

Exploring the Foundations of Interprofessional Education: Reconnaissance Phase of an Action Research

Meslekler Arası Eğitimin Temellerini Keşfetmek: Bir Eylem Araştırmasının Keşif Basamağı

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Abstract

Aim: Healthcare professionals need to learn with, together, and from each other during their training as they prepare for their collaborative roles in the field. This study aims to explore faculty members' awareness, needs, and thoughts on program design in the field of Interprofessional Education (IPE).

Methods: The methodology of the research involves qualitative data collection and analysis in the exploratory stage of action research for IPE program design. The study is based on semi-structured in-depth interviews with 22 faculty members who do not practice IPE in a health education institution in Turkey. Data collection was conducted online through semi-structured interviews in 2021 and descriptive thematic analysis was applied using NVIVO software.

Results: Findings show that 77.27% of the participants are female (n:17) with an average age of 42.31. Among the faculty members, 3 (13.63%) are professors, 9 (40.90%) are associate professors, and 10 (45.45%) are assistant professors. 9 (40.90%) of the faculty members are from the Medicine faculty, 10 (45.45%) from Health Sciences (Nursing, Nutrition and Dietetics, and Physiotherapy), and 3 (13.63%) are from the Dentistry faculty. After the qualitative data analysis, the main findings were divided into five main themes: Educational Philosophy and Importance, Application and Methodology, Educational Content and Methods, Institutional Culture and Practices, and Interprofessional Education and Metaphors. Each theme was examined in detail with participants' opinions and illustrative expressions. The study emphasizes the lack of collaboration in health services and how this parallels the need for strategies to

strengthen collaboration between health education and professional health organizations. Researchers point out that health services need to be delivered more effectively, efficiently, and at lower cost, and in this process, the need for interprofessional collaboration and education is increasing.

Conclusions: This study comprehensively addresses the importance and effectiveness of IPE in the health sector, encompassing faculty members' and health professionals' awareness, needs, and recommendations for IPE program design, and offers a guiding resource. The results of the research demonstrate the potential of IPE to enhance the quality of health services and improve patient health outcomes.

Özet

Giriş: Sağlık çalışanlarının, omuz omuza çalıştıkları meslek hayatlarına hazırlanırken eğitim süreçlerinde de birlikte, bir arada ve birbirlerinden öğrenmeleri gerekmektedir. Bu çalışma, yarı yapılandırılmış görüşmeler yoluyla meslekler arası eğitimin (MAE) temellerini, bir eylem araştırmasının keşif aşamasında incelemeyi amaçlamaktadır. Sağlık profesyonellerinin eğitiminde MAE yaklaşımının gerekliliği, önemi ve uygulanabilirliği ele alınmaktadır.

Yöntem: Araştırmanın metodolojisi, meslekler arası eğitim program tasarımı için eylem araştırmasının keşif basamağında nitel veri toplama ve analizi süreçlerini içermektedir. Bu araştırma, Türkiye'de sağlık eğitimi veren yükseköğretim kurumunda görev yapan 22 öğretim üyesiyle yapılan yarı yapılandırılmış derinlemesine görüşmeler üzerine kurulmuştur. Veri toplama, 2021 yılında çevrimiçi olarak yapılan yarı yapılandırılmış görüşmeler aracılığıyla gerçekleştirilmiş ve NVIVO yazılımı kullanılarak içerik analizi uygulanmıştır.

Bulgular; Öğretim üyelerinin %77,27'si kadın (n:17), %22,72'si erkektir (n:5), yaş ortalamaları 42,31 (±6.88)'dir. Öğretim üyelerinin %13,63 (n:3) profesör %40,90 (n:9) doçent ve 10'u (%45,45) doktor öğretim üyesi olarak çalışmaktadır. Öğretim üyelerinin %13,63'ü (n:3) Dış Hekimliği %40,90'ı (n:9) Tıp ve %45,45'i (n:10) Sağlık Bilimleri (Hemşirelik, Beslenme ve Diyetetik ve Fizyoterapi) fakültesinde öğretim üyesi olarak çalışmaktadır. Nitel veri analizi sonrası temel bulgular dört ana

tema altında toplanmıştır: Eğitim Anlayışı ve Önemi, MAE Program tasarımı, Kurumsal Kültür ve Uygulamalar ve Meslekler Arası Eğitimle İlgili Metaforlardır. Her tema, katılımcıların görüşleri ve örnek ifadeleriyle ayrıntılı bir şekilde incelenmiştir. Çalışmada, sağlık hizmetlerindeki iş birliği eksikliği ve bunun sağlık eğitimi ile profesyonel sağlık kuruluşları arasındaki iş birliğini güçlendirmek için gerekli stratejilere paralel olduğu vurgulanmıştır. Araştırmacılar, sağlık hizmetlerinin daha etkin, verimli ve düşük maliyetle sunulması için meslekler arası iş birliği ve eğitimin artan bir ihtiyaç olduğunu belirtmiştir.

Sonuç: Bu çalışma, meslekler arası eğitimin sağlık sektöründeki önemini ve etkinliğini detaylı bir şekilde ele almış, öğretim üyelerinin ve sağlık profesyonellerinin bu konudaki farkındalıklarını, ihtiyaçlarını ve MAE program tasarımına yönelik önerilerini içermekte ve rehber niteliğinde bir kaynak sunmaktadır. Araştırma sonuçları, meslekler arası eğitimin sağlık hizmetlerinin kalitesini artırma ve hastaların sağlık sonuçlarını iyileştirme potansiyeline sahip olduğunu göstermektedir.

INTRODUCTION

Healthcare organizations and professionals often do not have the opportunity to focus on comprehensive strategies for system improvement. The lack of collaboration in healthcare delivery reflects a similar situation among organizations. The strategies necessary to strengthen collaboration between healthcare education and professional health organizations align with those aimed at enhancing interprofessional care among healthcare providers. Essentially, any change within the healthcare system must begin with the individuals who deliver, support, and manage patient care. Systemic changes are triggered by individual actions; individuals form organizations, and organizations shape systems (1). Resistance to change among professionals in the healthcare field is a well-known phenomenon. The most effective strategy for fostering desired changes in healthcare professionals is to initiate this process during higher education. To manage the change process effectively, it is essential to analyze challenges and take solid steps. The literature indicates that organizational culture is a critical factor in any planned change process. For change to be successful, it must

align with the organizational culture and be reflected in the institution's practices (2,3). There are challenges in adapting to these changes, such as increasing costs, an aging population, rapid technological advancements, and ensuring patient safety. Interprofessional collaboration and education are necessary for delivering healthcare services more effectively, efficiently, and at a lower cost. The call for interprofessional education (IPE), which began in 1988, is seen as an effective way to enhance the communication and teamwork skills of healthcare professionals. The World Health Organization has identified communication and coordination deficiencies as key factors affecting patient safety (4–12). These deficiencies can be addressed through IPE. This study aims to examine, through semi-structured interviews with faculty members, the foundations of interprofessional education (IPE) in the exploration phase of an action research study. It seeks to thoroughly examine the needs for an IPE approach in the training of healthcare professionals, as well as the importance and feasibility of IPE in depth.

METHODS

1. Research Design

The study is designed as an action research project, aimed at integrating an IPE approach in an institution where IPE is not implemented during the course of the study. The first step of action research, following the decision on the focus area, is the exploratory stage, which this phase of the study encompasses (13,14).

2. Collection of Qualitative Data

The study population (n:49) consists of faculty members from the faculties of dentistry, medicine, and health sciences (nursing, nutrition and dietetics, physiotherapy and rehabilitation) at a higher education institution during the 2020-2021 academic year. After obtaining ethical committee approval, an invitation to participate in the research was sent to all faculty members from these three faculties. Semi-structured in-depth interviews were conducted with those who responded positively to the invitation between June and December 2021. Due to pandemic conditions, the interviews were conducted online via Microsoft Teams, and voluntary consent was obtained from participants for audio and video recording. The semi-structured

in-depth interview form included variables such as sociodemographic characteristics, teaching experience, knowledge about the purpose of IPE, willingness to participate in the implementation of IPE, IPE program design, and variables related to the benefits of IPE. Each interview was aimed to last approximately 30 minutes per participant. All interviews were downloaded from the Microsoft Teams platform and stored in memory. Data analysis began after the completion of interviews with all voluntary faculty members.

3. Data Analysis

Following the transcription of the interviews, content analysis was conducted using NVIVO software. Content analysis aimed to understand participants' experiences, perceptions, and awareness related to IPE, develop new insights, and identify thematic strategies. During the qualitative data analysis, both researchers individually read and analyzed sentences that reflected participants' experiences and awareness regarding the topic. Throughout this process, the "immersion" method, recommended in the literature, was applied. The data were first reviewed individually by each researcher and then re-examined twice together to conduct an in-depth analysis and identify codes. Similar codes were grouped to create categories, and the categories were analyzed to establish comprehensive "themes." The data analysis process followed a four-stage approach suggested by Eysenbach and Köhler (2002), which includes coding the data, identifying codes, categories, and themes, organizing codes, categories, and themes, and describing and interpreting the findings (15,16).

4. Ethical Approval Process

Ethical approval for the study was obtained from Izmir Demokrasi University on 31.10.2019 with the approval number 11/08-407.

RESULTS

A total of 22 faculty members who accepted the interview invitation participated in the study. Of the faculty members, 77.27% (n=17) were female, and 22.72% (n=5) were male, with an average age of 42.31 (± 6.88) years. Among them, 13.63% (n=3) were professors, 40.90% (n=9) were associate professors, and 45.45% (n=10) were assistant professors. Additionally, 13.63%

(n=3) of the participants were faculty members in Dentistry, 40.90% (n=9) in Medicine, and 45.45% (n=10) in Health Sciences (including Nursing, Nutrition and Dietetics, and Physiotherapy). The average interview duration was 26.02 minutes (min: 15:47, max: 38:35). It was found that 2 professors and 2 assistant professors had experience related to educational management. The average professional tenure of the participants was 14.06 years (min: 8, max: 23), and their average tenure as faculty members was 5.78 years (min: 1, max: 17). All faculty members expressed their willingness to participate as educators in the IPE program. Following the content analysis, 145 pages of (12 times new format) transcripts were obtained from the 22 faculty members. After independent coding by both researchers, one researcher identified 25

codes and the other identified 37 codes. During a consensus meeting, these codes were reviewed and consolidated into 29 codes. These 29 codes were repeated a total of 812 times throughout the transcripts. Subsequently, all codes were combined, and 10 categories were derived using an inductive approach. The 29 codes were grouped into 10 categories and organized under 4 main themes. The main themes that emerged from the interviews were determined as “Educational Philosophy and Importance,” “Interprofessional Education Program Design,” “Organizational Culture and Practices,” and “Interprofessional Education and Metaphors.” (Figure 1).

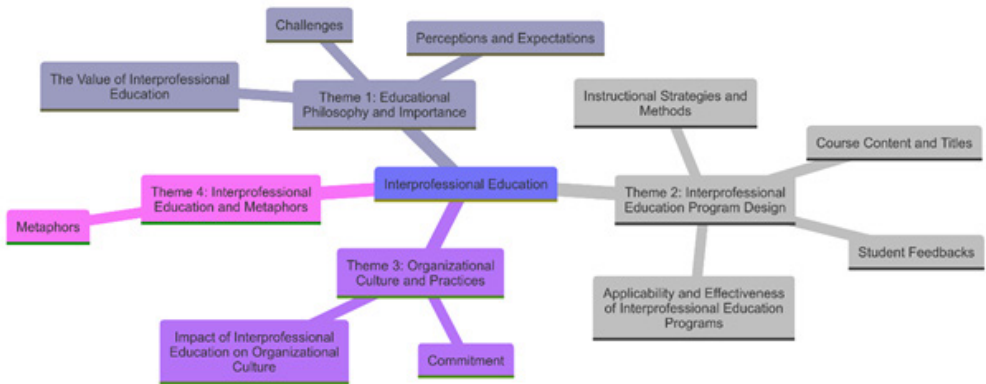


Figure 1: Theme and Sub-Category Mind Map

In the subsequent section of the findings, the themes and the qualitative data analysis results of the statements expressed during the interviews will be shared. Sample sentences are provided in the appendix.

Theme 1: Educational Philosophy and Importance
 This theme consists of three categories: The Value of Interprofessional Education, Perceptions and Expectations and Challenges.

1. The Value of Interprofessional Education

All faculty members interviewed stated that

IPE should be an integral part of the education of health professionals and that it has benefits not only for students but also at the individual, institutional, and societal levels. The importance of IPE in providing students with a multidisciplinary perspective and fostering a collaborative learning environment was emphasized. Participants highlighted that IPE contributes to improved communication, interaction, and socialization among health professionals. It allows for the recognition of the different roles and responsibilities of each profession, moving away from professional hierarchies and superior-

subordinate relationships. Most importantly, it helps in instilling the concept of professional identity more effectively and is considered highly beneficial for future career development. According to participants, the benefits offered by IPE are multifaceted and comprehensive. Foremost among these benefits is the significance of teamwork and the positive impacts of interprofessional collaboration. Such education promotes deep learning for students and facilitates better adaptation to their professions. Additionally, it was noted that IPE would increase communication, enhance the perception of helping others, and encourage mutual support. Specifically, the team approach in healthcare was seen to provide better-equipped services to patients receiving treatment and care. It was also noted that IPE could reduce workplace tensions and mobbing, thereby creating a healthier working environment. This type of education enables students and professionals to socialize and get to know each other, offering an important opportunity, especially for those from different disciplines. Furthermore, IPE was considered beneficial for reducing time and financial losses, accelerating knowledge sharing, and enhancing institutional advantages.

P6: "When they work as a team, they might become aware of their negative feelings, realize that one profession is not superior to another, and understand that working together as a team can be beneficial."

P13: "With this team approach, the patient receiving care will be very well-equipped. They will reflect this understanding to others and even to other patients. We can increase the level of knowledge in society."

P14: "Learning to work and collaborate now will ease service delivery in the future... tensions, workplace violence, and mobbing will decrease. Medical students learning collaboration today will benefit them medically, communicatively, and sympathetically as future leaders."

P15: "...The interaction there will increase communication skills and social interaction. Who knows what will emerge from these groups? Music groups, artist groups, first aid groups, disaster response teams—essentially planting the seed... it sprouts like synaptic growth in the brain, and later, who knows how those saplings will turn into forests."

2. Perceptions and Expectations

The perceptions and expectations of faculty members regarding IPE were examined in depth. Faculty members viewed IPE as essential

for fostering early communication, mutual understanding, and empathetic approaches among professions that will eventually work together in the same service environment. They emphasized that establishing communication early on and developing a shared language among different professions is crucial for effective use of institutional resources. Participants highlighted the necessity of interprofessional collaboration in the management of chronic diseases, noting that independent training is insufficient and synchronization is vital. They also pointed out that students from different disciplines are often unaware of each other's curricula, which underscores the importance of IPE.

P2: "Unfortunately, in our country, we don't have a culture of learning from each other, but hopefully, we will."

P10: "When people of the same level are educated together, a shared culture and language develop among peers, elevating the level of education. This creates a foundation for different expectations, challenges, and advantages at each stage of their professional journey."

3.Challenges

Participants expressed differing opinions regarding the feasibility and effectiveness of IPE. While it is proven to be highly effective in theory, they noted that practical challenges could arise. Issues such as the unclear boundaries of roles and responsibilities, the difficulty of coordinating a common schedule and environment, teamwork skills, and varying student levels were identified as significant obstacles. Faculty members, in particular, recognized the difficulty of creating a unified program. Faculty members also highlighted the need for educator development programs related to the topic to address these challenges. This was evident as some participants mentioned that they felt unprepared for such projects, and while some had previous training experiences, there was recognition that more structured and regular educator training is necessary. Additionally, the lack of full comprehension of the IPE concept among faculty members, its novelty, and insufficient preparedness, along with the need for substantial changes in the institution or educational programs to accommodate IPE, led it to be viewed as a challenging process.

P6: "When performing advanced cardiac life support, who will stand in which position? Will they

be at the patient's head or feet? Who will give the orders? Because verbal orders are taken in an acute procedure... Which nurse will record data, which nurse will manage the IV line? Normally, how will these decisions be made in training..."
P11: "... I believe that instructors also need to be prepared for such projects. We do not have enough knowledge on these subjects."

Theme 2: Interprofessional Education Program Design

This theme consists of four categories: Course Content and Titles, Instructional Strategies and Methods, Applicability and Effectiveness of Interprofessional Education Programs and Student Feedbacks.

1. Course Content and Titles

Participants highlighted that the primary goal of IPE is to enhance collaboration and coordination among different health disciplines. IPE was emphasized as crucial for providing a holistic approach to chronic disease management, thus improving patient care. Faculty members underscored the importance of developing common course topics by bringing together various health disciplines, with a particular focus on complex health issues like cancer, obesity, metabolic syndrome, diabetes mellitus, cerebral palsy, respiratory diseases, and heart disease. Participants pointed to the need for multidisciplinary approaches for specific conditions, such as children with cerebral palsy. They noted that collaboration among different health professions could provide more effective and comprehensive care in areas like chronic disease management, geriatric care, and metabolic syndromes. Additionally, the importance of including communication skills and patient safety in the educational content was emphasized. These findings suggest that IPE has the potential to improve the quality of healthcare services and enhance patient outcomes. The topics proposed by participants extended beyond physical recovery to include psychological, social, educational, behavioral, and lifestyle changes. This underscores the potential of IPE to foster collaboration and coordination among various health disciplines, providing holistic and effective patient care. P1: "If it's going to be about skills, like an approach to a disease, bringing together all faculties to support healthy living is essential... A significant example is children with cerebral palsy, which

requires a multidisciplinary approach involving not only physical therapy but also neurology, dentistry, psychology, and special education."
P6: "In managing chronic diseases, all mentioned professions have unique roles and must work together in a holistic health approach. For conditions like diabetes or hypertension, lifestyle modifications, medication adherence, and nutrition management involve the entire team. Students should learn these aspects from the start of their education to create behavioral change with a comprehensive approach."

2. Instructional Strategies and Methods

Participants provided various suggestions regarding instructional strategies. The use of visual materials, particularly films and videos, was noted as a way to engage students and enrich the IPE process. The use of modern technologies for communication and group work was seen as a method to enhance interaction among students and make the process more effective. It was emphasized that certificates and awards given to students could boost motivation and provide a memorable learning experience. These findings highlight the importance of increasing student interaction and motivation in IPE. In the sub-category of "Instructional Methods," the importance of the teaching methods and materials used in IPE was underscored by participants. Practical applications, such as small group work, the use of simulated patients, and practice with models, were highlighted as significant for reinforcing theoretical knowledge. Additionally, interactive approaches, problem-based learning, and scenario-based discussions were suggested for use in IPE. The importance of visual aids and various educational materials was also emphasized. These teaching methods and materials play a crucial role in enriching the learning experience and enhancing student interaction. P8: "Initial demonstrations without seeing real patients, scenarios could work... after this, developing a collective approach to obese patients would be beneficial.", "...teaching should involve theoretical training first, then practice with a model or simulated patient, and finally, clinical interaction with real patients."
P15: "Students won't be passive during theoretical lessons; they should participate actively... because learning happens this way.", "In the first few years, amphitheater lessons with PowerPoint slides and

videos should be followed by case-based or clinical observations.”; “...instead of just a course, it should be a learning goal, with awards or certificates like ‘participated in IPE.’ These could be their first certificates, creating memorable experiences.”

3. Applicability and Effectiveness of Interprofessional Education Programs

Participants' views on the implementation phase of IPE varied. Some participants argued that making IPE a mandatory course in undergraduate programs would be beneficial, as it could increase student interest in multi-professional topics. Additionally, it was suggested that supporting IPE practices with practical training such as internships would enable students to apply theoretical knowledge in practice. On the other hand, some participants believed that such education should be voluntary, as this approach would enhance student motivation and participation, offering a more effective learning experience. These findings highlight the importance of considering the advantages and disadvantages of both mandatory and voluntary participation when planning the implementation phase. Faculty members emphasized the need for assessment and evaluation to capture the effectiveness of the program, attract students' attention, motivate them, enhance learning, and ensure retention. There was a consensus that the evaluation method should not rely solely on multiple-choice questions or focus only on knowledge level. The majority recommended a multi-method approach involving simulated patients, role-play, practical exercises, project-based assignments, and applied observations. Peer and self-assessment were also suggested as methods to make the process interactive and educational. Pre- and post-tests were mentioned as tools to measure program effectiveness and track student progress. These findings emphasize the importance of practical applications and active student participation in IPE, rather than focusing solely on theoretical knowledge. P2: *“It should be mandatory to be beneficial because if it's voluntary, students may not find it relevant due to its broad scope. Since the content relates to all disciplines, it could be included as a required course... Later, it could even be included as an internship, where after practicing on a model or in simulation, they assess a chronic patient together as a small internship in the upper class.”*

P13: *“Theoretical knowledge is important, but seeing if it translates to practice is crucial... While multiple-choice could be used, I suggest project-based or role-play activities as part of the team approach. I advise against solely using multiple-choice; various exam techniques should be used.”*

4. Student Feedbacks

Faculty members highlighted the importance of student feedback in IPE noting that such feedback facilitates continuous improvement of educational materials and methods. According to faculty members, student feedback serves as a guide and plays a critical role in making educational programs more effective. P8: *“Student feedback allows us to continuously improve our educational materials and methods.”* P20: *“Student feedback acts as a guide for us and makes our educational programs more effective.”*

Theme 3: Organizational Culture and Practices

This theme consists of two categories: Commitment and Impact of Interprofessional Education on Organizational Culture.

1. Commitment

In the study, under the “Commitment” theme related to IPE faculty members highlighted that IPE strengthens the sense of belonging among both students and faculty at individual and organizational levels. P2: *“I believe that organizational commitment definitely increases, especially from the perspective of faculty members, as communication with other disciplines improves. Understanding the expectations of students from other departments enriches me socially and academically, thus increasing my commitment and sense of belonging to the institution.”* P5: *“...This study is unique to this place, creating unforgettable memories.” This is particularly significant in new and growing institutions, where IPE has the potential to create strong bonds between students and faculty members. Regarding Organizational Commitment, participants indicated that IPE enhances feelings of loyalty within the organization. The interprofessional interaction and collaboration between faculty and students reinforce these feelings, boosting trust and self-esteem, especially for those working in the health sciences field.*

P2: "When someone enjoys their work, feels productive, and orks with a dedicated team that acknowledges them, the sense of family and belonging grows."

P09: "Two hands make a sound, one does not."
P15: "What we don't know is what we are curious about, pursue, and try to learn." These metaphors collectively depict IPE as a process that involves exploration, unity, enlightenment, support, and empathy, highlighting its importance in fostering a holistic and cooperative approach to healthcare education and practice.

2. Impact of Interprofessional Education on Organizational Culture

Interprofessional education has a notable impact on organizational unity and integration, as it strengthens cohesion and solidarity within institutions. Participants noted that such education creates lasting memories and shared experiences, fostering a sense of belonging and a shared history among members. This process not only enhances interpersonal connections but also clarifies institutional boundaries, strengthening the organizational structure. Additionally, participants highlighted that an institution's existing culture plays a significant role in the success of IPE, as a supportive culture can enhance interprofessional collaboration. P1: "Because students will feel embraced by the entire institution, which I am sure will increase their sense of belonging. The same applies to educators as well; everyone will feel supported." P11: "I remember practices from my faculty days, like drawing blood and suturing in small groups. Those moments have stayed with me, even after 10 years... These memories, created by different professions, will always stay with them, continuing as part of the institution's family." P15: "...Transition zones show that moving from one discipline to another isn't easy... Transitions can be eased physically, socially, institutionally, and psychologically. The strength of institutionalization grows with teams coming together."

Theme 4: Interprofessional Education and Metaphors

This theme consists of one category: Metaphors. The metaphors presented by participants regarding IPE reflect the diversity and richness of this educational approach. The metaphors shared by participants related to IPE are as follows: P01: "A sailboat journey full of risks and opportunities, bright and adventurous." P05: "Uplifting humanity." P06: "Keeping life afloat." P07: "A firefly wandering and spreading light." P09: "Unity is strength." "Wearing the shoes of healthcare professionals from different disciplines."

DISCUSSION

This study aimed to thoroughly examine the needs for an IPE approach in the training of healthcare professionals, as well as the importance and feasibility of IPE. The data obtained from the interviews not only revealed individual and institutional needs related to IPE but also provided insights into teaching strategies and various aspects of implementation that can be utilized in IPE, thereby contributing to the literature on the subject. In this study, an IPE program, which had not been previously implemented at the institution, was developed, applied, and evaluated using an action research design. This combination of the IPE approach and action research addressed a gap in the literature. Through this research, faculty members gained a better understanding of the IPE concept, and the theoretical framework was translated into real-world practice through action research. An examination of the literature reveals a lack of detailed information on needs analysis for program design related to IPE, with most studies focusing on the perspectives of faculty and students (17,18). One of the strengths of this study is its emphasis on identifying needs through in-depth interviews. The necessity of learning and working collaboratively for improving the quality of healthcare services was first highlighted on a global scale in the 1978 Alma-Ata Declaration by the World Health Organization (19). Despite evidence supporting the benefits of IPE and collaborative practice in improving patient care outcomes, implementation levels remain below expectations worldwide (18,20). The contribution of IPE to health professionals' learning, confidence building, mutual respect, and trust can be interpreted as the merit and worth of this educational approach. The IPE approach enhances knowledge, builds confidence, fosters interprofessional respect and trust, resolves role ambiguity, breaks down prejudices, and promotes early communication, collaboration, and teamwork

among different disciplines, ultimately improving the quality of patient care in the long term (21–23). In this study, the views of faculty members align with the values of IPE as highlighted in the literature. Faculty members indicated that this approach not only contributes to the development of academic and professional skills but also strengthens social relationships, enhances social learning, and fosters societal awareness. Our research emphasized areas beyond the existing literature on the value of IPE. In countries like ours, where the efficient use of resources in healthcare services is crucial, it is anticipated that IPE will lead to increased institutional efficiency. The literature highlights the challenges in integrating IPE into pre- and post-graduate education for healthcare professionals. The most fundamental challenges related to IPE include resistance to significant changes in educational programs and ensuring sustainability. In addition, other challenges include the lack of administrative willingness and support for implementing such educational programs in institutions, the absence of financial resources, ineffective distribution of resources, the time burden within the educational program, and the impact of different learning and assessment strategies on time and personnel costs (18,24,25). In a study conducted by Sarmasoğlu et al., it was emphasized that the competencies of instructors involved in IPE are a crucial issue that requires careful consideration. According to the interviewed instructors, those participating in IPE were trained primarily to mentor students from their own professional groups, which made mentoring students from other professions challenging. Additionally, the instructors agreed that this situation was quite stressful and demanding, leading to reduced motivation among instructors, which in turn negatively impacted the learning processes of students. (18). Since IPE allows for the development and exploration of shared goals, values, and beliefs among different professional groups, the perspectives of instructors on this topic are critical. It is essential to promote understanding of the scope of practice and to develop the knowledge and skills necessary for effective interprofessional teamwork (18). In our study, faculty members emphasized the benefits of IPE more than its challenges during the interviews. The challenges they mentioned were similar to those found in the literature. However, the

most significant challenge revealed in our study, which is limitedly expressed in the literature, is the need for educator development to enable faculty members to take on roles in IPE. While discussing these challenges, faculty members also provided solutions, highlighting the need for educator development programs and the importance of support and contributions from educational management for the implementation of IPE. The purpose of educator development programs related to IPE should be to help instructors develop guidance skills in line with their roles within IPE. The literature emphasizes the need for interprofessional collaboration and a holistic approach among healthcare professionals, particularly highlighting the importance of IPE and collaboration for addressing complex health issues such as patient safety, chronic disease management, cancer, emergency preparedness drills, and patient management simulations (26–28). In this study, faculty members emphasized the importance of bringing different health disciplines together when selecting topics for IPE. Complex health issues such as cancer, obesity, diabetes, metabolic syndrome, cerebral palsy, respiratory diseases, and heart disease, as well as patient management and topics requiring multiprofessional collaboration, were highlighted as appropriate for the IPE approach. These situations necessitate healthcare professionals to integrate various skills and adopt a more comprehensive perspective in their approach to patients. Chronic disease management, communication skills, and patient safety were specifically noted as areas that could be strengthened through IPE. Eccott et al. used problem-based learning strategies in IPE (29), Addy et al. incorporated web-based small group modules (29), Meche et al. utilized e-learning, simulation, and clinical case studies (27), and Wipfler et al. employed role-playing and critical discussions of video materials in their IPE approach (30). In a study by Webb et al., another aspect identified regarding learning methods was the necessity of evenly matching students from different professions within each group (31). In this study, faculty members noted that visual materials, modern technologies, and group work could captivate students' interest and enrich the educational process. The use of innovative methods such as films, videos,

interactive approaches, and simulations was particularly recommended. Additionally, it was emphasized that certificates and rewards could be effective in motivating students. These findings underscore the importance of carefully planning teaching methods and implementation steps to enhance student engagement and motivation. In the literature, there are studies evaluating the responses of healthcare professional students to an IPE program, as well as measuring their readiness for interprofessional collaboration and learning perception (32,33). Parsel has emphasized that the assessment and program evaluation aspect should be particularly considered in interprofessional practice (32). In our study, faculty members also highlighted the importance of student feedback in IPE, stating that such feedback plays a critical role in the continuous improvement of educational materials and methods. A comprehensive literature review was conducted by the Canadian Ministry of Health to support the development of IPE and collaboration programs, aiming to create a framework for these efforts. Within this context, success factors that could influence the planning and implementation of IPE programs were identified. These success factors include individual-level, institutional/organizational-level, and socio-cultural/political-level factors (1,34). The institution where our study was conducted, being newly established without an entrenched organizational culture, provided an advantage for evaluating the impact of the IPE approach on organizational culture. In interviews with faculty members, it was expressed that IPE could have positive effects on institutional culture, leading to a more functional, cohesive, and integrated structure, strengthening internal communication, and deepening relationships between staff and their institution. Supporting institutional culture through IPE could positively influence the long-term success and sustainability of institutions. It is evident that IPE plays a significant role in institutional culture development, extending beyond being merely an academic necessity. In the literature, metaphors have been used to present IPE in both positive and challenging lights, such as “allied,” “all for one,” “claiming steps,” “shared accountability,” and “maintaining a climate of mutual respect and shared values” (35–38). In our study, when faculty members were asked to

relate IPE to a metaphor, they provided examples emphasizing cultural unity and collective learning, the enlightening and empathetic aspects of IPE, the nature of the learning process, and its potential to offer new perspectives to students, as well as strengthening interaction and communication among healthcare professionals. The use of positive metaphors is believed to enhance the integration (accessibility) of IPE into educational programs. Results showed that IPE fosters a sense of belonging and enhances organizational culture by strengthening collaboration and commitment.

CONCLUSION

This study aims to explore, through semi-structured interviews with faculty, the foundations, needs, and feasibility of an IPE approach in healthcare training during the exploration phase of an action research study. As is widely recognized, the needs assessment phase is the first step in instructional design. Needs assessment serves as a guide to ensure that the developed and implemented instructional program can effectively address gaps in students' knowledge, skills, and attitudes. In the next phase, based on these needs assessment data, an instructional design aligned with the IPE approach will be developed and implemented. Finally, the program evaluation will be conducted, completing the action research cycle.

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