

Framework for Action to Implement Interprofessional Education and Collaborative Practice in Pharmacy and Allied health Sciences Programs in India

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ABSTRACT

Background: Interprofessional education is a step towards providing higher quality patient care by producing collaborative and practice-ready health care professionals who appreciate each other's roles in the health care settings. The objectives, learning outcomes and action plans to implement IPL in various phases is discussed in this paper. **Methods:** A literature review was done to write a concept paper to produce a framework for action to implement interprofessional education and collaborative practice in Pharmacy and allied health sciences programs in India. **Results:** The key information need as per this concept paper is; effective collaboration and communication skills are needed to make the healthcare team members such as doctors, pharmacists, nurses, and other allied health graduates to work both autonomously and collaboratively in complex and challenging clinical environments. **Conclusion:** The need for evidenced-based collaborative care that utilizes the expertise of various disciplines has been acknowledged worldwide. Therefore, it is important to create the opportunity for the various health professional students to understand interprofessional education and appreciate the roles played by different professionals. Interprofessional education provides a better understanding of the health care system and ultimately improves the quality of patient care.

Key words: Inter-professional education, Indian health care programs, Collaborative practice, Inter-professional learning, Pharmacy.

Interprofessional education

Interprofessional education (IPE) is a step towards producing collaborative and practice-ready health care professionals, who appreciate each other's roles in health care settings; it has been shown to improve the quality of care through collaborative working.¹ Committed academicians and educational institutions that believe in the benefits of interprofessional education have focused on innovative strategies to strengthen the workforce of health professionals.²⁻⁶ There is a commitment to the preparation of professional graduates who can work for each other in a health care team. Effective collaboration and communication skills are needed to make health care team members such as doctors, pharmacists, nurses, and other allied health graduates work both autonomously and collaboratively in-com-

plex and challenging clinical environments. These skills can be achieved through inter-professional education in undergraduate programs, which is defined as making two or more professionals learn with, from and about each other to improve collaboration and the quality of patient care.² In an effort to create a leveling experience for health professional students coming from various programs (such as medicine, pharmacy, nursing and dentistry), educationalists provide various activities. Interprofessional learning activities are implemented using small group teaching and hands-on experience in the wards and community services.

Generally, during interprofessional learning sessions, the different health care professional teams will acquire knowledge from each other through team working.⁷ These

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sessions are normally based on one or more of the collaborative practice domains of teamwork and team-based practice, communication, values and ethics, and roles and responsibilities for collaborative practice.⁸ Evaluation of health care professional education techniques has been undertaken as there is an urgent need to improve patient safety by reducing preventable medical errors.^{9,10} Failure in communication between health care professionals may contribute to deficiencies in clinical skills and leads to medical errors.^{11,12}

Published articles from the World Health Organization and the Health Professions Network Nursing and Midwifery Office suggested that IPE is one solution to improve the quality of patient care by enhancing professionals' collaboration and their teamwork skills.¹³ IPL activities enable students to 'learn with, from and about each other and encourage student interaction.¹⁴ Hence, it is recommended to provide IPL activities between health professional students, which will enhance their willingness to work together in the future.¹⁵

Does Indian health care need interprofessional learning?

Interprofessional learning (IPL) activities among the healthcare professionals have gained recognition as a teaching-learning strategy in the developed countries and in some developing countries such as Malaysia and Singapore. The need for evidenced-based collaborative care that utilizes the expertise of various disciplines has been acknowledged worldwide. Collaboration and teamwork among health care professionals should begin early in their education via interactive learning experiences.

In developing countries like India, health care is provided by both the public and private sectors.¹⁶ The public health care system faces many challenges, including the deployment of health care professionals and the skill mix of staff across the entire health care system.¹⁷⁻²⁰ The University of Toronto had projected that IPE will be leading to patient-focused healthcare practice²¹ which is depicted in Figure 1.

How it benefits in Indian health care set up?

India has a broad network of institutions for future health care professionals. There are many universities and government organizations preparing students in the field of medicine, dentistry, nursing, pharmacy, psychology, biomedical science, medical biotechnology and nutrition and dietetics. Most of these health related courses are provided less than 4 years under one roof and various institutions are well connected by the universities and other official bodies.

For example, in Pharmacy, the Pharmacy Council of India keeps a close vigil on the infrastructure and teaching and training quality of institutes providing pharmacy education in the country. The universities are the affiliated bodies which regularize the curriculum, based on instructions provided by the Pharmacy Council of India. Public and private institutions offering pharmacy programs are affiliated to universities in their respective states. The faculty and students have a better opportunity to interchange for professional training and other teaching activities. In such situations, interprofessional learning activities can be included in the curriculum with the help of universities and the Pharmacy Council of India.

There are various benefits to implementing interprofessional education as well as those for health policy. Interestingly, these were self-reported benefits rather than being outcomes from rigorous evaluation.²² It is also important to create the opportunity for the various health professional students to understand interprofessional education and appreciate the roles played by different professionals. This gives an advantage to healthcare professionals from various disciplines understand the health care system better. It will improve health interprofessionals' mutual understanding and respect across a diverse range of practice disciplines, help to break functional barriers, enhance teamwork and improve healthcare outcomes.

Appropriate learning activities for IPL

Skills based learning

Interprofessional learning occurs when there are clinical skills learned 'with' and 'from' other health care professionals in order to improve cooperation and the quality of clinical practice.^{23,24} The skill-based learning allows different health professionals to communicate and better understand each other's roles. Such collaborative learning will help health care professionals to achieve interprofessional practice in their workplace in the future and resulting in better quality of patient care.²⁵

Problem based learning

Interprofessional learning can be systematically merged with problem-based learning.²⁶ Problem-based learning sessions using multi disciplinary students can bring knowledge from the students of different health professions together as they interact with each other. It also brings the learners closer to acquire knowledge from each other and help them to understand everyday professional life of others. It can be used as an effective tool for interprofessional learning.²⁷ The role of academic staff members as facilitators during PBL session ensures that

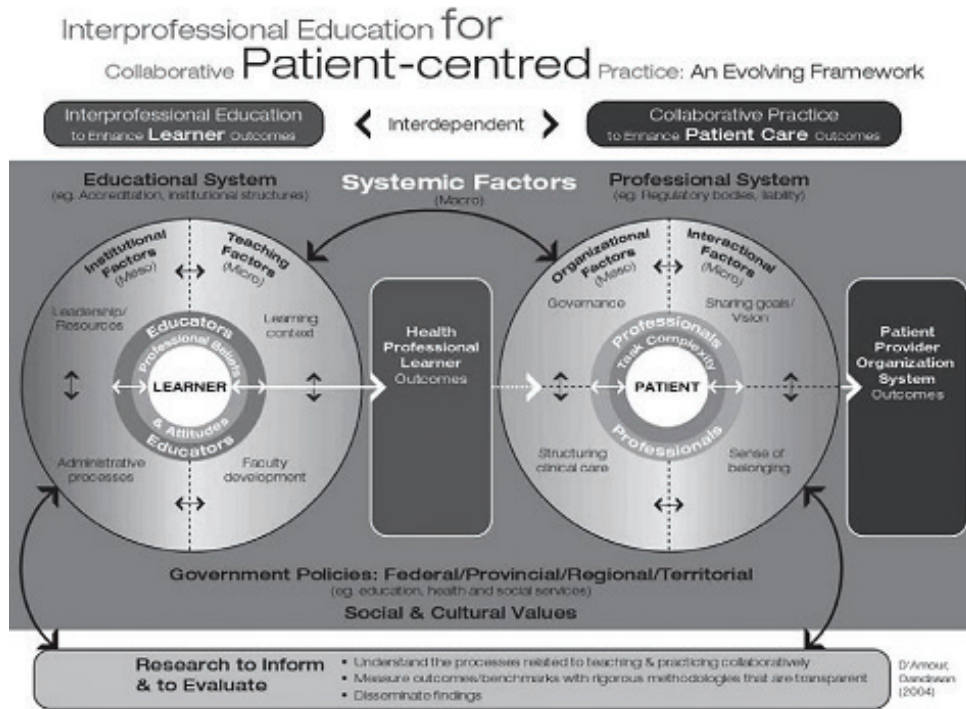


Figure 1: Interprofessional education for collaborative patient-centered practice
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the students are working effectively. The regular induction and de-briefing by the facilitators at the end of the sessions will support the learning for students from each profession and foster interprofessional collegiality.²⁸

Simulation resource package

Consecutive simulation properties maintain the expedition of IPL for students and professionals healthcare. The interprofessional learning by simulation resource package will have audiovisual resource and a facilitator guide. Firstly, the basic idea of interprofessional learning can be introduced to the students and then the human factors related with health care can be familiarized. Secondly, the audiovisual source demonstrating a sub-standard performance of the healthcare team, followed by the standard performance, improving the patient experience. The package can be designed in a way to allow flexibility in its presentation, depending on the educational background which is available within the institution.²⁹

Workshops

Interprofessional learning workshops can be conducted for healthcare students. In these workshops, health care professional students can address the importance of interprofessional relationships in a given scenario/case. The involvement of students from various backgrounds in inter-personnel communication will be informa-

tive and interesting. The students' own feedback from their real-life experiences will enhance the quality of the workshops and facilitate their learning.³⁰

Interprofessional Peer-Assisted Learning (IPAL)

Peer-assisted learning is an approach to uni-professional learning in healthcare professions. This can provide a structured peer-learning experience for students from different areas of health care. Students' psychomotor skills and professional capabilities will be the main focus of IPAL. A well-trained faculty member can facilitate the session in which one student can act as a peer teacher, with others acting as peer learners. It will provide opportunities for students from different professions to learn new skills and practise them with others. Additionally, participants' skills in communication, presentation, demonstration, teaching and coaching will also improve.^{31,32}

Community-based education

Community-based education includes the complexity of the design required for IPL, as well as the attitudinal barriers between professions.³³ Team-building, patient-centered care, knowledge about other professions, service learning, interprofessional clinical components and the impact of culture on healthcare delivery are concepts that can be learned and practised during community-based education; this will demonstrate how

Table 1: Framework for IPL in India

Division	competencies	Objectives	Outcomes
Part 1	Knowledge	To enhance understanding of others' professional roles and responsibilities	Students should be able to describe and list interprofessional roles Students should be able to explain where different professions fit, given a bigger picture of healthcare Students should be able to describe the importance of basic communication skills
Part 2	Demonstrating team work or simulation	To help to develop skills needed for effective teamwork To respect the integrity and contribution of others	Students should be able to demonstrate working as a team player Students should be able to demonstrate higher level communication skills Students should be able to interpret the various interprofessional roles Students should be able to manage information from various resources including having IT skills
Part 3	Undertaking IPL at the bedside with real patients	To improve cohesiveness of students in different programmes	Students should be able to analyse and troubleshoot in real life scenarios Students should be able to evaluate and apply the principles of inter professional communication in real life scenarios Students should be able to create strategies and framework working in an IPL team

interprofessional collaboration can impact on health care activities and improve health care.

Learning objectives of IPL activities

The learning objectives of the IPL activities can be described as:

- To develop an aptitude towards patient-centered practice,³⁴
- To appreciate different professionals' roles and accountabilities,³⁵
- To develop the abilities required for operative collaboration,³⁶
- To improve information of specific experimental talents or themes,³⁷
- To respect the integrity and contribution of others,³⁸
- To improve cohesiveness of students in different programs.³⁹

In India most of health care courses are structured as programs lasting 3-4 years. The parts 1, 2, 3 as mentioned in Table 1 can be assigned according to universities' convenience, depending upon the semester or yearly system. In part 1, students can acquire knowledge about IPL. This will enrich their understanding about other health care students' roles and responsibilities. In part 2, students can establish team working with other health care students which will create a rapport with them. This will improve their skills, integrity and inter professional communication (IPC). In part 3, students can undertake IPC in a real scenario/patient setup. This will progress their interprofessional relationships when they become a health care professionals in the near future.

Action plan

Part 1: IPL workshop and hands-on activities can be conducted for the students of health care courses. Students will interact with their fellow students of other professions. Activities can be based on knowledge acquiring and understanding the roles of other professions. Constructive feedback by the respective academic staff members can be given to the students.

Part 2: This will involve collaborative projects along with students from other professions; for example, this could include case studies, simulations in clinical skill centers, problem-based learning, and targeted group learning activity involving discussions and debate. Constructive feedback by the respective academic staff members can be given to the students.

Part 3: Community visits can be planned specifically in healthcare management areas. Students from different programs can be involved and represent their role in the activities conducted in the community. Academic staff members can accompany the students in these activities.

How to measure and evaluate?

Assessment rubrics

For a lifelong learner, self-assessment is a significant skill.⁴⁰ The studies by Boud and Falchikov, 2007⁴¹ and Topping 1998⁴² showed that the provision of appropriate guidance and support can allow students to judge their own skills. The rubrics for self-assessment are designed to improve learners' self-appraisal and enhance their learning.⁴³

Objective Structured Clinical Evaluation

The objective structured clinical examination (OSCE) can assess clinical knowledge, skills, behaviors and attitudes by structured observation.⁴⁴ An interprofessional OSCE (iOSCE) uses this method to assess collaborative knowledge, skills, behaviors and attitudes.⁴⁵

Reflective report

IPL involves learning, and learning requires reflection. Academic staff can ask the students to provide a reflective report and can ensure that the learning outcomes for IPL and teamwork are met. This will ensure how good students' training and knowledge and team work align to the realism.⁴⁶

How can these activities be sustained?

Activities that promote inter-professional learning should be included in respective curricula. This will help to ensure the continuity of the learning and allow the activities to be evaluated. An occasion can be organized to celebrate IPL so that its importance and outcomes can be highlighted to both students and academic staff. Interest and support from all parties will help to sustain IPL in Indian health care education.

Faculty development for interprofessional learning

The role of academic staff is very important in preparing curricula for interprofessional education in various programs. The academics from different faculties should work with each other. A better understanding of the work settings of other health care professionals plays a vital part in designing an interprofessional education activity. It is important to prepare academic staff for their roles to develop, deliver and evaluate interprofessional learning. Involvement of academicians from various professions in a case-based learning environment and where they can form interprofessional teams facilitates the development of interprofessional learning. In addition to examining cases, faculty members also learn specific information about interacting with the other professions and gain knowledge about the roles, knowledge and contributions that can be made by professions other than their own.⁴⁷ The initial attitudes of staff members must be optimistic for interprofessional learning to be embedded successfully in the curricula. This will encourage sustained involvement and a readiness to promote development in the curriculum. In the context of interprofessional education, faculty members often bridge two or more discrete professional communities to facilitate information exchange.⁴⁸ Faculty members will benefit from training in IPE and need formal development for continuing improvement as facilitators

of interprofessional group learning and other interprofessional learning activities.⁴⁹

Implementing a faculty development program in the Indian environment

Faculty training programs in IPE by the institute/university must be strategic in their design and implementation. A faculty development program must incorporate mentorship, self-directed learning, and lecture-based presentations as principal learning activities. Adult learning theory should form the basis of pedagogical approaches in faculty development for IPE.

Diverse educational methods including experiential and peer learning, reflection, and feedback should be employed.⁵⁰⁻⁵³ The learning outcomes must include an understanding of the roles and responsibilities of interdisciplinary team members, the identification of the challenges of an interprofessional approach to patient-centered care, and the application of collaborative approaches to the healthcare needs of the patient.⁵⁴ Such faculty development programs involving academicians from various professions give faculty members the opportunity to network during the initiation of IPE.

A collection of ideas from staff members can bring out their individual ideas on the formats for IPE sessions; these ideas can be pooled so produce the best plans.

Institutional support

Institutions can allow health care teams to work collaboratively and promote interaction among faculty members from different areas. Academic staff members taking part in collaborative practice may require domain models, organized protocols and joint operating measures. Managerial support is needed in effective health-care service delivery which requires teamwork and shared accountability among the members of a working team. To deliver interprofessional collaboration effectively, reasonable time and space is necessary. Meanwhile, institutional policies may need to identify collaborative practice and provide funding with reasonable remuneration.

Environment

The institution must provide the appropriate infrastructure for interprofessional learning and collaborative practice. In particular, the space provided should not indicate any hierarchy with respect to the individual professions. Therefore, the rooms and the seating should be organized in such a way that there are no hurdles to effective collaboration and communication.

Interprofessional Fellowship

Despite recent advances in healthcare, there is a shortage of people with experience in interprofessional working to manage and operate healthcare and very few training pathways to develop such professionals. The proposal to form the Interprofessional Fellowship Program is to develop leaders with vision, who will develop and evaluate interprofessional education to advance the nation's healthcare. The Interprofessional Fellowship Program can have a robust curriculum, an appropriate infrastructure, and qualified fellowship faculty who are experts in simulation practice, education, and research. Institutions can select efficient and enthusiastic staff members and equip them by attending these fellowship programs which may help to implement and sustain IPL in India.

Limitations of IPE

Challenges to developing interprofessional education include structural differences between faculty organizations, conflicting university and professional agendas, and the lack of adequate human resources to implement such programs, both within the university and across the community boundary. Other challenges are the complexity of communication channels within the university and with its community partners; lack of continuity of personnel due to rotation and replacement of team members, and the lack of regular evaluation of interprofessional educational goals and programs. The success of implementing IPE in any academic institution depends on academicians and administrators across all faculties and schools in each individual institution.⁵⁵

CONCLUSION

Framing interprofessional education is a challenge for staff members and stake holders. Though enough articles have been written on interprofessional education, it is obligatory for the staff members in different universities and colleges to work towards interprofessional education and to liaise with the members of health providers to participate in discussions that discourse the collaborative practice to implement interprofessional education and collaborative practice in Pharmacy and allied health sciences programs in India.

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CONFLICT OF INTEREST

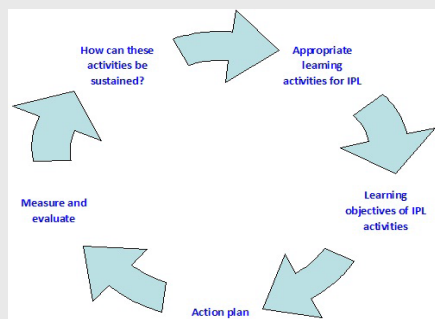
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PICTORIAL ABSTRACT



SUMMARY

- IPL workshop and hands-on activities can be conducted for the students of health care courses.
- Collaborative projects along with students from other professions; for example, this could include case studies.
- Community visits can be planned specifically in healthcare management areas.

ABBREVIATIONS USED

IPE: Interprofessional education, **IPL:** Interprofessional learning, **IPAL:** Interprofessional Peer-Assisted Learning, **IPC:** Inter professional communication, **OSCE:** Objective structured clinical examination, **iOSCE:** Interprofessional OSCE.

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