**Title:** Exploring the experiences of healthcare students in inter-professional learning and teaching.

**Introduction.**

Healthcare is becoming progressively more complex, the amount of professionals involved increases and their capability to work in partnership becomes more critical (Reeves et al, 2010). Inter-professional education (IPE) is the method by which students learn ‘with, from and about’ other professions (World Health Organization, 2010) with the definitive aim of generating effective inter-professional teams, leading to enhanced clinical outcomes.

IPE needs to be separated from multidisciplinary or multi-professional education and learning, where students from diverse professions are educated together but there is no interface between professions (Begley, 2009). Over a number of decades IPE has been recognised as important. Consequently, experts, as well as service users, have endorsed that IPE should be assimilated into healthcare preregistration education (Armitage et al, 2008). Olson & Bialocerkowski (2014) suggest that university-based IPE in pre-registration allied health curricular is feasible and effective. They found that patient scenario based interventions in small group work led to improved attitudes toward inter-professional collaboration and an increased understanding of health professional roles as oppose to lecture-based IPE. Reporting and findings relating to duration of IPE are limited, however interventions of less than two and a half hours where described in a study by Cameron et al (2009) by participants as too brief. Olson & Bialocerkowski (2014) conclude IPE works, their understanding of the relationships between different modalities of IPE and outcomes is however limited.

Knowledge of the relationships between IPE outcomes, learner characteristics and institutional characteristics is equally limited (Olson & Bialocerkowski, 2014). The aptitude for improvement in attitudes, partnership and Inter-professional understanding maybe greater amongst more mature and experienced learners. Knowledge of health professional roles may limit the effectiveness of IPE interventions delivered early in the pre-registration healthcare curricula. There is inconsistency in the findings regarding student age and experience, however Wellmon et al (2012) demonstrate poorer IPE outcomes amongst older learners. The mix and power dynamics which exist within the range of healthcare professions may also be significant in IPE interventions. Baker et al (2011) found physiotherapy and medical students to be dominant when working collaboratively in patient scenario activities, undermining the quality of IPE. To summarize the extent to which IPE works for whom and in what circumstances is limited.

This study aimed to expand on this evidence and build upon the strengths and address areas for development in IPE. This was achieved by exploring the student perceptions of IPE, across eight healthcare professions, reflecting on their experiences of IPE in year one and two of an undergraduate curriculum.
Background

The IPE element of our curriculum is delivered in year one, two and three for preregistration healthcare students. This study focused on the student experience of IPE at the end of semester one in year two. Specifically the focus was on their perceptions involved in a module looking at Public Health in Contemporary Practice. The experience involved six hours of taught seminars and four hours of self-directed study spanning a period of three weeks. The students were allocated to small inter-professional groups (5-8 per group). The activity they had to work collaboratively on involved a service user and their family scenario. They had to identify a public health priority for the service user and develop a health promotion activity to address this. A facilitator was allocated to support the groups through this process. This approach is reflective of one that includes the use of small IP groups, patients based scenario delivered within a university base. Demonstrating an awareness of the contemporary IPE literature mentioned previously.

Following completion of the IPE sessions student volunteers, from different professional backgrounds, were sought to become part of the research study. The main objectives of this were to develop a partnership with the students involved; aimed at exploring in-depth their experience of IPE. Working together with them to identify ways in which the strengths of IPE could be maintained and any negative aspects could be addressed.

Partnership is a process actively engaging staff and students working together to enhance the teaching and learning experience. It is recognised that this process is positively linked to learning gain and achievement. Transformative learning promotes the development of students as ‘co-producers’ or ‘co-creators’ enabling them to make genuine contributions to curriculum design and pedagogy, (Walker and Knight, 2016).

One of the current challenges facing Higher Education Institutions is how staff and students engage efficiently in learning and teaching. Economic and political changes are influencing the ways in which students are becoming active participants in their own higher education. Developing a partnership with students is a multi-faceted concept and can include a range of areas such as learning, teaching and assessment, subject based research and inquiry and curriculum design (Higher Education Academy, 2014).

This study aimed to respond to this challenge and actively participate with healthcare students to appreciate their perceptions and views of IPE and transform the experience for future students.

Method.

A qualitative method was adopted to gather and analyse the data from participants. This was informed by using a phenomenological approach. Phenomenology has a philosophical orientation in a world of experience. Phenomena only occur when an
individual has experienced them. An experience is considered exclusive to the individual. Understanding human behaviour or understanding, requires that the individual interprets the experience for the researcher; the researcher must then understand the explanation provided by the individual, (Burns and Grove, 2011).

Heidegger’s philosophical view formed the basis of this design for this study. Heidegger believes that the researcher interprets the data, developing a robust, perceptive text that describes and gives meaning to the phenomena being researched (Kleiman, 2004). Consistent with this philosophical approach, is the way in which the data is interpreted, involving analysing the data and presenting the researcher’s interpretations in an in depth word picture.

Hermeneutics is one approach to the phenomenological research method which is consistent with Heidegger’s philosophical perspective. The primary research focus of this method involves using textual analysis. Transcripts of the discussion are usually transcribed by the researcher and the textual analysis involves exposing the hidden meaning of human nature.

A focus group of student volunteers was facilitated to explore in depth their current and previous experiences in IPE. Focus groups were chosen as a method of data collection based upon their strength in encouraging individual participants to interact and stimulate discussion (Saks and Allsopp, 2013). In addition to this, the approach enables the researcher to gain further understanding of particular phenomena, (Saks and Allsop, 2013), congruent with the chosen philosophical approach. An opportunity to take part was offered to all participants in the module covering in total eight different healthcare professional groups. These included Operating Department Practitioners, Midwives, Occupational Therapists, and Physiotherapists, Nurses’ from the fields of Learning Disability, Mental Health, Child and Adult. The aim was to recruit two representatives from each of the professional groupings.

A semi-structured interview guide was designed by the researchers to facilitate the discussion (Table 1). The guide considered experience of IPE, the delivery of IPE and student support. All students enrolled in the module were invited to be involved (n= 425). An email was distributed to them accompanied by an information sheet, specifying purpose, process, possible benefits and harms, data collection, time commitment, voluntary involvement, the right to withdraw, confidentiality and contact details for supplementary information.

Twelve participants returned signed consent forms and agreed to take part in the focus group held on the university site. This was scheduled at a time when all eight healthcare professions were able to participate. Midwifery, physiotherapy and adult nursing were not represented. There were a minimum of two participants from each of the other professional fields with additional membership from Occupational Therapy and Mental Health Nursing. The focus group was facilitated by the researchers involved, which could introduce bias. Prior to conducting the interview, all participants
were reminded that they could withdraw at any time, consent to record the interview and transcribe verbatim was obtained by each participant. Ethical approval was sought from the University Ethics Committee.

Table 1: Semi-Structured interview guide.

Data Analysis.

All data were transcribed verbatim by a skilled transcriber. The transcripts were then scrutinised by the researchers, who conducted the analysis, to ensure the accuracy of the transcription. Focus group discussions were evaluated using Thematic Analysis, as this certifies theoretical independence, flexibility and can potentially provide an in-depth and comprehensive, yet complex, account of data (Braun and Clarke, 2006). Thematic analysis is a technique for identifying patterns (themes) within data. It minimally unifies and describes the data set in rich detail. In addition, it can often go further than this and infer a number of aspects within the research topic. Within this study an essentialist or realist method was applied, whereby the experiences, meanings and the reality of participants are described (Braun and Clarke, 2006). The capability of thematic analysis to both reflect and ‘unpick’ reality influenced the researcher’s choice of this qualitative methodology, congruent with the philosophical perspective chosen.

Themes were identified using an inductive or ‘bottom up way’ (Firth and Gleeson, 2004). An inductive approach means the themes are strongly linked to the data themselves and often the themes recognised may bear little relation to the precise questions that were asked of the members. They were also not driven by the researchers’ academic interest in this topic. Inductive analysis is therefore a technique of coding the data without trying to fit it into a pre existing coding structure, or the researcher’s analytic values. In summary this is a data driven method of thematic analysis.

Rigour was sustained by ensuring the detail built into the design of the study, the precise collection of data and thoroughness of data analysis (Burns and Grove, 2011). To enhance rigour the initial, developed and final thematic maps developed by the researchers were shared with the participants. All participants agreed and confirmed that the findings accurately reflected their experiences.
Findings.

Qualitative thematic analysis of the focus group data acknowledged two predominant themes. Each predominant theme contained sub-themes relating to the factors participants felt enabled them to engage in IPE and the barriers that existed to their participation. Fig 1 and Fig 2 present the developed and final thematic maps illustrating how the two predominant themes emerged from the data.

Fig.1 presents the developed thematic map illustrating the sub-themes that were identified from the transcript analysis. Fig.2 demonstrates merges the themes of ‘attitudes’ and ‘behaviours’ into a final theme entitled ‘Barriers to student participation in IPE’. The theme of ‘support mechanisms’ culminates in the final theme ‘Factors enabling students to participate in IPE’.

Selected quotations from the focus group are presented to demonstrate these themes:

**Barriers to engagement in IPE**

Many participants commented upon the need to have a peer of the same profession within their inter-professional group for the inter-professional activity. Participants stated that some of them had been the only professional representative from their field of practice resulting in feelings of isolation and reluctance to participate in the IPE. Quotes from participants relating to this included:

“It would be better to have a buddy from the same profession to support each other in the session. I have been in IP sessions where I was the only representative from my field and I found it very isolating.” (Participant 1)

“It is overwhelming when you are on your own in the sessions with a greater number of people from adult nursing. They tend to take over and only see the world of healthcare from an adult nursing perspective. This inhibits your ability to fully contribute to the discussion.” (Participant 2).

A significant finding within this theme was the emotional apprehension the participants experience in anticipation of IPE and how this needs to be overcome to allow them to participate. Participants openly stated that as a result of not feeling confident about their role they experienced a number of different feelings, including fear, anxiety and defensiveness. These feelings were clearly linked to the need to breakdown potential conflict and barriers between different professional roles. Comments made by participants included:

‘I am defensive when coming into the IP sessions. I feel anxious and worried before I even enter the classroom, even on my journey in. I can see why some people do not attend because of this. You need to breakdown the perceived walls that exist between professionals before we can learn to work together.’ (Participant 3)
‘I have a real fear of working with a different team. I am quite a quiet person and do not find it easy to engage with new people. This was not helped by having the IP sessions over three weeks’. Maybe it would be better to have the sessions all in one day and icebreakers at the beginning of the day? (Participant 1)

“Certain professions were represented more than others, which made some people competitive. They only tend to see things from their professional perspectives and it felt like our views and opinions were not respected.” (Participant 4)

“Sometimes people have really strong personalities and clash with others in the group. Even if you do not clash with them or find them irritating it does impact on the rest of the group and how we work together.” (Participant 2)

Finally within this theme participants specified the need for all participants in the IPE to engage fully, if this was not achieved there was a negative impact felt across the group. Often the structure of the IPE sessions appeared to impact upon the level of participation. Remarks made by the participants were:

“I wish everyone had the same attitude and work ethic. Often in the groups there are 3 or 4 people who are motivated and interested in learning and the others just moan. Team building exercises may help to prevent this from happening in the future.” (Participant 1).

“Some people just didn’t do the work or came for the first session and did not attend the following sessions. This affected our whole group and it looked like we weren’t interested and disorganised. I agree having the IPE sessions all on one day would be better.” (Participant 5)

Factors that enable participants to engage in IPE.

Participants were able to identify positive experiences from previous IPE which enabled them to engage. This provided another theme to be analysed in more depth. Meeting with new people and different professional backgrounds was clearly valued and felt to be beneficial to preparation for clinical practice. Participants stated:

“Learning about what other professions do does prepare you for going into practice. You have a greater understanding of their role and how you may work with them in practice to meet a patients needs.” (Participant 6)

“I really enjoyed working with and learning from other professions. I never realised what an Occupational Therapist does and now I do I can use this knowledge in practice.” (Participant 3)

Key to a positive experience of teaching and learning in IPE was the knowledge and skill of the facilitator/lecturer in IPE. Participants highlighted the importance of lecturers having the knowledge and skills and an enthusiastic approach which motivated the students to engage in IPE. Participants specified
“Lecturers were great and had an enthusiastic approach. They clearly knew the topic and motivated us to engage in the group activity. “(Participant 8)

“I have had experiences where the lecturer did not know our roles or did not acknowledging all roles in the group. This makes it very difficult to engage in the learning and left you feeling undervalued.” (Participant 5).
Discussion

The findings contribute to an understanding of the student experiences when engaging in IPE. Their insights of the experiences highlight the barriers to student participation in IPE and factors which can enable them to engage and potentially overcome some of the barriers.

The study reveals that the participants valued working with people from other professions and gaining further understanding into their job role. Ateah et al. (2011) & Olson & Bialocerkowski (2014) agree significant changes in professional perceptions of positive traits occur within classroom-based IPE. When this was achieved they were able to utilise this knowledge and understanding to inform their clinical practice.

The skill of the facilitator in delivering IPE was highly influential on the success of achieving this outcome, accompanied with the need to have a minimum of one companion from the same professional group. Mellor et al (2013) agree with this finding and state that students appreciate guidance, reassurance and familiarity in the facilitator, making their learning enjoyable. The activities designed in the sessions encouraged students to play an active role and when this was achieved they learnt to listen, respect each other’s opinions, present and defend their own opinion which is critical for effective IPE (Mellor et al, 2013).

A number of factors which were perceived barriers to the IPE were acknowledged by the participants. A unique finding within this study linked to the emotionally apprehensive feelings they experience prior to the IPE sessions. The depth and breadth of these feelings were quite marked and participants openly discussed these. This clearly highlights the need to acknowledge how the student is feeling before they enter the IPE session and create a nurturing learning environment to address these. The participants did suggest that this could be overcome with some initial team building activities within the IPE sessions.

The timing and frequency of the IPE sessions was another acknowledged barrier. Participants felt that the current approach to timetabling the sessions allowed students to disengage further with the IPE process. As highlighted by Cameron et al (2009) the duration of the IPE sessions needed to be greater than two and a half hours. In response to this, participants suggested the delivery of the IPE sessions all in one day. They felt this would encourage an enhanced level of teamwork and created less opportunity for students to disengage in IPE.

Conclusion.

This study took a qualitative approach to evaluate participant perceptions of an inter-professional module in order to explore their experiences of IPE and how this could be improved. The main findings that emerged were students value IPE and the opportunity to explore other professionals job roles. To ensure that this is achieved in
a positive way there is a need for highly skilled facilitation, a nurturing and inclusive learning environment, along with a personal commitment to fully engage in IPE.

By engaging students in this partnership from the onset an additional outcome achieved is their appreciation of the importance of collaborative working, a transferable skill into clinical practice.

References.


