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Synopsis

Learning together to promote mental health and well-being in English secondary schools: LTMH study refinement and feasibility evaluation, a comprehensive synopsis

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Abstract

Background: Young people's mental health worsened during and since the coronavirus disease discovered in 2019 pandemic. School environments play a key role in young people's mental health. Learning Together for Mental Health is a whole-school intervention aiming to promote mental health in secondary schools, adapted from the previous Learning Together intervention which was found effective in reducing bullying and promoting mental health.

Objective: To adapt Learning Together to increase focus on mental health so producing the Learning Together for Mental Health intervention and evaluate the appropriateness of conducting a Phase III trial of the Learning Together for Mental Health intervention regarding pre-defined progression criteria relating to the intervention and trial methods, and assessing intervention feasibility, reach and acceptability, feasibility of trial measures and procedures, potential mechanisms and possible harms.

Design and methods: We conducted a feasibility study with baseline and follow-up surveys, process evaluation and economic-evaluation feasibility-testing.

Setting and participants: One school participated in intervention adaptation. Our feasibility study included four state, mixed-sex secondary schools in southern England (one of which dropped out after baselines and was replaced with another). We recruited 640 year-7 (age 11–12) students at baseline survey and 566 year-10 (age 14–15) students at 12-month follow-up. Baseline and follow-up participants were different groups, as the focus was assessing feasibility for the age groups to be surveyed at baseline and follow-up in a Phase III randomised controlled trial. Twenty staff, 27 year-8 (age 12–13) students and 22 year-10 students participated in qualitative research as did two trainers and one external facilitator.

Interventions: As part of our feasibility study, all schools received the Learning Together for Mental Health intervention for one academic school year.

Main outcome measures: Pre-defined criteria for progression to a Phase III trial.

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Lloyd-Houldey O, Sundaram N, Michalopoulou S, Sturgess J, Legood R, Carlile O, *et al.* Learning together to promote mental health and well-being in English secondary schools: LTMH study refinement and feasibility evaluation, a comprehensive synopsis. *Public Health Res* 2026;**14**(1):1–34. https://doi.org/10.3310/PFHR4141

Results: The intervention was successfully adapted from the previous intervention using public involvement. The trial met all criteria for progression to Phase III. The all-staff and in-depth restorative practice training were implemented with fidelity in all schools and all schools had at least two staff trained in-depth in restorative practice. Curriculum training was delivered with fidelity in three of four schools. The response rate to the baseline (needs) survey across the three participating schools was 79%. Progression required at least two schools to have delivered the curriculum with at least 50% fidelity, which was achieved; one of the two schools which delivered the curriculum reported over 80% fidelity and the other school reported over 75% fidelity. All students and staff across all four schools who completed the action group survey and 93% of senior leadership team members who completed the senior leadership team survey reported that Learning Together for mental health was a good way to promote student Mental Health. Potential mechanisms of action involve promoting student sense of school belonging and practical reasoning and skills. No harms were reported. Trial measures and procedures were feasible and acceptable to implement. Intervention and trial refinement are suggested.
Limitations: Our study involved a small, purposive sample of schools and students which are not representative of those in England.
Conclusions: With some minor amendments, Learning Together for Mental Health should be subject to a future Phase III trial of effectiveness.
Future work: The intervention should be refined by making the curriculum optional and improving materials.
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Introduction

Mental health problems are the largest source of disability in the UK[1] with approximately three-quarters starting before age 24 and half before 14.[2] Among those aged 5–19, 13% have a mental health disorder.[3] Around 40% of adolescent girls experience disordered eating[4] and a fifth report self-harming.[5] In the UK, the green paper 'Transforming Children and Young People's Mental Health Provision' identified a key role for schools in promoting mental health.[6] Schools aim to implement effective programmes but lack access to evidence-based interventions. All schools are now part of mental health support teams with access to educational mental health practitioners.[6] These resources are finite with limited focus on primary prevention, so schools need access to guidance about implementing effective, universal interventions.[7] Such interventions are even more urgent post pandemic, with evidence that mental health among young people worsened during lockdowns.[8]

Whole-school interventions address multiple levels of school organisation, often including curricula but also organisational and environmental components. There is emerging evidence for the effectiveness of these for multiple health outcomes.[7–9] School-environment components address school culture and systems, and impact a range of health outcomes and behaviours.[10] A key aspect is increasing student sense of school belonging, particularly among the most disadvantaged and those with highest baseline need.[11,12] Multiple reviews support a role for school interventions in improving young people's mental health,[13–16] with evidence across anxiety and depression,[14–17] body image and disordered eating,[18] self-harm and supportive capacities such as self-regulation.[19] Although whole-school interventions are universal[20] and offer the most parsimonious method for intervening in schools, existing interventions have largely focused on risk behaviour such as bullying and substance use and have only examined mental health as a secondary outcome.[21]

We previously led a cluster-randomised trial of the Learning Together (LT) intervention across 40 English secondary schools in 2014–7.[20] LT is a multicomponent intervention aiming to modify the school environment to reduce bullying and promote health. Key elements are: survey of students to identify needs; action groups (AGs) comprising staff and students to review needs data and use these to plan and co-ordinate local delivery and rewrite school behaviour policies and rules supported by an external facilitator; training of all school staff in restorative practice (RP), which identifies harms arising from conflict or antisocial behaviour, encourages perpetrators to take responsibility and make amends, and aims to restore relationships; and a social and emotional learning (SEL) classroom curriculum. RP includes a spectrum of approaches ranging from use of respectful and empathetic communication, check-ins with class groups to prevent conflict and maintain well-being and restorative conferencing to address serious conflict. There is some evidence from non-random designs that RP can be effective in reducing conflict but limited evidence from other trials.[22,23] We found significant benefits for the intervention reducing bullying victimisation (primary outcome) and improved mental well-being and health-related quality of life, and reduced psychological distress

and substance use (secondary outcomes), with high cost-effectiveness comparable to other school-based interventions.[20] Despite the intervention's primary focus not being mental health and not including activities other than SEL directly addressing mental health, effect sizes for impacts on mental health and well-being were approximately 0.1 standard deviation (SD). This suggests that modifying LT to address mental health directly may enable greater impact.

We refined LT to develop the Learning Together for Mental Health (LTMH) intervention.[24] LTMH retains the proven elements of LT but also gives schools a needs assessment including more mental health indicators, a menu of evidence-based practices to promote mental health and an enhanced SEL curriculum. This refinement and feasibility study aims to modify the LT intervention in association with the Place2Be charity, a secondary school and other stakeholders to develop LTMH, and then assess feasibility and acceptability of the intervention as delivered in English secondary schools by Place2Be and key aspects of trial procedures and measures, prior to a future Phase III trial. This study addresses the following research questions.

Refinement phase

Is it possible to refine LT to develop the LTMH intervention to promote mental health and well-being?

Feasibility phase

1. What is the feasibility and acceptability of delivery of LTMH in secondary schools in England?
2. Is progression to a Phase III trial justified in terms of pre-specified criteria (see below)?
3. What level of student awareness does the intervention achieve among year-10 students at follow-up?
4. What do qualitative data suggest in terms of intervention mechanisms and refinements to programme theory and theory of change?
5. How do contextual factors appear to influence implementation, receipt and mechanisms of action?
6. Are any potential harms suggested and how might these be reduced?
7. Is an economic evaluation feasible?

The present paper presents an overall synopsis of methods and findings. Other papers report in more detail on intervention adaptation,[24] a review of reviews that informed the LTMH intervention,[25] intervention feasibility[26] and fidelity,[27] and trial measures.[28]

Methods

Design

The research comprised a refinement phase and a feasibility phase. In the refinement phase, we worked with Place2Be, the National Children's Bureau Young Researchers group [a group of young people trained to participate in public and policy involvement and engagement (PPIE)], the staff and students of one school and other stakeholders in a period of co-creation and refinement.[24] The theory of change adaptations and basic outline of the core components were already determined. Further work elaborated this, optimised the intervention for English schools and developed materials. Optimisation was informed by existing frameworks[29] and occurred in phases. Firstly, we elaborated the intervention and overall approaches. Then we refined the student needs survey, manual guiding the action group (AG) (including menu of actions) and needs-assessment guide. Lastly, we identified an evidence-based SEL curriculum. For each step, optimisation occurred through a review of existing evidence, PPIE discussions, drafting of resources and refinement of these resources through PPIE. We pre-defined an internal progression criterion to move to the feasibility phase that intervention materials were generated and focused on mental health and well-being outcomes to the satisfaction of the research team, Place2Be, PPIE stakeholders and the Steering Study Committee (SSC).

We then undertook a non-controlled feasibility study in four state secondary schools in southern England. All schools were to receive the intervention to assess its feasibility of implementation during one school year across schools varying by need measured by deprivation level, using free-school-meal (FSM) entitlement as a proxy, and school capacity, measured by government inspection rating as a proxy. The study was guided by a protocol (see *Report Supplementary Material 1*, Supplementary File 1) and registered publicly www.isrctn.com/ISRCTN15301591.

Recruitment

The refinement phase aimed to involve one secondary school with a high rate of FSM entitlement (as a proxy for need) and government inspection rating of good or outstanding (as a proxy for school organisational capacity to participate in refinement), but the recruited school dropped out and was replaced with another with an outstanding government inspection rating and below-average FSM entitlement.

In the feasibility study, four state secondary schools in southern England were recruited. Recruitment occurred

between January and April 2022. All recruited schools were to be mixed sex and with government inspection rating of 'requires improvement' or higher and a non-temporary headteacher. Schools varied by FSM entitlement (above and below the national average) and government inspection rating (requires improvement or good vs. outstanding) as proxy measures of need and capacity for implementation. Schools which had recently converted to academy status and did not therefore have a current inspection rating but had a rating of 'requires improvement' or higher linked to their previous entity were eligible. We made a pragmatic decision to exclude schools with very low student numbers (fewer than 50 students per year), as this would have limited our ability to pilot our procedures and measures. Schools were recruited by e-mails (see *Report Supplementary Material 1*, Supplementary File 2) followed by phone calls. School e-mail addresses were obtained for all schools meeting our inclusion criteria in Greater London, Kent, Essex, Hertfordshire, West Berkshire, Oxfordshire, Surrey, Buckinghamshire, Cambridgeshire and Bedfordshire. Attached to the e-mail was an information sheet and commitment form (see *Report Supplementary Material 1*, Supplementary File 3) which provided a detailed overview of the intervention and its possible benefits, the intervention and study timetable, expectations of schools and a section for headteachers to sign commitment to participate. In addition, the National Institute for Health and Care Research Clinical Research Network shared the study information sheet and commitment form with schools which met the study's inclusion criteria included in their Northwest London Schools Research Network.

The target population for surveys was young people in years 7–11 (age 11–16) in participating schools. Surveys focused on students in year 7 at baseline and those in year 10 at follow-up to pilot response rates and measures among the age groups that would do so in a Phase III trial. Any year-7 student at baseline or year-10 student at follow-up deemed competent by their teacher to decide consent for participation was eligible to participate. Students with mild learning difficulties or limited English proficiency were supported to complete the questionnaire. The study did not aim to assess effects, and no power calculation was conducted.

Intervention

Theory of change

The intervention was underpinned by a theory of change based on that of the LT intervention. Drawing on the theory of human functioning and school organisation,[30] this theorised that engagement in risk behaviours may be reduced and mental well-being enhanced by building student sense of belonging and engagement with learning in school, which in turn contribute to students developing practical reasoning skills and peer affiliations supportive of healthier decisions and well-being. Our intervention inputs aimed to enable schools to convene AGs involving staff and students who co-operate to review needs data and plan and oversee core intervention components and locally chosen options from a menu of evidence-based prevention interventions relating to body image/self-esteem, digital health, lesbian, gay, bisexual, transgender, queer and others (LGBTQ+) inclusion, student voice, physical activity for mental well-being and mental health first aid. All staff received training in RP and empathetic and respectful communication. Around four to five selected staff per school received in-depth training in RP and conferencing to address serious conflict. RP enables students to resolve conflict, take responsibility for behaviour, and engage in acts of empathy and forgiveness, supported by enhanced connection with school. Schools also delivered SEL lessons. These core and optional activities aimed to modify schools' social environments, so these are characterised by: improved communication among and between students and staff; more student-centred teaching, behaviour management and social support for mental health. Staff are able to respond to students in an emotionally sensitive manner and promote positive behaviours supportive of mental well-being. Through AGs, RP, SEL lessons and other intervention activities, students observe, learn and reinforce healthier behaviours among one another including being able to verbalise mental health challenges and needs.[31]

These changes in the social environment result in: increased student engagement in learning; increased sense of belonging and emotional security in school; more trusting, empathetic, forgiving and accepting relationships between students and staff; increased self-belief (including belief in the ability to manage and resolve difficulties when they arise); and practical reasoning skills relating to conflict resolution, avoiding peer pressure (e.g. in relation to antisocial behaviour, restricted eating, self-harm and perfectionism) and seeking support for own and others' mental health needs. These changes generate impacts on improved mental health with: fewer emotional problems and less disruptive behaviour; improved well-being and quality of life; improved body image and self-esteem; reduced antisocial behaviour, self-harm, substance use and disordered eating; and reduced use of NHS crisis services. Based upon this theory, our logic model (*Figure 1*) outlines the intervention inputs and processes anticipated to lead to improved outcomes.

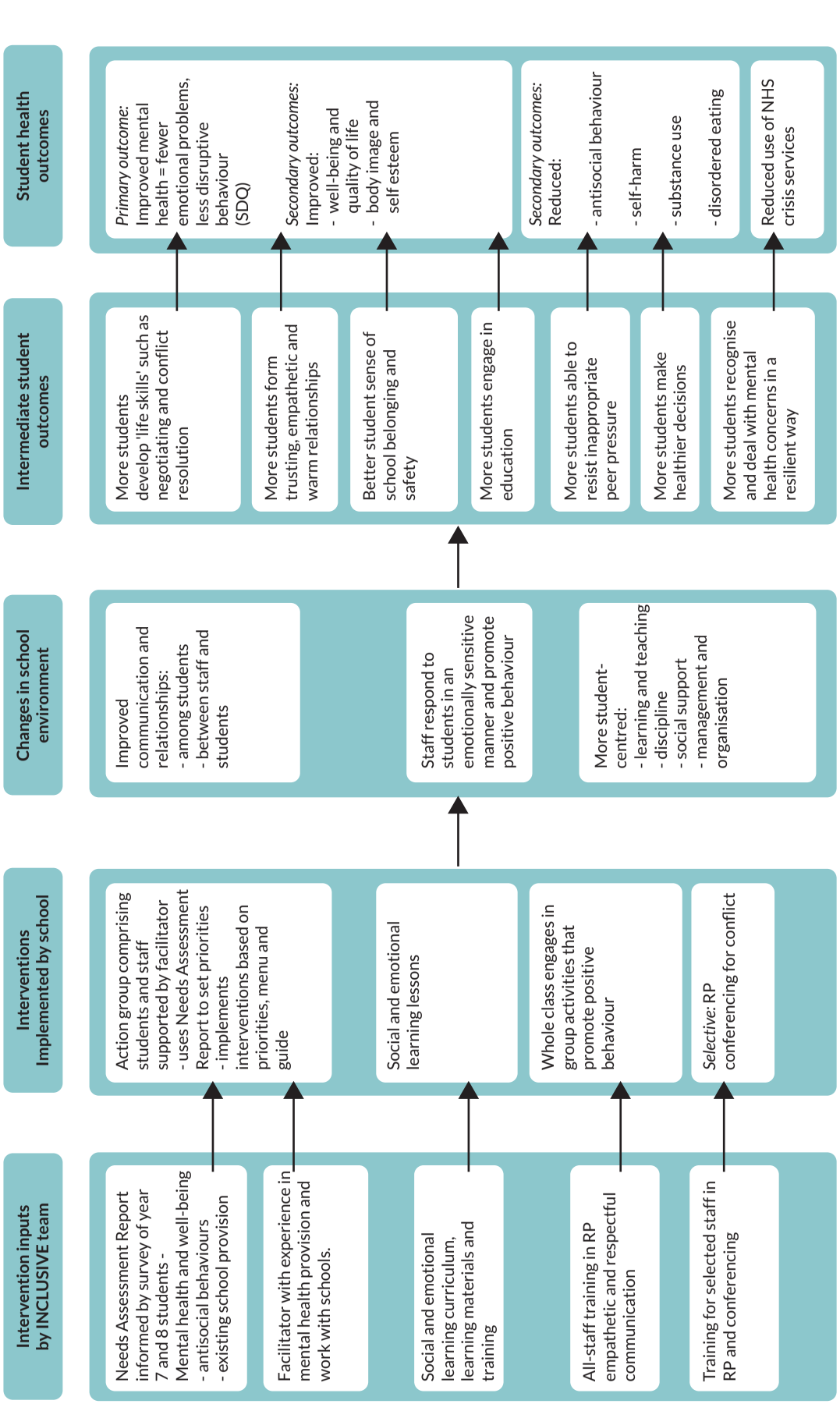

FIGURE 1 Logic model. SDQ, Strengths and Difficulties Questionnaire.

Inputs and activities

The intervention involved the following in each school.

Needs assessment

Intervention actions in each school were guided by a needs-assessment report, based on data from baseline surveys. We retained the original LT needs assessment focused on bullying and antisocial behaviours, and strengthened assessment of a wide range of mental health issues. We also strengthened translation of assessment into actions through use of a menu of evidence-based actions and guidance for schools on matching needs to actions. AGs were also encouraged to draw on existing data to audit existing mental health and well-being provision in the school.[32]

Action groups

In each school, an AG was convened which enabled staff and students to work together on planning and co-ordinating intervention delivery, locally identifying need, taking ownership for intervention elements and enabling student agency. AGs were supported by an external facilitator from Place2Be who had experience in mental health provision as well as working with secondary schools. We modified the external facilitation of the AG to involve a mixture of online and in-person support. Facilitation included 3 days' time per school provided by Place2Be including 1-hour termly AG meetings. The AG chose intervention activities from a menu of evidence-based actions. Actions included on the menu were selected based on being evidence-based to improve aspects of mental health or well-being in young people, and being practical and free/minimal cost for schools to implement in schools (costs borne by schools). These actions were predominantly universal, but schools could also implement some targeted actions. Actions targeted included the following areas: self-esteem and body image; anxiety and depression; digital health including social media; SEL; inclusion of LGBT+ young people; increasing student voice; mental health awareness sessions; increasing the extent and range of physical-activity opportunities; and mental health first-aid training.

Restorative practice

This was implemented largely unchanged from LT with training delivered by L30 Relational Systems, an accredited provider. All staff received 1–2 hours of training introducing RP, and on empathic and respectful communication. Selected staff were trained in-depth over 3 days on using RP including conferencing.

Curriculum

A SEL curriculum was retained because of evidence for the effectiveness of SEL on mental well-being[33] but with a new evidence-based curriculum identified in the intervention refinement phase.

Outcome measures

The primary outcome for the feasibility study was an indication of the appropriateness of progression to a Phase III trial. This was defined in terms of the following intervention feasibility and acceptability criteria: two or more schools have a response rate of 60% or more at the baseline (needs) survey; two or more schools hold three or more AGs; two or more schools have two or more staff trained in-depth in RP; two or more schools complete one or more locally decided actions; two or more schools have two or more trained staff regularly implementing RP; two or more schools implement the curriculum with 50% or more fidelity; two or more schools choose one or more actions from the evidence-based menu; and two or more schools have 50% or more of AG and senior leadership team (SLT) members reporting the intervention as acceptable. It was also defined in terms of a trial feasibility criteria of two or more schools have a response rate of 60% or more at the follow-up survey. Failure on one or more of the intervention criteria would have implied the intervention was not appropriate to be subject to a Phase III trial. Failure on the trial feasibility criterion would not necessarily stop progression to Phase III but would require reconsideration of trial design in any future Phase III trial. This is described in detail elsewhere.[27]

We also piloted indicative primary and secondary outcomes for a Phase III trial. This is described in detail elsewhere.[28] The indicative primary outcome was the total difficulties mental health score of the Strengths and Difficulties Questionnaire (SDQ).[34] This is the most commonly used outcome measure for children and young people in the UK, extensively validated in population samples of the relevant age and used in the most recent national mental health survey.[3] Indicative secondary outcomes were the following:

- Strengths and Difficulties Questionnaire subscales[34] for prosocial, conduct problems, peer problems and hyperactivity;
- Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS);[35]
- depressive symptoms using the Short Moods and Feelings Questionnaire (SMFQ);[36]
- anxiety using the Generalised Anxiety Disorder-7 (GAD-7) scale;[37]
- disordered eating using the Eating Disorders Examination Questionnaire (EDEQ);[38]
- self-harm using one question derived from the health behaviour in school-aged children (HBSC) study;

- bullying victimisation using the Gatehouse Bullying Scale (GBS);[39]
- cyberbullying using two items adapted from the DAPHNE II questionnaire;[40]
- substance use using a commonly used NHS measure;[41] and
- school climate using the Beyond Blue school climate questionnaire.[42]

We also piloted the Child Health Utility-9 Dimensions (CHU-9D) measure[43] assessing health-related quality of life.

Data collection

Surveys

We conducted baseline surveys (see *Report Supplementary Material 1*, Supplementary File 4) of students at the end of year 7 (age 11–12) in June–July 2022. In one school, some students were surveyed at the start of year 8 in October 2022. Follow-up surveys (see *Report Supplementary Material 1*, Supplementary File 5) occurred 12 months post baseline with students in year 10 (age 14–15) in June–July 2023. This enabled piloting of the surveys with the age groups as they would be conducted in a Phase III trial but within a shorter timescale. Consent procedures are described under ethics below. Paper questionnaires were completed confidentially in classrooms supervised by fieldworkers, with teachers remaining at the front of the class to maintain order but unable to see student responses. At baseline, we surveyed absent students by leaving questionnaires and stamped-addressed envelopes with schools, liaising with schools to maximise returns. However, this elicited no responses and was dropped at follow-up. Fieldworkers, but not students, were blind to allocation.

Process evaluation

Informed by existing frameworks,[44–46] this examined intervention feasibility, fidelity, reach and acceptability, and explored context and potential mechanisms of action including potential unintended effects. In addition to assessing progression criteria, we examined reach via the student follow-up survey. The information collected on sociodemographic characteristics in the student surveys allowed us to examine reach by subgroup. We also assessed the fidelity, reach and perceived impacts of training. Data for the process evaluation were collected via: audio-recording of training and completion of training fidelity checklists; surveys of staff being trained; surveys of AG members and SLTs; logbooks of staff implementing AGs, RP and the curriculum; and structured observations of a randomly selected session per school of AGs and curriculum lessons. This is described in detail elsewhere.[27]

Qualitative data were to be collected via: interviews with one Place2Be facilitator, one RP trainer and one curriculum trainer; two focus group discussions (FGDs) with four staff per school (purposive by seniority/activity involved in); and one FGD with year 8 and one with year 10 students per school (see *Report Supplementary Material 1*, Supplementary Files 19–23). Each FGD involved six to eight students and was diverse to reflect school profile in terms of gender, school engagement and ethnicity. One school opted for individual interviews with teachers and one school lead could not attend the FGD so was interviewed. This is described in detail elsewhere.[26] Twenty staff, 27 year-8 (age 12–13) students and 22 year-10 students participated in qualitative research as did two trainers and one external facilitator.

Economic evaluation

We assessed the feasibility of performing a cost–consequence analysis as the primary economic analysis, as recommended by the National Institute for Health and Care Excellence (NICE) public health methods guidance.[47] As there was no control group in this feasibility study, we examined the mean costs and outcomes per intervention school, and assessed the extent of missing data. The time horizon was the within-trial period 12 months and hence no discounting was required. The cost analyses took a public sector perspective following NICE's methods guidance and covered education, health and social services. This was a deviation from protocol, which stated we would assess costs related to contact with the police rather than social services. However, we decided that the latter was more appropriate given the age of students. All costs are reported in 2021–2 Great British pounds. We also assessed the feasibility of a cost–utility analysis as a secondary economic analysis. For this, we drew on our experience of similar analyses from the LT trial.[48] Again, as there was no control group, it was not possible to calculate incremental cost-effectiveness ratios. The analysis examined mean cost and mean utility in the intervention schools and assessed the extent of missing data.

We anticipated that costs would be incurred delivering the intervention at the school level and that there would be implications for student education, health and social-service resource use at the student level.

Detailed data were collected as part of the process evaluation on resource use and the costs of delivering the intervention (*Table 1*). Costs of the trainers' and facilitators'

TABLE 1 Resource use and cost tools used for intervention

Resource/cost	Tool
Cost of delivering training	Invoices
Cost of delivering facilitation	Invoices
Staff time training	Attendance sheets and trainer diaries
Staff time at AG	AG chair logbook
Staff time preparing/after AG	AG questionnaire
Staff time on curriculum	Curriculum teacher logbook and interviews

time were available from invoices. School staff time being trained to deliver the Bounce Forward curriculum and RP was recorded in attendance sheets and trainer logbooks. The amount of time staff spent in AGs was collected in the AG chairs' logbooks. This was a minor deviation from the protocol, which stated that this would be collected from a facilitator logbook. We used chairs' logbooks instead, as we considered these likely more accurate. The staff time spent preparing before and after AGs was recorded in the AG survey. The staff time involved in curriculum delivery was taken from logs completed by teachers delivering the curriculum and from interviews. Average teacher salaries were obtained through the Department for Education website.[49] To estimate an hourly rate, we divided salaries by Department for Education statutory guidance on school teachers' pay and conditions document detailing the annual hours of work.[50]

Health and social-service use were measured at baseline and at follow-up after 12 months using a brief version of the Child and Adolescent Service Use Schedule developed for self-completion by adolescents in the My Resilience in Adolescence (MYRIAD) trial.[51] These items were valued using nationally applicable reference costs, including NHS reference costs for secondary-care services and published costs for health and social services.[52–54] A mean cost and SD per student at each school were calculated for the intervention arm and missing data described.

The CHU-9D measure[43] was used to assess health-related quality of life (secondary analysis). CHU-9D scores were calculated using a utility algorithm that produces values between 0 (equivalent to being dead) and 1 (representing perfect health). The algorithm values each health state corresponding with a CHU-9D score according to preference weights elicited from the UK adult population using the standard gamble approach.[43] Mean (SD) utility scores per student at baseline and 12 months were estimated for the intervention arm and missing data assessed.

Data analysis

Our main analyses determined whether progression to a Phase III trial was appropriate in terms of meeting progression criteria. Descriptive statistics on fidelity drew on AG minutes, records of staff training, staff logbooks and survey of SLT and AG members. Other analyses addressed our other research questions. Descriptive summaries of baseline and follow-up data by arm were tabulated and the response rates and reliability of outcome measures examined (using Cronbach's alpha for reliability where appropriate). Quantitative analyses examined intervention awareness among year-10 students at follow-up, and how this varied by student socioeconomic status (SES), gender and ethnicity.

Qualitative data were subject to thematic content analysis (in vivo/axial codes; constant comparison[55]) informed by realist approaches to evaluation[56] and the general theory of implementation[45] to examine potential mechanisms of action and of harm and how contextual factors influence implementation and mechanisms. Analysis of qualitative data on the impact of context on implementation and mechanisms were used to inform hypotheses to be tested within a Phase III trial.

Protecting against bias

Although the aim of this study was to refine the intervention and assess feasibility, rather than estimate intervention effects, we piloted methods aiming to minimise bias. The investigator team and the intervention delivery team were separately managed, with the intervention managed by our collaborator Place2Be. We aimed to maximise response rates at baseline and follow-up to minimise non-response bias.

Equality, diversity and inclusion

Whole-school interventions, such as planned here, have broad reach to benefit all students. The intervention is universal but aims to benefit those with most baseline need. All intervention materials were designed to be accessible and appropriate for individuals regardless of SES, gender, ethnicity or sexual orientation. We purposively recruited schools varying by rates of FSM entitlement (above and below the national average) as a proxy measure of the SES of students. This was to assess whether the intervention was as feasible and acceptable across schools differing by SES. The evaluation assessed how participant characteristics affected reach. Our process evaluation assessed how implementation and

intervention mechanisms appeared to vary by school and student characteristics.

Ethics, safeguarding and data protection

Ethics approval for all research elements was obtained from University College London (UCL) Research Ethics Committee (REC) on 30 March 2022 (UCL Ethics Project ID Number: 21179/001) and London School of Hygiene & Tropical Medicine (LSHTM) REC on 26 August 2022 (ref. 27994). The trial manager, who led fieldwork teams during surveys, had an enhanced Disclosure and Barring Services (DBS) check so he could work unaccompanied in schools. We originally planned that all fieldworkers visiting schools would have a DBS check, but this was not required since fieldworkers did not work unsupervised with students. All activities were carried out in accordance with guidelines outlined by the Economic and Social Research Council, the Data Protection Act 1998, the latest Directive on Good Clinical Practice (2005/28/EC) and the General Data Protection Regulation 2018.

Headteachers were asked for written informed consent for intervention (see *Report Supplementary Material 1*, Supplementary File 3). Informed written opt-in consent was sought from all research participants, including students judged competent to provide this. Participants (and students' parents) were sent an information sheet (see *Report Supplementary Material 1*, Supplementary Files 24–38) several days before data collection. These explained that participation was voluntary and withdrawal was possible at any point with no negative consequences. Information sheets also provided contact details of the research team should participants or parents have questions. Participants or students' parents could opt out of the research in advance by contacting the school or research team. Just before data collection, participants received an oral description of the study and could ask questions before signing a consent form (see *Report Supplementary Material 1*, Supplementary Files 28–31 and 39–45). Participants were advised that participation was voluntary, and they could withdraw at any point or skip any question they did not want to answer.

Students were advised that their responses would be treated as confidential but if they reported or disclosed to researchers any indication of risk of serious harm, anonymity would be broken and their name and details of the potential risk shared with the school's safeguarding lead to decide what action was required. Students opting out of surveys were advised to stay in the classroom and complete reading, homework or private study. We used standard operating procedures for dealing with safeguarding concerns (see *Report Supplementary Material 1*, Supplementary File 46) and reporting serious adverse events (SAEs; see *Report Supplementary Material 1*, Supplementary File 47). We balanced our ethical duties of promoting participant autonomy by respecting confidentiality and of promoting participant well-being when determining when we would need to breach confidentiality to address abuse. Where such abuse was reported through a questionnaire, we contacted the school safeguarding lead. Where reported to research staff, we discussed this with the participant prior to contacting the safeguarding lead.

Quantitative and qualitative data were managed by research staff using secure systems. Student self-report survey data linked to participant identity codes were managed by LSHTM Clinical Trials Unit. Student names linked to identity codes were managed by LSHTM fieldwork team. Both used password-protected drives and folders. Process evaluation data were managed by LSHTM fieldwork team after being anonymised. In line with Medical Research Council guidance on personal information in medical research, we will retain all research data for 20 years after study completion.

Throughout the study, we requested information from participating schools on SAEs among students and assessed whether these were plausibly related to the intervention or research in consultation with school leads. The SSC and LSHTM REC were provided with anonymised reports of all safeguarding referrals and SAEs.

Deviations from protocol

Deviations from protocol are outlined in *Table 2*.

Results

Public and policy involvement and engagement and intervention refinement

This is described in detail elsewhere.[24] We met with the Young National Children's Bureau members in January 2022 and April 2022. Key learning included that: the need survey should include mostly closed-response questions; the manual should be read by and include actions for young people; improving LGBTQ+ inclusion was important; and stress-management workshops, expanding extra-curricular activities, mental health first-aid, meditation and yoga, outdoors lessons and physical activity in lessons would be valued by students.

The school originally selected to participate in PPIE matched our criteria regarding a high rate of FSM entitlement and outstanding government inspection

TABLE 2 Deviations from protocol

Deviation from protocol	Rationale	Date
PPIE		
Protocol indicated PPIE would involve a school with high FSM entitlement and outstanding government inspection rating, but we worked with a school with an outstanding rating and below-average rate of FSM entitlement.	The school originally selected to participate and matching our criteria dropped out at the last minute.	1 May 2022
Baseline and follow-up surveys		
Protocol indicated that all researchers/fieldworkers visiting a school would have DBS checks but only the trial manager had this.	Fieldworkers were not required to have DBS checks because they did not work unsupervised with students.	1 April 2022
Protocol indicated we would conduct baseline survey with year-7 students in June–July 2022. In one school, some students were surveyed at the start of year 8 in October 2022.	Rail disruption prevented us completing baselines in July 2022.	25 July 2022
Protocol indicated that we would survey absent students by leaving questionnaires and stamped-addressed envelopes with schools, but we did not do this at follow-up.	We discontinued this because we received no returned questionnaires via this route at the baseline.	14 March 2023
Economic evaluation		
Protocol indicated we would assess potential costs arising from NHS, education and police, but we assessed costs arising from social services instead of police.	We decided that it would be more important in this population to assess costs associated with social services given low rates of year-10 involvement with police.	1 November 2021
Protocol indicated we would collect data on time spent on AGs via the facilitator logbook, but instead this was collected from AG chairs' logbooks.	We decided that this approach would be more expedient.	1 November 2021
Protocol indicated we would collect data on staff time from the teacher survey but did not.	There was no teacher survey; this was a drafting error. Staff time was collected from more focused data collection with particular staff.	1 November 2021
Process evaluation		
Protocol indicated we would conduct interviews with one Place2Be facilitator and one RP trainer. We additionally conducted an interview with the Bounce Forward curriculum trainer.	This should have been included in the protocol and was missed out. Ethics approval for the instrument was obtained.	1 September 2022
Protocol indicated we would conduct web surveys of AG members and SLTs. We additionally used hardcopy surveys for AG members.	This approach was taken to maximise response rates.	1 May 2023
Protocol indicated we would conduct two FGDs with four staff per school. However, one school preferred individual staff interviews and the school lead at another school could not attend the FGD and was interviewed instead.	This approach was taken to maximise response rates.	1 June 2023

rating but dropped out at the last minute. We needed to replace this school at short notice. The school recruited had an outstanding government inspectorate rating but a below-average FSM entitlement. The meetings with students and staff occurred in May 2022. The student meeting involved five boys and girls across years 8–11 and the staff meeting comprised four teachers from the SLT and with pastoral responsibilities. Key learning from students included: the needs survey could include mental health questions; comparing each school's mental health needs with broader data would be useful; AGs should include diverse students; students were supportive of physical activity sessions, stress management and outdoor lessons; activities need not be labelled as focused on mental health; and RP should be used only when all parties consent to this. Key learning from staff included: year-7 students might not be representative of other year groups; AGs should involve diverse students including by age and should include the school mental health lead; staff supported a menu of evidence-based actions linked to need; bullying prevention was a priority; their school would not adopt a new SEL curriculum because they already had one; an external facilitator for the AG should be provided for 2 years; in-person facilitation was preferable

but a hybrid approach could work; the facilitator should set and monitor success criteria for each meeting; and the workload implications of actions selected from the menu should be considered.

We consulted with a group of school SLT leaders in June 2022. Key learning included: there was support for a universal approach; parental engagement should be included; comparison of school needs with national data would be useful; outputs from LTMH would be useful to share with government inspectors; there was support for the menu of options, linking to intervention resources and providing cost information.

We made several refinements. Where possible, the needs-assessment report would compare school prevalence to national comparative data. Where no national data were available, we would refer to prevalence across all LTMH schools as the comparator. For the manual we would: encourage recruitment of diverse students to the AG including students with and without mental health problems; recommend schools draw on other data, including from other year groups, as part of the needs assessment; include meeting objectives, agenda items and practical exercises and tools in the manual to guide AGs; include suggestions on how to engage with parents; and encourage schools to share needs-assessment findings with government inspectors where appropriate. We moved to a mixture of face-to-face and virtual external facilitation.

The systematic review of reviews that informed the menu is described elsewhere.[25] PPIE supported our plans to indicate the strength of evidence, size of effects and costs of recommended actions. Most of the topics and actions suggested in PPIE featured in our menu. We amended the manual to encourage schools to consider the implications of actions in terms of staff time and their ability to continue other activities.

We changed some terminology in relation to RP to ensure this was suitable for secondary-school students. For example, 'circle-time' was instead referred to as 'class group activities that promote positive behaviour and peer-to-peer support'. Informed by PPIE, we decided that the training on RP should be delivered via a mixture of face-to-face and virtual sessions to reduce costs and enhance scalability.

We retained our plans for a SEL curriculum despite one PPIE participant commenting that their school would be unlikely to use this since they had developed their own. The team identified and assessed various curricula cited in the systematic reviews and assessed these based on criteria of: evidence of effectiveness; quality of materials; cost; age focus; training availability; and number of lessons. The Healthy Minds curriculum was judged most appropriate in terms of: involving a manageable number of lessons; having strong evidence in promoting multiple health outcomes,[55] being inexpensive; being suitable for students in years 8 and 9; and being deliverable by trained teachers. All schools would be trained to deliver the six-lesson 'Bounce Forward Resilience Skills' curriculum. Teachers received 1.3 days' online training.

Recruitment and participant flow

We e-mailed 745 schools between 22 April and 5 May 2022 inviting them to participate in the LTMH intervention and feasibility study. Recruitment of schools and participant flow in the study is described in *Figure 2*. Fifteen schools responded, indicating their interest in participating in the study, a response rate of 2% (although the denominator likely included a number of schools that would not have met our inclusion criteria). Out of these, six submitted completed consent forms. We purposively selected four schools (varying by FSM entitlement and government inspection rating) to the study. Baseline surveys were conducted in these four schools with a student response rate of 79%. However, one of these schools dropped out of the study in September 2022 (prior to intervention delivery commencing) reporting concerns over its capacity to implement the intervention. We purposively selected another school from those indicating interest and this school joined the study late in November 2022, too late to complete a baseline survey. Follow-up surveys were completed at this and the other three remaining schools with a response rate of 66%.

Study school characteristics

Study schools differed from schools in all of England in several ways (*Table 3*). Study schools were larger in student population size. Two study schools were 'all-through' schools, including primary, secondary and sixth-form phases of education, which may explain the larger mean population size. Study schools were slightly lower on FSM entitlement and higher on government inspection rating compared to schools in all of England. Study schools varied above and below the mean percentage (25.0%) of students eligible for FSMs in schools in all of England. Two study schools did not have a government inspection rating available at the time of recruitment; consequently, we used their pre-academy conversion rating. Schools recruited to the study had ratings of either 'good' or 'outstanding'. All study schools were mixed sex.

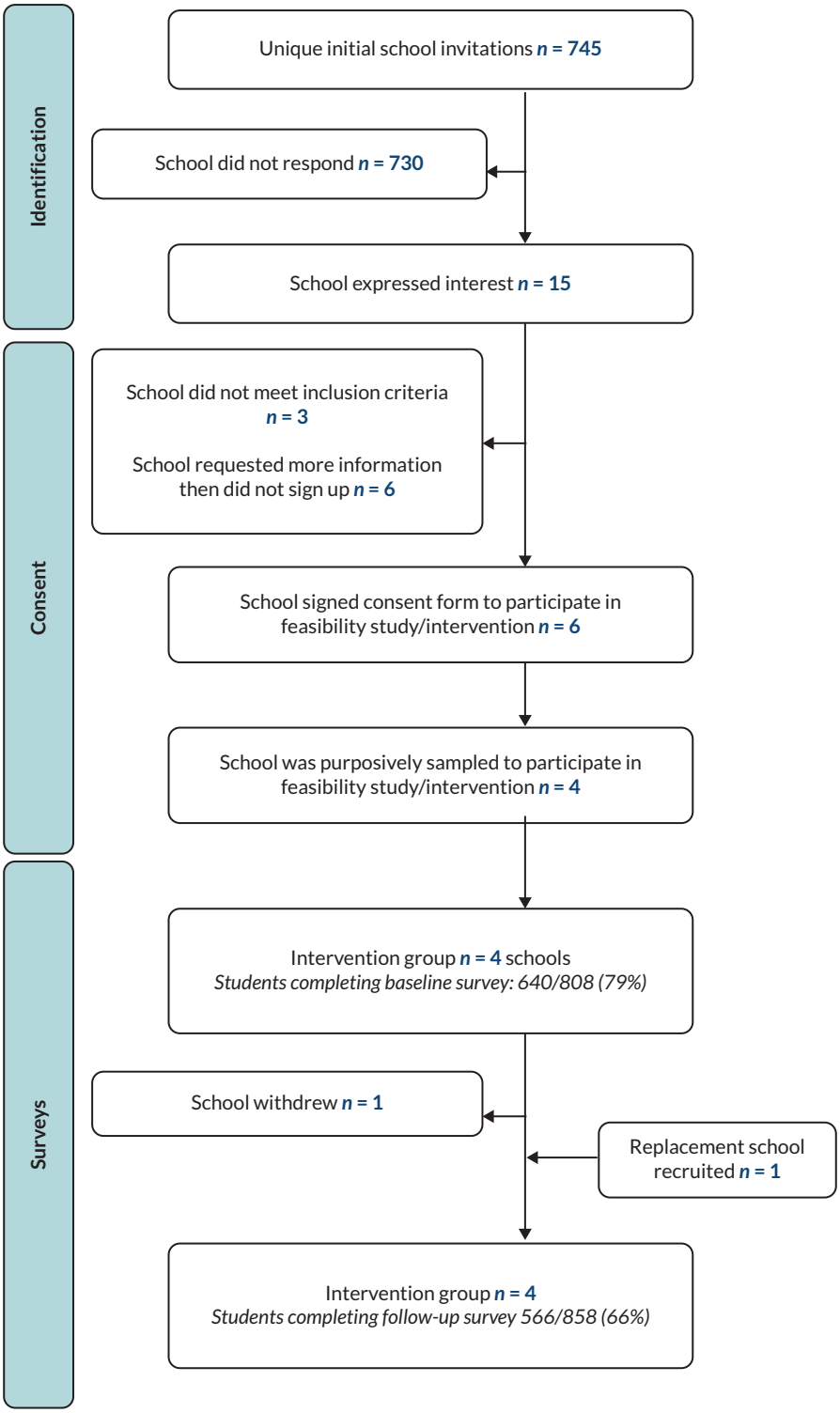

FIGURE 2 School recruitment and participant flow.

Surveys

Baseline year-7 surveys were conducted between 12 July and 11 October 2022. Baseline surveys with study schools 2, 3 and 4 were completed during July 2022. Rail strikes delayed travel to study school 1 and so some students were surveyed on 11 October 2022 when they had started year 8. Response rates ranged from 58% to 91% between schools (*Table 4*). Sixty-seven students submitted incomplete consent forms but completed questionnaires. Review of these in consultation with UCL REC confirmed there was sufficient evidence that 54 of these had consented to participate. Some students did not understand the requirement to tick 15 consent statements. Questionnaires took students 40–45 minutes to complete. There were no concerns or complaints raised about the questionnaire by students, teachers or parents.

TABLE 3 Comparison of study schools with schools in all of England

School characteristic	Study schools[a]			All-England[b]		
	N	Mean (SD)	Median (IQR)	*N*	Mean (SD)	Median (IQR)
School population size[c]	5	1524.0 (256.4)	1488.0 (258.0)	4021	951.8 (478.5)	967.0 (628.5)
Students eligible for FSMs (any time during past 6 years) (%)[d]	5	20.4 (14.1)	14.0 (9.8)	3167	25.0 (13.1)	23.1 (23.0)
	N	%		*N*	%	
Government inspection rating[d,e]	5			3223		
Outstanding	1	20.0		430	13.3	
Good	4	80.0		1989	61.7	
Requires improvement	0	0		389	12.1	
Not available	0	0		342	10.6	
School sex makeup	5			4085		
Mixed sex	5	100		3473	85.0	
Girls only	0	0		379	9.3	
Boys only	0	0		233	5.7	

N, number of schools/students; IQR, interquartile range.
a Includes all four schools which participated in the baseline survey, as well as the additional school which was recruited to replace the school which withdrew from the study after the baseline survey.
b All-England data are for mainstream state-funded and private secondary schools in England that include year 7–11.
c Excludes schools with population size listed as '0'. Schools remaining in the data set include some with small population sizes.
d Statistics for state-funded schools only.
e Proportions for England inspection ratings sum to < 100% because data also include 73 schools (2.3%) categorised as 'serious weakness' or 'special measures'.
Data sources
We used the latest available data as of August–September 2023. Data were taken from the GOV.UK website.[44]

TABLE 4 Survey response rates

Survey	Feasibility study/intervention schools					Total
	1	2	3	4	5	
Overall response rate at baseline, *n*/eligible (%)	179/216 (83)	169/211 (80)	192/210 (91)	100/171 (58)	N/A	640/808 (79)
Overall response rate at follow-up, *n*/eligible (%)	193/213 (91)	N/A	164/180 (91)	97/211 (46)	112/254 (44)	566/858 (66)

N/A, not applicable.

Student queries focused on clarification of language and meaning, which were answered by fieldworkers. Terms sometimes not understood included 'markedly' (as used in the Likert scale included in the EDEQ), and 'full time' and 'part time' in relation to a question on parental work, as used in the Family Affluence Scale (FAS). Some students queried the purpose of the questions included in the FAS. Some students were unsure how to describe their ethnicity. Some students were uncertain about the routing of questions for the SDQ impact supplement. Fieldworkers were able to address these issues.

Fieldwork procedures remained largely unchanged for the follow-up survey of year-10 students. Minor changes included not leaving surveys for absent students and, in agreement with our RECs, modifying the student consent form so this had one tick box for all statements of consent. Follow-up surveys were conducted between 15 June and

17 July 2023. Surveys at schools 1 and 3 were completed in June, but surveys at schools 4 and 5 had to be conducted in the last week of term due to school timetabling challenges. We experienced significant challenges surveying students at school 5 due to organisation and timetabling issues on the day. Surveys held towards the end of the school year in July tended to have higher rates of absenteeism and opting out among students. In particular, the baseline survey at school 4 and follow-up surveys at schools 4 and 5 were all held in the last 5 days of term in late July with 22%, 41% and 24% of students absent from class respectively at the time of these surveys. Year-10 students surveyed in the last 5 days of term at schools 4 and 5 were generally unsettled, with relative higher rates of students opting out of the survey.

Most students completed questionnaires in approximately 30 minutes. There were no concerns or complaints raised about the questionnaire by students, teachers or parents. Students asked very few questions concerning the questionnaire. Guidance concerning the routing of the SDQ impact supplement was updated and no students raised questions about this. There was a 66% response rate with large variation between schools, reflecting the problems described above.

Piloting trial procedures and survey measures

In general, survey instruments performed well at baseline and follow-up (*Table 5*). Proportions of missing data were generally low including for the indicative primary outcome measure. Scales with missing data of 10% or higher at baseline included the FAS, SWEMWBS, EDEQ, GBS and SMFQ. Fieldworker notes indicate that some year-7 students were confused by some of the language in the FAS and EDEQ scales. Scales generally

TABLE 5 Year-7 and year-10 student characteristics

Measures	Year-7 (baseline) survey[a]			Year-10 (follow-up) survey[a]		
	Number or mean	% or SD	Cronbach's alpha	Number or mean	% or SD	Cronbach's alpha
Total *n*	640	100%		566	100%	
Age	11.9	0.36		14.8	0.40	
Missing	9	1.4%		0	0%	
Sex						
Male	328	51.2%		259	45.8%	
Female	306	47.8%		306	54.1%	
Missing	6	0.9%		1	0.2%	
Gender						
Boy	327	51.1%		252	44.5%	
Girl	292	45.6%		301	53.2%	
Non-binary	3	0.5%		4	0.7%	
Other	8	1.3%		7	1.2%	
Missing	10	1.6%		2	0.4%	
Sexual orientation						
Straight or heterosexual	514	80.3%		515	91.0%	
Gay or lesbian	5	0.8%		8	1.4%	
Bisexual	26	4.1%		18	3.2%	
Asexual	9	1.4%		2	0.4%	
Unsure/questioning	37	5.8%		13	2.3%	
Other	10	1.6%		2	0.4%	
Missing	39	6.1%		8	1.4%	

TABLE 5 Year-7 and year-10 student characteristics (*continued*)

Measures		Year-7 (baseline) survey[a]			Year-10 (follow-up) survey[a]		
		Number or mean	% or SD	Cronbach's alpha	Number or mean	% or SD	Cronbach's alpha
Ethnicity							
White		268	41.9%		149	26.3%	
Asian/Asian British		241	37.7%		294	51.9%	
Black/Black British		42	6.6%		42	7.4%	
Mixed ethnicity		33	5.2%		32	5.7%	
Other		16	2.5%		44	7.8%	
Missing		40	6.3%		5	0.9%	
Family structure							
Two parents		488	76.3%		430	76.0%	
Single mother		60	9.4%		55	9.7%	
Single father		5	0.8%		3	0.5%	
Reconstituted		25	3.9%		19	3.4%	
Other		6	0.9%		12	2.1%	
Missing		56	8.8%		47	8.3%	
Parent/guardian in paid work							
Yes		519	81.1%		487	86.0%	
No		24	3.8%		29	5.1%	
Don't know		76	11.9%		39	6.9%	
Missing		21	3.3%		11	1.9%	
FAS							
Total score		8.4	2.35	0.64	8.5	2.68	0.72
Missing		107	16.7%		18	3.2%	
SDQ	'High' level of total problems (%)		24.3			20.5	
	Total score (mean, SD)	12.9	6.7	0.83	12.6	5.9	0.73
	Missing total score (*n*, %)	23	3.6		20	3.5	
	Prosocial subscale (mean, SD)	7.8	1.9	0.70	7.2	1.9	0.64
	Emotional subscale (mean, SD)	4.0	2.7	0.75	3.9	2.7	0.76
	Conduct subscale (mean, SD)	2.1	1.9	0.59	2.0	1.7	0.55
	Hyperactivity subscale (mean, SD)	4.7	2.7	0.78	4.7	2.5	0.74
	Peer subscale (mean, SD)	2.1	1.9	0.63	2.0	1.7	0.60
	Impact score (mean, SD)	1.1	1.9	0.78	1.0	1.8	0.77
Well-being: SWEMWBS	Total score (mean, SD)	22.0	5.1	0.85	21.8	5.2	0.88
	Missing (*n*, %)	77	12.0		48	8.5	

continued

TABLE 5 Year-7 and year-10 student characteristics (*continued*)

Measures		Year-7 (baseline) survey[a]			Year-10 (follow-up) survey[a]		
		Number or mean	% or SD	Cronbach's alpha	Number or mean	% or SD	Cronbach's alpha
Depressive symptoms: SMFQ	Total score (mean, SD)	6.4	6.6	0.93	6.2	6.3	0.93
	High score – no (*n*, %)	451	70.5		414	73.1	
	High score – yes (*n*, %)	117	18.3		102	18.0	
	Missing (*n*, %)	72	11.3		50	8.8	
Anxiety: GAD-7 scale	Total score (mean, SD)	5.9	6.0	0.92	5.7	5.8	0.92
	High score – no (*n*, %)	447	69.8		401	70.8	
	High score – yes (*n*, %)	148	23.1		124	21.9	
	Missing	45	7.0		41	7.2	
Eating behaviour and cognitions: EDEQ	Total score (mean, SD)	7.8	8.0	0.90	8.1	8.3	0.91
	High score – no (*n*, %)	465	72.7		407	71.9	
	High score – yes (*n*, %)	113	17.7		110	19.4	
	Missing (*n*, %)	62	9.7		49	8.7	
Self-harm: HBSC measure	No (*n*, %)	467	73.0		451	79.7	
	Yes (*n*, %)	131	20.5		71	12.5	
	Missing (*n*, %)	42	6.6		44	7.8	
	If yes:						
	Every day/several times per week (*n*, %)	18	13.7		14	19.7	
	Once a week/a few times a month (*n*, %)	29	22.1		17	23.9	
	Once a month/several times per year (*n*, %)	53	40.5		31	43.7	
	Missing (*n*, %)	31	5.2		9	12.7	
Bullying victimisation: GBS	Total score (mean, SD)	0.4	0.5	0.66	0.3	0.5	0.72
	Missing (*n*, %)	120	18.8		79	14.0	
Cyberbullying: (DAPHNE II questionnaire)	No victimisation (*n*, %)	522	81.6		461	81.4	
	Any victimisation (*n*, %)	67	10.5		63	11.1	
	Missing victimisation (*n*, %)	51	8.0		42	7.4	
	No perpetration (*n*, %)	525	82.0		425	75.1	
	Any perpetration (*n*, %)	67	10.5		91	16.1	
	Missing perpetration (*n*, %)	48	7.5		50	8.8	
Substance use: smoking in last month	No (*n*, %)	584	91.3		496	87.6	
	Yes (*n*, %)	11	1.7		22	3.9	
	Missing (*n*, %)	45	7.0		48	8.5	
	If yes:						
	Once or twice (*n*, %)	1	0.2		13	2.5	
	About once a week or more (*n*, %)	1	0.2		5	1.0	
	Missing (*n*, %)	9	1.5		4	0.8	

TABLE 5 Year-7 and year-10 student characteristics (*continued*)

Measures		Year-7 (baseline) survey[a]			Year-10 (follow-up) survey[a]		
		Number or mean	% or SD	Cronbach's alpha	Number or mean	% or SD	Cronbach's alpha
Substance use: drunk alcohol in last month	No (*n*, %)	570	89.1		467	82.5	
	Yes (*n*, %)	23	3.6		49	8.7	
	Missing (*n*, %)	47	7.3		50	8.8	
	If yes:						
	Once or twice (*n*, %)	12	2.0		33	6.4	
	About once a week or more (*n*, %)	3	0.5		11	2.1	
	Missing (*n*, %)	8	1.3		5	1.0	
Substance use: offered drugs	No (*n*, %)	549	85.8		403	71.2	
	Yes, but didn't try (*n*, %)	33	5.2		83	14.7	
	Yes, and did try (*n*, %)	8	1.3		23	4.1	
	Missing (*n*, %)	50	7.8		57	10.1	
Substance use: cannabis	Tried in the last month (*n*, %)	1	0.2		13	2.6	
	Tried longer than last month (*n*, %)	1	0.2		4	0.8	
	Not selected (*n*, %)	6	1.0		6	1.2	
Substance use: glue/solvent	Tried in the last month (*n*, %)	2	0.3		9	1.8	
	Tried longer than last month (*n*, %)	2	0.3		5	1.0	
	Not selected (*n*, %)	4	0.7		9	1.8	
Substance use: other drugs	Tried in the last month (*n*, %)	4	0.7		6	1.2	
	Tried longer than last month (*n*, %)	0	0.0		6	1.2	
	Not selected (*n*, %)	4	0.7		11	2.2	
Beyond Blue School Climate Questionnaire	Total score (mean, SD)	3.1	0.4	0.93	2.9	0.5	0.92
	Missing (*n*, %)	6	0.9		7	1.2	

a Due to study school 2 dropping out of the study after the baseline survey, schools included in the baseline survey are different to schools included in the follow-up survey. Schools surveyed in the baseline are study schools 1, 2, 3 and 4. Schools surveyed at follow-up are study schools 1, 3, 4 and 5.

demonstrated good interitem reliability. This is reported in detail elsewhere.[28]

Safeguarding

Safeguarding concerns were raised for four students during baseline surveys: one was upset and spoke of homophobic bullying they had experienced; two were not distressed but spoke of bullying and self-harming they had experienced; and one became very distressed, worrying that their responses would be shared with their social worker. Analysis of handwritten responses on questionnaires identified safeguarding concerns relating to two other students who reported self-harm. All these students were referred to school safeguarding leads. Analysis of handwritten responses on follow-up questionnaires identified safeguarding concerns for one student who reported the impact of bullying they had experienced, and who was referred to the school safeguarding lead.

Serious adverse events

No SAEs were reported by study schools.

Process evaluation

Quantitative data

Quantitative data collected are summarised in *Table 6*.

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TABLE 6 Overview of process evaluation data collection activities

Study component	Data collection activity	School 1	School 3	School 4	School 5[a]
Curriculum staff training	Audio-recording and observation, *n* (% target)	1 (100)			0 (0)[b]
	Fidelity check of training, *n* (% target)	1 (100)			0 (0)[b]
	Curriculum trainer logbook collection, *n* (% target)	1 (100)			0 (0)[b]
	Trainee survey, *n*/*N* (%)	3/5 (60)	5/7 (71)	6/7 (86)	0 (0)[b]
Curriculum teaching to year-8 students	Observation of one session per school, *n* (% target)	0 (0)[c]	1 (100)	2 (200)	1 (100)
	Fidelity check of session observed *n* (% target)	0 (0)[c]	1 (100)	2 (200)	1 (100)
	Number of lessons taught	2[c]	6	6	3
	Number of teachers delivering these lessons	1[d]	1	7	8
	Logbook collection, *n* (%)				
	Lesson 1	1 (100%)[d]	1 (100%)	3 (43%)	4 (50%)
	Lesson 2	1 (100%)[d]	1 (100%)	2 (29%)	4 (50%)
	Lesson 3	N/A	1 (100%)	2 (29%)	4 (50%)
	Lesson 4	N/A	1 (100%)	2 (29%)	N/A
	Lesson 5	N/A	1 (100%)	1 (14%)	N/A
	Lesson 6	N/A	1 (100%)	0 (0%)	N/A
RP training: all-staff[e]	Audio-recording and observation, *n* (% target)	1 (100)	1 (100)	1 (100)	1 (100)
	Fidelity check, *n* (% target)	1 (100)	1 (100)	1 (100)	1 (100)
	Trainer logbook collection, *n* (% target)	1 (100)	1 (100)	1 (100)	1 (100)
	Trainee survey, *n*/*N* (%)[f]	43/85 (51%)	28/56 (50%)	32/101 (32%)	22/45 (49%)
RP training: in-depth	Audio-recording and observation, *n* (% target)	1 (100)			
	Fidelity check, *n* (% target)	1 (100)			
	Trainer logbook collection, *n* (% target)	1 (100)			
	Trainee survey, *n*/*N* (%)	4/5 (80)	2/2 (100)	3/3 (100)	2/2 (100)

TABLE 6 Overview of process evaluation data collection activities (*continued*)

Study component	Data collection activity	School 1	School 3	School 4	School 5[a]
RP implementation	Logbook collection	5/5 (100)	2/2 (100)	2/3 (67)	2/2 (100)
AG	Observation, *n* (% target)	2 (200)	2 (200)	2 (200)	1 (100)
	Logbook collection, *n*/*N* (% receipt)	6/6 (100)	5/5 (100)	6/6 (100)	3/3 (100)
	AG participant survey, *n*/*N* (%)	9/17 (53)	11/16 (69)	5/10 (50)	5/8 (63)
Other: school	SLT survey, *n*/*N* (%)	3/6 (50)	7/9 (78)	11/12 (92)	9/9 (100)

a Refers to the replacement school, as school 2 withdrew from the study after the baseline survey and did not participate in any training or intervention implementation.
b The curriculum training was conducted online over 2 days. This school did not attend the online curriculum training as they joined the study later than schools 1, 3 and 4. Instead, teachers who would teach the curriculum lessons viewed video recordings of the training. A satisfaction survey was therefore not distributed as they did not attend the training, and the trainer log was not completed.
c This school only delivered two of the six lessons, and these were delivered by one teacher to half the cohort. The third lesson which was to be observed by the research team was not delivered due to teacher strikes and therefore could not be observed. The remaining lessons could not be scheduled due to timetabling challenges.
d One teacher at school 1 taught two lessons to half of the cohort and logbooks for both these lessons were collected. Another teacher was to teach lessons to the remaining half of the cohort, but those lessons could not be scheduled by the school due to timetabling challenges. A logbook was not provided to this teacher.
e This training was conducted online. The training session for schools 1 and 4 were conducted together, while schools 3 and 5 had their own training sessions each.
f *N* refers to the total number of participants who recorded their attendance through the chat function for this online training.

Intervention fidelity and progression are described in detail elsewhere.[27] The all-staff and in-depth RP training were implemented with fidelity in all schools and all schools had at least two staff trained in-depth in RP, thereby meeting the relevant progression criterion. Curriculum training was delivered with fidelity in three of four schools. As the fourth school viewed recorded videos for its training, we were unable to assess fidelity. Curriculum training was not part of the progression criteria. The response rate to the baseline (needs) survey across the three participating schools was 79%. Progression required at least two schools to have a > 60% response rate. As two of the three schools completing the survey achieved over an 80% response rate, this was achieved. AGs were implemented with fidelity. Two schools held six meetings, one had five and one had three over the school year. Progression required at least two schools to have held three or more AGs and so was met. AG student membership was diverse by gender at all four schools. The ethnic diversity of student AG membership at three of the four schools reflected diversity within the schools. AGs at all four schools completed one or more locally decided actions and chose at least one action from the menu of evidence-based options. Progression required at least two schools to have completed at least one action and at least two schools to have chosen at least one option from the menu, which was achieved.

Restorative practice was implemented in all schools. Three had at least two trained staff and the fourth had one staff-member regularly implementing informal RP meetings and regularly using restorative language. Three of four schools reported using formal RP meetings for more serious conflict. Progression required at least two schools to have at least two trained staff regularly implementing RP, which was achieved. Of lessons observed or lessons for which staff completed logbooks, delivery was implemented with fidelity. However, two schools delivered half or less of recommended lessons and not all teachers completed logbooks. Progression required at least two schools to have delivered the curriculum with at least 50% fidelity, which was achieved because one of the two schools which delivered the curriculum reported over 80% fidelity and the other school reported over 75% fidelity.

All students and staff across all four schools who completed the AG survey, and 93% of SLT members who completed the SLT survey, reported that LTMH was a good way to promote student mental health. Progression required at least two schools to have over half of AG and SLT members find the intervention acceptable, which was achieved. Thirty-nine per cent of students reported definite awareness of actions to improve their mental health being undertaken by their school. Awareness that their school had recently taken action to improve mental health and of student involvement in AGs did not vary by gender. More girls reported staff responded to conflict using restorative approaches. More boys reported understanding what is meant by RP. There were no major differences in intervention awareness by family affluence, and low numbers in some categories meant we could not assess differences by sexual orientation or ethnicity.

Qualitative data

Qualitative data collected are summarised in *Table 7*.

Qualitative research with staff and students

We summarise findings from the qualitative research with staff and students, which are reported in detail

TABLE 7 Overview of qualitative research

Data collection activity	School 1	School 2	School 3	School 4[a]
FGD/interview with teachers, number of staff-members	3	5	6	6
FGD with students year 8, *n* (% target)	1 (100)	1 (100)	1 (100)	1 (100)
FGD with students year 10, *n* (% target)	1 (100)	1 (100)	1 (100)	0 (0)
Interview with curriculum trainer, *n* (% target)	1 (100)			
Interview with RP trainer, *n* (% target)	1 (100)			
Interview with AG facilitator, *n* (% target)	1 (100)			

a This was a replacement school, replacing a school which withdrew from the study after the baseline survey and did not participate in any training or intervention implementation. In other papers from this study, schools 1–4 are labelled as 1 and 3–5 reflecting the dropout of the original school 2.

elsewhere.[26] We then report in more detail on interviews with intervention trainers and the facilitator.

Staff and student accounts suggest it was both feasible and acceptable to implement LTMH. The intervention was initiated in the autumn term. The short lead-in time between initiation and implementation hindered schools' capacity to mobilise the time and human resources needed for implementation. There was also uncertainty among some staff about how intervention components should work together. The RP in-depth training provided staff with skills in communication and rapport for implementing RP. In-person delivery of the in-depth RP training was the preference of most participants. The RP all-staff training provided a useful introduction, but some participants were disappointed that it did not provide them with skills in running RP conferences.

Action groups provided a good structure and process for schools deciding and implementing actions. The external facilitation helped schools keep on track and focused on action. The needs-assessment report helped AGs develop an appreciation of student needs, but this was sometimes undermined by members' difficulty interpreting the reports. RP made sense to participants and was something they were happy to commit to delivering. However, some students saw RP as not taking enough action against those doing harm. Curriculum delivery was the most challenging component. Although students generally liked the lessons, the curriculum was regarded by many staff and some students as being more suitable for younger students. Among some students it was perceived as insufficiently diverse in its engagement with student ethnicity. Staff suggested incorporating parental information or involvement to encourage parents to support the intervention and support similar learning at home.

In terms of context, our data suggested that institutional management capacity and culture were critical for implementation. All components required good capacity, sufficient time and material resources. Schools struggled to release staff for training if they had insufficient cover. AGs worked best when chaired by a committed senior leader and well supported administratively. AGs also worked best where there were already norms supportive of prioritising student and staff mental health.

Restorative practice implementation was supported by trained teachers having the time to convene RP meetings. RP was also supported by teachers being able to model the behaviour expected of students. Implementing the curriculum was dependent on timetable space and teachers accessing the material resources needed, and by teachers being committed to teaching the topics and having good rapport with students. Schools were unlikely to value the curriculum if they already covered the same topics in their existing personal, social and health education provision.

In terms of possible mechanisms, our data suggest that AGs could enhance staff/student relationships and build student sense of school belonging among those on the AG. However, our participants disagreed about whether the work of the AG could achieve such impacts among other students. Staff were enthusiastic about RP's potential to improve staff/student communication and give staff the confidence and systems for resolving conflict. Staff thought RP could promote healing and reintegration among those in conflict. Staff and student accounts suggest the curriculum could provide students with emotional-management techniques, promote emotional literacy and increase empathy. Staff suggested that SEL lessons could reduce stigma and isolation among students experiencing mental health challenges, promote inclusivity and decrease harmful banter. Participants reported no harms arising from LTMH.

Interviews with curriculum trainer

The trainer believed that selecting the right teachers to deliver the curriculum was critical. The teacher would need to believe that teaching these skills was important and want to teach it:

> *I think one of the most important factors was the choice of the teacher . . . so you know the recruitment of staff to teach these lessons in my view is absolutely crucial key to the ingredients of how successful it is. Because they've got to want to do it or believe it's important enough to like learn about it, at least.*

The trainer felt that not having the right teacher deliver the content could be counter-productive and have a negative impact on students' learning of emotional resilience.

The curriculum trainer noted that the location and mode of training were critical. She felt that training held online was not as successful as that in-person:

> *I believe that training on Zoom is never as successful as training in person. The fact that you can hide behind, like turn off your camera, you can have a conversation with somebody while I'm talking, you can literally do whatever you want and just not really pay attention at all. You've got no sort of face to, you know. I feel like you can get about 20 to 30% of them in a room, even if they*

> *weren't engaged in the first place, you can switch them. But with zoom, you can never switch someone.*

She also felt that conducting online training while staff were at school was challenging, as it meant staff attention was divided between the needs of the school and the training. However, if the training were being conducted at school and online, having participants in a room together was better than attendance from individual desks. The trainer explained that this was because it allowed for discussion and reflection among participants, and minimised the potential for disturbance.

The trainer believed that the curriculum helped improve mental health via two main mechanisms. The first was teaching self-awareness of sensations, feeling and thoughts, explained as follows:

> *What we are doing through the training is teaching people how to become more self-aware of their bodily sensations, their feelings, how they think, what that thinking means, how to challenge that thinking. All of that is about self-awareness. So the more self-aware we are, the more we can actually go 'Ah, okay, this is what's going on and this is what I need to do, to sort of support myself in this particular moment, because this particular moment is really difficult'.*

The second was providing a set of tools to overcome challenging emotions and thoughts, and thereby build resilience. The trainer felt that key to this process was to introduce these tools early on to students so they can be used preventively.

Interview with restorative practice trainer

In-depth training

The RP trainer felt that conducting the in-depth training for staff in their schools presented too many distractions. A neutral venue outside school was preferable. The trainer emphasised that this should be a good venue so that participants felt valued and ready to learn. The trainer also noted many benefits of in-person over online training. Most importantly, skills practice was not easy to do online and therefore not enough skills training was possible on day 3 of the training that was held online.

> *For me ideally three days, everyone together, face to face in a room, immerse them in it, is the way to go . . . Really it would have been nice to be doing day three face to face, in which case we'd have done more of the skills stuff.*

The trainer felt that the training was appreciated by most participants as evidenced by positive e-mail contact received from participants following the training.

Feasibility of restorative practice in schools

The trainer believed that RP could be implemented successfully at any school with significant benefits. He felt that support from headteachers and SLTs was key to implementation. They set the culture of the school by modelling the practices themselves and their support was critical to adoption of RP through the school:

> *It's going to be the attitude to senior leadership to actually . . . If they're fully behind it that will make a difference.*

The trainer commented that RP at schools which focused primarily on academic performance with less importance given to connection and relationships was less likely to have impact compared to schools where relationships were actively promoted. Schools with behaviour policies focusing on what students can do and positive expectations were also much more likely to have a positive impact than schools that focused on negative consequences.

Similarly, the trainer felt that the attitude of staff-members and their existing relationships with students would influence how quickly they were able to adopt RP approaches. The trainer felt that staff who were more used to punitive and less relationship-centred approaches were less likely to adopt RP, but that change was possible:

> *There's some examples, you've had massive turnround from some staff, who have been seen as overtly punitive and not very pleasant and all of a sudden have changed their approach and people are going 'Wow, that's massive'. That in itself then is a massive impact.*

Finally, the trainer stressed the importance of communicating the approach with other school stakeholders, such as parents, governors and other partner agencies.

Possible restorative practice mechanisms

The trainer noted that RP provided an opportunity for expression, facilitating this through questions:

> *I think by the very act of asking them the questions and, most importantly, listening to what the voices have got to say, listening to what they are saying to us. But also encouraging them to be able to express it, name it.*

The trainer emphasised the solution-focus of the RP approach, which encouraged and empowered people

to solve problems. However, this required allowing expression and truly listening:

> *Start to put the responsibility back onto people, to thinking 'Okay, I'm not just sat in a problem, but what am I going to do about it? What can I do about it?' It's about empowering people and giving focus to the idea that actually the problem is not the be all and end all, there's got to be a way out of it as well.*

The trainer thought that the act of bringing people together to have conversations was also valuable, in that it provided an education on other people's perspectives and responses that may be different from one's own:

> *A wider aspect is that when you are encouraging conversations between people, they are also going to hear other peoples' perspectives of where they are at, you know other peoples' perspective on them, or other people's perspective on what they've done.*

Potential harms and mitigation

The key potential harm from the intervention noted by the trainer was carrying out the RP without adequate preparation or not doing it properly, often due to lack of time, training or interest. The trainer explained that, if not done properly, RP ran the risk of retraumatising victims:

> *Not very often. But what I've seen adults do is take these restorative processes and apply them to kids, rather than working with them. And it gives the potential to revictimize within bullying, the potential to retraumatise people if they don't do it properly. What they will have been told is they've got to do this, they've got to make those two have a conversation. So that's what they'll have done and everything else that we talk about in terms of getting people ready to come together for that, is forgotten and not followed up on.*

The trainer suggested stressing the importance of quality from the outset (of the training) to minimise the potential for this harm.

Interview with action group facilitator

Action group implementation

The facilitator was supportive of the intervention and its acceptability within schools. He explained that bringing students and staff together was a very valuable part of the programme:

> *The participants of both staff and students are on an equal footing and I really love that about this, because I think often my experience of student voice is that it can be great, but it can end up sort of you said, we did, kind of thing. It still feels a bit us and them.*

The facilitator reported that students found the AG meetings enjoyable and meaningful:

> *I found it really powerful in the final session when we got some verbal reflection from young people. And one young person said, well this is how I heard it, the best thing about the project has just been to know that some adults care enough about our mental health to hold these meetings.*

The facilitator felt that the culture of the school and management style of the AG chair had a great influence on the processes and success of AGs. The facilitator noted some challenges in terms of school culture and the time available. He explained that teachers were often used to meetings being quite directive. Changing the power dynamics so teachers practised more active listening could therefore be difficult in some schools. The facilitator suggested that enabling this process was a key role for the facilitator. With respect to time, the facilitator noted the challenge that there were only a few meetings over the course of the year, each relatively short, to build relationships and trust.

The facilitator also noted that two schools were visited by government inspectors during the study, which caused disruptions to implementation at both schools for a few months. Additionally, for one of the schools, a lower judgement from government inspectors than previously obtained led to an erosion in confidence through the school, especially among students. He noted that this directly impacted the AGs and actions being implemented, which had been participatory and student-led until that point.

Suggested intervention refinements

The facilitator suggested some refinements to LTMH overall and some specifically to AGs. Regarding LTMH overall, he believed the curriculum component should be optional as many schools already had existing PSHE resources. He suggested instead reviewing the existing PSHE curriculum for each school at the start of the study and filling any gaps by linking them to curriculum resources. He also noted that, although the various LTMH elements are complementary, they did not feel integrated in the schools. Each component seemed to run as separate programmes, which then got in the way of each other as staff time and attention were divided. For example, the facilitator said it was difficult to organise AGs once the

RP training had begun as teachers did not have the time for AGs in addition to RP. He suggested structuring the programme to begin with RP training, followed by AGs:

> *I wonder if the restorative element would be useful coming upfront, because then it begins to address, gives staff training in terms of relationships [including] the kind of relationships that are relevant . . . to a participatory action group . . . I wonder if that would be a helpful starting point and that the action group could fruitfully flow out of that.*

To help with integration and overall planning, the facilitator also suggested ensuring schools understood all the elements of the programme and the timelines at the outset.

Regarding the AGs, the facilitator felt that being able to implement an action early on was really helpful to the group. Given that well-being clubs were easy to fit into the culture of most schools, easy to implement and were an action chosen at two of the four study schools, he suggested incorporating them in the study design as something for all AGs to begin with. The facilitator also suggested regularly reviewing and updating the evidence-based actions listed in the manual.

Possible intervention mechanisms

The facilitator suggested three ways that LTMH might work to improve mental health in schools. First, he believed that LTMH had the potential to change the culture in schools to one where it was more acceptable to be open and talk about mental health and develop emotional literacy. He believed this was achieved in part by raising the profile of mental health in schools in an integrated and potentially sustainable way, going beyond merely instituting mental health awareness days. Second, he thought LTMH provided an opportunity for AG students and staff to put actions in place to promote mental health. While they previously may have wished to do so, they may not have felt equipped. Finally, he thought LTMH promoted a sense of belonging, by providing a voice to students within the group, and providing ownership over decisions and implementation of actions:

> *Having a voice, having some ownership of the decisions and some ownership of the actions, but also having an opportunity to do stuff. The kids who were able to be part of the wellbeing group for example, you know, were really happy to be part of that. It gave them a lot of pleasure to be doing something that made a difference, you know. Or being able to do an event in children's mental health week.*

Potential harms and mitigation

While the facilitator did not foresee any specific harms arising from LTMH, he felt that teachers must not be forced to discuss mental health if they did not wish to:

> *For me it's about acknowledging, you know, that range of staff. I think kids are great at smelling a rat and if staff are faking an interest in mental health, they can tell . . . But I suppose what we are doing is developing skills and capacity of those staff who are engaged and want to develop those skills.*

TABLE 8 Teacher hours associated with training and delivery of the intervention

Resource	School 1 Teacher hours	2 Teacher hours	3 Teacher hours	4 Teacher hours	Average teacher hours
Bounce Forward training	40	55	54	94	61
RP intro training[a]	85	96	101	68	88
RP in-depth training	86	30	55	17	47
AG meetings	31	39	27	5	26
Preparation time and follow-up	27	21	18	6	18
Additional lessons	19	56	53	32	40
Total (teacher hours)	288	296	308	221	278

a Includes teaching assistants.

Economic evaluation

Table 8 reports the teacher hours associated with training and delivery of the intervention in each school. The component that took the most teacher time was the RP training. The intervention took an average of 278 hours of teacher time per school.

Table 9 reports the training, facilitator and staff costs associated with delivery of the intervention. The average external costs including training, facilitation and the curriculum were £7283 per school. The average amount of school staff cost associated with the intervention was £8411.

Report Supplementary Material 1, Supplementary Files 48–51, provides data on costs of student service use. Fieldwork notes indicate that students completed questions on service use without any problems. The supplementary files indicate that missing data varied between items and tended to be highest for questions about use of school nurses, general practitioners and pharmacists, suggesting that some students may not have understood these terms.

Table 10 presents the CHU-9D results at baseline (year 7) and follow-up (year 10). These data indicate that there were some missing data at baseline but much less at follow-up.

TABLE 9 Training, facilitator and school staff costs associated with delivery of intervention

		School				
		1	2	3	4	
Resource		Cost (£)	Cost (£)	Cost (£)	Cost (£)	Average cost (£)
External costs	Facilitation of AGs (Place2Be)	3128	3128	3128	3128	3128
	Curriculum training	1470	1470	1470	1470	1470
	RP training (intro and in-depth)	2685	2685	2685	2685	2685
School staff costs	Curriculum training	1320	1799	1766	3086	1993
	RP intro training	2191	2475	2604	1160	2108
	RP in-depth training	2830	990	1807	569	1549
	AG meetings	1023	1287	902	165	844
	Preparation time and follow-up for AG meetings	895	681	606	198	595
	Additional lesson	634	1848	1756	1056	1324
Total external cost		7283	7283	7283	7283	7283
Total school staff cost		8893	9079	9439	6233	8411
Total cost (£)		16,175	16,362	16,722	13,516	15,694

TABLE 10 Child Health Utility-9 Dimensions utility scores – baseline and follow-up

	School								Total	
	1 *N* = 179 (baseline) *N* = 193 (follow-up)		2 *N* = 192 (baseline) *N* = 164 (follow-up)		3 *N* = 100 (baseline) *N* = 97 (follow-up)		4 *N* = 169 (baseline) *N* = 112 (follow-up)		Total *N* = 640 (baseline) *N* = 566 (follow-up)	
CHU-9D	Mean (SD)	*n*	Mean (SD)	*n*	Mean (SD)	*n*	Mean (SD)	*n*	Mean (SD)	*n*
Baseline (year 7)	0.84 (0.11)	141	0.86 (0.12)	155	0.84 (0.14)	70	0.82 (0.14)	141	0.84 (0.13)	507
Follow-up (year 10)	0.84 (0.11)	188	0.83 (0.13)	159	0.84 (0.12)	94	0.88 (0.11)	79	0.84 (0.12)	520

Discussion

Summary of key findings

We elaborated our initial plans for LTMH to produce an intervention supported by full materials, training and external facilitation. Reviews of existing evidence were useful in informing the questions on mental health included in the needs-assessment survey and developing the menu of evidence-based actions. PPIE was useful in informing refinement of LTMH to ensure its feasibility and acceptability, though not all recommendations could be implemented, for example when they ran counter to the evidence or were not feasible. This matter is considered in detail in another paper.[24]

Our low-intensity strategy successfully recruited four schools. However, one dropped out of the study prior to intervention delivery, and we replaced this with another matching our purposive criteria but too late to complete a baseline survey. Study schools were larger, slightly lower on FSM entitlement and higher on government inspection rating than others in England. At baseline, response rates per school ranged from 58% to 91%. Follow-up surveys were challenging for very school-specific reasons in two schools and response rates per schools ranged from 44% to 91%. The response rate to the baseline (needs) survey across the three schools that participated in the baseline survey was 79%. The progression criteria (*Table 11*) required at least two schools to have a > 60% response rate to the baseline survey. As two of the three schools that completed the baseline survey achieved over an 80% response rate, this progression criterion was met. Trial and survey operating procedures, as well as indicative outcome measures, were feasible to implement and appeared acceptable. The low response rates in two schools reflected local challenges with timetabling. The challenges which resulted in low response rates in some schools can be avoided in a future Phase III trial by conducting surveys earlier in the school year. Attendance data from primary and secondary schools in England indicate absenteeism is highest on Fridays and in the last week of the autumn term.[57–59] Response rates could be improved if baseline and follow-up surveys were not scheduled in the last weeks of term, on Fridays or near mock General Certificate of Secondary Education (GCSE) exams.

With the exception of challenges identified with the year-7 consent form, consent procedures worked well. In line with previous research,[60] minimal distress was observed among year-7 students at baseline and no distress observed among year-10 students at follow-up. In general, survey instruments performed well at baseline and follow-up. Proportions of missing data were generally low including for the indicative primary outcome measure. Scales generally demonstrated good interitem reliability. Safeguarding standard operating

TABLE 11 Summary of progression criteria

Topic	Indicator	Pass criteria	Result	Notes
Intervention feasibility	Response rate at baseline survey	Two schools have response rate of 60% or more	Pass	Three of four schools have response rate of 60% or more
Intervention feasibility	Number of AGs	Two schools to have three or more AGs	Pass	All schools had three or more AGs
Intervention feasibility	Number of staff who had intensive RP training	Two schools to have trained two or more staff	Pass	All schools trained two or more staff
Intervention feasibility	Number of locally decided actions completed	Two schools to have completed one or more locally decided actions	Pass	All schools completed one or more locally decided actions
Intervention feasibility	Number of trained staff regularly implementing RP	Two schools to have two or more staff regularly implementing RP	Pass	Three of four schools had two or more staff regularly implementing RP
Intervention feasibility	Curriculum	Two schools to implement curriculum with 50% or more fidelity	Pass	Two of four schools implemented curriculum with 50% or more fidelity
Intervention feasibility	Actions from menu of evidence-based actions	Two schools to choose one or more action from evidence-based menu	Pass	All schools chose one or more action from evidence-based menu
Intervention feasibility	Feedback from AG and SLT members	Two schools to have 50% or more of AG and SLT members find intervention acceptable	Pass	All schools had 50% or more of AG and SLT members find intervention acceptable
Trial feasibility	Response rate at follow-up survey	Two schools to have response rate of 60% or more	Pass	Two of four schools had response rate of 60% or more

procedures were implemented successfully and no SAEs were reported.

In line with our previous studies of LT,[61,62] our process evaluation found that LTMH was feasible to implement and acceptable to school staff, students, trainers and facilitators. Training and implementation proceeded with fidelity and the progression criteria for a Phase III trial were met. RP training was implemented with fidelity in all schools and all schools had at least two staff-members trained in-depth, thus meeting the progression criterion. Curriculum training was implemented with fidelity in three of four schools. However, fidelity was poor in one school. AGs were implemented with adequate but not total fidelity. Two schools held six meetings, one held five and one held three, thereby meeting the progression criterion for number of AG meetings, which required at least two schools to have held three or more AGs. All AGs completed at least one locally decided action and chose at least one action from the menu of evidence-based options, meeting progression criteria.

Restorative practice was implemented across all schools. Three schools had at least two trained staff-members and the fourth had one staff-member regularly implementing RP, meeting progression criteria. The curriculum delivery criterion, that at least two schools delivered the curriculum with at least 50% fidelity, was met. One school delivered the entire curriculum reported over 80% fidelity and another reported over 75% fidelity. All students and staff completing the AG survey and 93% of SLT members completing the SLT survey reported LTMH was a good way to promote student mental health, meeting the progression criterion.

Qualitative data suggested that it was feasible and acceptable to implement LTMH. AGs and RP were highly workable and supported by staff. External facilitation and most training were well received. Contextual factors promoting feasibility included: school capacity and resources; sufficient staff to provide cover for colleagues attending training; AGs being chaired by a committed senior staff-member; AGs supported by good scheduling and administration; existing school norms supportive of prioritising student and staff mental health; availability of dedicated time for teachers to hold restorative meetings; ability of teachers to model the behaviour expected of students; timetable space for the curriculum; and teachers having access to curriculum resources and being committed to teaching the subject matter. Barriers to feasibility suggested by qualitative research were: the short lead-in time hindering school capacity to prepare for implementation; staff uncertainty of how LTMH components should work together; the RP introductory training not meeting some participants' expectations of preparing them for restorative conferences; some staff's difficulty understanding the needs-assessment report; and some students scepticism about RP. These findings echo those of previous studies.[63] There were mixed feelings about the curriculum with some schools already having SEL lessons with which they were satisfied, and some finding the materials suitable for students younger than year 8 and insufficiently inclusive. Staff also suggested including parental engagement or information.

Qualitative research supported the theory of change that: AGs could improve staff/student relationships and build school belonging; RP could improve staff–student communication and help staff resolve conflict; and the curriculum could promote student social and emotional skills (and potentially also reduce the stigma and isolation associated with mental health problems and promote inclusivity). The RP trainer felt that promoting equality in process, perspective-taking and having a solution-focus are all essential elements of RP and part of the intervention mechanisms of action. The AG facilitator also believed that AGs empowered students to take action and initiate change, while a FGD with students suggested that student voice being taken seriously was empowering. No participants reported harms resulting from LTMH. The trainers and facilitator stressed the importance of those delivering RP and SEL lessons being committed and well trained in order to avoid inadvertent harms. The RP trainer suggested that carrying out RP without adequate training or preparation could cause harm, risking re-traumatising victims. These risks could be mitigated by proper selection and training of the teachers delivering these interventions.

The economic evaluation methods were feasible. The intervention took an average of 278 hours of teacher time per school. The component that took the most teacher time was the RP training. The average external costs including training, facilitation and the curriculum were £7283 per school. The average amount of school staff cost associated with the intervention was £8411. Students completed questions on service use without problems, suggesting that these were clear to them. The CHU-9D measured performed well. There were some missing data at baseline but much less at follow-up.

Limitations

Our PPIE was nearer the consultation than the co-production end of this spectrum. The research team maintained control over final decisions,[30] but participant views did influence how we refined LTMH. We had planned for the school involved in PPIE to be above average in

student FSMs but as a result of a last-minute replacement of a school dropping out of PPIE, this was not achieved.

Our study of the feasibility of the intervention and study methods was non-randomised and so could not assess the feasibility of recruiting schools to or retaining schools within a randomised trial, but numerous previous studies suggest this is highly feasible. The schools participating in this feasibility study may not be representative of those which we would recruit to a Phase III trial but were diverse in terms of likely influences on the feasibility. Some concepts in our theory of change, such as self-esteem and warm relationships, though important were not empirically measured as outcomes or mediators. Some aspects of our process evaluation had suboptimal response rates, but this was unlikely to have significantly biased our findings. Our qualitative research struggled to recruit students involved in AGs or RP because schools did not select these for this aspect of our research but were supportive of the intervention. In consequence, the qualitative research could not examine student accounts of these elements. Although no SAEs were reported by study schools, schools struggled to engage with SAE reporting.

Our study and intervention largely succeeded in its goals of being inclusive. However, the school originally selected to participate in PPIE matched our criteria regarding a high rate of FSM entitlement but when it dropped out was replaced with a school with below-average FSM entitlement. Study schools were slightly lower on FSM entitlement and higher on government inspection rating compared to schools in all of England. Among some students, the curriculum was perceived as insufficiently diverse in its engagement with student ethnicity.

Implications for research and policy

It is possible to refine interventions and elaborate them to provide full materials and support via processes drawing on evidence review and PPIE.

Our findings support progression to a Phase III trial for the LTMH intervention. LTMH appears potentially superior to the previous LT intervention in terms of: AGs using evidence of not only need but also effectiveness to select actions; and the SEL curriculum being more evidence-based and acceptable. Given the effectiveness of LT across multiple student outcomes in the domains of mental health, bullying, substance use and educational attainment, this bodes well for the potential effectiveness of LTMH.

Some intervention components had challenges with fidelity of delivery in some schools. This likely reflected school challenges with a multicomponent intervention that required staff commitment and timetable space. Our study suggests the following intervention refinements: start-up meetings and initial training should explain the overall structure and theory of change of the intervention to broaden staff buy-in; AGs should begin only after such training; training when feasible should be done face to face; in-depth RP training of selected staff should precede introductory training for other staff; the needs-assessment report should be made easier to understand; the intervention should include work with students to explain RP and that it is not a soft option; the curriculum should be an optional component suitable for schools lacking adequate coverage of mental health in PSHE lessons; curriculum materials should be adapted for use with older students and be more inclusive; and the intervention should include parental information.

Our study suggests the following study refinements: conducting baseline surveys and ensure allocation and start-up in the spring term prior to implementation; avoid scheduling baseline or follow-up surveys in the last weeks of term, on Fridays or near mock GCSE exams; ensure that all concepts theorised as mediators or outcomes are subject to empirical assessment; place CHU-9D earlier in questionnaires to improve completion rates; and, where there were challenges with student comprehension for measures such as FAS, EDEQ and measures of student use of some services such as general practitioners, school nurses and pharmacists, refine question wording and use cognitive testing and piloting to assess the impact of this. A future Phase III trial should use a broader and more intense recruitment strategy as was successfully used in the LT going beyond e-mailing schools to include phone calls and recruitment events.[64] We would also minimise dropouts by ensuring heads are aware of the commitment before consenting to participate. In a future Phase III trial, SAE reporting could be refocused on outcomes that are plausibly associated with the intervention or evaluation to support schools to provide this information comprehensively.

Additional information

CRediT contribution statement

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The overall study was co-led by Russell Viner and Chris Bonell. Identification of the trial measures assessed in this paper was led by Russell Viner, Chris Bonell, Dasha Nicholls, Steven Hope, Stephen Scott, Lee Hudson and Deborah Christie. Investigation and collection of baseline and follow-up data were co-ordinated by Oliver Lloyd-Houldey, with assistance at both waves by Semina Michalopoulou. Formal analysis of the data on the measures was undertaken by Elizabeth Allen and Joanna Sturgess. Chris Bonell led the writing of this paper. All authors contributed to editing the paper.

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Data-sharing statement

All data requests should be submitted to the corresponding author for consideration. Access to all anonymised data may be granted following review.

Ethics statement

Ethics approval for the Learning Together for Mental Health study UCL Research Ethics Committee (REC) on 30 March 2022 (UCL Ethics Project ID Number: 21179/001) and the London School of Hygiene & Tropical Medicine REC 26 August 2022 (ref. 27994).

Information governance statement

University College London and the London School of Hygiene & Tropical Medicine are committed to handling all personal information in line with the UK Data Protection Act (2018) and the General Data Protection Regulation (EU GDPR) 2016/679. Under Data Protection legislation University College London is the Data Controller and we process personal data in accordance with their instructions. The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data, and can be contacted at data-protection@ucl.ac.uk. Further information on how UCL uses participant information can be found in its 'general' privacy notice 'for participants in health and care research studies' here: www.ucl.ac.uk/legal-services/privacy/participants-health-and-care-research-privacy-notice.

Disclosure of interests

Full disclosure of interests: Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at https://doi.org/10.3310/PFHR4141.

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of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. All authors declare they have no competing interests.

Department of Health and Social Care disclaimer

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This synopsis was published based on current knowledge at the time and date of publication. NIHR is committed to being inclusive and will continually monitor best practice and guidance in relation to terminology and language to ensure that we remain relevant to our stakeholders.

Publications

Bonell C, Hope S, Sundaram N, Lloyd-Houldey O, Michalopoulou S, Scott S, *et al*. Public engagement and evidence review to inform refinement of a whole-school health intervention to promote adolescent mental health. *Public Health Res* 2024;**4**:1–22. https://doi.org/10.3310/JWGT4863

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Study registration

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List of abbreviations

AG	action group
CHU-9D	Child Health Utility-9 Dimensions
DAPHNE II	Dose Adjustment for Normal Eating II
DBS	Disclosure and Barring Services
EDEQ	Eating Disorders Examination Questionnaire
FAS	Family Affluence Scale
FGD	focus group discussion
FSM	free school meals
GAD-7	Generalised Anxiety Disorder-7
GBS	Gatehouse Bullying Scale
GCSE	General Certificate of Secondary Education
HBSC	health behaviour in school-aged children
LGBTQ+	lesbian, gay, bisexual, transgender, queer and others
LSHTM	London School of Hygiene & Tropical Medicine
LT	Learning Together
LTMH	Learning Together for Mental Health
NICE	National Institute for Health and Care Excellence
PPIE	public and policy involvement and engagement
REC	Research Ethics Committee
RP	restorative practice
SAE	serious adverse event
SDQ	Strengths and Difficulties Questionnaire
SEL	social and emotional learning
SES	socioeconomic status
SLT	senior leadership team
SMFQ	Short Moods and Feelings Questionnaire
SSC	Steering Study Committee
SWEMWBS	Short Warwick-Edinburgh Mental Wellbeing Scale
UCL	University College London

List of supplementary material

Report Supplementary Material 1 Study tools and information

Supplementary material can be found on the NIHR Journals Library report page (https://doi.org/10.3310/PFHR4141).

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.

The supplementary materials (which include but are not limited to related publications, patient information leaflets and questionnaires) are provided to support and contextualise the publication. Every effort has been made to obtain the necessary permissions for reproduction, to credit original sources appropriately, and to respect copyright requirements. However, despite our diligence, we acknowledge the possibility of unintentional omissions or errors and we welcome notifications of any concerns regarding copyright or permissions.

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