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RESEARCH PAPER

Feasibility and acceptability of an education and training e-resource to support the sexuality, intimacy and relationship needs of older care home residents: a mixed methods study

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Abstract

Background: sexuality, intimacy and relationship needs are often a neglected aspect of the care of older adults in residential care facilities. Improving awareness, knowledge and improving attitudes about these needs among care staff could enhance quality of care and lead to better outcomes for residents.
Objective: to evaluate the feasibility and acceptability of a co-designed education and training e-resource to help care staff support their residents' sexuality, intimacy and relationship needs.
Methods: we delivered the education and training e-resource to five UK care homes over a 6-month period in a pre-post mixed methods study using surveys, focus groups and individual interviews.
Results: fifty-nine members of staff from participating care homes undertook the education and training e-resource. 18/59 (31%) of participants completed all six modules and the pre-post surveys. Eleven participants participated in focus groups/interviews to explore experiences of using the e-resource. The e-resource was successfully implemented in the study homes and found to be acceptable. We found preliminary evidence of positive changes in staff attitudes. Factors that facilitated implementation included support from the care home manager. Barriers identified included IT infrastructure and technology.
Conclusions: the findings provide initial evidence that a co-designed education and training e-resource raised awareness of, and improved attitudes towards, older adults' sexuality and intimacy needs. This work provides the foundation for a next phase to establish the effectiveness of the e-resource on staff practice and resident outcomes.

Keywords: sexuality, intimacy, education and training, residential care, care home, long-term care, older people

Key Points

- It was feasible to deliver a sexuality and intimacy education and training e-resource in care homes.
- It was challenging to recruit care staff, although feasible to engage them in online training.
- The e-resource was found to be generally acceptable to care staff.
- Further research is needed to establish the effectiveness of the e-resource and to assess the impact of changes in attitude and knowledge on care delivery and resident outcomes.

Introduction

Sexuality, intimacy and relationship (SIR) needs are important to overall health and wellbeing in later life [1–3]. Although SIR needs are expressed in residential care settings for older adults, these needs are often complex, nuanced and remain a neglected aspect of care [4–6]. Evidence suggests that care home staff experience general discomfort when discussing and supporting residents' SIR needs [7, 8]. Despite existing resources related to meeting these needs of older adults, with and without dementia, in residential and nursing home [8, 9], care staff are often not aware of them or where to seek guidance [10, 11]. Additionally, staff training in care homes is varied, inconsistent and fragmented [12].

A review of healthcare professionals' knowledge and attitudes towards the sexuality of older people highlighted a lack of knowledge and confidence in the area [13]. A recent scoping review identified few education interventions and training resources to support staff in addressing and meeting their resident's SIR needs [14]. The education interventions identified showed potential in improving knowledge and/or changing attitudes, in the short-term, towards older people's SIR needs in residential care settings but none of the existing interventions were considered appropriate for UK residential care settings due to contextual and cultural differences. To address this knowledge gap, we developed an education and training e-resource, through a co-design approach, to support care staff in meeting their resident's SIR needs and improve quality of care in this area of need.

Aim and objectives

We aimed to evaluate and assess the feasibility, acceptability and usability of an education and training e-resource to facilitate staff to support the SIR needs of older care home residents. Specific objectives were to: (i) implement the e-resource; (ii) gain staff feedback on feasibility, acceptability and usability of the e-resource and (iii) gather initial data on potential changes in knowledge and attitudes to inform a future, full-scale trial.

Method

Study design

A pre-post mixed methods approach was taken. A repeated-measures design assessed pre-post knowledge and attitudes towards sexuality and intimacy among older adults. Perceived usability of the e-resource was assessed at post-test. Focus groups and individual interviews provided in-depth understanding of feasibility, acceptability and usability of the e-resource and potential implementation issues [15]. Using this approach would develop understanding relevant to the design and evaluation of the intervention and is supported by the Medical Research Council (MRC) framework [16] at the feasibility stage.

Educational intervention

The e-resource was developed using a co-design approach through four workshops, in four West Yorkshire care homes, with care home staff, residents and their significant others ($n = 30$ participants). The research team reviewed data from the co-design workshops alongside the research literature to develop the content of the e-resource. Each module provided scenarios intended to develop care staff knowledge, skills and confidence to support residents' SIR needs. Six modules were developed in line with co-design participants priority areas: (i) Working with Families; (ii) Capacity, Consent and Safeguarding; (iii) Sex and Gender Diversity; (iv) Complexity; (v) Expressing and Managing Sexuality and (vi) Communication. Each module took a minimum of 30-minutes to complete and included watching video clips of case studies. Each case study was broken down into small chunks to facilitate and consolidate learning about the respective focus areas. Co-design participants identified that although other resources existed, they did not relate specifically to the situation the care home staff found themselves in/or took too long to read. The e-resource was accessible via the University of Leeds OpenEdu platform, to allow for recruitment of learners and was available from January 2020 to June 2020; then extended to August 2020 because of COVID-19 restrictions.

Participants

Five care homes, not involved with the initial e-resource development, were recruited to the evaluation phase of the study. Care homes in West Yorkshire were identified via Enabling Research in Care Homes (ENRICH) Research Network. Four of the five care homes were recruited face-to-face (pre-COVID-19 restrictions), and one was engaged and facilitated online, due to COVID-19 restrictions. Initial contact was made via ENRICH and a follow-up meeting was arranged between the research team and care home manager. The aims, objectives and expectations of the study were outlined to staff during an introductory workshop. Care home managers promoted the project at their team meetings and handovers with staff.

Measures

(i) Feasibility, acceptability and usability

Feasibility was assessed by collecting data on recruitment and completion rates. The validated System Usability Scale (SUS) [17] was used to evaluate acceptability and usability. This is a 10-item Likert scale providing a global view of subjective assessments of e-resource usability. Each item is scored on a 5-point Likert-type scale, ranging from 'Strongly Agree' to 'Strongly Disagree', where higher scores are consistent with higher perceived usability.

Feasibility, acceptability and usability were also explored through focus groups or individual interviews post e-resource completion to provide feedback about their experiences of using the e-resource.

(ii) Knowledge and attitudes relating to sexuality in ageing

The validated Aging Sexual Knowledge and Attitude Scale (ASKAS) [18] is a 61-item scale designed to measure two domains of sexuality:

- 35 true/false/don't know items assess knowledge about sexual changes and non-changes related to advanced age in males and females. A 3-points score is awarded for each 'don't know' response; 2-points for an incorrect response and 1-point for a correct response, resulting in a possible score range of 35–105; higher scores indicate lower levels of knowledge.
- 26 items assess respondents' attitudes towards sexual behaviour in older people on a 7-point Likert scale (i.e. 1 = strongly disagree to 7 = strongly agree); higher scores indicate more negative attitudes.

(iii) Attitudes about ageing, intimacy, sexuality and dementia

The Staff Attitudes about Intimacy and Dementia (SAID) Survey [19] is a 20-item survey, which has previously been used in similar studies [20, 21]. Each survey item captures a particular attitude that is intended as the basis for a discussion point, rather than being a set of items that can be summed to form a composite score. Responses to each item are provided using a 4-point Likert-type scale ranging from 'I Strongly Agree' to 'I Strongly Disagree'.

Procedure

Baseline demographic assessment was undertaken at the initial introductory workshop and online (during COVID-19 restrictions) before accessing the e-resource. Evaluation of feasibility, acceptability and usability of the e-resource was undertaken through questionnaires and focus groups/individual interviews of a purposively selected subsample of learners across the recruited care homes after e-resource completion to ensure that learners/care homes with a range of completion rates were included.

All participants were invited to respond to web-based surveys on completion of the individual related module of the e-resource: (i) SUS [17] on completion of all six modules; (ii) ASKAS [18] was completed prior to accessing the e-resource and again on completion of all six modules; (iii) SAID [19] was completed before and at the end of module 2. Non-responders to the web-based surveys were followed-up by: (i) paper-based and email reminders at 2 and 4 weeks and (ii) telephone reminders.

The proportion of people starting and completing the e-resource was collected via the Blackboard Performance Dashboard. Qualitative data on feasibility, acceptability and usability were collected via focus groups/interviews and through the open answer question on the SUS survey.

Data analysis

Pre-post changes in scores on the ASKAS subdomains were analysed using repeated measures *t*-tests. Responses to SAID items were first dichotomised into statements of agreement ('I strongly agree' and 'I agree somewhat') or disagreement ('I strongly disagree' and 'I disagree somewhat'). Pre-post changes in the proportion of each response type given for each SAID item were then investigated using a series of McNemar's tests. Qualitative data were analysed using framework approach [22].

Results

Five care homes were recruited to undertake the education and training e-resource. Table 1 summarises the characteristics of the participating care homes.

Care staff identified within three broad categories: senior staff (nurses, managers), care staff (carers, care assistants) and domestic staff (housekeeping, cleaning, handy-man). Table 2 summarises the demographic information.

Three focus groups (FG1: $n = 3$ participants; FG2: $n = 2$ participants and FG3: $n = 4$ participants) and two individual interviews, with those unable to attend focus groups, were undertaken ($n = 11$). Only three of the five care homes participated in the focus groups; two participating care homes did not respond to requests for staff to attend. In both these instances, the care home managers had left the organisation in the interim affecting continued study support. A summary of themes is presented in Table 3.

Recruitment and completion rates

Fifty-nine participants undertook the education and training e-resource.11/59 (19%) completed all six modules and 21/59 (36%) did not complete any of the modules. Reasons for declining to participate were cultural/religious reasons, workload pressures and English language restrictions. Table 4 summarises the module completion rates. In total, 18/59 (31%) completed the pre-and-post surveys.

Feasibility, acceptability and usability

The e-resource was successfully implemented in all five care homes. Generally, care homes were able to accommodate the e-learning among their staff due to the flexible nature of the e-resource.

Participants reported that it was generally feasible to implement and undertake the e-resource. The e-resource was reported to be acceptable, but some issues were identified. IT infrastructure and technology was not consistent across sites, which meant that even if staff were keen to undertake the training, the technology was not good enough to access online work; the option of a dongle, to allow for better Wi-Fi penetration, was offered, but this was not taken-up.

The e-resource was generally acceptable with staff expressing that working through the e-resource reassured them in how to manage their resident's sexuality and intimacy needs. The e-resource was reported to be advantageous in ensuring consistency in approaching such needs among older adults in their care. Staff recognised that if they had not experienced

Table 1. Characteristics of participating care homes

Care Home	Registered care category	Admissions information	No. of rooms	Latest overall CQC rating
CH 1	Care home with nursing.	Ages 65+	28	Good/outstanding
CH 2	Residential care home	Ages 65+	64	Good/outstanding
CH 3	Residential care home	Ages 65+	69	Good/requires improvement
CH 4	Residential care home	Ages 65+	54	Inadequate
CH 5	Care Home with nursing	Ages 50+	80	Good

Table 2. Participant demographic information across participating care homes

		Number of participants (%)
Gender identity	Female	53 (89.8%)
	Male	4 (6.7%)
	Prefer not to say	2 (3.4%)
Age range	18–25	8 (13.5%)
	26–35	16 (27.1%)
	36–45	13 (22.0%)
	46–55	16 (27.1%)
	56–65	6 (10.2%)
Ethnicity	White British	42 (71.2%)
	White Other	5 (8.5%)
	Black African	1 (1.7%)
	Black Caribbean	1 (1.7%)
	Mixed white/Black African	2 (5.1%)
	Mixed white/Caribbean	1 (1.7%)
	Asian/Pakistani	2 (5.1%)
	Asian/Bangladeshi	2 (5.1%)
	Asian Filipino	1 (1.7%)
	Prefer not to say	2 (5.1%)
Length of service	<12 months	15 (25.4%)
	1–5 years	24 (40.7%)
	5–10 years	10 (16.9%)
	10+ years	8 (13.6%)
	Prefer not to say	2 (5.1%)
Previous sexuality and intimacy training	Yes	10 (16.9%)
	No	44 (74.6%)
	Prefer not to say	5 (8.5%)

sexualised behaviour or relational dilemmas to date, they would experience this at some point in their care career.

Participants reported that they were generally more open-minded and knowledgeable about SIR needs of older adults as a result of completing the e-resource. The practical advice on how to engender open lines of communication between staff and residents reportedly increased their confidence in raising the subject with residents.

Whilst some elements of the training did challenge perceptions, most participants felt the e-resource informed and enhanced their practice and support of resident relationships and sexual expression. Staff reported that undertaking the training encouraged open discussion about the subject with each other during and after completing the e-resource to challenge perceptions and attitudes and talk these through with colleagues. This was felt to promote more relationship centred practice.

Participants also expressed how the content of the e-resource had real-world elements and, as such, was relatable for them in their day-to-day care of residents. However, some issues were identified around acceptability for people with religious/cultural or personal beliefs around sexuality and intimacy and, therefore, did not feel able to use the e-resource.

In terms of usability, the mean SUS survey score was 36.28 (standard deviation [SD] = 7.62), which was significantly higher than the scale mid-point of 30 ($t17 = 3.49$, $P < 0.01$), indicating that participants' views were more favourable than unfavourable regarding usability. The lowest mean scores (indicating lower perceived usability) were for the *items 'I found the online platform unnecessarily complex'* (mean = 3.00) and *'I found the online training programme very cumbersome/awkward to use'* (mean = 3.17). The highest mean scores (indicating greater usability) were for the items *'I think that I would need assistance to be able to use this online training programme'* (mean = 4.28) and *'I felt very confident using the online training programme'* (mean = 4.00).

Participants reported a preference to work through the modules independently as this approach appeared to allow learners to explore the content at their own pace without feeling unduly pressured or embarrassment by a face-to-face training session. It also allowed time to contemplate the various responses or scenarios which might occur in practice.

Knowledge and attitudes

Mean scores on the knowledge and attitude subscales of the ASKAS decreased from pre-to-post (in line with increased knowledge and improved attitudes). However, these differences were not significant (Table 5).

Discussion

Feasibility

It was feasible to implement and undertake the e-resource in participating care homes with 31% of participants completing all surveys and modules and a further 64% attempting, and completing, one or more modules. The impact of the pandemic meant staff had limited time to engage in additional education and training alongside the changing restrictions and health measures required to keep residents and staff safe [23]. Following the peak of the pandemic, staff were more able to access the training remotely, providing

Table 3. Summary of themes from focus groups and individual interviews

Theme	Sub-themes	Findings	Illustrative quotes
Feasibility and Acceptability			
Feasibility	IT infrastructure and technology	Not consistent across the sites used to implement the e-resource.	'. . .you had a few staff that really wanted to do it, but the trouble is the home that you picked is like the poor relations of the whole care villages. . .They don't have the best IT system, they don't have the best Wi-Fi. We are in the process of sorting all that out and then COVID struck' (AF: CH 4).
Feasibility	Future directions	Ways in which the e-resource training could be used in the future	'But I'd like to be sat with them, to sort of probe them on that further, so rather than them just completing it and thinking that things are just. . .they're black and white, I know that historically care staff have got a tendency to think, well, that's what it says so that must be how I do it, where, in reality, there's lots of other added extra things that I'd like to bolt onto that whilst they're doing it' (P1: CH3).
Acceptability	Reassurance and reinforcement	Provided reassurance and consistency in approaching sexuality, intimacy, and relational needs for older adults in their care	'It (the e-resource) just reassured you that how you acted was how we should have been acting' (XF: CH3). 'I've been a nurse now for 11 years and I've worked with people who have always been quite sexual in any place that I've worked, and we've always kind of just gone along with their choice and it's worked really well. But I think it's just like X [colleague] was saying, getting everyone onto the same page for that and educating them' (KA*:* CH5).
Acceptability	Perceived impact undertaking the education and training e-resource	Challenging perceptions and influencing practice More aware and accepting of resident relationships Informed and enhanced practice and support Open discussion and challenging attitudes	'I think because I'm more open now to resident relationships and stuff like that. We have a resident now, I always speak to him describing sexual and stuff like that and now we get to an agreement, as long as you close your door, we don't mind what you're going to do in your own space, in your own time. . .and just care plan it. . .' (P5: CH5). 'We had a gent that had come in and he used to do things like that. And all of us would just be like, you are at [care home], I am your care assistant. And it would just take them straight back to reality and worked, and it just sort of rolled off everybody's tongue. . . I don't know what he was trying to do, but once we were all saying the same thing, it just stopped, it just went away. It's like he didn't need to be told anymore. I for one am truly grateful for it and I definitely think that it should be mandatory in every care home' (P6: CH5). 'There were some things that I didn't know, and without it, I still wouldn't have known. And not so long after that, we did have a resident that was quite keen on himself, and we were all like. . .think back to the S-word' (KF: CH5). 'Yes, and it's forcing them [care home staff] to challenge their own thoughts and opinions on what they're seeing and what they do, which I thought was good' (P2: CH3).
Acceptability	Real-world elements	Relatable content	'I enjoyed going through it and there were scenarios that we've come across. Been doing caring a long time, both of us, I think we could talk about it and we're like oh yeah, I remember when, and you can relate to the situations. Some people who were going to do it probably never have in the time they've done the caring' (P1: CH3).
Acceptability	Hidden voices	Cultural & religious reasons Language restrictions	'. . . it got us all talking, and then some of the really quiet staff, and some of them with the religion, so there were also some Asian ladies that had taken on this project, and they're not allowed to talk about this in their religion' (KF: CH5). 'We have got a couple of staff members that are foreign, from all over, Poland, Romania, and I know that they can speak English and they can write, but they struggle to read, to understand. But I do believe that they wanted to give this a go, but for them to do it, they could do it because they sort of put the questions into their Google to translate so they'd get a better understanding of a question' (MFV: CH4).
Usability			
	Look and feel of the e-resource	Module content good and covered a range of considerations/situations useful and relevant to staff development	'I think the modules are compact with all the information. I think it's really good, because whoever did the modules, they really think on what to write in there and how they approach. It's easy to understand. Because on the online things it can be really boring, but to be honest with you I did not feel any boredom or anything whilst doing that training. I think it's just finding the time to do it really' (JG: CH5).
	Working with e-learning	Challenges to accessing the e-resource by some learners	'And I was like, you've not done the modules. And she was like, oh my god. So together we did them, we did them in one night for her. Yeah, we did find the first navigation of it quite difficult, but once one of us fathomed it out, we were fine' (KF: CH5).

(continue)

Table 3. Continued.

Theme	Sub-themes	Findings	Illustrative quotes
Barriers & Facilitators			
Barrier	Surveys a barrier to engagement	Long surveys perceived as a barrier to engaging with the e-resource * These were administered as part of the evaluation and are not strictly part of the intervention itself, but important in terms of feasibility moving forward with a future study looking at knowledge and attitude change based on the e-resource	'I can see why you give the questionnaire at the beginning and then do it at the end, because it's how your mind-set is. But I think the questions to start with really put people off, because it was like well, if you're going to ask me this now what's the course going to be like, and I think that's what put people off' (CF: CH 3). 'I think at the beginning I was a bit shocked doing the first three surveys because I hadn't been doing the module yet, so I'm still a bit shocked at the questions on the first survey. But doing the training and doing the last survey, the last part of it is good I think, because it's more awareness now; I'm already aware of the training. So, it's easy for me to really answer the last three surveys at the end of the training' (JG: CH5).
Barrier	IT infrastructure & technology	Variable quality of IT infrastructure across care homes	'. . .the wi-fi wasn't that great sometimes' (MFV: CH4).
Facilitator	Support from the care home manager	Support from the care home manager was important for some participants to be able to engage with the e-resource	'. . .We just needed to support her really a bit more at that time' (P1: CH3).

Table 4. Education and training e-resource module completion rates

Modules completed out of six within the e-resource	N/59 (%)
None	21 (36%)
One module	9 (15%)
Two modules	5 (9%)
Three modules	9 (15%)
Four modules	1 (2%)
Five modules	3 (5%)
Six modules	11 (19%)

greater flexibility across differing shift-patterns. The flexibility provided by the online e-resource had a positive impact on recruitment towards the end of the study.

Usability

In literature relating to similar platforms in nurse education, the quality and content of a digital learning platform can significantly impact students' satisfaction and learning process [24]. The e-resource in this study was easy to navigate and provided participants with real-world examples they could relate to. Interactive learning materials, alongside videos, have been found to significantly impact participation [25]. Like other studies [26], we found that participants perceived satisfaction with e-learning depended on the accessibility of the digital platform.

Acceptability

Participants were generally positive about the e-resource and mentioned experiencing benefits from the e-learning. However, some issues were identified around acceptability for people with cultural/religious and/or personal beliefs around SIR needs and language restrictions. Care staffs' cultural/religious and/or personal beliefs may compromise the care of older people, a duty under the Nursing & Midwifery Council code of conduct [27]. Existing literature [28] has also identified these issues and found this to be an opportunity for care managers to have discussions with staff about how best to assess and support their residents' SIR needs, i.e. delegation to another member of staff. Research exploring education and training around sexuality and intimacy suggests that educational interventions can positively influence staff attitudes towards older people's sexuality and intimacy needs in the short term [14].

Knowledge and attitudes

Whilst this study was not sufficiently powered to detect significant changes in knowledge or attitudes, there was evidence of a trend towards increased knowledge and improved attitudes. Similarly, other studies suggest that participants perceive e-learning to be valuable in acquiring knowledge and skills [24]. However, participants in our study reported that the knowledge and attitude scales used were too long and potentially off-putting for subsequent participants. However, few measures exist that address sexuality and intimacy in care home settings [29], suggesting further research is needed to develop more appropriate validated measures for any subsequent study.

Discussing SIR needs can be challenging and is a sensitive discussion area for many individuals. Few educational interventions support staff in communication when dealing with sensitive topics [14]. Nurses' response to issues of sexuality in care homes are often influenced by many concerns including their level of comfort in discussing this topic [30, 31].

Table 5. Mean Knowledge and Attitude scores on the ASKAS pre- and post-training

	Mean (SD) score Pre	Mean (SD) score Post	*t*-test result
ASKA Knowledge subscale	57.16 (13.23)	52.39 (11.82)	$t17 = 1.39$, $P = 0.181$
ASKAS Survey attitude subscale	46.94 (12.60)	46.22 (16.65)	$t17 = 0.24$, $P = 0.816$

There were no significant pre-to-post changes in attitude for any SAID items (*P*-values ranging from 0.125to 1.00).

Participants in this study were staff who appeared to be comfortable in discussing sexuality and intimacy and were already supportive of residents' relational wellbeing. Some staff chose not to avail themselves of the e-resource because of cultural/religious and/or personal beliefs. Levels of discomfort may be due to personal experience of sexuality [31] and societal ageist attitudes [10]. Yet, older people in care homes think about sex and sexuality [32], and Care Quality Commission guidance [33] advises that care professionals should ask care home residents about their SIR needs. This can be accomplished through a need's assessment when care planning, broaching these topics remains complex for staff in care homes [34]. Indeed, Thys *et al*. [31] found that in the absence of education or policy direction, nurses often opted for restrictive behaviour to prevent sexual activity. Therefore, providing an e-resource that supports staff with the confidence and skills needed to recognise and support resident's relationship needs is vital. A future challenge would be how to ensure a broader audience for this e-resource as this issue will be increasingly on the agenda [33].

Although older adults in care settings should expect an open, non-judgmental, non-prejudicial approach from care professionals, the rights of individual staff also needs to be respected; staff should not be required to compromise their cultural/religious and/or personal beliefs. Therefore, in terms of acceptability, exploring such issues with staff is important so that any cultural/religious and/or personal issues are identified and discussed prior to undertaking the e-resource.

Strengths and limitations

This was the first study of its type in a UK care home context. As this was a feasibility study, assessing the effectiveness of the e-resource was not the primary aim. However, future research should examine effectiveness of the e-resource within an Randomised Controlled Trial (RCT) design. Working online proved to be a useful recruitment strategy that saw greater participant recruitment than the face-to-face information meetings pre-pandemic. The online approach enabled staff to complete the modules at their own pace.

Some study limitations exist in relation to the small sample of homes recruited, potentially limiting generalisability and the relatively high attrition rate. This may have been due to the first surge of Covid-19 impacting care homes that had been recruited earlier in the study. Despite this, the study has illustrated that when staff have time to access the e-resource, it is feasible to implement an education and training e-resource within a care home setting. Further, this study suggests that short, interactive activities based around real-world scenarios may improve staff knowledge and attitudes about older adults' SIR needs, thereby supporting staff to meet these needs.

Conclusions

The e-resource was largely acceptable to staff and relevant and relatable for the UK care home sector. The e-resource also has the potential to improve knowledge and change staff attitudes relevant to supporting SIR needs. Further research should build on this evidence to examine the effectiveness of the e-resource and to assess the impact of changes in attitude and knowledge on care delivery and resident outcomes in a cluster-randomised trial.

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