



Students as Academic Partners or Co-Researchers: An Action Research Involving Pre-Qualifying Nursing Students

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Abstract

This essay presents a case study outlining how an academic team engaged undergraduate Nursing students as co-researchers in an education research project. The student co-researchers were tasked by the team to lead on the second phase of the research project that looked to capture the learning experience of first-year BSc (Hons) Nursing degree students ($N = 437$) who had recently taken an Objective Structured Clinical Examination as an assessment. This case study primarily focuses on the recruitment process of students as appropriate co-researchers and how these were subsequently “up-skilled” to lead and undertake the second phase of the research. Hence, no emphasis is placed on the methodological detail of the broader research project. A key facet of the research project was to further develop a range of academic and research skills of the student co-researchers. Encouraging the student co-researchers to write a reflective diary allowed them to consider the impact of the experience on their personal and professional development, skills acquisition, and employability. The benefits and drawbacks of involving students as co-researchers will also be discussed, along with implications for future research practice.

Learning Outcomes

By the end of the case, students should be able to

- Establish the appropriateness of involving undergraduate students in research
 - Effectively recruit, train, and support student researchers
 - Evaluate the effectiveness of involving students as academic partners/co-researchers
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Setting the Scene

Student nurses on a BSc (Hons) Nursing program in the United Kingdom have to undertake an Objective Structured Clinical Examination (OSCE) as part of an assessment for a first-year skills-oriented module. The OSCE is a challenging assessment that aims to establish the proficiency of a range of clinical skills prior to students undertaking their first placement experience in a clinical setting. The types of skills assessed in the OSCE include manual measurement of blood pressure, pulse, temperature, and respirations while demonstrating effective infection control standards and empathic communication skills. In addition, students are assessed on their underlying knowledge of anatomy and physiology associated with each clinical skill. The module OSCE assessment team comprises nursing academics and physiologists, all of whom contribute to assessing each student’s OSCE performance.

As an assessment, the OSCE has been reported by first-year students on the Nursing program to be incredibly anxiety-provoking. It also comes with its challenges in terms of complexity in organizing and managing several hundred such assessments over a short time frame. It was these concepts that prompted

three members of the academic team with similar research/pedagogic interests (i.e., Jim, Vivek, and Salim) to consider researching the students' perspectives of the OSCE and thus whether there was a need to improve how this assessment was delivered. The details of how the research idea evolved are provided as case study examples.

Recruiting Students as Co-Researchers

Literature relating to the engagement of undergraduate health students as co-researchers in research is scarce and tends to focus on students as research participants (Ferguson, Myrick, & Yonge, 2006). However, an evaluation of the Undergraduate Student Research Internship Program (USRIP) at a university in Canada (Baumann, 2011), which employs undergraduate health students to work as co-researchers, demonstrated that students can develop excellent research skills, enhance employability and career decisions, and also be a cost-effective way of building faculty research capacity. Some of these views are supported by Kimberly Taber, Renee Taber, Larissa Galante, and Linda M. Sigsby (2011), who emphasize the skills development potential for involving undergraduate nurses in the research process. Furthermore, Taber and colleagues underline the importance of the role of the research team in supporting the undergraduate student researcher—the team must be prepared to give structured guidance, clarify goals and realistic expectations, emphasize the learning potential, and make time for the student researchers.

Phase 1 of the research project had already been completed. This phase consisted of several focus groups where participants were first-year BSc (Hons) nursing degree students who had recently undertaken the OSCE. The audio-recorded responses of focus group participants required analysis so as to identify emergent themes relating to the OSCE. The next phase of the project was to design a valid and reliable questionnaire on these baseline focus group themes. This data collection tool would allow the research team to capture data relating to experiences of the OSCE from the remaining first-year students on the program ($N = 437$) who had recently undertaken the assessment.

It was at this point of the research journey that we, Jim, Vivek, and Salim, as the academic team undertaking the research, began to think about how students might be involved as co-researchers. A member of the team had recently attended a conference where the keynote lecture had outlined the benefits of students assisting with faculty research. Engaging students as co-researchers was of mutual benefit in that we would have additional resources in terms of manpower to assist with the research while the student co-researchers would gain valuable insight of the research process in addition to acquiring a range of academic and research-related skills. Interestingly, the university had a strong employability focus, so emphasizing the impact of being part of a research project on a student's future employability would incentivize, if it were needed, the student population to consider joining our research team.

The university already had in place a well-established Student Academic Partnership Scheme (SAP) offering paid employment opportunities for students to support activity such as teaching, open days, and fresher's week. We approached the SAP organizers to scope the feasibility of recruiting four students to help with

the next stage of the research process. However, the time frame available for us to apply to the SAP scheme was very confined; hence, we had to also look for other possible options. One such option was to apply for Education Commissioning for Quality (ECQ) funding within the faculty. The ECQ panel generally received application from academics within the faculty to undertake a specific education project that aimed to enhance and improve the student learning experience. The first difficulty we encountered was the need for a detailed bid with a clear overview of aims and objectives of the study along with details of job description and costings illustrating the remuneration pertaining to the time commitment from both staff and student researchers. Because students were being paid for offering their services, the job description had to be approved by the university Human Resources department. This proved to be a time-consuming exercise as there was no previous template to use. We spent much time in completing the proposal with additional documentation as requested by the ECQ panel. Indeed, these activities proved to be a valuable exercise as it helped us pinpoint exactly the expectations, activities, and responsibilities that were required of each student researcher. Following successful submission of an ECQ application, complemented by a short presentation, we secured circa £17,000 funding for the study.

Once a detailed role descriptor had been completed, the post for student co-researcher was advertised in the university's job advert portal, accessible by all students at the university. The intention of the team was to recruit four student co-researchers. After a 2-week period of advertising, 11 applications had been received. What followed was an informal interview and selection process to find the most suitable student candidates. The interview was structured to establish each candidate's prior research experience and knowledge, but was predominantly focused on finding enthusiastic students with a keen interest in research methods and an eye on research-focused work post qualifying.

After completion of interviews and post-interview discussions, we had successfully appointed four very motivated student researchers who were in training to become registered nurses (three adult student nurses and one learning disability student nurse). There was a variety of prior experience: One student already held a PhD and another student with a first degree in a health-related subject. All were in their second and third years of training and were engaged in research-oriented modules on the nursing program.

Students as Co-Researchers in Their Own Right

We devised a timeline of research-related activity over the next 6 months. In the first instance, the newly appointed student co-researchers were provided with several group tutorials on research methodology and data analysis. We, as the academic team, had previously completed the baseline focus groups study, so the data from these had to be analyzed to establish any emergent themes. These would subsequently inform development of the questionnaire which, once approved by the research team following a pilot test, would be circulated to first-year (Level 4) BSc (Hons) nursing program students. Upon completion, the questionnaires would require collection, analysis, and a final report of results and conclusions. Imperative was the need for the four student co-researchers to be fully engaged with the design of the questionnaire, pilot phase,

distribution, and collection and analysis. Hence, we decided to designate this responsibility to the student co-researchers with the proviso that they share the workload and lead on individual elements of the work required. We provided guidance, support, and reassurance where necessary to ensure equity in terms of work allocation, rigor, and productivity. It is important to stress at this juncture that we were fully aware that the student co-researchers were full-time students in an intensive undergraduate nursing program. It was imperative that involvement with the research project did not compromise their existing commitments and learning. The student co-researchers were thus provided with achievable targets and plenty of time to undertake and achieve such targets.

The nursing program has a 50/50 split between theory and practice with student nurses often being out on placement. Finding time and space for the student co-researchers to meet with identified student cohorts for questionnaire dissemination, completion, and collection was going to be a challenge. We needed to identify blocks of time within the student co-researchers course plan where they would be able to realistically commit to helping with questionnaire design, creation, and dissemination which also matched with the time identified cohorts to be investigated were in university.

Once this information had been obtained, we worked with our student co-researchers to identify themes from the baseline focus group study. This provided the necessary information for design and development of the questionnaire ready for “piloting” before mass distribution. This process took several weeks for the students. However, we ensured that all members of the research team met on a fortnight basis for updates on progress as well as “ironing” out any potential problems that the student co-researchers had identified.

Once the questionnaire had been designed and subsequently checked by all, it was tested on a small group of volunteers to establish its reliability and validity. This proved a valuable exercise as it allowed for necessary adjustments prior to printing and distribution. While this process was being undertaken, the student co-researchers also assisted with the research proposal for submission to the university’s ethics committee for approval. Waiting for ethical approval over a period of 3 months allowed the student co-researchers to identify lectures and seminars they could “hijack” for a few minutes to explain the purpose of the research to the first-year nursing cohorts selected. This was also an opportunity to provide participant information documentation and consent forms, distribute the questionnaires, and be on hand to receive them as they were completed.

Once all questionnaires had been received from the cohorts, it was time for data analysis. This was an important stage, but having provided tutorials on this previously, we were confident that the student co-researchers were well equipped to undertake such activities. The student co-researchers used their own initiative in using a relevant data analysis tool that they deemed appropriate and had all agreed on. Analysis of data was undertaken in a rigorous manner with regular reports being provided to us. In addition, the student co-researchers also took ownership of how the data were to be presented at a review meeting attended by the whole research team. To enhance the quality of the work they were creating, the student co-researchers critiqued their individual and team members contributions which added further value in ensuring each gained an insight into parts of the research process that they may not have been directly involved in previously.

This process exposed each student researcher to a wide array of research skills. The design of the questionnaire from focus group data helped them to develop their skills of thematic analysis and effective questionnaire design. Testing out the questionnaire helped them see the importance of a good pilot study. They were able to explore the strengths and limitations of using questionnaires as a method of data collection, and they developed skills in analyzing questionnaires and survey data. Finally, the students also gained valuable presentation and communications skills when presenting the findings of the questionnaire data.

What Is in It for the Students? Reflections From Student Researchers

As part of the process, the research team encouraged the four student co-researchers to keep a diary of activity and to complete a piece of reflection at the end of the process to help them think about how the experience had shaped their learning and future employability. Each student was able to identify some deep and far-reaching impact of the process. Interestingly, the student co-researchers did not raise any negative issues or concerns as co-researchers. A summary of the students' comments are outlined in the following.

Enhancing Research Skills

Interestingly, only two of the four student researchers identified that their specific research skills had improved during the time of the project. One student commented,

I particularly learned the most when completing the insurance documentation ... later approved by a [sic] Ethical board from the university. (Student A)

Another student researcher commented on how her involvement will affect how she will tackle research in the future:

I am now thinking about projects and how you would approach them from a research design point of view ... what methodology you might use to specifically answer a particular question. (Student B)

This is not to say that the two other student researchers have not felt up-skilled, more that the group found that the project had wide-reaching consequences than just research skills development, such as improving wider study skills, building confidence around team working, and improving time management skills.

Enhancing Time Management Skills

All students clearly explained how their time management skills had developed as a result of being involved in the project:

The role has furthered my time-management skills in relation to balancing this and university work. (Student A)

I have gained the ability to prioritise different tasks in the level of importance and deadline dates between multiple commitments (the research tasks and my university work). (Student C)

Enhancing Team Working

The student researchers were able to demonstrate the impact of the project on their ability to work in teams:

I have demonstrated the importance of maintaining professional relationships with others and how this impacts on the quality of the work being produced. (Student C)

Enhancing Employability

Again, there appeared to be strong consensus that the project had enhanced the employability of the student researchers. The concept of employability is a broad brush. Being more employable is to address a range of profession-specific and general interpersonal skills. For nursing, this means having not only excellent knowledge of nursing care underpinned by life sciences but also good team working skills, oral and written communication skills, numeracy, information technology skills, decision-making capability, leadership, reflective thinking, and autonomous behavior:

Reflective practice skills are vital for my chosen career of nursing ... I have been able to reflect upon what aspects went well and I feel that our team working skills have played a significant role in the success of our input to the project. (Student D)

This in the future will be a great help to improve my CV to the best standard it can to enable me to get a job. (Student A)

Enhancing Personal Confidence

Finally, the impact of the project on confidence-building was a theme throughout the student researchers' reflections:

This process has increased my confidence in regards to my ability, which was a personal reason why I originally applied for the role. (Student A)

One of the main areas that I have been able to develop during this project is my confidence in communicating with others who are not deemed my peers. (Student C)

What Is in It for the Academic Team?

It is evident that the student researchers enhanced much of their transferrable and employability skills as a result of engaging in the research project. However, we as academics also gained from this innovative

approach. Engaging students as equal research partners was instrumental to the research project. Much of the “hard graft” was undertaken by our student co-researchers in terms of the questionnaire design and implementation through to a successful research ethics application. Involvement of students leading on aspects of the research proved very successful in terms of completed questionnaire returns which we attribute to first-year students being more responsive to the research as it was being undertaken by their second- and third-year peers.

An overall completion rate of 74% was achieved, which amounted to several hundred completed questionnaires. The students from all the four branches of nursing provided rich data associated with their learning, teaching, assessment, and feedback experience pertaining to the OSCE assessment.

The research outcomes were extremely positive whereby many students appreciated existing resources that were provided in terms of OSCE while specifically flagging what worked best and which areas required further improvement. Indeed, such information has allowed us and the wider program team to reflect on current practice and explore opportunities for developing additional learning and teaching resources so as to address the concerns highlighted by the student population. The outcomes of this study have also been suitably communicated via progression reports to the ECQ panel which has subsequently recommended the wider faculty to adopt the questionnaire generated as a proforma, to capture the experiences of different student communities undertaking such an assessment on similar health and social care programs within the faculty. In fact, this was a way forward for us, the academic team: to drive the most sought-after culture (as recommended by the Higher Education Academy; Jenkins & Zetter, 2003)—research informed learning and teaching practice—within the faculty.

Discussion

The skills sets that the student researchers felt had been enhanced during the project are highly reflective of the skills required of health care professionals in the 21st century. The move to an all-graduate nursing profession has meant that it is now vital that nurses engage with evidence-based practice. This means that nurses not only need to understand research and its findings but also add to the evolving nature of knowledge and apply it to everyday practice. It is clear that the project was about much more than just improving research skills. The so-called soft skills of intra- and interpersonal development, team working, and communication were also in evidence here, skills which are equally important as academic skills in a modern health care environment.

The main lessons that we learned as academic researchers are highly reflective of the recommendations made by Taber and colleagues, outlined earlier. Time was a significant factor in ensuring that the research process progressed smoothly, but this had to be weighed against ensuring that the student researchers felt they were being given enough time and attention from the research team. The research team had to be mindful that student researchers were already engaged in a full-time demanding nursing program, frequently on placement and completing their own coursework. But this needed to be balanced against the fact that

they were paid employees of the project, the research project needed to keep to time, and that time and support needed to be invested to develop the student researchers into their role. These all tie with the recommendations of Taber and colleagues, of having realistic expectations of students, and clear structure to the process, something that we adhered to from the outset.

In addition to such recommendations, we felt it important to establish our student co-researchers' existing skills sets so that appropriate development needs can be identified and roles given. With one student co-researcher holding a PhD, it was evident that there was a wide range of skills and abilities within the group. Therefore, an individual needs analysis was important as is investing time thinking about how those students with more research experience can themselves support less experienced student researchers. More complex tasks such as data analysis may be more suited to those with prior experience, notwithstanding the notion that the ideas behind the initiative were to enable all the student co-researchers to learn something new. It is also important not to underestimate the capability and enthusiasm of the student researcher. Any shortfall in skills is made up with drive and keenness to engage and learn. A mix of researchers with and without prior experience made for a perfect balance which enabled the project to run smoothly.

As the academics who led this research project, we concur with the reflections of our student co-researchers in how the process affected their personal and professional development. We were able to justify how the student co-researchers' skills evolved by observing how they changed their approach to their own coursework, especially their end-of-course dissertation, which they felt confident in managing. It is probably too early to establish the long-term impact of the project on future employability, but three of the four students are now employed as nurses in their first jobs, with the fourth student (student with a PhD) pursuing a career in academia.

So What's Next?

The next steps for us, the research team, are to disseminate the idea of engaging students as research collaborators to the wider research community both within and outside of the university. This particular project adds to the small amount of research that explores engaging undergraduates as co-researchers. It can also be used to enhance thinking about how research projects can become stronger if the subjects of the research (or their representatives) are active collaborators in the research process, a concept which many in health-related research will be familiar with.

Exercises and Discussion Questions

1. Discuss the advantages and disadvantages of involving undergraduate students in the research process.
2. What steps can a research team undertake to ensure the process of involving undergraduates as co-researchers runs smoothly?

3. Is there anything that you would need to specifically consider in your own area of expertise that might help or hinder the process of involving undergraduates as co-researchers?
 4. Can you identify and list a few funding streams that are available for staff within your faculty/institution that would support you to undertake a similar activity if need be?
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