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Perceptions and barriers of health-care professionals to develop and implement interprofessional education in UAE: A qualitative study

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Abstract:

BACKGROUND: This study aimed to determine the perception, perspectives, and behaviors of health-care providers, as well as cues to action toward interprofessional education (IPE).

MATERIALS AND METHODS: The interview sessions were conducted from August 2020 to November 2020 at the College of Pharmacy, Gulf Medical University (GMU), Ajman. The invited participants belonged to all the colleges which are a part of GMU, providing academic and practice support to the university. All were residents of UAE, and both genders were considered for qualitative assessment. The sample size based on data saturation plus two as standard guidelines in qualitative res earch. All the interviews were audiotaped for verbatim transcriptions. All the recorded interviews were transcribed to avoid bias. The prepared transcripts were then verified for accuracy by the relevant participant and after approval, data were analyzed. In case of an emergent theme, all the investigators were focused on refining the analysis.

RESULTS: A total of 17 health-care professionals (HCPs) were interviewed. The participants were chosen from five different colleges at GMU. All the participants had similar perceptions about IPE, as it is a collaboration between different HCPs to achieve better patient outcomes. A diversity in perspectives toward IPE was found among the participants. Several barriers were identified during the interview session and also highlighted the importance of choosing the right topic for IPE, as it affects planning of the activities greatly. The participants also stressed that the lack of communication also contributes to decreased involvement of HCPs.

CONCLUSION: This study identified inefficient implementation of IPE. The barriers were lack of team effort, lack of communication within the institute, and administrative support, despite the availability of resources and infrastructure in the university.

Keywords:

Cooperative Behavior, graduate education, interprofessional education, professional education, public health professional education

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Introduction

In order to provide patient-centered, cost-effective and quality care, there is increasing evidence indicating that health-care professionals (HCPs) need to be prepared to collaborate in interprofessional health-care teams.[1] The World Health Organization (WHO) recognized the impact of successful collaborative teams in health-care practice and published a seminal document titled "Framework for Action on Inter-professional Education and Collaborative Practice" in 2010 with emphasis on the need to integrate interprofessional education (IPE) into the learning curriculums as applicable to the local needs. WHO defines the term IPE as "When students from two or more

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professions learn about, from and with each other to enable effective collaboration and improve health outcomes."[2]

But despite this growing momentum in interprofessional collaboration and crucial team-based health-care delivery, many health-care profession students are yet to learn through curricula integrating IPE modules in an interprofessional learning environment.[3]

Many hindering factors have been reported from institutional faculties through the years of IPE research.[4-6] Reports in the Middle East have identified factors such as lack of familiarity with the curricula and responsibilities of certain professions,[7-9] attitudinal biases both on the learning and health-care institutions,[10] faculty workload and lack of dedicated personnel,[11] discrepancies in student number and level of study, geographic, structural, and resource difficulties, and student-related factors including perceptions and attitudes.[8,11] Additionally, lack of shared competency frameworks affects IPE initiatives from being successfully implemented.[4]

Thus, a number of competency frameworks have been designed to facilitate assessing and achieving IPE competency among health-care students; such tools are in reference and alignment to the interprofessional collaborative practice tools such as the "IPEC Core Competencies for Interprofessional Collaborative Practice: 2016 Update."[5] The Health Professions Accreditors Collaborative released a guidance report on developing, implementing, and assessing IPE for the health professions, stating that a deliberate design of IPE activities integrated into the current curriculum and longitudinal in nature (i.e., from classroom-based activities to experiential or clinical-based IPE) are required to achieve the goals of these competency frameworks. The guidance report also stressed the responsibilities of institutional leaders and program-specific faculties in ensuring that students are ready for successful collaborative practice in the rapidly changing patient care environments.[6]

With the growing evidence indicating that IPE can have a progressive impact on students' attitudes, knowledge, skills, and collaborative competencies,[1,9,10,12] the aim of this study was to explore the perceptions and prospective of HCPs toward development and implementation of IPE in Gulf Medical University (GMU), Ajman, UAE.

Materials and Methods

Study design and setting

This qualitative method explores the understanding of different HCPs' perceptions, behaviors, and perspectives on "what, how, and why participants respond to IPE teaching and practices." This study method also explores the comprehensive answers to diverse questions from different HCPs involved both in academics and practice toward understanding, developing, and implementing IPE and barriers of implementing IPE. The qualitative interview has a focused, but flexible nature of exploration that helps in investigating the perceptions to development and barriers to practice implementation of IPE.

Study participants and sampling

Interview sessions were conducted at the GMU during August 2020–November 2020. The invited participants belonged to all the colleges which are a part of GMU, providing academic and practice support to the university. All were the residents of UAE, and both genders were considered for the qualitative assessment.

Eligibility criteria

HCPs holding administrative office not involved in academic or practice, teaching assistants, lab managers, and HCPs holding examination offices or diagnostic sections were include d. HCPs holding human resource department or admission unit were excluded.

Interview sessions were moderated with the principal investigator and facilitator for in-case challenges during the interview session. The questions were simple and straightforward without the use of linguistic jargons.

Assessment tool

A semi-structured interview guide provided in Table 1 was used to conduct the study. An open-ended question approach was applied to elicit participants' response. The interview questions were related to perceptions toward IPE activities, perspectives toward IPE collaborations, behavior toward event development and implementation of IPE, and cue of action for future considerations. General probing guidelines were used during the interviews to facilitate asking questions (Can you explain? Can you further clarify? What is your opinion about? What would you like to suggest? etc.).

Data collection tool development and technique

An extensive literature review was conducted to first develop the interview probe guide,[1-6] and then face–content validation was made with experts from both academic and practice-oriented health-care professions. The purpose of conducting this procedure is to obtain health-care providers' perspectives and opinions coherently with the interview-specific probe guide. This will interest the academics, public health administrators, and Ministry of Education to follow-up with the research findings and develop and implement IPE-related policies in the education sector to improve future health-care practices. A pilot study will be designed to evaluate

the interview probe guide, and the data will neither be added to the final analysis nor to the research report. The expected sample size of pilot study will be eight personnel fulfilling the eligibility criteria of the study.

Interview process

All the interview sessions were in English language. The principal investigator facilitated all the interview sessions along with a research assistant who documented field notes and recorded the interview. Before the interview, the participants' professional and demographic data were collected using a structured questionnaire attached to the invitation information sheet and consent form.

Ethical considerations

This study required research ethics approval from IRB-GMU before the pilot study and further interview sessions. The response-based privacy of HCPs was ensured by the principal investigator. This research is approved by IRB-GMU (reference no: INT/COP/FR/001-2020).

Data analysis/evaluation

All the interviews were audiotaped for verbatim transcriptions. Further, the principal investigator transcribed all the interviews to avoid bias. The prepared transcripts were then verified for accuracy by the relevant participant and after approval, analysis of data was conducted.

Table 1: Interview probe guide

Discussion topic	Examples of specific probe
Perception toward IPE	In your opinion, what is IPE/learning/collaboration?
	Do you think IPE will improve students' competencies to practice?
	What hinders health-care professionals to collaborate and teach together?
Perspectives toward IPE collaboration	In your opinion, what are the potential strategies to collaborate in teaching with other health-care professionals?
	Have you experienced any IPE activity before? Please share the experience.
	In your opinion, what are the barriers hindering interprofessional collaboration?
	In your opinion, what are the students' expectations from IPE activities?
Behavior toward IPE activities	In your opinion, how IPE activities will be planned?
	Do you believe IPE will improve interprofessional collaboration and provide opportunities for research activities?
	Have you developed and validated virtual/simulation case for improving students' team-based learning?
Cue of action	What do you suggest to improve IPE activities?
	In your opinion, how to increase involvement of other health-care professionals toward IPE collaboration?

IPE = interprofessional education

The principal investigator recorded the raw data thematically and upon completion, the theme was discussed with other subject experts and/or independent researchers for reliability and subject-specific trustworthiness.[7] The process included the expert opinions of three independent reviewers for theme identification. In case of an emergent theme, all the investigators were focused on refining the analysis. Theoretical saturation was required for closing the interview sessions for analysis,standard sampling equation of saturation plus three a pplied[13] when further interview did not produce any new information to study themes.

Results

The duration of this study was from August 2020 to November 2020. A total of 17 HCPs were interviewed, whose experience in their respective fields ranged from 5 to 50 years. The participants were chosen from different colleges at GMU, which included college of medicine, dentistry, pharmacy, nursing, health sciences, and health-care management, as shown in Figure 1. The majority of the participants were males (n = 11) and the rest were females (n = 6). The participants also occupied various positions within the institute, such as dean of college, associate professors, lecturers, clinical preceptors, and so on. All the participants were asked a set of questions under the following themes: perception toward IPE, perspective toward IPE, behavior toward IPE, and cue of action.

Findings of qualitative analysis

Theme 1- perceptions toward IPE

When the participants were asked "What is IPE?" the answer was more or less the same. It is the collaboration between different HCPs who learn to work and respect each other for better patient outcomes.[14-16]

"So, IPE stands for inter professional education and basically it is a collaboration between various healthcare professionals,

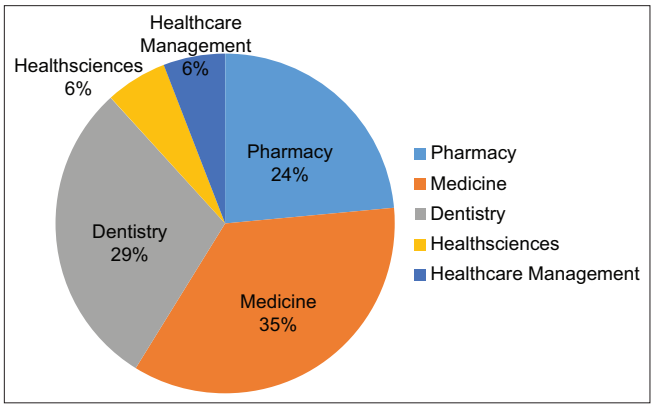

Figure 1: The percentage of participants chosen from different colleges/departments

they collaborate together. They have their own objectives to fulfill and learn together as a team. They fulfill their individual outcomes. That's where they participate in learning." (P2)

"IPE in short is cultivating collaborative practice which will improve the overall patient outcomes work together to learn together."(P10)

Upon asking the question about improvement in student competencies, light was shed on a number of positive aspects. In their opinion, students will be able to work better in an actual work environment, provided they are taught to communicate with other HCPs.[12] It is partly because different people working together give rise to different perspectives, which can help the students to look at the whole scenario in one picture.

"The level of understanding will be much more. Interpretation skills, thinking ability, problem solving ability and they will know skill wise how better it would be done." (P8)

"Improves patient care first because then when I know what are role of my colleague is the I know how to approach it and quickly act otherwise I am assuming that they properly think it or that person does but I know for sure that this person competency or its primary competency it also could be shared by someone so who is to approach first and who to approach…."(P16)

"There are many factors like people are not aware of the real concept of IPE and the relevance they are bound to their own syllabus." (P2)

"… I will know the very barrier. I don't know what they are studying in the college of medicine, nursing for example whatever colleges I don't know what they study." (P1)

"First of all, each specialty should understand the concept of IPE. They should know each specialty has something to offer. I should know my competencies and their competencies also. So, I should be well aware of what I have and what they have." (P3)

"Previous traditions, the old traditions. Like the ego for each discipline. They have their own ego; I am the best. Whatever department I'm from each discipline thinks I am the best…." (P4)

Theme 2- perspectives toward IPE

When asked about the strategies that could be used to improve IPE, the first and foremost suggestion was to integrate it into the system of education.[8,12]

"We *don't have any such program learning outcomes and our learning objectives should be in alignment with IPE. I think there will be a nice change if there is a change in curriculum."* (P2)

"I think in our situation we agreed that we can make IPE a part of the curriculum of all colleges." (P15)

"… they should be well aware of why IPE is important more than individual working. Benefits of IPE rather than this." (P3)

"What will happen is students from all courses will be sitting together and it will be a challenge for faculty members also. The faculty who is delivering the lecture will think in a different way." (P8)

The participants were questioned about their experience in IPE and even after having a considerable amount of work experience, their experience was minimal or nil, except some of them.[9,14] The participants of IPE-related activities were mostly happy with the improvements in student behavior, specifically boosting their confidence while interacting with other students. About six of the participants who had an IPE exposure were within the GMU premises, while some others experienced it earlier in their careers or while working in advanced programs such as Advanced Cardiac Life support (ACLS) cardiac support.

"I did not participate in IPE this year or last year. But I went and had a look and I was really amazed. I have seen my own students, how from across peers. It was beautiful to see how they could learn crispr back then and they participated …." (P9)

"Overall experience was very good. I could see a lot of changes in the student's behavior, I could see them very confident after they started mixing with other candidates." (P2)

Overcoming the barrier is a difficult task, but the opinions and suggestions that were given by the participants were more or less similar to the strategies involved in the betterment of IPE. For example, angulation of IPE into the curriculum and hosting sessions will help the students understand different professionals.

"So if we build a culture of embedding IPE in curriculum, at least 20% of activities has to be IPE." (P14)

"The more IPE activities we have within the institution, the hospital that will also encourage other IPE systems…." (P6)

The participants were unable to answer any question related to student expectations. It was their belief that the questions could be better answered by the students. Only a few participants were able to raise points like students were coming to IPE activities to work practically together and not just learn theoretically.

"You should ask the students. My perspective of what the student thinks is simply not relevant." (P6)

"Students are expecting IPE practice and not education. Expect to practice together. But not being educated together." (P4)

"Student's expectation always depend on professor engagement professor enthusiasm and professor wellness to bring them some topic on some different level which can improve their interest…." (P12)

Theme 3- behavior toward IPE

When the participants were asked in their opinion, how IPE activities would be planned, five (29%) participants said that small groups consisting of members from different departments/colleges would be preferable.[14,16,17]

"We should not have a very big group. Small groups with about 4-5 students will collaborate more seriously, focusing on their learning outcomes. Small group sessions but at least once in a month will help and increase their practice rather than theoretical collaboration." (P2)

"… In those roles how many students you want to be a part of that activity. There is no point of having 3 students from here, three students from there and no coordination. We need to be clear about the roles identified for each one of them." (P6)

IPE is usually introduced and implemented in the later years of undergraduate studies, but the participants suggested implementing IPE from the first year of undergraduate studies.[11,12,14,18,19]

"I think it's very difficult. As i said before, it should be introduced from day 1 to be implemented and be organized and to create the culture." (P15)

"Theoretically IPE should be introduced in the later part of the curriculum, that means in your third, fourth or fifth year. I would say it could be introduced in the beginning of the course curriculum." (P5)

The participants also highlighted the importance of choosing the right topic for IPE, as it affects planning of the activities greatly.[16,17]

"It should be college wise and the topic should be bided. Call the faculties and ask them how many of them will take that topic." (P8)

"The topic should be such that it will attract more and more people." (P7)

Lastly, the participants also preferred IPE activities to be flexible in regard to timings – the activities should not burden the instructors or the students and should be planned appropriately to fit their busy schedules.[15–19]

"The schedule should be planned in a way that it fits in our busy schedules." (P1)

"There should be no clash for the students or for the faculty…. and then there should be no burden on the students like we are giving them a whole lot of data to study just in one week or so. It should not be like that. It should be a topic that they can take easily. It could be a long program with one or two interactive sessions so it can be handled well at the level of students and faculty." (P7)

Theme 4- cue of action

When the participants were asked to suggest ways in which the involvement of HCPs can be increased, the first and foremost suggestion was that the awareness needs to be increased by conducting workshops, as lack of understanding will not allow everyone to acknowledge the importance or to be involved in IPE.[9,20,21]

"Increase awareness, conduct workshops in order to give knowledge about IPE. because I have been teaching for 14 years; however, i never came across IPE until I joined GMU. Similarly, we all come from different places, so we need to make sure everyone has enough knowledge about it." (P1)

"As an individual I don't like things being imposed on me. I need to understand the importance of it and only then I feel like I should be. Unless I as an individual do not see the importance, I will be less interested. Faculties of different departments should understand and I think once in a while a workshop will be better to prepare the faculty members that IPE is important." (P5)

It is important to note that the lack of communication also contributes to decreased involvement of HCPs.[14,16,18,20]

"Communication is very important and friendship because it has personal collaboration. Personal relationships are very essential, so that they understand what we intend to do." (P2)

"… so a workshop would help in that aspect and would break the communication barrier too." (P1)

"IPE should be incorporated as a part of their duties-academical work. It shouldn't be optional so they would be motivated to do it. The deans, the vice deans would monitor your contributions to IPE." (P11)

"At the end of the semester we have to submit what we have done apart from teaching. What we have done is only teaching (due to time constraints)." (P7)

Another unconventional suggestion was to introduce incentives/rewards for the participating HCPs.[9,14]

"It must be related to benefits toward the participants and benefits for self and society for example providing some official collaborations, statements and something which will be related to the doctors with professional education in credit hours and giving some seminar workshop and paying and taking points

here and in Europe they are missing the professional education is much more deeper than getting paid and getting the point so we need to develop some benefits." (P12)

"Motivation only comes when you give a reward. You give a reward, it being one of the points for promotion, it will carry points for faculty evaluation. Then they will do it. Even if there is nothing, we also require certification if it is going to help us in a professional way then yes. Some of them are doing one thing or the other and for many of them there is not much recognition. I can spend an entire year doing something but cannot write it down in the faculty evaluation because some things cannot be written. Make it something that could be counted down, then they will get convinced." (P9)

Discussion

The words teamwork, empathy, management, and understanding were brought forth frequently among the students belonging to different colleges, as they added to already existing competencies.[9] Apart from those factors, improvement in patient care and student knowledge was also discussed.[9,12,16,20]

According to some of the participants (35%), time management is one of the major factors that cause hindrance in practicing IPE. While some others believed that not being aware of the real concept of IPE, lack of awareness against the roles played by different HCPs, and lack of communication along with an egoistic approach toward other professionals were the factor s. Resistance from the faculty toward such a change can lead to students losing interest in IPE.[18]

Creating awareness among the students about the need for IPE, its benefits, and the logic behind such an initiative would attract a larger number of students. Apart from that, putting students in a single team and allowing them to give their perspectives is also a strategy that seemed feasible to make IPE work. This could be done by conducting sessions on a topic familiar across all disciplines, depending on the availability of students and teachers. The teachers are supposed to have complete knowledge of the topic in hand, as proposed by the participants.[9,12,14,18]

Avoiding communication gaps, creating awareness about what is happening, and giv ing proper motivation through certifications, appreciation prices, appraisals, and so on ar e a few aspects that were tapped into.[14]

Only a few participants were able to raise points like students were coming to IPE activities to work practically together and not just learn theoretically. Other than that, students expect the professors to be more enthusiastic toward teaching them how to collaborate with other students.[16]

Four (23%) participants also believed that making IPE mandatory would increase the involveme nt of HCPs.[9,12,18] There are appraisal forms which each participant as a faculty must submit at the end of every academic year. It shows their progress and additional activities that they have taken part in.[22] Hence, making it mandatory would reflect on the forms which would influence everyone to take part i n these IPE activities.

Limitations and recommendations

The important limitation is the single-center analysis. All the participants were from a single institute, so the findings cannot be generalized to UAE's other health-care institutions/universities, especially where resources/infrastructure are limited. Some of the HCPs avoided the interview sessions due to the risk of coronavirus disease (COVID) transmission. However, all the precautionary measures were taken to conduct this study. The following are a few recommendations that can be made from the findings of this study:

A. A multicenter study is required to review and understand different trends in UAE on the implementation of IPE.
B. A follow-up study is required to compare the impact of institutional efforts on the individual change of behavior/perception.
C. Some challenges were faced in enrollment of health-care practitioners from the tertiary care university-affiliated hospital in this study. Majority of the participants were health-care academicians.
D. Regular trainings/workshops on IPE/ Interprofessional collaboration (IPC) are required to increase the awareness, which will also help in planning the corrective measures in developing IPE activity.

Conclusion

This study identified inefficient implementation of IPE. The barriers were lack of team effort, lack of communication within the institute, and administrative support, despite the availability of resources and infrastructure in the university. Further investigation is required among students to identify the barriers and challenges in the current IPE activities.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/

have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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