

RESEARCH ARTICLE

Impact of the introduction of interprofessional education to first-year university students of health sciences

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ABSTRACT

Background: There is a lack of coordination among various healthcare workers in a hospital which leads to an increase incidence of medical errors and patient sufferings. The various professionals in a hospital are not able to communicate effectively and neither they can understand each other's roles and responsibilities. This is because they have not studied or learned together. For this reason, the concept of interprofessional (IP) education (IPE) is picking up which is when students from two or more professions learn together for better patient care. **Aim and Objectives:** The aim of the study was to find out the acceptance among 1st-year university students of IPE being introduced to them. **Materials and Methods:** Two hundred fifty 1st-year university students, belonging to various courses such as MBBS, BPT, B.Sc., and Diploma allied health sciences such as operation theatre, radiology, laboratory, biochemistry, and microbiology were brought together for a common lecture where they were explained the concepts of IPE and practice. They were divided into mix IP groups of five each and WhatsApp groups were formed and they were given assignments on the topic which they had to prepare online and present on the next date after 10 days in the class. The author joined as a facilitator in each group. Even a voluntary poster competition among these groups was held after 10 days. **Results:** The students were really enthusiastic and out of 50 groups formed, good interaction was visible in 45 of the groups. Twenty groups presented very highly made posters. More than 90% students gave positive feedback for this method of interactive learning and found themselves more comfortable in dealing with other course students. **Conclusion:** IPE is an innovative method of learning and if introduced early in the curriculum, can be highly accepted.


KEY WORDS: Communication Skills; Interprofessional Education; Interprofessional Practice; Teamwork; WhatsApp

INTRODUCTION

Medical errors are said to be one of the most common causes of loss of human life.^[1] This leads to increase violence against health-care professionals and more litigation and medicolegal

cases against hospitals.^[2] The one main reason could be a lack of teamwork and collaboration because various health professionals cannot understand the roles and responsibilities of each other.^[3] This is mainly because they do not study together in our traditional health curriculum. The other main reason is the lack of communication between health-care professionals belonging to various fields.^[3]

This brings the role of interprofessional (IP) education (IPE) in the forefront. IPE was introduced by the World Health Organization report, "Learning together to work together for health".^[4] IPE is defined as "when students of two or more professions learn with, from, and about each other to improve

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quality of life.^[5] IPE promotes interaction among students belonging to different professions.^[3] It can help students of various professions understand the roles and responsibilities of each other, thus can fulfill the gap existing today.^[3]

However, this concept is not yet adopted in our country. Not many are well-versed with the significance of IPE. IPE does not find a place in our health curriculum at present. The concept of teaching various courses students together in the same class does not exist in our country. None of our teachers are also trained for that. Not much research has been done in this field in our country. A few research available is regarding interdepartmental collaboration^[6] but not much on IP one. Since it looks at the future of health education as it brings an integrated and collaborative approach, more research is required in this field in various health institutes.

When we want to introduce a new learning method, it should be introduced early, at the beginning of the student's professional education. This is because there are common subjects of basic sciences in the 1st year of health sciences courses and also when introduced early, students can be well-versed with it at the end of course. Hence, this study was planned among 1st-year university health students belonging to various courses. The objectives of the study were to study the acceptance of IPE among 1st-year health students belonging to various courses. We also aimed to study the impact of IPE on students and whether this impact could be sustained over a period of time

MATERIALS AND METHODS

This study was conducted in our Medical College and Hospital between August 2019 and December 2019. The permission of the institutional ethics committee was taken. Two hundred fifty 1st-year university health students belonging to various IP courses such as MBBS, BPT, and B.sc – laboratory, OT, radiology, and optometry were included in the study.

Two lectures of the entire 250 students regarding IPE and IP practice (IPP) were taken in the 2nd week of August. After the 2nd lecture, these students were divided into 50 groups of 5 each team and named as IP group 1–50. They were also asked to form individual WhatsApp groups of each team. Each team had a leader, reporter, timekeeper, and remaining two members. The roles and responsibilities of each member were defined. The authors were added as a facilitator in each group. The role of the leader was to coordinate, timekeeper to manage the activity time, and reporter to present the activity required.

The activity/assignment given was:

1. Define IPP and IPE
2. Role of communication skills in a health care organization
3. Responsibilities of healthcare workers in a health care organization.

They were given 10 days to discuss these assignments, both online and offline and collaborate together to prepare the answer.

After 10 days, each group had to present the assignment in front of the whole class for 5 min each which included 1 minute of question and answers.

A voluntary poster presentation on the theme “IPP and IPE in Indian Hospitals and Medical College” was also announced where each group which volunteered had to present the poster and the best three posters were announced to be awarded.

The activity presentation and poster presentation were held in the last week of August and best posters awarded. The feedback was taken from the students both through questionnaire and through WhatsApp.

The WhatsApp activities of each group regarding any discussions in the groups – academic or otherwise were monitored for 5 months until December and feedback were taken every month from the students.

Institutional Ethical Committee approval

This study was approved by the Institutional Ethical Committee of our Medical College and Hospital.

RESULTS

Twenty out of 50 (40%) groups participated in the poster presentation.

The majority of the WhatsApp groups were active and the activeness was sustained over the next 5 months [Table 1].

Most of the students felt they benefitted out of this method of collaborative blended learning. The positive points mentioned by the students in feedback were:

1. They understood the existence of other professions
2. They understood roles and responsibilities and importance of other health professions
3. IP discussions improved their learning and understanding of their syllabus which is somewhat similar in 1st year.

DISCUSSION

This study was conducted in August 2019 and follow-up was done for the next 4 months. The follow-up was done by monitoring the WhatsApp groups formed of the students. WhatsApp is an excellent mode today for interaction among youngsters, so it was taken as a teaching-learning tool. A similar study done by Nanda in 2019 found WhatsApp as an effective way of improving learning among medical students.^[7]

Table 1: Group activity

Groups	August 2019 (session period) (%)	September 2019 (%)	October 2019 (%)	November 2019 (%)	December 2019 (%)
Active groups	45 (90)	34 (68)	32 (64)	30 (60)	29 (58)
Groups active but minimal interactions	5 (10)	11 (22)	13 (26)	15 (30)	16 (32)
Inactive groups		5 (10)	5 (10)	5 (10)	5 (10)

Table 2: Student feedback

Feedback	August 2019 (session period) (%)	September 2019 (%)	October 2019 (%)	November 2019 (%)	December 2019 (%)
Found it effective	228 (91)	174 (70)	176 (71)	182 (73)	188 (75)
Not much effective	12 (5)	51 (20)	49 (19)	40 (16)	34 (14)
Waste of time	10 (4)	25 (10)	25 (10)	28 (11)	28 (11)

IPE was first introduced in North America and United Kingdom in 1960's.^[8] Health care requires a multidisciplinary team working together which includes doctors, nurses, technicians, dietician, physiotherapist, pharmacists, psychologist, speech therapist, and health workers, among others. This is possible if they can communicate with each other and understand each other. This is possible by learning together. Forte and Fowler, in their study, concluded that IPE improves knowledge and communication.^[9] In our study, too, we found better interaction among students and they opined that this activity improved their learning and understanding of syllabus. IPE reduces conflicts.^[10]

In our study, we found active interest among students to learn together and this interest continued for the next 4 months [Table 1]. The majority of the students found this method effective even at the end of 5 months (75%) [Table 2]. Another study done by Fallatah *et al.* obtained similar results.^[11] The students interviewed also were of the opinion that they had obtained a better understanding of other professions and their roles and responsibilities. Various studies also prove that IPE impacts knowledge, attitude, and behavior.^[12] Studies by Taylor *et al.*,^[13] El-Zubeir *et al.*,^[3] and Al-Eisa *et al.*^[14] also reported a positive impact on students of IPE. A platform was provided in our study for students of various courses to learn together.

Today there are evolving diseases like the coronavirus disease which requires collaborative and integrated care and IPE can play a role in that. However, there are various challenges in the path. IPE is not part of the health curriculum today. There is a lack of expertise among teachers for IPE. This teaching-learning method also requires the support of the college administration. However, there are some encouraging signs with IPE being introduced in some universities in South India. It could be introduced as one of the elective subjects in the curriculum. The newly formed National Medical Commission needs to play a proactive role in this step.

The strength of our study was that this study was introduced among 1st-year health students as soon as they joined the course. Our study used various innovative methods such as poster competition, WhatsApp groups, and awards to encourage students to participate and learn together. The facilitators were actively involved in the whole process and provided motivation to each small group. The limitation of our study was the follow-up period which was only 4 months. A longer follow-up was not done. Another limitation was that only students' perception was studied, not of faculty. However, it is a good beginning. Further study with a longer follow-up period will be done in the near future and faculty perception will also be taken into account.

CONCLUSION

IPE, if introduced early among health students, can be well accepted among them and can improve their teamwork, communication skills, and knowledge about the subject as they learn with, from, and about each other and also they can understand the role and responsibilities of other professions in a better way so that later they can work together in a more collaborative and effective manner and can lead to better health care for all.

More studies regarding the direct impact of IPE on patient care are required to be done in the future.

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