

Effects of Inter Professional Education on First Year Medical Students: A Qualitative Analysis

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ABSTRACT

Objective: To evaluate the effects of Interprofessional Education (IPE) on first year medical students and to obtain recommendations for its successful implementation.

Study Design: Thematic approach to Qualitative analysis

Place and Duration of Study: This study was conducted at the Women Medical College (WMC) Abbottabad from August-October 2018.

Materials and Methods: Participants were female medical students of 1st year who had already attended a few sessions of IPE with other healthcare students as nursing, pharmacy and physiotherapy. Semi-structured interviews were undertaken individually to explore the perceptions of the students related to IPE. Quantitative analysis of the data was achieved through the process of coding and transcription.

Results: Findings of the study suggest that medical students have different perceptions about IPE which may influence its implementation. Most of the students acknowledged the positive impact of IPE in developing good relations and communication with other health professionals for successful teamwork. A few students thought that IPE was a waste of time as doctors held a more important role than other health carers. Some of the reasons for this as obtained from our study and critical literature review were higher merit and fee for entry in medical school, longer study duration, competitive specialist exams and higher salaries and posts than others.

Conclusion: Majority of students found IPE to be a beneficial experience and recommendations for its implementation as early in medical career were given as this would help in realizing the role of other health carers. Further strategies should be recommended for the successful implementation of IPE for good teamwork and collaborative practice in healthcare settings.

Key Words: Medical students, Interprofessional Education, Healthcare teamwork

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INTRODUCTION

Interprofessional education (IPE) is an activity that involves two or more professions who learn interactively together to improve collaboration and the quality of care.¹ It has been identified as an important pedagogical approach for preparing health profession students to provide patient care in a collaborative team environment.^{2,3}

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World Health Organisation^{4,5} has declared that health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team. Certain guidelines for IPE implementation have also been defined by the Centre for the Advancement of Interprofessional Education.⁶

Poor team work among healthcare professionals can result in delayed treatment or even demise of the patient.⁷ Team work and collaboration between physicians, nurses and other health care professions increases awareness of each other's type of knowledge and skills, leading to improved patient care and safety. Poor interpersonal relationships may often exacerbate poor team working in certain situations.⁸ It has been seen that good teamwork enhances quality of patient care, lower costs, decrease patients' length of stay, and reduce medical errors.⁹

It is necessary to detect and prevent any negative developing perceptions early in healthcare careers which can become barriers to the successful implementation of IPE and team work. The objectives of this study were to critically review literature and conduct interviews from medical students on different aspects of IPE.

MATERIALS AND METHODS

A qualitative approach was chosen for this study as the aim of the study was not to test or verify theory which a quantitative approach does,¹⁰ but to explore the perceptions of students about IPE. The method of analysis chosen for this study was thematic analysis as this is the most widely used Qualitative approach to analysing interviews.¹¹ An invitation email was sent out of which 25 students were randomly selected and consent taken. Sample size of participants depended on saturation¹² which was achieved after conducting interviews of 15 students. Inclusion criteria included female first year medical students of WMC age range between 18-20years. Exclusion criteria consisted of male students, below 18 or above 20yrs, not being a first year medical student of WMC. Semi structured interviews of nearly 30 minutes were conducted and recorded in the college. The interviews were about IPE topics, experience with other health professional students, advantages and disadvantages of it and suggestions for improvement. All the data collected has been anonymised. Ethical approval letter was provided by the college.

RESULTS

Table No.1: Theme 1 Experience IPE of participants.

Partici-pants	Theme 1: Experience of IPE
1	A good experience of interaction and shared lectures.
2	In a session with nursing and pharmacology students, there was a common task in which everyone shared their knowledge.
3	Had a BLS course together which had too much interference.
4	We had group activity sessions with nurses, physiotherapy and pharmacy students in which we shared each other's knowledge.
5	I appreciate it but it was not real, only for time being.
6	It reminded us that others also have knowledge of patient care.
7	Was not very beneficial.
8	Initially we all have same level of knowledge so no perceptions about being doctor but with time I think this will change.
9	A good experience of interaction with nurses, physiotherapy and pharmacy students.
10	I think we all complete each other. Pharmacy students had knowledge about drugs and we had some knowledge of diseases.
11	Good experience, Pharmacy students knew drugs well, medical students talked about disease and nurses about patient care.
12	An interesting experience with nurses, pharmacists and dieticians. Nurses thought medical students were intelligent.
13	A waste of time.
14	Usually as medics we assumed ourselves incharge of everything. IPE can change this perception.
15	A good experience and gain of knowledge.

The aims of the study were obtained from the findings of the study. All the data was analysed by a thematic approach to Qualitative analysis. The audio recordings of the interviews of 15 respondents were listened to a number of times for accurate transcription and were then transcribed verbatim as this is integral to the interpretation of verbal interviews.¹³ Three themes emerged from the study which were IPE experiences, advantages and disadvantages of IPE and recommendation for its improvement and have been mentioned in the following tables 1,2 and 3. The 4th table represents analysis of the study.

Table No.2: Theme 2: Advantages / Disadvantages of IPE of participants.

Partici-pants	Theme 2: Advantages / Disadvantages of IPE
1	Advantages: Earlier the better. If common lecture for all t then useful. Disadvantage: None
2	Advantage: Gain of knowledge, a team from the start. Disadvantage: None
3	Advantage: The session should be relevant to our future career. Disadvantage: None
4	Advantage: IPE will help for good team working in future. Disadvantage: None
5	Advantage: Makes all equal at the levels of hierarchy. Breaks down barriers. Disadvantage: None
6	Disadvantage: extra classes
7	Advantage: If given a common task or group activity then more discussion and interaction together. Disadvantage: none
8	Advantage: Learning from peers and experience. Disadvantage: None
9	Advantage: Tto meet other people helps to build up a rapport which helps in future. Disadvantage: None
10	Disadvantages: I don't find much gain, Its only a waste of precious time
11	Advantages: It helps to have a knowledge of others skills and capabilities. Disadvantages: None
12	Disadvantage: Too much unnecessary workload and distraction.
13	Advantage: All healthcare professions complete each other together and IPE makes us realize this. Disadvantage: None
14	Disadvantage: I cannot focus on my own profession by learning with other health professional students
15	Advantages: It helps us to learn and work alongside others from the start. Disadvantages: none

Table No.3: Theme 3: Recommendations for IPE Implementation

Partici-pants	Theme 3: Recommendations for IPE Implementation
1	Earlier implementation of IPE would be useful for all.
2	We should have seminars together with clinical scenarios or ethical cases from the start.

3	Should be relevant to all of our future careers by giving a common hypothetical scenarios or problem solving exercise in sessions.. IPE is a step in the right direction.
4	IPE can change the perceptions about each other's role so earlier the better.
5	None
6	IPE should start as early as possible in medical career and should be beneficial for all.
7	Early interaction, common meetings in the wards and seminars.
8	Early exposure, joint lectures on drugs with pharmacists, CPR classes with nurses.
9	We should have a brief knowledge of what other health professional students are learning.
10	None
11	IPE sessions can provide knowledge of other's role. Can teach Ethics and professionalism together.
12	Give a common task as clinical problem solving, drug use or caring for patients, useful for all.
13	There should be more exposure of IPE from the beginning to change negative stereotypes.
14	Common classes and group activity together to solve clinical cases should be earlier in the course.
15	None

Table No.4: Analysis of Results

Themes	Theme 1	Theme 2	Theme 3
	IPE experience	Advantages and Dis-advantages	Recommendations of implementation
Students in favour of IPE	Positive 10/15 = 67 %	Advantages 11/15 = 73 %	Achieved 12/15 = 80%
Students not in favour of IPE	Negative 5/15 = 33 %	Disadvantages 2/15 = 27%	Not achieved 3/15 = 20 %
Results	% of positive experience: high	% of advantages of IPE was higher	Recommendations from most of students achieved

DISCUSSION

This study explores the effects of IPE on first year medical students of WMC. The method of analysis was thematic approach to Qualitative analysis. Semi structured interviews were conducted, audio recorded, transcribed and analysed. Three themes emerged from the study findings and the aim of the research has been obtained from this.

Findings of the Study and Correlation to Literature Review: Theme 1: The first theme revealed that most of the students appreciated the concept and experience of IPE which helped them realize the importance of other healthcare fields. Most of them felt an increase in knowledge due to interaction with others. Some students did not find any common interest or goal in shared lectures. A few thought of it as a waste of time

and a temporary event as all had different curricula and had to care for the patient from different aspects. A study in which an IPE was conducted between medical and nurse students, was documented.¹⁴ The course focused on communication as a foundation for teamwork between nurses and physicians. They conclude that IPE supports professional communication and reduces hierarchies. Nursing and medicine are the two professions that carry highest responsibility for patient care and so learning of common goals should be together. This concept is similar to our findings of the study. Another study conducting experiences of students of IPE was done in 2013 in Sweden¹⁵ A sample of 15 healthcare students participating on a two-week interprofessional clinical course was used. Students' perceptions were found positive about IPE sessions. Perceptions of students in the above mentioned studies correlate with the findings in our study and generate positive results for IPE.

Theme 2: In this theme, the advantages and disadvantages of IPE have been highlighted by students. Most of them thought that IPE provides an insight of other's skills and knowledge and would be successful for good teamwork for better patient care. All suggested that the sessions should be mainly focused on patient care. No harmful effects of an IPE session was the common opinion of students. Barriers to initiating IPE were highlighted which correlated with the literature including administrative issues, lack of resources and space, commitments of students and faculty members etc.¹⁶

In one study the effect of IPE on healthcare students was conducted by evaluating a controlled trial eleven-hour IPE programme focused on long-term conditions' management.¹⁷ Pre-registration students from the disciplines of dietetics ($n=9$), medicine ($n=36$), physiotherapy ($n=12$), and radiation therapy ($n=26$) were allocated to either an intervention group ($n=41$) who received the IPE program or a control group ($n=42$) who continued with their usual curriculum. Results showed improved attitudes towards teamwork along with increased confidence, knowledge, and ability to manage people with long-term conditions.

Another study explored the current situation in the Dutch context and interviewed experts within medical education about their experiences with IPE.¹⁸ Using a strengths, weaknesses, opportunities, and threats (SWOT) analysis framework, they identified barriers and facilitators such as lack of a collective professional language, insufficient time or budget, stakeholders' resistance, and hierarchy. Opportunities and strengths identified a collective vision for patient safety, and commitment of teachers. The barriers were related to the organisational level of IPE and the educational content and practice. In our study, students mostly appreciated IPE and thought that it breaks the barriers

between other health careers and is a step in the right direction.

Theme 3: In the third theme nearly all students suggested that earlier exposure and implementation of IPE would be beneficial to change any perceptions or stereo typical thoughts about each other. All agreed about the idea of having a brief knowledge and understanding of other's role in patient care. Suggestions were given that the topics of IPE sessions should be relevant to their future careers and group activities to solve clinical scenarios should be encouraged. Educational trips together with others as nurses, pharmacists, physiotherapists and even paramedics were favoured.

In one study conducted between health professionals¹⁹ recommendations for effective IPE were to start the program earlier with simple concepts about other's roles and to encourage teamwork in solving common clinical scenarios. Policy makers have supported IPE to help to improve collaborative work and practice for safe patient care.²⁰

CONCLUSION

The collective view of the study indicated that IPE is for students to learn how to function in an interprofessional team and carry this knowledge, skill, and value into their future practice, ultimately providing patient care as part of a collaborative team focused on improving patient outcomes. Because learning how to communicate effectively and work together can be time consuming, teamwork within the context of medical curricula will make students better prepared. IPE initiatives can only reach their potential when parallel changes to improve the inter-professional culture will occur in health care settings. This represents perhaps the greatest challenge for the future of IPE, and will require collaborative effort from the health workforce at individual, organizational, and structural levels. Further studies need to be done on the perceptions of healthcare professionals about IPE and team working so that appropriate steps can be taken for the success of both.

Recommendations: Certain recommendations for IPE implementation as gathered from the findings of the study are as follows:

- IPE should be integrated into the curriculum as early as possible.
- Communication skills and social interaction between students from various healthcare background must be encouraged for successful teamwork and collaborative practices.
- Each professional group should have a basic knowledge of each other's roles and skills through IPE sessions.
- Opportunities should be provided to work together as a team to solve clinical cases in clinical wards, meetings and seminars.

Author's Contribution:

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