ↑ (qualitative) within and beyond group	Yes; ↓ (qualitative) Familial conflict	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
People's Health Trust 2018; ²¹² UK; asylum seekers/refugees	Pamoja – African Community Centre Use of arts and environment-themed activities to engage; sharing stories, knowledge and experience	No relevant inputs mentioned	Language and communication skills; introduction to local neighbourhood via environmental activities; awareness of local services and amenities	1a, 1b, 1c, 3a	Yes; ↑ (qualitative)	No; no data	Yes; no data yet	No; no data	↓ Loneliness (qualitative) ↑ Sense of belonging (qualitative) (very early evaluation)
Stewart 2011, ²¹⁴ 2012; ²¹⁵ Canada; asylum seekers/ refugees	Ethnically matched and gender-matched groups (Sudanese and Somali), culturally sensitive, sharing. Safe space. Some befriending elements	Sessions include focus on ethnic identity support; overcoming racism and discrimination; coping with challenges	Cultural understanding; navigating system, new skills, seeking employment, family dynamics and communication	1a, 1b, 1c, 3a, 3b, 3d, 4, 5	Yes; ↑ (qualitative) within and beyond group	Yes; ↓ (qualitative) Familial conflict; workplace conflict	Yes; ↑ (qualitative) Feeling 'better human beings'	No; no data	↓ Loneliness (UCLA Loneliness Scale ⁵⁷) (and qualitative) ↑ Social support (PRQ) 3 months

continued

TABLE 22 Shared-identity social support group interventions causal chains and outcomes (n = 31; qualitative and quantitative) (continued)

Study; location population group	Inputs linked to functions			Causal chains demonstrated	Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)				Outcome ↑ ← → ↓ and follow-up period if available
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills		Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	
Stewart 2015, ⁶³ 2018; ²¹⁶ Canada; asylum seekers/ refugees	Ethnically matched (Zimbabwean and Sudanese) and gender-matched groups, culturally sensitive, sharing	Sessions on teaching native languages and culture to children; sharing experiences of racism and discrimination	Information about available services, cultural information, parenting across cultures	1a, 1b,1c, 1d, 2a, 2b, 3a, 3b, 5, 8	Yes; ↑ (qualitative) within and beyond group	Yes; ↓ (qualitative) Familial conflict and ethnic tension	• Yes; ↑ (qualitative) • Particularly women	No; no data	← → Loneliness (UCLA Loneliness Scale ⁵⁷) ↓ Loneliness (qualitative) ← → Social support (PRQ) 3 months
Weine 2003; ²³⁷ USA; asylum seekers/ refugees	'Tea and Family Education and Support' ethnic specific, mutual help	Making plans to address barriers to participation	Discussion sessions on affirmative family communication, setting goals	1a Like a family Feeling that they have people to call if lonely Accessing services	Yes; ↑ (qualitative)	Yes; ↓ (quantitative -better family communication)	Yes; ↑ (quantitative)	No; no data	↑ Social Support (ISEL short form) (treatment group) non-significant change non-engagers 3 months
Canuso 2003; ⁴⁸ USA; pregnant and postpartum women	Baby shower luncheon, being heard by other mothers, interpersonal sharing	No relevant inputs mentioned	Information about healthier pregnancy; 'Care Card' to record antenatal visits	1a	Yes; ↑ (qualitative) data limited – some links sustained	No; no data	Yes; data limited 'validation as mother'	No; no data	No relevant outcomes clearly reported
Rooney 2014; ²³⁸ Australia; pregnant and postpartum women	Arabic- and English- speaking bilingual workers; own language; sharing food; Iraqi culture in context of Australia	Opportunities to discuss feelings; share worries; how to deal with stress and depression	Information and skills for parenting in new context; availability of support and services	1a, 1b, 3a, 3b, 5, 7	Yes; ↑ (quantitative)	Yes; ↓ (quantitative) With children	Yes; no data	No; no data	↑ 'I feel I have increased levels of support in my life', 100% 4/5 on scale of 1-5 Insufficient data on Norbeck Social Support measure
Cant 2005; ¹⁰⁴ UK; older people	Irish centre, varied activities, Irish cultural ambience Befriending also	Promotion of positive Irish identity and 'ways of being' Irish conducive to well-being	Practical guidance and support in navigating housing, welfare, health and social care (provided on a one-to-one basis)	1a, 2a, 2b, 6	Yes; ↑ (qualitative)	No; no data	Yes; no data	No; no data	↑ Sense of belonging (qualitative)

Study; location population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)					
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓ and follow-up period if available
Collins 2006; ^{211,248} USA; older people	'Seniors CAN', mixed ethnicities, peer learning, affirmation	No relevant inputs mentioned	Sessions designed to convey information and skills for health promotion and mastery, as well as to develop social support	1a, 1b, 1c, 3a (quantitative)	Yes; ↑ (qualitative) (limited data, unclear if beyond group)	No; no data	Yes; no data (focus on mastery/ autonomy, which showed ↑)	No; no data	↓ Loneliness (UCLA Loneliness Scale ⁵⁷) (largest effect on minorities) 0 months (end of 4-month programme)
Phinney 2014; ²⁴⁹ USA; older people	Arts-based programme added onto a Chinese women's group; channel for difficult emotions, teamwork, reciprocity Four groups coming together at the end for public display	No relevant inputs mentioned	No relevant inputs mentioned	1a (prior); 1b, 1d, 3d, 4, 8	Yes; ↑ (qualitative) within and beyond group	No; no data	Yes, ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
Saito 2012; ¹⁰³ Japan; older people	Group for new arrivals to the city; supportive atmosphere, group- sharing encouraged	No relevant inputs mentioned	Improving community knowledge, networking with 'gatekeepers', connections to services; sightseeing tour	1a no data; 3d (quantitative) (familiarity with services)	Yes; no data	No; no data	No; no data	Hypothesised link	↓ Loneliness (UCLA Loneliness Scale ⁵⁷) ↑ Social support (bespoke measure) ↔ Depression 1 month and 6 months
Clauss-Ehlers, 2007; ²³⁰ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	Multicomponent programme for group of under-represented students, retreat	Curriculum with authors representing diverse group memberships; diverse faculty, peer role models	Activities to develop leadership skills; academic skills; public speaking, processes	Unclear, lack of data 2a not demonstrated	Yes; ↑ (qualitative)	No; no data	Yes; ↔ (quantitative)	No; no data	↑ Social support (MDSS) 6 weeks

continued

TABLE 22 Shared-identity social support group interventions causal chains and outcomes (n = 31; qualitative and quantitative) (continued)

Study; location population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)					
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ← → ↓ and follow-up period if available
Cunningham 2015; ²¹³ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	Black Cultural Centre safe space occupied by black students and staff members	Developing positive racial identity via exchange with other black students and faculty, 'deep critical conversations'	No relevant inputs mentioned	1a, 1b, 1c, 1d, 1e, 2a, 2b, 5	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
Grier-Reed 2008, ²⁴⁰ 2010, ²⁰⁹ 2013, ²¹⁰ 2016; ²⁰⁸ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	African American Students Network; weekly 'home base' for face-to-face debate and discussion; open to all black students	Strong focus on countering hostile wider campus environment and 'deficit notions of people of color'	No formal training; sharing of knowledge and advice among peer group	1a, 1b, 1c, 1d, 2a, 2b, 7	Yes; ↑ (qualitative) within and beyond	Yes; ↓ (qualitative) Within co-ethnic ties	Yes; ↑ (qualitative)	No; no data	↑ Social support (qualitative) ↑ Sense of belonging (qualitative)
Liptow 2016; ¹⁰⁹ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	Supplementary programme for under- represented students; varied activities as a group and individual	Some focus on addressing stereotypes and discussions on race, gender, culture	Clear focus on equipping with knowledge, skills and confidence for academic context	1a, 3a	Yes; ↑ (qualitative)	No; no data	No; no data	No; no data	← → Sense of belonging (bespoke measure) 3 months ↑ Sense of belonging (qualitative)
Means 2017; ¹⁷⁷ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	Multicultural centres and needs-based scholarship programmes (URM identity)	Often included a core focus on raising awareness of racism and tackling stereotypes	Programmes include core focus on equipping students for academic context	1a, 1b, 1c, 1d, 2a, 2b, 3a, 3d	Yes; ↑ (qualitative)	Yes; no data	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
Page 2015; ²⁴⁴ USA; international students	'Counseling' groups for international students; sharing space	No relevant inputs mentioned	Included relevant elements focused on academic adjustment	1a, 1b, 1c, 9, 3a, 3b, 3d	Yes; ↑ (qualitative)	No; no data	Yes; ↑ (qualitative)	No; no data	↑ Feeling supported (qualitative) ↑ Sense of belonging (qualitative)

Study; location population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ← → ↓ no data)					
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ← → ↓ and follow-up period if available
Williams 2017; ²³³ USA; ethnic minority students (born in country of residence or migrated for reason other than attendance at university)	Academy for Future Science Faculty (group mentoring); some one-to-one coaching	Promote engagement and difficult discussions across gender and ethnic boundaries; discrimination, and 'being different' in science	Focused primarily on issues related to career-planning and professional development	1a, 1c, 2a, 2b, 3a	Yes; ↑ (qualitative)	Yes; no data	Yes; ↑ (qualitative)	No; no data	↑ Sense of belonging (qualitative)
Chaudhry 2009 ²⁵¹ and Gater 2010; ²⁶⁸ UK; women in vulnerable circumstances	Pakistani women's group in Pakistani community centre; sharing ad social connection encouraged	No relevant inputs mentioned	Psychoeducation session on understanding and coping with depression	1a, 1b, 1d	Yes; ↑ (qualitative) Within group and beyond	No; no data	No; no data	No; no data	No relevant outcome data
Morales-Campos 2009; ²³² USA; women in vulnerable circumstances	Support group for Hispanic women experiencing domestic violence; respectful, sharing	No relevant inputs mentioned	Focus on equipping women to manage difficult social relationships, gain independence, coping strategies	1a, 1b, 1c, 1e, 3a, 3b, 8, 9	Yes; ↑ (qualitative) Within group and beyond	Yes; ↓ (qualitative) family conflict	Yes; ↑ (qualitative)	Yes; ↑ (qualitative) (one example)	↑ Sense of belonging (qualitative) ↓ Feeling alone (qualitative)
Nieuwboer 2016; ¹⁰⁶ Sweden and the Netherlands; women in vulnerable circumstances	IDEAL programme – structured for immigrant Berber and Arab women, peer learning, sharing	No relevant inputs mentioned	Focus on equipping women to manage new setting; outings, information, host language (functional)	1a; 1d, 3a, 4, 7	Yes; ↑ (qualitative) Within group and beyond	Yes; ↓ (qualitative) family conflict	Yes; ↑ (qualitative) (Sweden)	No; no data	No relevant outcome
Siller 2017; ²⁵⁰ Austria; women in vulnerable circumstances	Self-help groups for Turkish women; sharing	No relevant inputs mentioned	No relevant inputs mentioned	1a, 1b, 1c, 1d, 1e, 4, 5 (mixed)	Yes; ↑ (qualitative) Within group and beyond	Yes; ↓ (qualitative) family conflict	Yes; ↑ (qualitative)	Yes; ↑ (qualitative) (limited indication)	↓ Feeling alone (qualitative) ↓ Feeling isolated (qualitative)

continued

TABLE 22 Shared-identity social support group interventions causal chains and outcomes (n = 31; qualitative and quantitative) (continued)

Study; location population group	Inputs linked to functions			Causal chains demonstrated	Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)				
	Function 1: safe, sharing space	Function 2: buffering hostile environment, boosting positive ethnic identity	Function 3: equipping with knowledge and skills		Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓ and follow-up period if available
People's Health Trust, 2017; ²⁴⁵ UK; general migrant/minority population, no age or life-stage focus	Informal coffee and chat; sharing via different collective activities; non-judgemental atmosphere; reciprocal	No relevant inputs mentioned	Workshops to develop creative and practical skills across range of activities. Skills developed included self-esteem, budgeting, IT skills, cake decorating, crafts, yoga, parenting, family learning, first aid training, fire safety, and health	1a, 1b, 1d, 3a	Yes; ↑ (qualitative) within group and beyond	No; no data	Yes; no data	No; no data	↓ Feeling socially isolated (qualitative) ↑ Sense of belonging
Lin 2009; ¹⁰⁷ Canada; general migrant/minority population, no age or life-stage focus	NewBridger internet social network. Sharing of advice, experiences, socioemotional support	No relevant inputs mentioned	Core focus on sharing information that will help with adaptation to new setting, including information about social and leisure activities	1a, 1b; 1c; 1d; 3d	Yes; ↑ (qualitative)	No; no data	No; no data	No; no data	↑ Sense of belonging (95% of survey respondents)

ISEL, Interpersonal Support Evaluation List; IDEAL, Integrating Disadvantaged Ethnicities through Adult Learning; IT, information technology; MDSSPRQ, Multidimensional Support Scale Personal Resource Questionnaire; URM, under-represented minority.

Proximate determinants clearly intended: Yes, the intervention logic clearly identifies this intended proximate determinant (inputs may be intended to impact directly or indirectly); No, no mention of this proximate determinant and effect demonstrated; ↑ ↓ (quantitative), a statistically significant ($p \leq 0.05$) increase or decrease demonstrated; ↑ ↓ (qualitative), qualitative data supports an increase or decrease; ↔ (quantitative and qualitative), data shows no (statistically significant) change; no data, no qualitative or quantitative data relating to this determinant reported in the study.

Outcome effect reported quantitatively: ↑, significant increase ($p \leq 0.05$); ↔, no significant change; ↓, significant decrease ($p \leq 0.05$); (qualitative), qualitative data supports an increase or decrease as indicated.

Appendix 11 Intercultural encounters: evaluative papers

TABLE 23 Intercultural encounter interventions, causal chains and outcomes (n = 22 qualitative and quantitative)

Study; location; population group	Inputs linked to functions			Causal chains demonstrated	Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)				Outcome ↑ ↔ ↓
	Function 1: meaningful contact	Function 2: myth-busting; challenging negative beliefs	Function 3: equipping for intercultural contact (reciprocal or only minorities)		Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	
Askins 2011; ¹¹⁰ UK; asylum seekers/ refugees	Fostering contact through participatory art; children outside school	No relevant inputs	No relevant inputs	1a (both min and maj); 8 not demonstrated	Yes; ↑ (qualitative) Bridging within and beyond initiative for some participants	Yes; ↓ (qualitative) within organised space only; fragile, old ways re-emerge	No; no data	No; no data	No relevant outcome
Borgogni 2015; ¹¹¹ Italy; asylum seekers/ refugees	Organised sporting activity involving host and migrant community members	No relevant inputs	Equipping and involving migrants to play leadership roles and increase participation	1a (min)	Yes; ↑ ↓ (qualitative) bridging within and beyond initiative (but variation across programmes)	Yes; mixed, some groups were source of interethnic conflict	No; no data	No; no data	↑ Sense of belonging (qualitative, limited data)
Goodkind 2014 ¹¹³ and Hess 2014; ²⁵⁵ USA; asylum seekers/ refugees	Learning Circles, pan-African identity; interaction with undergraduate students; cultural exchange	Transformative learning intended; shifting attitudes and understandings among majority students intended about refugees and the system	Paired advocacy/ navigation; English-language skills	1a (both min and maj), 1b (min), 1c 1d, 2a (min and maj), 2b	Yes; ↑ (qualitative) bridging within and beyond initiative	Yes; unclear	Yes; ↑ (qualitative) Value and dignity	Yes; ↑ (qualitative) Decreased feelings of discrimination from white people	↑ (Quantitative) (MSPSS)
Goodkind 2004, ¹¹² 2005, ²⁵⁴ 2006; ²⁵⁶ USA; asylum seekers/ refugees	Learning Circles – mutual exchange and learning	Transformative learning intended; shifting attitudes and understandings among majority students intended about refugees and the system	Paired advocacy/ navigation; English skills; instrumental learning	1a (both min and maj), 1b (min), 1c 2a (min), 2b 1d, 3a (mastery)	Yes; ↑ (qualitative) bonding and bridging within initiative But 'teachers' rather than friends – power inequality persisted	Yes; unclear	Yes; ↑ (qualitative)	No; no data	No data on review outcomes of interest

Study; location; population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)					
	Function 1: meaningful contact	Function 2: myth-busting; challenging negative beliefs	Function 3: equipping for intercultural contact (reciprocal or only minorities)	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓
Nathan 2013; ¹¹⁵ Australia; children and young people outside school	Football, children and young people outside school; connections across groups, a clear focus	No relevant inputs (change in other-group attitudes intended to occur directly via participation in shared activity)	Leadership training; coaching workshops; capacity development	1a (min qualitative and quantitative) 3a	Yes; ↑ (qualitative) Bonding with initiative ↔ (Quantitative) bridging beyond (close friends in neighbourhood)	No; no data	No; no data	No; no data	No data reported on review outcomes of interest
Phillimore 2017; ²⁵³ UK; general migrant/minority population, no age or life-stage focus	The Welcome Project – safe space to meet across immigration, ethnic and religious divides. Informal lunchclub drop-in with linked activities	No relevant inputs	English-language classes	1a (both min and maj, limited qualitative data)	Yes; ↑ (qualitative) Bonding and bridging within and beyond the initiative	No; no data	No; ↑ (qualitative – limited data) via allotment	No; no data	Limited data suggests ↓ feeling isolated
Whyte 2017; ¹²⁰ Denmark; children and young people outside school	Arts-based activities in a museum, bringing asylum-seeking children from different backgrounds together with Danish adults and museum	No relevant inputs	No relevant inputs, although arts work intended to support 'resilience'	No pathways demonstrated; art-based activities created sociality directly among the children	Yes; ↑ (qualitative) Bonding and bridging within initiative only	No; no data	No; no data	No; no data	No data reported on review outcomes of interest
Wilson 2008; ¹²¹ UK; whole population, including minority and majority ethnicity	Three pilot community projects involving participatory needs assessment, planning and collective delivery; small-scale activities and events in local area, for example litter picks, sports days	No relevant inputs	No relevant inputs	1a (to some extent; both min and maj); some people profound effect, some people no effect 1d (some evidence) 8 (one area)	Yes; ↑ (qualitative) Bonding and bridging within and beyond for some participants; particularly one area	Yes; ↔ (Qualitative) persistence of racism as a problem in some areas	No; no data	No; no data	No data reported on review outcomes of interest

continued

TABLE 23 Intercultural encounter interventions, causal chains and outcomes (n = 22 qualitative and quantitative) (continued)

Study; location; population group	Inputs linked to functions				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)				
	Function 1: meaningful contact	Function 2: myth-busting; challenging negative beliefs	Function 3: equipping for intercultural contact (reciprocal or only minorities)	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓
Parks 2015; ¹²² UK; pregnant and postpartum women	Sure Start Children's Centre – place of integration and participation for parents in community	No relevant inputs	Language skills; navigation/ familiarisation; child-care support	1b (min, limited to within initiative) fear of outsiders); 3a (language)	Yes; ↑ (qualitative) Bonding within, unclear if bridging; no evidence beyond	No; no data	No; no data	No; no data	No data reported on review outcomes of interest
Abe 1998 ¹⁴⁴ and Geelhoed 2003; ¹²³ USA; international students	International students–host student peer programme	No formal inputs (intended via interactions – international student to raise awareness and understanding in hosts)	No formal inputs (intended via interactions – host student to inform and equip for university life)	1a (both min and maj), 8	Yes; ↑ (qualitative) Bridging within initiative	No; no data	No; no data	No; no data	↑ Sense of belonging (social subscale of SACQ)
Anderson 2008; ¹²⁴ New Zealand; international students	'Women Across Cultures' – fortnightly low-key meetings and activities, occasional larger events open to family and friends	No relevant inputs	No relevant inputs (informal exchange of information only)	No pathways clearly demonstrated	Yes; ↑ ↔ (qualitative) Bonding and bridging within group only, but not for all	Yes; ↑ for some women as the group was an uneasy space	No; no data	No; no data	↔ → Mixed findings – some but not all found social and emotional support
Gilboa 2009; ¹²⁶ Israel; children and young people outside school	Children and young people outside school – music-based communal project	Presentations, discussions, debates	No relevant inputs	1a (both min and maj), 1c, 1d, 2a (both min and maj)	Yes; ↑ (qualitative) Bonding and bridging within and beyond the group sessions	No; no data	Yes; ↑ (quantitative)	No; no data	No data reported on review outcomes of interest
Sakurai 2010; ¹²⁵ Australia; international students	International students, bus excursion	No relevant inputs	No relevant inputs	1a not shown (no increase in local cultural orientation scale)	Yes; ↑ (quantitative) bonding and bridging beyond initiative	No; no data	No; no data	No; no data	↔ → ISAS, includes 'I feel homesick'
Frankenberg 2016; ¹²⁸ Germany; children in school	Music programme, schoolchildren; tuition and, in later years, playing in an ensemble	No relevant inputs	No relevant inputs (music programme is intended to increase 'social competencies')	1a (min, quantitative)	Yes; ↑ (quantitative) positive class relationships	No; no data	Yes; ↑ (quantitative) feeling valued by class	No; no data	↑ Sense of belonging (FEES), 18 months

Study; location; population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)					
	Function 1: meaningful contact	Function 2: myth-busting; challenging negative beliefs	Function 3: equipping for intercultural contact (reciprocal or only minorities)	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓
Raw; ¹²⁷ UK; children in school	Schools linkage project; varied joint activities bringing children of different ethnic and religious identities together within and beyond the school; creative and sporting activities	No relevant inputs (intended to happen organically)	No relevant inputs	1a (min and maj, but not all), 1b not demonstrated (fear persists in the abstract min and maj) 1d (some schools only) 8 not demonstrated (racism persists)	Yes; ↑ (qualitative) within initiative only; cross-cultural friendships large effect; ↔ some schools few friendships formed	Yes; ↑ ↔ ↓ Mixed picture; racism persisted or increased in some schools	No; no data	No; no data	↔ Sense of belonging (qualitative, quantitative) to broad and culturally mixed city
Franz. 2015; ¹²⁹ Austria; children and young people outside school	Children and young people outside school – online collaborative games – YourTurn!	No formal activities; intended to happen organically	No relevant inputs	1a (very limited evidence of improved attitudes; one player worse)	Yes; ↔ (qualitative) Bridging limited within and beyond game	No; no data	No; no data	No; no data	No relevant outcomes reported
Mayblin 2016; ¹³⁰ UK; children and young people outside school	Children and young people outside school – cricket-based activities, training and matches; all ethnic minority participants, interfaith initiative	Dialogue meetings; residential	No relevant inputs	1a (min), 2a (limited) 8 not demonstrated	Yes; ↑ (qualitative) Bridging within project only	Yes; no data	No; no data	No; no data	No relevant outcomes reported
Mills 2017; ¹³¹ UK; children and young people outside school	Children and young people outside school – National Citizenship Service – 4-week group programme for young people including residential element; social mixing across class and ethnicity; teamwork and varied activities	No relevant input	No relevant input	1a (both min and maj), 1b (both min and maj) 8 not demonstrated	Yes; ↑ (qualitative) bonding and bridging within and beyond	No; no data	Yes; no data	No; no data	No relevant outcomes reported

continued

TABLE 23 Intercultural encounter interventions, causal chains and outcomes (n = 22 qualitative and quantitative) (continued)

Study; location; population group	Inputs linked to functions			Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data)					
	Function 1: meaningful contact	Function 2: myth-busting; challenging negative beliefs	Function 3: equipping for intercultural contact (reciprocal or only minorities)	Causal chains demonstrated	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Outcome ↑ ↔ ↓
Mayblin 2016; ¹⁴² Poland; whole population, including minority and majority ethnicity	Sports-based – football league with antiracism ethos	No relevant inputs	No relevant inputs	1a (maj, but some resistance) 8 not demonstrated	Yes; ↑ (qualitative) bridging within initiative but some resistance	No; no data	No; no data	No; no data	No relevant outcomes reported
Matejskova 2011; ¹³⁷ Germany; whole population, including minority and majority ethnicity	Neighbourhood spaces	Some formal inputs intended to raise hosts' understanding of immigrants	Some training sessions and support to immigrants	1a (both min and maj, but variable), 1b (both min and maj, but variable), 2a not demonstrated 8 not demonstrated	Yes; ↔ Bridging ties not consistently improved	Yes; ↔ Conflict not consistently improved	No; no data	No; no data	No relevant outcomes reported
Shinew 2004; ¹³⁹ USA; whole population, including minority and majority ethnicity	Leisure spaces – community gardens	No relevant inputs	No relevant inputs	No clear data on pathways	Yes; no clear data	No; no data	No; no data	No; no data	No relevant outcomes reported
Thomas 2016; ⁷² USA; whole population, including minority and majority ethnicity	Cultural Navigator Program – one-to-one pairing in context of broader cross-cultural programme in library setting	No relevant inputs	Navigation; linking to services; cultural knowledge	1a (implied only via mutual sharing) 8 – some wider ripple effects	Yes; ↑ (qualitative) Bridging within and beyond the initiative Linking to services also	No; no data	No; no data	No; no data	↓ Feeling isolated ↓ Feeling lonely (qualitative)

FEES, Fragebogen zur Erfassung Emotionaler und Sozialer Schulerfahrungen von grundschulkindern dritter und vierter klassen [questionnaire to record emotional and social school experiences of third and fourth grade primary school children]; ISAS, Inventory of Student Adjustment Strain; maj, majority; min, minority; MSPSS, Multidimensional Scale of Perceived Social Support; SACQ, Student Adaptation to College Questionnaire. Proximate determinants clearly intended: Yes, the intervention logic clearly identifies this intended proximate determinant (inputs may be intended to impact directly or indirectly); No, no mention of this proximate determinant and effect demonstrated; ↑ ↓ (quantitative), a statistically significant ($p \leq 0.05$) increase or decrease demonstrated; ↑ ↓ (qualitative), qualitative data supports an increase or decrease; ↔ (quantitative and qualitative), data shows no (statistically significant) change; no data, no qualitative or quantitative data relating to this determinant reported in the study. Outcome effect reported quantitatively: ↑, significant increase ($p \leq 0.05$); ↔, no significant change; ↓, significant decrease ($p \leq 0.05$); (qualitative), qualitative data supports an increase or decrease as indicated.

Appendix 12 Quantitative papers assessing a relevant outcome measure, all intervention types

TABLE 24 Quantitative papers: causal chains and outcomes (RCTs; pre-post or comparator design; n = 34)

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
<i>Befriending papers</i>										
Renner 2012; ²²⁴ Austria	<ul style="list-style-type: none"> • RCT • High • n = 25 (treatment, nine drop-outs), n = 29 (wait-list control) 	Befriending, 2	<ul style="list-style-type: none"> • Asylum seekers/ refugees; Chechnya (67%) and Afghanistan (43%) • None 	Medium	No	Yes; ↔ (quantitative)	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> • ↔ Feeling supported (Ong and Ward³⁰³) • ↔ Anxiety, depression • 3-month intervention period, 0 months and 3 months
Hudson 2012; ²²⁸ USA	<ul style="list-style-type: none"> • RCT • Moderate • n = 15 (treatment), n = 19 (wait-list control) 	Befriending, none	<ul style="list-style-type: none"> • Pregnant and postpartum women; African American (100%) • Socioeconomic status 	Medium	No	Yes; no data	Yes; no data	Yes; ↓ (quantitative)	No; no data	<ul style="list-style-type: none"> • ↔ Feeling supported (Revenson and Schiaffino³⁰⁶) • ↔ Loneliness (UCLA Loneliness Scale⁵⁷) • 3 and 6 months (unclear intervention period)
Low 2015; ²²³ Australia	<ul style="list-style-type: none"> • Pre-post; no comparator • n = 189 	Befriending, 3	<ul style="list-style-type: none"> • Older people; 55% born in English-speaking country (Cantonese, Mandarin, Vietnamese, Arabic, Spanish) • Health 	High	No	Yes; unclear	No; no data	Yes; no data	No; no data	<ul style="list-style-type: none"> • ↔ Loneliness (UCLA Loneliness Scale⁵⁷) • ↔ Depression • 6 and 12 months (no separate results for minorities)
Quintrell 1994; ²²¹ Australia	<ul style="list-style-type: none"> • Post only; matched comparator • n = 41 (treatment), n = 41 (matched) 	Befriending	<ul style="list-style-type: none"> • International students (100%); Malaysia, Singapore, Hong Kong, Korea, Mexico, Indonesia, the Philippines • None 	Medium	No	Yes; ↔ (quantitative)	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> • ↔ First year 'lonely' • 12 months
Holt 2008; ²²² USA	<ul style="list-style-type: none"> • RCT • Moderate • n = 36 (18 treatment, 18 control) 	Befriending, 1 (variable)	<ul style="list-style-type: none"> • Schooled children, Latino (47%), African American (38%), White (5%), Other (10%) • 'At risk' of 'academic failure' 	Medium	No	Yes; no data	Yes; ↓ (qualitative)	No; less decline	No; no data	<ul style="list-style-type: none"> • ↑ Sense of belonging (PSSM) (treated) (ITT non-significant) • 5-month intervention period • 6 months

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Portwood 2005; ²²⁶ USA	<ul style="list-style-type: none"> Pre-post; comparator; non-random n = 125 (70 intervention; 55 control) 	Befriending	<ul style="list-style-type: none"> Schoolchildren, white (including Hispanic), African American, American Indian, Native Hawaiian or Pacific, Asian American (≈50% minority) None 	Medium	No	Yes; no data	No; no data	Yes; ↑ (boys only, quantitative)	No; no data	<ul style="list-style-type: none"> ↑ Sense of belonging (PSSM) 8–9 months (no separate results for minorities)
Tran 2014; ²²⁹ USA	<ul style="list-style-type: none"> Pre-post; one group n = 32 	Befriending, 2	<ul style="list-style-type: none"> Women in vulnerable circumstances, Spanish-speaking Latinas (100%) None 	Medium	No	Yes; no data	No; no data	Yes; no data	No; no data	<ul style="list-style-type: none"> ↑ Feeling supported (MSPSS) ↓ Depression unclear
Shared-identity social support groups papers										
Adam 2011; ¹⁰¹ Canada	<ul style="list-style-type: none"> Pre-post, no comparator n = 41 	SSG, 1 and 3	<ul style="list-style-type: none"> Asylum seekers/refugees, within 3 years of arrival, Spanish-speaking (100%), MSM None 	Low	No	Yes; ↑ (qualitative)	Yes; ↔ (qualitative)	Yes; ↑ (qualitative)	No; no data	<ul style="list-style-type: none"> ↔ Loneliness (UCLA Loneliness Scale⁵⁷) Follow-up period unclear
Stewart 2011; ²¹⁴ Canada	<ul style="list-style-type: none"> Pre-post; no comparator n = 58 	SSG, 1–3	<ul style="list-style-type: none"> Asylum seekers/refugees, Sudanese (57%), Somali (43%) None 	High	Yes	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	<ul style="list-style-type: none"> ↓ Loneliness (UCLA Loneliness Scale⁵⁷) ↑ Social support (PRQ) 3 months
Stewart 2015; ⁶³ Canada	<ul style="list-style-type: none"> Pre-post; no comparator n = 85 	SSG, 1–3	<ul style="list-style-type: none"> Asylum seekers/refugees, Sudan (57%), Zimbabwe (43%), new parents None 	Medium	Yes	Yes; ↑ (qualitative)	Yes; ↓ (qualitative)	Yes; ↑ (qualitative)	No; no data	<ul style="list-style-type: none"> ↔ Loneliness (UCLA Loneliness Scale⁵⁷) ↓ Loneliness (qualitative) ↔ social support (PRQ) 3 months

continued

TABLE 24 Quantitative papers: causal chains and outcomes (RCTs; pre-post or comparator design; n = 34) (continued)

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Weine 2003; ²³⁷ USA	<ul style="list-style-type: none"> Pre-post, treatment and 'non-engagers' compared n = 73 (in TAFES), n = 13 (non-engagers) (61 families) 	SSG, 1,3	<ul style="list-style-type: none"> Asylum seekers/ refugees, newly settled, Kosovar (100%) None 	Medium	No	Yes; ↑ (qualitative)	Yes; ↓ (quantitative -better family communication)	Yes; ↑ (quantitative)	No; no data	<ul style="list-style-type: none"> ↑ Social Support (ISEL short form) 3 months
Collins 2006; ²⁴⁸ USA	<ul style="list-style-type: none"> Pre-post; no comparator n = 339 	SSG, 1,3	<ul style="list-style-type: none"> Older people, Latino (14%), African American (10%), Asian American (6%), Native American (2%); 80% female None 	Medium	Yes 'peer learning'	Yes; no data	No; no data	<ul style="list-style-type: none"> No; no data (Focus on mastery/ autonomy, which showed ↑) 	No; no data	<ul style="list-style-type: none"> ↓ Loneliness (UCLA Loneliness Scale⁵⁷) (largest effect on minorities) 4-month intervention period 0 months
Saito 2012; ¹⁰³ Japan	<ul style="list-style-type: none"> RCT High n = 20 (treatment), n = 40 (control) 	SSG, 1,3	<ul style="list-style-type: none"> Older people, new rural-urban migrants (100%) Assumed to be at risk of isolation 	Medium	No	Yes; no data	No; no data	No; no data	Hypothesised link	<ul style="list-style-type: none"> ↓ Loneliness (UCLA Loneliness Scale⁵⁷) ↑ Social support (bespoke measure) ↔ Depression 1 and 6 months
Clauss-Ehlers 2007; ²³⁰ USA	<ul style="list-style-type: none"> Pre-post, no comparator n = 95 	SSG; 1-3 (few data)	<ul style="list-style-type: none"> Ethnic minority students; Latinos (36%), 27 African American (28%), 18 white American (19%), 16 Asian American (17%) Socioeconomic status 	Low	No	Yes; ↑ (qualitative)	No; no data	Yes; ↔ (quantitative)	No; no data	<ul style="list-style-type: none"> ↑ Social support (MDSS) 6 weeks

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^a				Quantitative outcomes ^b ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self- worth	More positive assessment of social ties and interactions	Follow-up post intervention
Liptow 2016; ¹⁰⁹ USA	<ul style="list-style-type: none"> Pre and post, no comparator n = 17 	SSG, 1,3	<ul style="list-style-type: none"> Ethnic minority students (born in country of residence or migrated for reason other than attendance at university); Latinos (65%), 5 Asian (29%), 1 Middle Eastern (6%) None 	Low	No	Yes; ↑ (qualitative)	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> ↔ Sense of belonging (bespoke measure) 3 months
<i>Intercultural encounter papers</i>										
Goodkind 2014; ¹¹³ USA	<ul style="list-style-type: none"> Pre-post; no comparator n = 36 	Intercultural encounter 1,2	<ul style="list-style-type: none"> Asylum seekers/ refugees; African, varied countries (100%) None 	High	Yes	Yes; ↑ (qualitative)	Yes; unclear	Yes; ↑ (qualitative)	Yes; ↑ (qualitative)	<ul style="list-style-type: none"> ↑ Social support (MSPSS); 3 months ↓ Psychological distress post intervention
Abe 1998; ¹⁴⁴ USA	<ul style="list-style-type: none"> Pre-post, comparator group n = 28 (participants), n = 32 (non-participants) 	Intercultural encounter, 1	<ul style="list-style-type: none"> International students, Asian countries (62%), Europe (18%), South America (10%), Africa (7%), Middle East (3%) None 	High	Yes	Yes; no separate data	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> ↑ Sense of belonging (social subscale of SACQ) treatment compared with control Unclear follow-up
Sakurai 2010; ¹²⁵ Australia	<ul style="list-style-type: none"> Pre-post, comparator group n = 47 (participants), n = 51 (non-participants) 	Intercultural encounter; none	<ul style="list-style-type: none"> International students, China (22%), Malaysia (15%), Hong Kong (11%), remainder: other Asian countries None 	Low	No	Yes; ↑ (quantitative) new friendship ties, more local Australian ties	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> ↔ ISAS, includes 'I feel homesick' 1 and 3 months' post intervention

continued

TABLE 24 Quantitative papers: causal chains and outcomes (RCTs; pre-post or comparator design; n = 34) (continued)

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Frankenberg 2016; ¹²⁸ Germany	<ul style="list-style-type: none"> Pre-post with comparator n = 159 (intervention), n = 97 (comparison) 	Intercultural encounter; 1	<ul style="list-style-type: none"> Schoolchildren; Turkish descent (30%), Russian or Ukrainian (24%), Polish descent (6%) None 	Medium	No	Yes; ↑ (quantitative) (measure of positive class relationships)	No; no data	No; ↑ (quantitative) (measure of feeling valued by class)	No; no data	<ul style="list-style-type: none"> ↑ Sense of belonging (FEES) 18 months
Other papers										
Taylor-Piliae 2006; ¹⁵² USA	<ul style="list-style-type: none"> Pre-post; no comparator n = 38 	Education and/or training, group, physical and mental activity (tai chi)	<ul style="list-style-type: none"> Older people, Chinese (100%) Health 	Low	No	Yes; no data	No; no data	No; no data (self-efficacy)	No; no data	<ul style="list-style-type: none"> ↑ Social support (MSPSS) 6 and 12 weeks
Rejeski 2014; ¹⁵⁰ USA	<ul style="list-style-type: none"> RCT Moderate n = 178 (treatment) 	Education and/or training, group and goal-setting, physical activity	<ul style="list-style-type: none"> Older people; African American (49%) Health 	Medium	No	Yes; no data	No; no data	Yes; ↑ (quantitative)	No; no data	<ul style="list-style-type: none"> ↑ Social support (SPS) (positive effect for African American subgroup) 12-month intervention period Assessment at 6 and 12 months from baseline
Gustafsson 2017; ²⁶³ Sweden	<ul style="list-style-type: none"> RCT High n = 227 (treatment), n = 189 (control) Data from two studies combined 	Education and/or training, group based; health promotion	<ul style="list-style-type: none"> Older people; aged ≥ 70 years, migrated from Finland or from Western Balkan, and spoke Bosnian or Serbo-Croatian None (47% felt loneliness to some extent at baseline) 	Low	No	Yes; ↔ (quantitative)	No; no data	Yes; no data	No; no data	<ul style="list-style-type: none"> ↔ Loneliness (bespoke measure) ↔ Social Support (bespoke measure) ↑ Informational support (bespoke measure) 12 months

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Kanekar 2009; ¹⁴⁶ USA	<ul style="list-style-type: none"> • RCT • Moderate • n = 39 (group sizes not reported) 	Education and/or training; online instruction; adapting to new context	<ul style="list-style-type: none"> • International students; Asian Indian • None 	Low	No	Yes; no data	No; no data	No; no data	Yes; no data	<ul style="list-style-type: none"> • ↔ Social support (ISEL) • ↓ Psychological distress • 2-m intervention period • 0 months
Brunsting 2018; ²⁶⁴ USA	<ul style="list-style-type: none"> • Pre-post with comparator • n = 42 (participants), n = 32 (comparator non-participant group) 	Education and/or training; group; intercultural skills	<ul style="list-style-type: none"> • International students; Chinese (86%), other countries • None 	Low	No	Yes; ↔ (quantitative)	Yes; ↔ (quantitative)	No; no data	Yes; no data	<ul style="list-style-type: none"> • ↑ Social Support (satisfaction subscale of SSQ) • ↑ Sense of belonging (CCS) • 0 months (at end of one semester course)
Michael 2008; ²⁶² USA	<ul style="list-style-type: none"> • Pre-post no comparator • n = 113 (survey) 	Education and/or training; community-wide health promotion via community health worker	<ul style="list-style-type: none"> • General migrant/minority population, no age or life-stage focus • None 	High	High	Yes; ↑ (qualitative)	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> • ↑ Social Support (bespoke measure) • 8-month programme • 0-month follow-up
Grote 2009; ¹⁵⁸ USA	<ul style="list-style-type: none"> • RCT • Moderate • Enhanced IPT-B (n = 25) or enhanced usual care (n = 28) 	Psychological therapy, individual	<ul style="list-style-type: none"> • Pregnant and postpartum women; African American (62%) • Depression 	High	No	Yes; no data	Yes; no data	No; no data	No; no data	<ul style="list-style-type: none"> • ↑ Social and Leisure Domain (in SAS) • ↓ Depression • ↓ Anxiety • 6-month intervention period • 3 and 6 months post baseline
Jesse 2016; ¹⁵⁹ USA	<ul style="list-style-type: none"> • RCT • High • n = 39 (treatment); n = 71 (control) 	Psychological therapy, group plus one to one	<ul style="list-style-type: none"> • Pregnant and postpartum women; African American (69%); Caucasian, and Hispanic • Socioeconomic status 	Medium	No	Yes; no data	Unclear	Yes; ↑ (quantitative)	Unclear (general negative thinking targeted)	<ul style="list-style-type: none"> • ↔ (SBI) • 1 month

continued

TABLE 24 Quantitative papers: causal chains and outcomes (RCTs; pre-post or comparator design; n = 34) (continued)

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Mynatt 2008; ¹⁶⁵ USA	Pre-post, no comparator	Psychological therapy, group based	<ul style="list-style-type: none"> Women in vulnerable circumstances; African American (100%) Depression 	Medium	No	Yes; ↑ (qualitative – group only)	No; ↔ (qualitative – no increased sharing of child care and housework)	Yes; no data	No; no data	<ul style="list-style-type: none"> ↔ Loneliness (UCLA Loneliness Scale⁵⁷) ↓ Depression ↔ Anxiety post intervention
Smith 2014; ¹⁵⁵ Australia	<ul style="list-style-type: none"> Pre-post, no comparator n = 16 	Psychological therapy, group based	<ul style="list-style-type: none"> International students; Asian countries (75%); remainder other migrants None 	Medium	No	Yes; ↑ (qualitative)	Yes, no data	No; no data (normalisation of challenges is a focus)	Yes; no data	<ul style="list-style-type: none"> ↑ Social support (IISPA), immediately post intervention ↔ Social support, 2 months ↔ Anxiety, depression, 1 month
Toth 2013; ¹⁶⁰ USA	<ul style="list-style-type: none"> RCT Moderate n = 99 (treatment – IPT; n = 60 compliers), n = 29 (control – enhanced community standard) 	Psychological therapy; individual	<ul style="list-style-type: none"> Pregnant and postpartum women; 59.4% black and 21.1% Hispanic Depression; socioeconomic status 	High	No	Yes; no data reported	Yes; no data reported	No; no data	No; no data	<ul style="list-style-type: none"> ↑ Social support ↓ Depression (post intervention) ↓ Depression, 8 months
Hausmann 2007 ⁶⁰ and 2009; ³⁰⁴ USA	<ul style="list-style-type: none"> RCT Moderate 365 before randomisation, group size not reported 	Light-touch psychological intervention; mailings to students	<ul style="list-style-type: none"> Ethnic minority students;^f African American (40%), white (including Hispanic) (60%) None 	No	No	No; no data	No; no data	Implied; no data	Yes; no data	<ul style="list-style-type: none"> ↔ Sense of belonging (bespoke measure) Semesters 1 and 2
Walton 2011; ¹⁷⁹ USA	<ul style="list-style-type: none"> RCT Moderate 112 before randomisation, group size not reported 	Light-touch psychological intervention; written exercise and speech to camera	<ul style="list-style-type: none"> Ethnic minority students^g None 	No	No	No; no data	No; no data	Implied; no data	Yes; no data	<ul style="list-style-type: none"> ↑ Sense of belonging (bespoke measure) 3 years

Study and location	Study design; risk of bias for RCTs; sample size	Intervention type and delivery				Proximate determinants: clearly intended (yes/no) and effect demonstrated (↑ ↔ ↓ no data) ^d				Quantitative outcomes ^e ↑ ↔ ↓
		Type and functions demonstrated (if relevant)	Population group/targeting ^a	Responsiveness ^b to individual need	User involved; ^c delivery	Positive social ties and interactions	Negative social ties and interactions	Self-worth	More positive assessment of social ties and interactions	Follow-up post intervention
Cook 2012; ¹⁸² USA	<ul style="list-style-type: none"> • RCT • Moderate • 361 before randomisation, group size not reported 	Light-touch psychological intervention; values affirmation	<ul style="list-style-type: none"> • Schoolchildren, African American • None 	No	No	No; no data	No; no data	Yes; no data	Yes; check	<ul style="list-style-type: none"> • ↑ Sense of belonging (black students) (Walton and Cohen³⁰⁷) • 2 years
Fried 2004; ²⁶⁵ USA	<ul style="list-style-type: none"> • RCT • Moderate • n = 70 (intervention) • n = 58 (control) 	Volunteering; school-based volunteering by older adults	<ul style="list-style-type: none"> • Older people, African American (95%) • None 	Low	Yes (volunteer teams)	Yes; ↔	No; no data	No; no data	No; no data	<ul style="list-style-type: none"> • ↔ Social support (bespoke measure) • Intervention period varied, 4–8 months • 0 months

CCS, Campus Climate Scale; FEES, Fragebogen zur Erfassung Emotionaler und Sozialer Schulerfahrungen von Grundschulkindern dritter und vierter Klassen [questionnaire to record emotional and social school experiences of third and fourth grade primary school children]; IISPA, Inventory of International Student Psychological Adjustment; IPT, interpersonal psychotherapy; IPT-B, brief interpersonal psychotherapy; ISAS, Inventory of Student Adjustment Strain; ISEL, Interpersonal Support Evaluation List; ITT, intention to treat; MSM, men who have sex with men; MSPSS, Multidimensional Scale of Perceived Social Support; PRQ, Personal Resource Questionnaire; PSSM, Psychological Sense of School Membership Scale; SACQ, Student Adaptation to College Questionnaire; SAS, Social Adjustment Scale; SBI, Support Behavior Inventory; SPS, Social Provision Scale; SSQ, Social Support Questionnaire; TAFES, Tea and Families Education and Support.

a Targeting: in addition to the population group, did the inclusion criteria/recruitment approach target additional relevant characteristics? None, isolation (identified as, or screened for, social isolation), lonely (identified as, or screened for, loneliness), depression (diagnosed with or at high risk of depression or common mental disorder), health (other health or care needs), socioeconomic status (low income/deprivation).

b Responsiveness: high – content, timing, location and duration; medium – content (most other elements fixed) or parts of content fixed but other elements flexible; low – all or parts of content and most other elements fixed.

c User involved: recipients actively engage in shaping the initiative and delivering elements of it.

d Proximate determinants: clearly intended – yes = the intervention logic clearly identifies this intended proximate determinant (inputs may be intended to affect directly or indirectly); no – no mention of this proximate determinant; and effect demonstrated ↑ (quantitative) ↓ (quantitative) – a statistically significant ($p \leq 0.05$) increase or decrease demonstrated; (qualitative) qualitative data supports an increase or decrease; ↔ (quantitative) or (qualitative) data shows no (statistically significant) change; no data – no qualitative or quantitative data relating to this determinant reported in the study.

e Outcome (quantitatively assessed) effect reported: ↑ significant increase ($p \leq 0.05$); ↔ no significant change; ↓ significant decrease ($p \leq 0.05$).

f Born in country of residence or migrated for reason other than attendance at university.

Note

Functions demonstrated if any of the causal paths were illustrated with qualitative or quantitative data. Most quantitative papers did not examine or demonstrate the causal pathways.

Measures reported

- Health Education Impact Questionnaire (HeiQ); includes eight subscales. In the 'social integration and support scale', high scores indicate high levels of social interaction, high sense of support, seeking support from others, and low levels of feelings of social isolation due to illness (I have enough friends who help me cope with my health . . .; I get enough chances to talk about my health . . .; If I need help, I have plenty of people I can rely on; Overall, I feel well looked after by friends and family; When I feel ill, my family and carers really understand). It is unclear whether Carnes *et al.*¹⁸⁴ used this subscale or another.
- Social Provision Scale (SPS) – perceived social support (Cutrona and Russell⁵⁹); Rejeski *et al.*¹⁵⁰ report used a modified version of this.
- The Revised UCLA Loneliness Scale.⁵⁷
- Ong and Ward.³⁰⁵
- Interpersonal Support Evaluation List (ISEL): 12-item ISEL scale (Cohen and Hoberman³⁰⁸).
- (Revenson and Schiaffino³⁰⁶) Social Support Measure.
- Multidimensional Scale of Perceived Social Support (MSPSS): 12-item Multidimensional Scale of Perceived Social Support (Zimet *et al.*³⁰⁹).
- Psychological Sense of School Membership Scale (PSSM) (Goodenow³¹⁰).
- Personal Resource Questionnaire (PRQ) (Weinert 1984³¹¹).
- Multidimensional Support Scale (MDSS) (Neuling and Winefield³¹²).
- Inventory of International Student Psychological Adjustment (IISPA) (includes 'I feel homesick').
- Social Adjustment Scale (SAS); Social and Leisure domain includes questions related to loneliness, boredom, diminished contact with friends, diminished social interaction and social discomfort among others.
- Social Support Questionnaire (SSQ) (Sarason, Sarason *et al.*³¹³).
- Campus Climate Scale (CCS) (Glass³¹⁴): sense of belonging measure, example items include 'I see myself as part of the campus community' and 'I feel that I am a member of the campus community'.
- Student Adaptation to College Questionnaire (SACQ):³¹⁵ four subscales – social adjustment subscale includes 20 items, including 'fits in well with college environment', 'is very involved with college social activities', 'has several close social ties', 'is satisfied with social participation', 'is meeting people and making friends', 'feels different from others in undesirable ways', 'has good friends to talk about problems with', 'is lonesome for home', 'feels lonely a lot', 'would rather be home'.
- Walton and Cohen's³⁰⁷ Social and Academic fit Scale; includes social belonging in school [e.g. 'People in my school accept me', 'I feel like I belong in my school', 'I feel like an outsider at (school name)'; 'I feel comfortable in my class', 'People at (school name) are a lot like me'].
- Fragebogen zur Erfassung Emotionaler und Sozialer Schulerfahrungen von grundschulkindern dritter und vierter klassen [Questionnaire to record emotional and social school experiences of third and fourth grade primary school children] (FEESS) (Rauer and Schuck,³¹⁶ cited by Frankenberg *et al.*¹²⁸) questionnaire subscale: 'class atmosphere', which assesses a child's perception of the social relationships in the classroom.
The higher the score, the more a child feels valued by his/her classmates and the more positive a child regards his or her social contacts within the class.
- Support Behaviors Inventory (SBI) (Brown³¹⁷): 11-item social support subscale used by Jesse *et al.*¹⁵⁹

Bespoke measures

- Saito *et al.*:¹⁰³ social support = four items related to emotional support and four items related to instrumental support provided by the participants' informal networks, such as family members, children who live apart from the participant, relatives, friends or neighbours. Responses were scored 1 for each item if support received, 0 if not.

- Pak:⁵⁸ sense of belonging was measured by the following seven questions (Likert responses 1–5): I feel that I am a member of the campus community; I feel comfortable on campus; My college is supportive of me; I feel a sense of belonging to the campus community; I feel like I fit in on campus; I have positive and frequent interactions with diverse peers; I have positive and frequent interactions with professors.
- Fried *et al.*:²⁶⁵ social support = I could have used more emotional support. Number of adults (1) you could turn to for help; (2) who would check on you if sick; (3) one could depend on; (4) seen in a typical week.
- Eisdorfer *et al.*:¹⁵⁶ social support = a five-point Likert scale that provided a global assessment of the caregiver's satisfaction with overall level of support. Scores ranged from 1 (very dissatisfied) to 5 (very satisfied).
- Hausmann *et al.*:^{60,304} sense of belonging was measured by the following questions (Likert responses 1–5): I feel a sense of belonging to (name of institution); I am happy to be at (name); I see myself as part of the (name) community.
- Walton and Cohen:¹⁷⁹ sense of belonging = less uncertainty about their belonging in school; less agreement with items like: When something bad happens, I feel that maybe I don't belong at (school name).
- Cook *et al.*:¹⁸² sense of belonging = a shortened version of Walton and Cohen's³⁰⁷ Social and Academic fit Scale modified for younger respondents (Cohen *et al.*:³¹⁸).
- Liptow *et al.*:¹⁰⁹ sense of belonging = composite measure of the following three questions (Likert responses 1–4): How useful do you feel the university resources have been for you this quarter?, How connected and supported do you feel by your peers and community? and How comfortable do you feel about seeking out your professors with questions and concerns?.
- Michael *et al.*:²⁶² measures of perceived social support 'supportive people in community'; also measured 'number of people available for support'. Both increased significantly.
- Gustafsson *et al.*:²⁶³
 - Loneliness = Do you feel lonely? (1) no, never; (2) yes, seldom; (3) yes, sometimes; (4) yes, often; (5) yes. A change from feeling lonely at baseline to not feeling lonely at the 1-year follow-up, and to continue not feeling lonely at the 1-year follow-up, constituted positive intervention outcomes.
 - Social support = sometimes you need help and support from someone. Do you have a relative, friend or other person you can turn to if you need (1) practical help, (2) advice and backing and (3) someone to talk to about your personal concerns. The number of different categories of persons and organisations was counted. A positive intervention outcome connoted 'maintained/increased' number of categories as opposed to 'reduced' (including those not having anyone at baseline and the 1-year follow-up). Informational support = Do you have a relative, friend or other person you can turn to if you need advice and backing?

EME
HS&DR
HTA
PGfAR
PHR

Part of the NIHR Journals Library
www.journalslibrary.nihr.ac.uk

*This report presents independent research funded by the National Institute for Health Research (NIHR).
The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the
Department of Health and Social Care*

Published by the NIHR Journals Library