

# The Need for Implementation of Interprofessional Education in Undergraduate Health Professions Colleges in Pakistan

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## ABSTRACT

**Background:** The purpose of this study is to look into the necessity of integrating Interprofessional Education (IPE) into Pakistani undergraduate health professions colleges. The main goal is to evaluate staff and student awareness, attitudes, and perceived barriers regarding IPE.

**Methods:** A mixed-methods approach, combining surveys (n=128) and focused group discussion (n=17), was utilized to obtain comprehensive insights into the perspectives of both students and faculty members over a period of 10 months from medical, dental and nursing colleges. Surveys were distributed to a stratified sample of students and faculty members, evaluating their awareness, perceptions, and challenges related to IPE. Additionally, semi-structured FGD was conducted with a subset of participants to delve deeper into their viewpoints. Descriptive statistics and thematic analysis were employed to analyze the quantitative and qualitative data, respectively.

**Results:** The survey responses and FGD narratives revealed scanty awareness regarding IPE concepts among both students and faculty members. While participants expressed positive attitudes toward IPE, significant challenges such as curriculum constraints, limited resources, and organizational resistance were identified as barriers to effective implementation. The qualitative analysis highlighted the potential benefits of IPE, including improved teamwork, communication skills, and patient-centered care.

**Conclusion:** Despite the acknowledged benefits of IPE, challenges persist that hinder its successful integration. This study advocates for a comprehensive strategy to overcome challenges and promote the effective implementation of IPE, ultimately contributing to more proficient and patient-centric healthcare delivery in Pakistan.

## Keywords:

Interprofessional Education, health professions, undergraduate medical education, patient-centered care

## INTRODUCTION

In recent years, the field of healthcare has witnessed a paradigm shift, transitioning from a predominantly individualistic approach to a collaborative and interdependent model.<sup>1</sup> This global change has trickled into healthcare teaching and practice in Pakistan as well and there are discussions among the stakeholders about the need for an interprofessional approach. Interprofessional Education (IPE) has emerged as a pivotal strategy to equip future healthcare professionals with the skills and attitudes necessary for effective teamwork, communication, and patient-centered care.<sup>2</sup>

Pakistan, like many developing countries, faces unique challenges in its healthcare system, including inadequate access to healthcare services, resource limitations, and quality-of-care issues. Embedding IPE within undergraduate health professions education has the potential to ameliorate some of these challenges by nurturing professionals who are adept at working collaboratively, leading to improved patient outcomes and more efficient healthcare delivery.

This article delves into the pressing need for the implementation of IPE within undergraduate health professions colleges in Pakistan. Any required change needs a starting point; this cannot be emphasized from the very beginning of core training of healthcare students.<sup>3</sup>

Through a comprehensive examination of the current awareness, attitudes, and perceived barriers among students and faculty members, this study sheds light on the critical gaps that hinder the adoption of IPE. By understanding these barriers and advocating for a transformative educational approach, this article seeks to contribute to the enhancement of healthcare education and practice, ultimately benefiting both future healthcare professionals and the patients they serve.

## ARTICLE INFO

### Article History

Received: 01.07.2024, | Accepted: 01.04.2025

**Conflict of Interest:** The authors declared no conflict of interest exists.

**Funding:** None

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**Citation:** Sheikh A, Malik A. The need for implementation of interprofessional education in undergraduate health professions colleges in Pakistan. J Fatima Jinnah Med Univ. 2025; 19(1): 3-6.

**DOI:** <https://doi.org/10.37018/SDWE8545>

## PARTICIPANTS AND METHODS

A mixed-methods approach, combining surveys (cross-sectional exploratory approach) and semi-structured questions during a focused group discussion (FGD), done over a period of 10 months was utilized to obtain comprehensive insights into the perspectives of both students and faculty members. Considering the ethical guidelines, approval before the start of the study was obtained from IRB&EC of CMH Multan Institute of Medical Sciences.

This study was conducted in multiple undergraduate health professions colleges (Medical, Dental, Nursing, Nutrition, and DPT) in Punjab, Pakistan. After obtaining the approval, the Survey questionnaire (hard copy) was distributed via focal persons in each college to collect the required data. The focal people ensured the distribution of hard-copy forms to the students of their respective colleges. The random sampling technique was used to collect survey responses. Sample size was calculated via online calculator with confidence interval 95%. After a vigorous effort 128 filled forms were collected. For FGD strategic sampling was used to collect a group of 17 faculty members (from different specialties) with knowledgeable background of IPE.

This study's sample population composed of students (survey) and faculty (FGD) both, who were knowledgeable about the subject matter to bare minimum extent. Their level of information was critical to the internal validity of the research. The study's validity was further strengthened by the use of quotes and allusions to the statements made by the respondents.<sup>4</sup> Both genders were equally represented in this research.

A stratified sample of students and faculty members, from various health disciplines of different health professions colleges, was selected to participate in the study. Surveys were administered to assess participants' awareness, attitudes, and perceived barriers toward Interprofessional Education. Semi-structured focused group discussion (FGD) was conducted to gather in-depth insights from a subset of participants.

Descriptive statistics were used to analyze survey responses, while thematic analysis was applied to interpret FGD transcripts, ensuring a comprehensive understanding of perspectives on IPE.

Ethical approval was obtained from CMH Multan Institute of Medical Sciences Institutional Review Board and Ethics Committee IRB&EC which is the affiliated institute of the principal investigator.

Informed consent was obtained from all participants, ensuring confidentiality and voluntary participation. Consent was also taken to use the original survey form developed by parent research article publishers in Japan.<sup>5</sup>

## RESULTS

According to the demographics collected following specialties were represented in the samples with a vast majority of medical and dental students (Table 1). Table 1 indicates the number of students in each specialty who participated in the research by filling out the survey forms. The percentage of each also coincides with the total number of students in each undergraduate course.

The study revealed moderate awareness of Interprofessional Education (IPE) concepts among both students and faculty members in undergraduate health professions colleges. Among the participants, 58% of students (Survey) and 62% of faculty members (FGD) reported having some familiarity with IPE in terms of its definition and/ or basic principles.

Positive attitudes toward IPE were evident by showing a constructive approach towards understanding what IPE actually is and learning about its uses and implications. The data showed that 76% of students and 84% of faculty members recognized the potential benefits of collaborative learning.

The survey revealed a moderate level of awareness (57%) regarding Interprofessional Education (IPE) concepts among students and faculty members in undergraduate health professions colleges. Participants expressed positive attitudes toward IPE, with 76% acknowledging its potential benefits in enhancing teamwork and patient-centered care.

However, significant barriers to the implementation of IPE were identified. The most prominent challenge was the lack of Institutional Awareness about IPE (79.9%) cited by 79.9% of participants (Table 2).

Table 2 shows the frequency of responses about major barrier that the study participants considered to be was lack of institutional awareness. Due to this lack at institutional level no work can be expected to be done

**Table 1: Specialties of the research participants**

Specialties	Frequency	Percent
Medical	67	52.3
Dental	46	35.9
Nursing	5	3.9
Physiotherapy	7	5.5
Nutrition	3	2.3
Total	128	100.0

**Table 2: Barriers – lack of institutional awareness about IPE**

Barriers	Frequency	Percent
Major Barriers	72	56.3
Somewhat Barrier	30	23.4
Neutral	14	10.9
Not So Much	4	3.1
No Barriers	8	6.3
Total	128	100.0

holistically involving all the stakeholders. Unless the institution is involved, no needed planning or implementation can be done.

Among the list of other barriers, (in order of frequency) were lack of cooperation among different professionals (69.5%), difficulty in the adjustment of academic schedules and timelines (64.1%), limited financial (60.2%), and infrastructure (42.4%) resources, were cited by 42.2% of respondents. Another major barrier identified was lack of faculty training in IPE (58.6%) and insufficient faculty members (56.2%).

The focused group discussion included 17 people with a mix of different specialties of faculty members, as per the availability and convenience of the consenting participants. During FGD, researchers' encountered participants who were although knew about IPE but were unaware of its principles and methodologies to start with, so further line of questioning from them was hindered. This issue however was overcome to some extent because the discussion connected many dots and the experts were able to find out the missing links. The discussion mostly steered towards exactly what IPE is and the barriers earlier identified during the survey stayed the focus of discussion.

Qualitative analysis of the FGD highlighted the potential advantages of IPE, including improved teamwork, communication skills, and enhanced patient-centered care. Participants emphasized the importance of breaking down professional barriers and fostering mutual respect among health disciplines to promote a cohesive healthcare workforce.

Thematic analysis of interview data highlighted participants' recognition of IPE's importance in preparing future healthcare professionals. However, concerns were raised about the need for curriculum restructuring, faculty development, and administrative support. Participants emphasized the potential for IPE to improve interdisciplinary communication (32%) and promote a more holistic approach to patient care (28%).

These findings underscore the urgent need for a comprehensive strategy to overcome the identified barriers and implement IPE in undergraduate health professions colleges in Pakistan.<sup>6</sup>

The wholesome group discussion brought a collaborative point to highlight which was approved by all specialties. It was mutually agreed that, "addressing [these] challenges can lead to the cultivation of a collaborative healthcare workforce, ultimately contributing to more effective and patient-centric healthcare delivery in the country."

## DISCUSSION

The present study sheds light on the need for the implementation of Interprofessional Education (IPE) within undergraduate health professions colleges in Pakistan. The findings reveal not enough awareness regarding IPE among both students and faculty members, underscoring the importance of increasing efforts to enhance understanding and knowledge of this collaborative educational approach. The receptive attitudes toward IPE indicate accommodation to its potential benefits, signifying a favorable foundation for successful integration.<sup>7</sup>

One of the primary challenges hindering the adoption of IPE is the existing curriculum constraints. The faculty stays in the silos created by their respective departments/ disciplines and the distance increases at the workplace which further limits opportunities for interprofessional learning experiences.<sup>8</sup> To overcome this barrier, colleges must embrace a transformative approach that embeds IPE within the existing curriculum. By providing collaborative learning opportunities, students can develop the skills necessary for effective teamwork, communication, and problem-solving – attributes essential for future healthcare professionals.<sup>9</sup>

Another major obstacle is a lack of resources, including facilities, funding, and faculty. The main obstacles to the successful implementation of IPE are the existing organizational culture and institutional opposition to change. By holding candid conversations with important stakeholders, such as administrators, teachers, and students, regarding the advantages of IPE and its possible effects on healthcare delivery, colleges can proactively overcome resistance. Long-term success will depend on developing a culture that values cooperation and respect among professionals and establishing a common vision for interprofessional collaboration. This should also be evaluated in term of national and international curricular frameworks with rapidly advancing technology.<sup>10</sup>

The study's qualitative findings support earlier research findings from other nations and highlight the potential advantages of IPE. Better patient outcomes and more effective healthcare delivery can result from improved communication and a better understanding of professional duties. Additionally, fostering teamwork throughout undergraduate studies can have a favorable impact on future medical professionals' practices, nurturing a patient-centric approach.

In conclusion, the findings of this study highlight the critical need for integrating Interprofessional Education into undergraduate health professions colleges in Pakistan.<sup>11</sup>

By addressing the identified barriers and leveraging positive attitudes toward IPE, colleges can take significant strides toward fostering a collaborative, patient-centered healthcare workforce. Successful implementation of IPE requires collective efforts from all stakeholders, including regulatory bodies, policymakers, and healthcare institutions. Ultimately, embracing IPE will contribute to the transformation of healthcare education and practice, leading to improved healthcare outcomes for the people of Pakistan.<sup>12</sup>

The study's cross-sectional design may limit causal inferences, and the findings might not be generalizable to all health professions colleges in Pakistan. During FGD, researchers encountered participants who were unaware of the interprofessional educational methodologies to start with and so further line of questioning from them was hindered due to this and the comprehensiveness of the data collected.

## CONCLUSION

The study was conclusive in some aspects suggesting the importance of interprofessional education as a preliminary training ground to prepare health professionals who can work in collaborative health care teams efficiently. However, there seemed to be a huge lack of full understanding of how the interprofessional education could be incorporated within the undergraduate teaching curricula. Once a basic awareness was created among the study respondents (esp. during the FGD), the faculty accepted the serious effects of lack of IPE in Pakistani settings. The discussion created curiosity regarding its wider applications and current teaching status in international settings. However the discussion regarding the IPE curriculum and IPE strategies was beyond the scope of this research.

## Author contributions

**Attia Sheikh:** Conception and design, analysis and interpretation of data, drafting the article, critical revision for important intellectual content, final approval.

**Aeeza Malik:** Acquisition of data, conception and design, analysis and interpretation.

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