



Student perception of interprofessional education application at the Health Sciences University of Sumatera Utara

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KEYWORDS

Interprofessional education;
Health science cluster

Abstract

Objective: Interprofessional education (IPE) includes collaborative interprofessional learning activities involving students and lecturers from the health sciences faculties at the University of Sumatera Utara. This descriptive study aimed to explore the students' perceptions of the application of the IPE program.

Method: Descriptive study was conducted and one hundred sixty students were selected from four faculties including the faculties of medicine, nursing, pharmacy, and public health.

Results: The results of the study showed that 68% of the participants stated that they had heard IPE information, whereas 97% reported that they had never joined in IPE activities. In the health sciences faculties, 57% of nursing students had heard IPE information, but more than 90% of the participants from the other faculties had never heard the IPE information. Also, based on aspects of their participation, all of the students reported that they had never joined in the IPE activities.

Conclusions: according the results, the implementation of IPE can be realized in the integration of learning methods, such as lectures, practicum, clinical skills, and tutorials. It can be a university policy so that the implementation of IPE with specific learning methods can take place to improve the competence of collaboration students.

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Introduction

The changes taking place in the health care system, technology and science development, and medicine and medical intervention have an impact on health care or nursing care. The issues of patient safety, medication errors, quality of care, and patient center care that occur in health care are important concerns today^{1,2}. The need for quality commu-

nity care can be achieved through effective professional collaboration in the health profession. Various efforts have been made, and one of them is to prepare effective health team resources in various fields of expertise so that health teams have the competencies needed to work together synergistically, in a structured manner, and systematically in relation to the roles and functions of each profession. Various parties generally realize this condition, including stake-

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holders and managers of health education programs. To achieve the synergy of professional practice collaboration, educational institutions need to prepare graduates with interprofessional education (IPE) competencies through specific teaching methods³.

The application of the IPE learning process is also one of the attempts being made to achieve health worker competency standards. Consider Indonesia's National Employment Standards of Competence in the field of nursing, for both medical and non-medical roles reflected nurses' ability to develop interpersonal relationships in fellow giver services in all professions, such as doctors, physiotherapists, nutritionists, social workers, and others, thus achieving optimal health in patients. The experience of IPE in early learning is very important for health science students when conducting learning practice or educational profession programs can be achieved optimally^{2,4}. The result of the study shows that 95.16% of the student satisfied in following IPE learning and IPE learning methods should be continued because they help students to understand the roles of the health care professions and increase their communication skills⁵. The interprofessional learning process can meet the four elements of competence, i.e., knowledge, skills, attitudes, and teamwork abilities. The learning process in IPE is also one of the types of preparation that can help the student to face the reality of the working world. In addition, a previous study recommended that the effectiveness of collaboration can be achieved by using the IPE concept model integrated into four domains: ethics, roles and responsibilities, interprofessional communication, and IPEC cooperation². This study aims to achieve the student's perceptions of IPE based on the values and ethics established in each profession. Thus, students have the capability to improve the quality of health services and are prepared to follow IPE by using the specific methods taught at the academic stage. Providing early learning competencies is also important for students in practice and education in the health profession because the students have a responsibility to conduct interactions with other professions involved jointly in providing health services^{6,7}.

The ultimate goal is to prepare students to be competent in the knowledge, skills, and attitudes in each profession. Even during the education process, they accidentally have a chance to interact with other health professions, but this process is informal in nature, and there are no specific objectives to be achieved in this process. Knowledge, attitudes, skills, and interaction with other professions to provide health services certainly have not been measured objectively. While the process of interaction among health care team is supposed to be the beginning of knowledge, it is also the basis for learners to get an idea of how to build professional relationships when performing health service functions.

This study is very important to improve the collaboration among health science students at the University. The application of IPE can be integrated into the learning process within the health science cluster (HSC). The HSC at the University of Sumatera Utara consists of the faculties of medicine, nursing, public health, psychology, and pharmacy. Through the application of IPE, it is expected that students will be able to learn early on how to fulfill their professional roles when they are integrated with other professions. The results of the implementation would be the

beginning of the trial, with the results of the trial serving as a basis for fixing the system by creating an IPE model that is appropriate for faculties within health science collegiums at the academic stages.

Method

This descriptive study aimed to explore the perceptions of students regarding IPE application preparation at four faculties of health sciences at Sumatera Utara University; the faculty of medicine, faculty of nursing, faculty of public health, and faculty of pharmacy. The selection of the sample of the study was accomplished by convenient sampling. One hundred sixty respondents who met the inclusion criteria were recruited from four faculties, namely the student stage of an academic program, already completing one semester of college, and a willingness to be a respondent in each faculty by adjusting one's college schedule. In order to estimate represented study population, a sample of 10%-20% of the total population was considered as minimum for a descriptive study⁸. The data collection process was carried out from June until September 2016 with an adjustment table for lecture students from each faculty, focusing on the implementation of activities in the faculty of nursing and the faculty of medicine. After obtaining approval for the research, the researcher carried out data collection using structured interview techniques, such as having the respondents fill out questionnaires related to the inclusion criteria. Students who were willing to be respondents had to fill out questionnaires and informed consent sheets for 20-30 min. To prevent errors in the interpretation of a respondent, researchers accompanied the respondent in the filling out of the questionnaire so that the less understood by respondents can be described. This study used the questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS) adapted to test whether the respondent had followed the interprofessional learning process⁹.

Furthermore, data analysis was done by using quantitative assessment with a descriptive statistical distribution to analyze the descriptions of students regarding their perceptions of IPE application in each faculty in the HSC at Sumatera Utara University. The study was done through the process of ethical clearance from the commission of ethics, faculty of nursing, and permission was obtained from the dean of the faculty of health sciences. All subjects were given an explanation of the purpose and procedures of the research study, and they expressed a willingness to follow this research process voluntarily by signing the informed consent form.

Results

This descriptive study was conducted to explore the perceptions of students regarding IPE among the health sciences student. A total of 160 respondents who met the inclusion criteria were recruited for this study. They were health sciences students from four faculties of the health sciences cluster at the Sumatera Utara University. Table 1 shows the distribution of the participating in IPE. The results of the study showed the majority (68%) of respondents reported that they had never heard of IPE information, but based on their participation re-

IPE students' participation	f	%
<i>Ever heard of IPE</i>		
Yes	51	32
No	109	68
<i>Following IPE in this semester</i>		
Yes	5	3
No	155	97
<i>Has followed IPE activity before</i>		
Yes	6	4
No	154	96

*N = 160.

lated to IPE, the majority (97%) of the respondents claimed that they had never followed IPE in that semester and only 4% of them has followed IPE activity before.

Table 2 shows the percentage of the students participating in IPE learning based on HSC faculties. There are 34 of 60 respondents from the faculty of nursing had heard information about IPE, whereas the majority of the respondents from the other faculties had not heard information about IPE, namely 21 of 30 people in the faculty of pharmacy, while 23 of 30 people in medicine, and 38 of 40 reported in public health.

On the other hand, the majority of faculties in the states had never followed IPE, namely the faculty of nursing with 57 of 60 respondents, the faculty of pharmacy with 30 of 30 respondents, the faculty of medicine with 29 of 30 people, and the faculty of public health with as many as 39 of 40 people. Likewise, more than 90% of students in the HSC at University of Sumatera Utara had never been exposed to IPE.

Discussion

This is a descriptive research study aimed at exploring the perceptions of students regarding IPE among the health sciences students from four faculties.

Overall, 68% of respondents reported that they had never heard of IPE. Almost 97% of the students had never followed IPE in this semester (Table 1). The results of this research are in contrast to those of previous studies done at several universities both in Indonesia and in other Asian countries, such as Japan, India, etc., since 2010. These universities have already introduced and implemented IPE regarding collaborative professional learning methods for students from various faculties of health. A previous study explained that the education intervention for IPE learning in community health service in Indonesia was deemed to be significantly satisfactory; 95.16% of the students who followed the research process stated that the learning methods should be continued^{5,10}. A previous study found that information about IPE should be exposed to students early on and should be developed in health education institutions¹¹.

Regarding the participation of the respondents in IPE, the majority of the respondents (96%) stated that they had not previously followed IPE programs. This should be a concern for the Faculty of Health Sciences cluster, which aims to achieve Indonesia's National Employment Standards of Competence. Advanced nursing; medical and non-medical fields that imaged of nurses' ability in developing interpersonal relationships on fellow giver services from all professions such as doctors, physiotherapists, nutritionists, social workers or any other ministry of the results thus achieved in patients optimal. In line with the competency standards of nursing in Indonesia in the domain of the granting of health services and nursing care management, competence is based on ethics, relationships in health care, interprofessional relations, and research. This description shows that the application of IPE at the academic stage is very important. The world health organization mention that IPE learning process is also one of preparation established to facilitate students' entry in the real workplace⁷.

Furthermore, the respondents in activities related to IPE based on the origins of the faculties showed that 57% respondents from the faculty of nursing had heard information about IPE, whereas the majority of the respondents from the other faculties had not heard information about IPE, namely 30% in the faculty of pharmacy, 23% in medicine, and 5% in public health. The results of this study contrast those of previous study at one of the public universities in Central

Students' participation in IPE	Nursing, no. (%)	Pharmacists, no. (%)	Medical, no. (%)	Public health, no. (%)	Total, no. (%)
<i>Has heard of IPE</i>					
Yes	34 (57)	9 (30)	7 (23)	2 (5)	52 (33)
No	26 (43)	21 (70)	23 (77)	38 (95)	108 (67)
<i>Following IPE activity in semester</i>					
Yes	3 (5)	0 (0)	1 (3)	1 (3)	5 (3)
No	57 (95)	30 (100)	29 (97)	39 (97)	155 (97)
<i>Has followed IPE activity before</i>					
Yes	4 (7)	0 (0)	0 (0)	2 (5)	6 (4)
No	56 (93)	30 (100)	30 (100)	38 (95)	154 (96)

Java¹. The results of the study indicated that students are already being exposed to information on IPE at the beginning of the first semester: IPE is being introduced through various campus activities and public lectures at new student orientations.

This information is very important as a basis for conducting effective collaboration and is the key for health care providers to ultimately enhance the quality of patient care and public health through grounding in IPE. One of the universities in Japan (OHSU University) stated that it is important to learn about the development of IPE in higher education, where each HSC can be synergized to collaborate effectively. The same theme is present in research that IPE purpose is to prepare health profession students with the knowledge, attitudes, skills, and behaviors that are essential for the practice of interprofessional collaboration¹². Other study mentioned that the purpose of IPE as being to achieve team work with other professions^{10,13}.

One important concern of this study dealt with participation in IPE activities. Apparently, the majority of faculties had never followed IPE activity before, including the faculty of nursing with 93%, the faculty of pharmacy 100%, the faculty of medicine 100%, and the faculty of public health with as many as 95%. Likewise, more than 90% of students in the HSC at university had never been exposed to IPE. The results of this study indicate that the need for an IPE development by using certain methods. This is done in an effort to enhance health care services, including promotive, preventive, curative, rehabilitative, and other types of health-care services, whether in the hospital setting or within the community^{3,7}.

In addition, the results of the study encapsulate the answers of the respondents on the open ended questionnaire. The explanation of these results are outlined in several points, namely: *a*) IPE is an excellent learning method to apply to students because a joint class among the professions of the health care field provides insights on the importance of IPE; *b*) IPE learning introduces students to the practice of collaboration with an affirmation of the role, function, and authorities of each of the professions in providing health care services to patients; *c*) a learning program associated with IPE is very precise because health students have already been provided with the initial learning experience of how the practice of collaboration among professions can improve the effectiveness of health care for patients; *d*) The IPE learning method is very attractive, providing strong motivation to know the competencies of other professions and to provide a space for discussing the competencies that intersect among the professions; *e*) IPE provides a strong foundation for understanding the attitudes and behaviours of university students with regard to communicating, working in teams, and collaborating based on the values and ethics of the various health care professions so that the effectiveness of health service can be reached; *f*) IPE is going to be very meaningful and beneficial for community and health care institutions due to health teams' working together to provide effective health care services, and *g*) finally, it was interesting to know that the presence of the opinions of the students on the development of IPE for the faculties of HSC and its synergy with the management of health care institutions; and the application of IPE learning in the faculties of HSC can be realized and specifically im-

plemented in single unit development to achieve the expected goals.

In conclusion, the result of this study point that the implementation of IPE can be realized in the integration of learning methods, such as lectures, practicum, clinical skills, and tutorials. It can be a university policy so that the implementation of IPE with specific learning methods can take place to improve the competence of collaboration students.

Conflicts of interest

The authors have no conflicts of interest to declare.

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