Promoting interprofessional learning and enhancing the pre-registration student experience through reciprocal cross professional peer tutoring

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ARTICLE INFO

Keywords:
- Mixed methods
- Interprofessional
- Peer learning
- Pre-registration
- Nursing
- Physiotherapy

ABSTRACT

Background: To improve collaboration and the quality of care, healthcare programmes are increasingly promoting interprofessional education thereby enabling students to learn with, from and about each other. A reciprocal peer learning model has developed among pre-registration physiotherapy and adult nursing students at Plymouth University, England. Embedded within the curriculum, it provides voluntary opportunities for year two students to become cross professional peer tutors to year one students while enhancing interprofessional understanding and skills acquisition.

Aim: To explore participant experiences of two cross professional peer tutored clinical skills workshops delivered to a cohort of nursing (n = 67) and physiotherapy (n = 53) students in 2015.

Design: A mixed methods approach generated qualitative and quantitative data. Qualitative data was gathered via focus groups and individual interviews of peer tutors and learners (n = 27). These were recorded, transcribed and thematically analysed. The Readiness for Interprofessional Learning Scale questionnaire (n = 84) was completed before and after the workshops to consider any influence on students’ attitudes towards interprofessional learning.

Results: Four themes evolved from thematic analysis; benefits of cross professional peer tutoring, interprofessional teamwork, quality of care and factors influencing the delivery of the workshops. Data showed students felt they developed greater understanding of interprofessional roles and acquired new skills. Peer tutors developed confidence in representing their profession while appearing to inspire early stage students. The Readiness for Interprofessional Learning Scale questionnaire data identified very positive attitudes towards interprofessional learning among the majority of students in both cohorts before and after the workshop.

Conclusion: This study endorses the utility of enhancing the Higher Education experience by offering voluntary peer tutoring opportunities. Participating students build confidence in representing their profession, while potentially inspiring early stage students and supplementing interprofessional learning across a cohort.

1. Introduction

Interprofessional education (IPE) is a requirement of healthcare programmes in the UK (NMC, 2010; HCP, 2017) and is embedded within the nursing and physiotherapy curricula at Plymouth University. While a considerable amount of face to face interprofessional education occurs among allied health professional (AHP) students, opportunities for this to occur among nursing and physiotherapy students are limited. Reciprocal cross professional peer tutoring, timetabled within the curriculum, has developed over the last three years offering nursing and physiotherapy students’ personal development opportunities while promoting interdisciplinary collaboration. This research explores students’ experiences of two peer tutored practical workshops designed to enhance clinical skills and interprofessional understanding. Cross professional peer teaching has been reported elsewhere (Joseph et al., 2011; McLelland et al., 2013) but little reciprocal cross professional peer tutoring has been documented in the literature from the UK.

2. Background

Peer learning strategies have an established place in enhancing the quality of teaching and learning in Higher Education Institutes (HEI) (Keenan, 2014). A range of benefits such as improved confidence and self-esteem is documented for peer leaders, while learners gain greater social support and facilitated learning (Hammond et al., 2010; Keenan, 2014). However, our understanding of how best to promote
interprofessional learning (IPL) among pre-registration students continues to evolve (Hammick et al., 2007; Sunguya et al., 2014). One focus of IPL is the development of role understanding; a competence established as key to collaborative practice (Suter et al., 2009; McDonald et al., 2010). Cross professional peer assisted learning (PAL) has been reported to achieve this, with participants developing a greater understanding of each other’s discipline (McLelland et al., 2013).

Pedagogy associated with peer learning is expansive. Reciprocal peer tutoring has been described as “a form of collaborative learning that involves students of similar academic backgrounds experiencing interchanging roles of tutor and learner” (Gazula et al., 2017, p.1). It is proposed that the timing of the change in roles should occur at strategic moments (Topping, 2005), although this commonly occurs within the same year group (Gazula et al., 2017). This project utilises a reciprocal peer tutoring relationship where each programme invites second year students to volunteer to tutor first year students from the other profession. The following year, the cohorts that have been learners are invited to become tutors. Therefore, reciprocal cross professional peer tutoring is the term adopted.

2.1. Interprofessional Learning

IPL ultimately aims to produce a “collaborative practice-ready workforce” (WHO, 2010). The timing of IPL within curricula has been informed by longitudinal studies that identify openness of students to IPL is highest at entry to a programme and, for the majority of professional groups, declines over time (McFadyen et al., 2010; Pollard and Miers, 2008). One UK longitudinal study showed nursing students did not follow this trend, maintaining a positive attitude to IPL throughout the programme (Coster et al., 2008). It has been suggested that the changes in attitudes towards IPL may be due to a “reality check” with initial evaluations identifying an unrealistically elevated attitude (McFadyen et al., 2010). Research has established that students entering both nursing and physiotherapy programmes already identify strongly with their professional group (Hind et al., 2003), yet students’ understanding of their professional roles at this early stage is limited. It appears that while establishing IPL from the outset may take advantage of this readiness to collaborate, a challenge is nascent understanding by students of professional roles, potentially causing insecurity when advocating for their profession.

The timing of these workshops was strategic; aiming to take advantage of the openness to collaboration in year one but ensure tutors were advanced enough to have confidence in their professional roles. In 2013, an invitation was extended to second year physiotherapy students to deliver a practical seminar to first year nursing students. The following year the invitation was reciprocated. The workshops have evolved into two profession-specific practical sessions each 2 h long containing four separate skills sections. The physiotherapy students tutor skills associated with locomotion. The nursing students tutor skills associated with observations, nutrition, pressure care and mobility. Case scenarios are used to relate the skills to practice.

3. Aim

To explore the experiences of nursing and physiotherapy students involved in two peer tutored workshops designed to enhance clinical skills and interprofessional understanding.

4. Methods

To enable an in depth exploration, the study adopted a mixed methods approach. Focus groups and individual interviews explored the experiences of nursing and physiotherapy students. The Readiness for Interprofessional Learning Scale (RIPLS) questionnaire was administered before and after the workshops, aiming to identify student attitudes towards IPL during the study period.

4.1. Setting and Participants

Participants were students on a BSc (Hons) Physiotherapy programme and BSc (Hons) Adult Nursing programme. Learners were first year cohorts of physiotherapy and nursing students. Peer tutors were student volunteers primarily from year 2 of both programmes, with one year 3 physiotherapy student. A total of four physiotherapy and seven nursing tutors delivered the workshops.

4.2. Ethical Considerations

Ethical approval was gained from the faculty ethics committee. A research assistant recruited from outside the faculty gathered all data. This was to encourage open and honest discussion within the focus groups, emphasise voluntary participation and minimise social desirability bias. Enabling anonymity was felt to be important as the authors were involved with student teaching and assessment. Informed consent was gained for the study by the research assistant following a routine teaching session.

5. Data Collection

5.1. Qualitative Data

All peer tutors, and a random sample of first year physiotherapy and nursing students, were invited to participate in profession-specific focus groups following the workshops. Data was generated through semi-structured in-depth individual interviews and focus group interviews. These were audio recorded then transcribed. Focus group interviews are a valid and potentially rich source of qualitative data; using group interaction to explore personal experiences, beliefs and attitudes (McLafferty, 2004). Discussion focused on individuals’ experience of the workshop, learning from and teaching students of another profession and future use of the peer tutoring model. All data collection from learners occurred within six weeks of the workshop, while data collected from tutors occurred between three and six months after the workshops due to difficulties accessing tutors while they were on placement.

5.2. Quantitative Data

Questionnaires were distributed following a routine teaching session. Participating student learners and peer tutors completed a questionnaire, before and after the tutored workshop. There were three weeks between baseline and repeat data collection. Each student was allocated a unique identifying number to enable questionnaires to be matched while ensuring anonymity. The questionnaire comprised a brief demographic section that identified the participant’s age, gender and any involvement with the universities PAL programme and a version of the RIPLS adapted for use in the clinical skills setting (Joseph et al., 2011).

RIPLS is commonly used to assess student’s attitudes towards IPL. It contains 19 items, broken into 4 subscales: teamwork and collaboration, roles and responsibilities, positive professional identity and negative professional identity, and uses a five point Likert scale to determine a students’ level of agreement with the range of statements. Content validity was originally established involving junior learners across eight health professions, including nursing and physiotherapy (Parsell and Bligh, 1999).
6. Data Analysis

6.1. Qualitative Analysis

An inductive interpretative approach to data analysis was adopted utilising Creswell’s (2009) six generic steps. This process was undertaken independently by one nursing and one physiotherapy lecturer before collaborating on final themes. While generic qualitative research has been criticised by some authors as being limited and over-simplistic, Caelli et al. (2003) argues this can be overcome through transparency and rigor in order to achieve trustworthiness and credibility. Cooper and Endacott (2007) support the views of Caelli et al. (2003) highlighting the need for effective description and communication of the qualitative findings. While the researchers acknowledge that total objectivity is neither achievable nor desirable when conducting qualitative research, employing a research assistant and independently checking emerging themes aimed to increase accurate representation of the participants’ views and reduce potential biases (Creswell, 2009).

6.2. Quantitative Analysis

Descriptive statistics were used to consider the students’ attitudes towards IPL before and after the workshop.

7. Results

7.1. Qualitative Data

7.1.1. Learners

Two focus groups were held for each profession, along with one physiotherapy interview (n = 22), 9 male and 13 female.

7.1.2. Tutors

Two telephone interviews (physiotherapy n = 1, nursing n = 1) and one nursing tutor focus group (n = 3) were undertaken, 5 females.

7.1.3. Thematic Analysis

Four themes evolved with a subcategory specific to data from the peer tutors relating to personal and professional development.

- Benefits of cross professional peer tutoring
  - Personal and professional development
- Interprofessional teamwork
- Quality of care
- Factors influencing the delivery of peer tutoring

7.2. Benefits of Cross Professional Peer Tutoring

Data indicated the students saw each other as peers; despite the difference in profession and stage of learning. Students described a safe, enjoyable and engaging experience.

“[In a ward situation, if we saw student nurses we’d know that their knowledge is good enough that if we had a question we could go to them as well.]”

[physiotherapy]

and commented on the quality of teaching in terms of being aspirational and motivational.

“To see what you are going to be like…you know, that’s kind of gonna be what we are going to be like when we get to that level.”

[nursing]

“That was really inspirational…I remember…thinking…I hope I am that knowledgeable when I am a second year, I can’t imagine knowing that much. I don’t know if we came across like that at all but that was actually...the point when it made me want to do it”

[tutor]

One interview provided a contrasting opinion, and questioned the value of interprofessional learning within the academic setting, proposing interprofessional collaboration and the consolidation of professional roles would automatically occur in practice.

“I did learn more …….. so my knowledge is higher and that might be an advantage to take into placement but I kinda get the impression that two hours into the placement I’ll be there anyway...”

[physiotherapy]

Yet data from students with placement experience identified a range of experiences:

“when I go on the ward now the nurse nurses and the physios carry out physio… there is not a lot of interworking so if you can give a little bit of education it helps”

[nursing]

This theme identifies benefits associated with the more equitable power relationship associated with peer learning (Keenan, 2014) was apparent in this interprofessional forum. This facilitated an increased understanding of professional roles, skills acquisition, potential encouragement of future collaboration in practice and an inspirational element to the experience.

7.3. Personal and Professional Development

There is a considerable body of evidence that peer tutoring offers benefits associated with individual personal development (Topping, 2005; Keenan, 2014). This was reflected in data from student tutors.

“It was good to be able to stand there and show that we know what we are talking about.. each area we researched before... so it was good for our own learning.”

[tutor]

“when we qualify there is an expectation that we will mentor our students so I think it is good because we have had to do this already”

[tutor]

While professional development was a common driver influencing volunteering,

“I thought it would look good in my portfolio”

[tutor]

altruism may have played a part.

“Teaching them was, in fact, the need to realise that we are a whole team, our roles interlink and what we do affects them, ergo we are not just separate teams, we all work together.”

[tutor]

Lewitt et al. (2015, p18) highlights the significance of developing individual capabilities for collaborative practice with “the need to
encourage thinking and problem solving in an interdisciplinary way”. Volunteering as a peer tutor appears to offer one way of contributing to this.

7.4. Interprofessional Teamwork

Overwhelmingly the physiotherapy and nursing students valued and enjoyed the opportunity to engage with each other. Data confirmed that students had a better understanding of and respect for each other’s role.

“Definitely got more respect..” [physiotherapy]

“We don’t spend time with them on the ward.. (this) allowed us to explore a little more about what their job is” [nursing]

The students related this to team working.

“There are benefits for patients [of us engaging in peer tutoring] because the patient might have a list of other treatments.. so we can’t just go in there and be thinking of our role,” [physiotherapy]

This theme evolved as data identified students linking their experience with working effectively together in practice. A core competence is “the knowledge of one’s own role and those of other professions to appropriately assess and address the health care needs of patients” (Interprofessional Education Collaborative 2016, p10). Suter et al. (2009) identifies conflict arising when this is not present and proposes respecting the roles of others is also a prerequisite to patient centred care.

7.5. Quality of Care

Data identified a number of benefits we classified into one theme of “quality of care”. Students identified specific aspects of the workshop they felt would enable them to improve their performance when on placement. They spoke of the workshops being directly applicable to practice, teaching safe practice, developing and sharing skills. This was most apparent among the nursing students who already had practice, teaching safe practice, developing and sharing skills. This was what they felt would enable them to improve their performance when on practice.

“I think the roles of the different health professionals are changing so dramatically all the time it’s sometimes difficult to go into a situation knowing exactly where you’ve meant to fit in, so I think if we can break down those barriers now and we mould them we’re capable of working in a multidisciplinary team..” [nursing]

Lewitt et al. (2015) suggests a wide gap exists between Higher Education and practice. The workshops appeared to bridge this gap. Tutors had current practice experience and were able to use this to enable learners to understand the utility of the clinical skills and essential nature of collaboration in promoting high quality care.

7.6. Factors Influencing the Delivery of Peer Tutoring

Data analysis identified influences that impacted on the effectiveness of this model. One group specifically identified a noisy teaching environment had reduced the quality of the learning experience and the majority of students across both professions would have liked more time in each station.

Students identified they would like more opportunities in the curriculum for this type of activity with other professions.

“It would be quite good if we could stretch this [peer tutoring] not just to nursing but across disciplines...” [physiotherapy]

The openness to IPL identified in the literature was reflected in the data from both first year cohorts. With the exception of one student, data identified students enjoyed the workshops and developed greater insight into each other’s roles while acquiring skills directly applicable to collaborative practice.

7.7. Quantitative Data

7.7.1. Questionnaire Response Rates

All peer tutors (n = 11) were invited to participate; seven nursing tutors (100%) and one physiotherapy tutor (25%) gave consent and completed both sets of questionnaires (n = 8).

Some of the decline in the total number of matched questionnaires (Table 1) was due to the same students not being present when the questionnaires were distributed and therefore not having the opportunity to complete either a first or second questionnaire.

7.7.2. Participant Characteristics

Physiotherapy cohort (n = 39); age range 19–47 years, 27 (71%) females and 11 (29%) males.

Nursing cohort (n = 46); age range 19–49 years, 44 (96%) females and 2 (4%) males.

Peer tutors (n = 8); age range 21–43 years, 7 females and 1 male.

8. Analysis

8.1. Questionnaire Analysis

Overwhelmingly positive attitudes towards IPL were identified in the pre-workshop questionnaires across all categories; leading to the possibility the RIPLS questionnaire may not be sensitive enough to determine any change in attitude. Minimal changes were identified within three subcategories. However, a marked difference in one statement in the teamwork subsection led to a swing from 43 (51.19%) to 82 (97.62%) of students agreeing with the statement “Patients will ultimately benefit if health care students learn clinical skills together”. Considering the stability in all other statements in this section it does appear the statement is suggestive of a change in attitude. Whether or not this is sustained or influences behaviour is not possible to determine.

Table 1

<table>
<thead>
<tr>
<th>Total number of students in cohort by profession (n)</th>
<th>Number of students who attended each workshop</th>
<th>Number of pre-workshop questionnaires completed (%)</th>
<th>Number of post-workshop questionnaires completed (%)</th>
<th>Total number of matched questionnaires (response rate %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing learners (67)</td>
<td>63</td>
<td>59 (93.65)</td>
<td>47 (74.60)</td>
<td>46 (73.02)</td>
</tr>
<tr>
<td>Physiotherapy learners (53)</td>
<td>48</td>
<td>48 (100)</td>
<td>42 (87.5)</td>
<td>39 (81.25)</td>
</tr>
</tbody>
</table>

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Table 2

<table>
<thead>
<tr>
<th>Teamwork &amp; collaboration subsection</th>
<th>RIPLS questionnaire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning with other health care students will help me to be a more effective member of a health care team.</td>
<td>82 (97.62) 83 (98.81) 0 0</td>
</tr>
<tr>
<td>For clinical skills learning to work, health care students need to trust and respect each other.</td>
<td>84 (100) 84 (100) 1 (1.19) 1 (1.19)</td>
</tr>
<tr>
<td>Team-working skills are essential for all health care students to learn.</td>
<td>84 (100) 84 (100) 3 (3.57) 3 (3.57)</td>
</tr>
<tr>
<td>Patients will ultimately benefit if health care students learn clinical skills together.</td>
<td>43 (51.19) 82 (97.62) 7 (8.33) 2 (2.38)</td>
</tr>
<tr>
<td>Learning clinical skills with healthcare students from other disciplines before qualification will improve working relationships after qualification.</td>
<td>76 (90.48) 81 (96.43)</td>
</tr>
<tr>
<td>Communication skills should be learned with other health care professionals.</td>
<td>76 (90.48) 81 (96.43)</td>
</tr>
<tr>
<td>Shared learning will help me to think positively about other health care professionals.</td>
<td>76 (90.48) 81 (96.43)</td>
</tr>
</tbody>
</table>

* Denotes data for this statement had a single missing value.

9. Discussion

Data from the learner focus groups exposed recognition of the value of IPL; this was supported by the questionnaire data and aligns with research identifying positive attitudes towards IPL on programme entry (McFadyen et al., 2010). Benefits specific to peer learning were endorsed, despite peer tutors having no teaching training prior to the workshop. Students spoke highly of the tutors’ ability to communicate effectively and of their level of teaching skills. This contrasts with literature that identifies tutor training as key (Brannagan et al., 2013; Gazula et al., 2017) and may be due to the level of clinical skills being taught. Tutors had all gained competence and practice experience in the skills they were teaching.

Interprofessional learning initiatives vary considerably in duration; the optimum length of interventions has not been established (Sunguya et al., 2014). However, positive changes in attitudes towards IPL have been reported following an eleven hour programme (Darlow et al., 2015). Here each workshop lasted 2 h, yet data from three focus groups referred to the inspirational value of meeting peer-tutors who are only one academic year their senior and noting the depth of their knowledge along with their confidence to teach in their field. This was endorsed further in one of the tutors’ data which identified their experience of being a learner as inspiring and influencing their decision to volunteer. This apparently inspirational effect is not well established in the IPL literature and may be influenced by the timing of role change from learner to tutor.

9.1. Limitations

There is evidence that gender influences attitudes towards interprofessional teamwork with female students being more positive towards teamwork than male, whatever profession they are from (Hertweck et al., 2012; Wilhelmsson et al., 2011). With this study population consisting of 84% (n = 71) female students the overwhelming positive attitudes towards IPL noted may have been influenced by the gender distribution.

This is a small study that aims to give enough descriptive detail to be useful to those considering a similar initiative. Contextual issues may have influenced the results. The participating nursing cohort is located in a campus distant from the main university and so collaboration with AHPs is not routine. This could have led to a heightened positive response.

Long term follow up was not undertaken, although the qualitative data from the tutors was captured up to six months after the workshops. Their data identified they valued the experience. However, the overall response rate of 5 out of 12 tutors means this may not fully represent this population.

The quality of teaching or level of skill acquisition was not assessed. The skills taught go on to be consolidated and examined in clinical practice. This could be a focus of future research, as one of the tutors stated:

“To be honest I think everyone should have done it, there is nothing you can lose from it and it is a good way to test out your knowledge...”

10. Conclusion

This study enabled a formal evaluation of the student experiences of the reciprocal cross professional peer tutoring workshops. Insight gained into the experiences of learners and tutors has endorsed the utility of enhancing the HEI experience and opportunity for IPL by offering voluntary peer tutoring opportunities embedded in curricular content. One of the benefits of this model is the ability to expose a whole cohort of students to another profession by offering voluntary
short term tutoring opportunities. The research demonstrates that the use of cross professional peer tutoring workshops can help students to learn about the roles of other health professions, thereby promoting future collaborative practice, and may positively influence attitudes towards interprofessional learning of clinical skills. By offering an opportunity for later stage students to become tutors, this data suggests that students can build confidence in representing their profession, skills and knowledge, while also inspiring early stage students to progress.

Acknowledgements

The project team wish to thank Kim Young, Senior Lecturer Adult Nursing Associate Professor, Plymouth University for her involvement with the project and literature review. Thanks to all the students who were involved in this research and those who have been involved as peer tutors over the last 3 years.

Conflict of Interest

None.

Funding

This work was supported by the Plymouth University Teaching Fellowship Award Scheme.

References