

# How to ... interest, involve and inspire undergraduate students in clinical education research

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## Funding information

The project was supported by NIHR Clinical Incubator for Clinical Education Research, but there was no funding required.

## 1 | INTRODUCTION

The education of health professional students is informed by regulatory requirements, quality assurance standards and academic and clinical research. Biomedical research that contributes to the taught content of the curriculum is often well funded and supported by established career pathways. However, modes of curriculum delivery are not always informed by robust research. Where research in pedagogical practice is undertaken, it is often conducted within an informal aspect of an educator's role and may be underacknowledged, despite the benefits that such research brings.<sup>1</sup> Moreover, unlike the established career pathways that exist for biomedical science researchers and clinical training, career pathways in clinical education research are poorly defined.

Clinical Education research (ClinEdR) is important if we are to meet the challenges of training and retaining the number of health care professionals needed to meet the demands of an ageing population with multiple co-morbidities and complex conditions. Inspiring the next generation of clinical education researchers is vital to grow and sustain a community focussed on ensuring excellence in pedagogical practices in the education and training of our future clinical workforce. Early opportunity and exposure to research activity has been shown to be a significant motivator to pursuing a clinical academic career,<sup>2,3</sup> and it is proposed that by increasing interest and awareness in undergraduates, the number of people entering this discipline could be expanded such that even with losses at later stages, the pool of researchers grows.

Recognising our own (national) opportunities and limitations in ClinEdR engagement, career development and community-building, the National Institute for Health and Care Research (NIHR) Incubator for ClinEdR was established in 2020 to lead an expansion of career researchers in clinical education, while driving culture change to position educational research as an esteemed career.<sup>4</sup> In the first year of this 3-year funded project, we explored and identified several key limitations and barriers to attracting people into the discipline of clinical education research; indeed, the most notable barrier was the recognition of ClinEdR as a discipline in itself. Armed with this knowledge, we then explored how career development and community-building may be done in the context of ClinEdR, specifically in growing an interest in the discipline from undergraduate level.

This 'How to ...' paper has been informed by a series of series of semi-structured interviews with individuals identified as having success in involving undergraduates in ClinEdR. The individuals were identified through the NIHR Incubator network and through a snowballing recruitment strategy approved by our Research Ethics Committee. The interviews with seven individuals were transcribed and thematically coded using a reflexive thematic analysis.<sup>5</sup> Each interviewee gave their consent for their interview data to be shared in publication, and through this along with our own experiences as researchers and academics in this field, we have identified several strategic and practical suggestions under three key themes that will help to initiate and increase engagement in ClinEdR for undergraduate healthcare professional students.

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## 2 | MAXIMISING ANY PRE-EXISTING STRUCTURED OPPORTUNITIES

To experience ClinEdR, students require space within the curriculum and the necessary opportunities. Finding time in an already busy academic year can be difficult, and we recommend using pre-existing opportunities such as medical student selected components (SSCs) or in other health professions programmes such as Pharmacy, modules with a research component.<sup>6</sup> These opportunities are ideal for interested students to be trained in and experience ClinEdR, although as SSCs and research projects can be as short as 4 weeks, we suggest inserting the student into an ongoing project with existing ethical approval.<sup>7,8</sup>

For medical and dental students, offering electives or an intercalated degree in clinical education is another way of finding space within the curriculum. Intercalation has been shown to be highly influential as a motivator for aspiring clinical educator researchers, inspiring the pursuit of careers in ClinEdR.<sup>2</sup> Other more ad hoc opportunities, such as funded student vacation scholarships or internships, are also often available across health professions programmes including Nursing and Pharmacy.

Staff who have been successful in engaging undergraduates in ClinEdR acknowledge that to do so requires an investment of time that is not always readily available. Where structured opportunities exist, the time commitment of staff should ideally be recognised within their job plans. However, where opportunities are less formal, this may not be the case. Even when structured opportunities exist, the time to train and support students is unlikely to be timetabled into the working week. Early discussion with line managers to identify this as a strategic priority and identify where time might be recouped is vital. Protecting time with regular diarised sessions may also be helpful.

Although most ClinEdR is relatively inexpensive to conduct, often relying largely on the researchers' time, lack of funding is often quoted as a barrier to undertaking educational research.<sup>3</sup>

Where students are undertaking their research project within a programme, their time is already accounted for, and faculty usually have funding available to support research costs. If wishing to undertake research during a vacation, there may be a need to provide additional funding to support students' living expenses. Universities vacation scholarship schemes can support this type of project; likewise, there are schemes such as INSPIRE that will fund students studying medicine and dentistry.<sup>9</sup>

Identifying funding for open access publication, attending and presenting at conferences or for additional support such as statistical expertise may be problematic. It is worthwhile considering whether additional local funding could be available such as funding from alumni donations.

To summarise, making use of pre-existing opportunities, in particular, those with pre-allocated time and funding, should help interest, involve and inspire undergraduates in ClinEdR (Table 1).

**TABLE 1** Key suggestions for how to maximise pre-existing opportunities.

### How to maximise pre-existing opportunities

- Explore whether ClinEdR could be an option for a research project as part of an intercalated degree, e.g., Masters in Research, Masters in Medical/Dental/Nursing Education
- Explore whether funding opportunities exist for vacation scholarships or internships, e.g., INSPIRE for medical and dental students and internal schemes for other healthcare professions
- Develop longitudinal team projects that allow students to take a role in ClinEdR during their SSCs or modules with a research component
- Insert students into pre-existing projects to undertake specific tasks that fit in with the relatively short time frame of SSCs/vacation scholarships/internships
- Encourage students to work in a team so roles can be split and therefore more easily managed in a short block of time

## 3 | ASK FOR HELP—DRAW ON COLLEAGUES' EXPERTISE TO DEVELOP A SUPERVISORY TEAM AND SUPPORT NETWORK

Ensuring a level of expertise in a ClinEdR team is key to the realisation and success of a research project; however, do not let an absent or limited skill set stop you from engaging in ClinEdR or working with undergraduates. To increase the potential of engaging undergraduates in educational research, it is important to consider establishing collaborations and building a research team/community.

Health profession educators who wish to conduct ClinEdR may be from a background that does not offer an education research skill set. Yet clinical education researchers can often be from a social science background and may not necessarily engage directly in clinical education or practice. The connection through this collaboration of education research and clinical practice is suggested to be of great benefit to patient outcomes.<sup>1</sup> Offering to co-supervise students with more experienced colleagues can share workload while allowing you to develop academic and mentoring skills.

There is a growing body of literature that can advise and support clinical educators in conducting research projects.<sup>10,11</sup> Look for opportunities within the school that match your learning needs, such as education journal clubs to explore different methodologies or research forums where staff can present ideas and received feedback from senior academics.

The breadth of ClinEdR means that support for how to conduct this research in your own context with undergraduates may be found beyond the immediate team, encouraging inter-departmental working. Reaching out to other clinical disciplines or a 'School of Education' can also overcome skill shortages. Statisticians, psychologists and IT services within your institution may be of help, depending on the nature of the project. Likewise seeking collaborations from experts outside your home institution is possible although may require a little courage to do so!

**TABLE 2** Key suggestions to support ClinEdR.**How to gain support to conduct ClinEdR**

- Team up with experienced colleagues to co-supervise students
- Explore working with colleagues with EdR/ClinEdR skills sets outside your immediate team and discipline
- Attend or organise sessions that will develop your skills and help build your network as a ClinEdR supervisor, e.g., education journal clubs, seminar series, clinical education conferences.
- Form a ClinEdR research group and seek institutional support to develop the group's activities, establish internal funding schemes and promote representation of ClinEdR on institutional committees

While leadership and institutional level support can be scarce compared with other research areas, the authors of this paper along with others connected to the NIHR Incubator for Clinical Education Research<sup>4</sup> are available to offer advice. Table 2 summarises the key suggestions to support ClinEdR.

## 4 | INCREASING THE VISIBILITY AND PERCEIVED VALUE OF CLINEDR

Increasing the visibility and perceived value of ClinEdR go hand in hand. A key issue identified by established clinical education researchers is that ClinEdR is 'undervalued' by their institutions. They describe the challenge of obtaining substantial funding, publishing in high impact journals and that impact is not recognised in terms or promotion, kudos or in formal academic assessments such as the UK Research Excellence Framework.<sup>12,13</sup>

Nonetheless, if trying to inspire students to become involved in ClinEdR, it is important both to show them that this type of research has value and also to make that value visible, for example, conversations with students in their early years to highlight curriculum change that has happened as a result of ClinEdR.

A clear communication strategy that includes working with student societies, inviting students to attend education research meetings and encouraging them to become members of relevant research and education societies is essential as well as the funding to facilitate these activities for which some institutional schemes exist. Advertising of both structured and ad hoc opportunities should be widespread and can be as simple as a well-timed email.

Joint staff and student structured events or fora held within the school can be used to promote ClinEdR projects and celebrate success. These can highlight the research skills gained and changes in the undergraduate programmes as a result of ClinEdR projects, demonstrating the relevance and impact of ClinEdR to student experience and outcomes. Structured events can also raise the profile and visibility of ClinEdR within the school.

To help students see the value of undertaking a particular piece of ClinEdR, it is important to identify achievable goals from the start. These will vary depending on the student and the project, but some examples would be working towards a presentation at a

**TABLE 3** Key suggestions on how to increase visibility and value of ClinEdR.**How to increase the visibility and perceived value of ClinEdR**

- Showcase curriculum changes that have resulted from student research
- Advertise opportunities for student involvement in ClinEdR using an effective communication strategy
- Consider how to introduce ClinEdR within the mainstream curriculum from early on
- Promote student involvement in research as an opportunity for career enhancement, personal development, and enjoyment
- Create School wide fora to present and discuss ClinEdR
- Identify achievable goals for research projects
- Promote and facilitate publication of student research
- Support students to present their work at conferences or School fora
- Recognise your influence as a role model; show your enthusiasm for the subject.

school forum, a specific curriculum change or a published paper. Encouraging students to recognise the *personal* value of taking part in ClinEdR projects is as important as trying to promote value to the institution. Enjoyment and enthusiasm for the chosen subject area are vital components of a future successful career and students can use a project as 'work experience' to help them decide whether this is an area of future career interest. While students can sometimes be driven by a desire to enhance their CV, it is much more satisfying for them to do work that they enjoy, which helps current and future students and educators and leads to enhanced self-awareness.

Staff supervising ClinEdR projects are role models for students, and by working with them on research projects, they increase the visibility of ClinEdR and what this entails as a profession.<sup>2</sup> They can highlight the potential to combine teaching, research and clinical roles, inspiring students to see the value of ClinEdR as a career. A summary of how to increase visibility and value of ClinEdR can be found in Table 3.

## 5 | CONCLUSION

Inspiring and involving undergraduate students in ClinEdR are vital for expanding the discipline. This guide provides ideas for how to get students involved in undergraduate research and to help them make the most out of the opportunity. Three key areas in which to focus activity are to maximise any pre-existing structured opportunities in which to conduct ClinEdR with undergraduates; to strengthen capacity and skill sets, draw on colleagues' expertise to develop supervisory teams and support networks; and work to increase the visibility and perceived value of ClinEdR is recommended.

### AUTHOR CONTRIBUTIONS

All authors contributed to the data analysis and manuscript preparation. All authors agreed the final manuscript.

## ACKNOWLEDGEMENTS

We would like to thank Ana Sergio Da Silva, Eliot Rees, Hugh Alberti, Jessica Wilding, Aaron Lett and Colin Macdougall for their support with the project. We would also like to thank staff from Higher Education Institutions across the United Kingdom who were interviewed.

## CONFLICT OF INTEREST

The authors have no conflict of interest to disclose.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ETHICAL APPROVAL

The work was approved by Newcastle University Research Ethics Committee (Ref: 14433/2020).

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**How to cite this article:** Munroe K, Guilding C, Ellis J, Wakeling L. How to ... interest, involve and inspire undergraduate students in clinical education research. *Clin Teach*. 2023. e13693. <https://doi.org/10.1111/tct.13693>