# **Students' Perception and Readiness for Interpersonal Education**

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Abstract: One of ways to introduce the collaboration among health workers in the process of early education could be conducted through Interprofessional education. The implementation of collaborative practices would increase the affordability and coordination of health services, utilization of specific appropriate clinical resources, health outcomes for chronic diseases and services as well as patient safety. This is quantitative study with descriptive design which included 44 students from four study programs in the faculty of medicine and health sciences, Syarif Hidayatullah State Islamic University with purposive sampling. This study utilized the Interprofessional Education Perceptions Scale (IEPS) and Readiness Interprofessional Learning Scale (RIPLS) that had been modified. The study revealed a relationship between gender and study program with the perception and readiness of students of Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional Education module. Moreover, the study shown there was a relationship between perceptions of the readiness of students of Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University towards the Interprofessional Education module. It needs a commitment from the faculty and the study programs for applicative implementation of Interprofessional Education and both preparation and trial of Interprofessional education modules.

### **1** INTRODUCTION

The principle of quality assurance in HPEQ is quality cascade which explains the relationship between the quality of health education and the quality of health services in the community. The quality of the health education system is determined by the quality of institutions, graduates and practices (Irwandi et.al, 2013). One of the factors that pose a challenge for health institutions is how to optimally utilize the existing health workforce to meet the health needs of patients, families and communities in an effective cost. That statement becomes the basis to realize collaboration among health workers. One of ways to realize collaboration among health workers is collaboration tactics through the education process (WHO, 2010). One of ways to introduce collaboration among health workers in the early education process can be conducted through interprofessional education. Setinert (2005) revealed that education was the key to develop and change both methods and quality of health services. IPE is one of the integrated education concepts for enhancing collaboration capabilities.

There are results of study conducted in 42 countries about the impact of collaborative practice implementation in the world of health. The results of the study turned out to be very promising not only for related countries, but also when it was used in other countries. The study showed that collaborative practice could improve 1) affordability and coordination of health services, 2) appropriate use of clinical resources, 3) health outcomes for chronic diseases, and 4) patient care and safety. In addition, collaborative practice could reduce 1) total complications experienced by patients, 2) length of stay, 3) tension and conflict between care providers, 4) hospital costs, 5) average clinical error, and 6) average number of patient deaths (WHO, 2010).

One of the latest national study results about the perception and readiness of students from health department on interprofessional education has been carried out by Sedyowinarso et al, (2011) that showed students from health department in Indonesia had a good perception of interprofessional education as much as 73.62% and 79.90% of students had a good readiness for interprofessional education. The results of this study are expected to

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be a reference for stakeholders to develop interprofessional education in the health science education system in Indonesia. The results of study conducted by Setiawan (2013) strengthened the data that the majority of lecturers at faculty of medicine and health sciences, Jenderal Soedirman university had a good perception of IPE and there was no poor perception value. There was readiness of lecturers lecturers at faculty of medicine and health sciences, Jenderal Soedirman University to facilitate the IPE which was good, without any bad categories. There were no significant differences both in the perception and readiness of the lecturers on IPE based on the characteristics of the department, gender, collaborative experience, and work experience. There was a weak positive relationship between perceptions and readiness of lecturers at

Soedirman university on interprofessional education. Teaching and learning approaches that can be applied in IPE are exchange-based learning, actionbased learning, practice-based learning, simulationbased learning, observation-based learning, and ebased learning (Sedyowinarso et al., 2011). Problem based learning can increase motivation and learning activities, help students in receiving knowledge to understand real-world problems, help students to develop their new knowledge and become responsible for learning that students do. Students are also encouraged to do their own evaluation of both the results and the learning process. The simulation of learning method can also be applied as a follow-up action after students discuss to directly collaborate in giving actions to the patients.

faculty of medicine and health sciences, Jenderal

Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University is a health education institution that stands to answer the challenges of realizing the concept of 2010 Healthy Indonesia which is launched by the government by organizing health personnel education in the four health science study programs, namely general medicine, public health, nursing, pharmacy (Decree of the Rector of Syarif Hidayatullah State Islamic University, Jakarta Number 046 stipulated on May 22, 2004). Ulung (2015) conducted a study on the perception and readiness of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University with a sample of 143 students who were active in medical education, public health, pharmacy, and nursing. The result showed that the female respondents had better perceptions than men on the real component of perceptions about cooperation (K.1), competence and autonomy (K.2), and the need to cooperate (K.4). The public health study program has a good perception in K.1 and K.2 compared to other study programs, and medical education has a good perception on the component of understanding of other professions (K.3) and K.4. The perception on the students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on interprofessional education is mostly in good category.

The vision is to make Syarif Hidayatullah State Islamic University as the leading institution of higher education in integrating scientific, Islamic and Indonesian aspects. Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University is one of the faculties with various study programs in the field of medicine and health, and is one of the capital to implement interprofessional education. Based on the interviews conducted by researchers on the staff of Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University, the IPE program has been carried out by the lecturers of general medicine and students have not reached the level of making academic modules but in Community Service, handles problem happening in patients and families in the community. Then each student presents according to their knowledge. The implementation of IPE has not been exposed to the academic field. It is important to remember that at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University has already used competency-based curriculum with Problem Based Learning (PBL) method and seventh jump, especially in general medicine and nursing. There is no socialization about IPE for lecturers and students in a structured manner and the absence of study in the stage of the academic collaboration learning module on IPE Faculty of Medicine and Health Sciences, Svarif Hidayatullah State Islamic University has made researchers interested in conducting this study.

The benefits of this study are applicable. For the Faculty of Medicine and Health Sciences, it can be used as study material that can be used as a policy in the preparation and development of interprofessional education curriculum and a conducive environment to create an atmosphere of academic collaboration at the academic level. It is alsa as a technical study material for the Study Program in preparing and implementing role play trials, for example one course that is able to represent the basic science of each study program. Furthermore, it can be used as a curriculum with a minimum integrative in academic programs and in the future in clinical programs. It intends to train soft skills for students in collaborating between health students so that the output of them will not experience problems in working with other health workers and have a culture of cooperation in handling patients holistically (multidisciplinary science).

## 2 METHODS

This was a quantitative study using descriptive design with a cross sectional. The populations in this study were 700 students from four departments in academic learning (undergraduate). This study used purposive sampling taken from students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University (General Medicine, Nursing, Public Health and Pharmacy) consisted of 44 students. The inclusion criteria included at least students in third semester because they had already got Competency-Based Curriculum during learning process.

Researcher's perception variables used the Interdisciplinary Education Perception Scale (IEPS) according to Luecht et al. (1990) and was edited by Fauziah (2010). Validity test results r count 0.392-0.756 with r table 0.3 and reliability test 0.887. The research instrument used a Likert scale with a range of Strongly Agree, Agree, Disagree, and Strongly Disagree. A favorable statement (positive) the researcher gave a value of 4 for Strongly Agree, 3 for Agree, 2 for Disagree, and 1 for Strongly Disagree, while an unfavorable (negative) statement otherwise.

The data analyses used in this study were univariate analysis and bivariate analysis. The univariate analysis was conducted to describe variables by creating tables of frequency distribution and percentages including gender, type of study program, experience of working in teams of more than 2 (two) professions. The bivariate analysis is an analysis to determine the interaction of two variables, both correlative. The correlation test with Chi-Square was used to determine the differences in perceptions and readiness of students of Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University in interprofessional education modules based on study programs and respondents' characteristics.

## **3** FINDINGS

#### 3.1 Respondent Characteristics

Most respondents involved in this study were female (84.78%) and the number of students whom involved in the study were varied in general medicine, nursing and pharmacy. Most of the students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University had worked with other health students (54.8%). However, the number of students who had never collaborated with other programs were almost in the same proportion. Table 1 shows the characteristics of the participants whom involved in the study.

The results showed that most of the respondents were female. The study program was not significantly different and most of the students had experience in working with students from other study program. Most of the respondents were female researchers from Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University that students in 2010-2013 were female.

### 3.2 Perceptions on Interprofessional Education Module

Table 2 shows that most of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University has a good perception of 61.4% on the interprofessional education module. The results showed that the students' perceptions were mostly good on interprofessional education modules (61.4%).

#### 3.3 Readiness on Interprofesional Education

Table 2 shows that most of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University had a good readiness of 52.3% on the interprofessional education modules, although not too far away from the number of students who had poor readiness. The results showed that the readiness of students was mostly good for the interprofessional education module (52.3%).

### 3.4 Analysis of Respondent Characteristic and Perception

Table 4 shows there is a relationship between gender and study program with the perception of students of FKIK UIN Syarif Hidayatullah Jakarta towards the Interprofessional education (p value <0.05), while the experience of collaboration between FKIK UIN Syarif Hidayatullah Jakarta students is not related to the perception of the Interprofessional education. The relationship of readiness to the interprofessional education based on the characteristics of respondents. There is a relationship between gender and readiness of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional Education (p value <0.05), while the collaboration experience of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University is not related to the readiness of the Interprofessional education.

Characteristics	Freq.(%)	
Gender		
Male	7 (15.9)	
Female	37 (84.1)	
Study program at the faculty		
General	10 (22.7)	
Medicine	14 (31.8)	
Nursing	12 (27.3)	
Pharmacy	8 (18.2)	
Public health	-	
Collaboration experience		
Yes	25 (56.8)	
No	19 (43.2)	

Table 1: Demography data of the respondents (n = 44)

Table 2: Results of Univariate Analysis of Perceptions and Readiness on the Interprofessional Education Module (n = 44).

	Characteristics	Freq. (%)
Perceptions	Good perceptions	27 (61.4)
	Poor perceptions	17 (38.6)
Readiness	Good perceptions	23 (52.3)
	Poor perceptions	21 (47.7)

Table 3: Bivariate Analysis of Respondent Characteristics and the Perception on the Interprofessional education.

Sub Variable	Perception		OD 050/ CI	¥7.1.
	Good N(%)	Poor N(%)	OR 95% CI	<i>p</i> -Value
Gender			1.95	
Male	7(100)	0	1.85 (1.37 - 2.49)	0.032
Female	20(54.1)	17(45.9)		
Study Program				
General Medicine	10(100)	0	-	0.016
Nursing	8(57.1)	6(42.9)		
Pharmacy	5(62.5)	3(66.7)		
Collaboration Experience			0.58	
Yes	14(56)	11(44)	(0.169 - 2.048)	0.599
No	13(68.4)	6(31.6)		

Table 4: Bivariate Analysis of Respondent Characteristics and the Readiness of student Faculty of Medicine and Health Sciences (n=44).

Sub Variable	Readiness			
	Good	Poor	OR 95% CI	P Value
	N(%)	N(%)		
Gender			2.3.212	
Male	7(100)	0	- (1.599 - 3.345)	0.009
Female	16)(43.2)	21(45.9)		
Study Program				
General Medicine	9(90)	1(10)		0.008
Nursing	8(57.1)	6(42.9)		
Pharmacy	5(2.5)	3(66.7)		
Collaboration Experience			1.414	
Yes	14(56)	11(44)	(0.427 – 4.685)	0.792
No	9(47.4)	10(52.6)		

Table 5: Analysis Bivariate of Perceptions and Readiness on the module of Interprofessional Education (n = 44).

	Readiness			
Perception	Good N(%)	Poor N(%)	OR 95% CI	P Value
Good	20 (74.1)	7 (25.9)	13.333	0.000
Poor	16 (43.2)	21(45.9)	(2.93 – 60,66)	0.000

### 3.5 Bivariat Analysis of Perceptions and Readiness on the Interprofessional Education

Table 5 above shows that there is a correlation between perceptions and the readiness of students of Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional Education module (p value <0.05). The results showed that there was a correlation between perceptions and the readiness of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional education module.

# **4 DISCUSSION**

The results showed that most of the respondents were female. The study program was not significantly different and most of the students had experience in working with students from other study program. Most of the respondents were female researchers from Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University that students in 2010-2013 were female. This was in accordance with Ulung (2014) who said Health Sciences, Syarif Hidayatullah State Islamic University were female who around 65.7% was. Kozier, Erb, Berman, and Synder (2004) also gave the same opinion that nursing emerged as a profession whose history originated from women's perspective. The traditional role of women as wives, mothers, and sisters are always involved in family care. Women as gender who were dependent and submissive feel called to provide care in the community. The study program in this study was not

that most of students at Faculty of Medicine and

significantly different in number due to sampling based on purposive sampling and only took a small part of the overall population of students in each study program. Most of the experience in working together had been owned by students because at Faculty of Medicine and Health Sciences, Svarif Hidayatullah State Islamic University, students was accustomed to doing student activities with other study program students in the form of Student Executive board and student activity units in it. There was an interprofessional education seminar with a joint discussion simulation among students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University. Only gender and study programs had a relationship with the perception and readiness of students on the interprofessional education module, while the

students' experience in teamwork does not have a relationship. This was added by Thoha (2004) in Fauziah (2010) differences in the characteristics of respondents caused differences in perceived something, including perceptions of interprofessional education. The differences in professional background could influence perceptions of interprofessional education.

The results showed that the students' perceptions were mostly good on interprofessional education modules (61.4%). This was in accordance with Ulung (2014) who said that the perception of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on IPE was mostly in the good category (97.21%). A'la (2010) added that 86.8% students at Faculty of Medicine, Gajah Mada University had a good perception of interprofessional education. The collaborative practice could increase 1) affordability and coordination of health services, 2) appropriate use of specific clinical resources, 3) health outcomes for chronic diseases, and 4) patient care and safety. In addition, the collaborative practice could reduce 1) total complications experienced by patients, 2) length of stay, 3) tension and conflict between care providers, 4) hospital costs, 5) average clinical error, and 6) average number of patient deaths (WHO, 2010). IPE could be realized if students from various study programs in the field of health and related disciplines discuss together about the concept of health services and how their quality could be improved for the benefit of the wider community. Specifically, IPE can be used to discuss health issues as well as certain cases that occur in the community so that through interprofessional discussions, it was found the right solutions that could be applied effectively and efficiently. The application of IPE was expected to open the eyes of each profession, to realize that in the process of health care, a patient becomes healthy not because of the services of one profession, but rather the contribution of each profession that integrates health care (HPEQ-Project, 2011).

This could be viewed from the characteristics of respondents that the number of students who had teamwork experience with other study programs had a not significant number (only 54.8%) with students who had not experience. This was also added by the data of the IPE program that had been carried out by lecturers of general medical and students had not yet reached the level of making academic modules but in Real Work Lectures handled problems happening in patients and families in the community. Then each student made presentations according to their

knowledge. The implementation of IPE has not been exposed to the academic field. It was important to remember that at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University had used competency-based curriculum with Problem Based Learning (PBL) method and seventh jump, especially in general medicine and nursing. There was no socialization about IPE for lecturers and students in a structured manner and there was no research in the stage of the academic collaboration learning module.

An understanding of the roles and responsibilities of each profession made autonomy in the health sector in accordance with the responsibilities and responsibilities of each health profession (Gilbert et al, 2005). Understanding the roles and responsibilities of each good profession, the implementation of IPE learning became increasingly ready to work together in teams (Morison et al, 2003).

The results showed that there was a correlation between perceptions and the readiness of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional education module. The study conducted by Sedyowinarso (2011) revealed that the things that must be prepared to implement IPE was starting with an understanding of IPE so that the formation of an agreement between the faculties of the health profession and the synchronization of the bureaucracy and the special administration department coordinated IPE learning activities. , curriculum teacher. standards and IPE implementation. Then there was the necessity for external support, namely the policies and regulations of the relevant university and government departments. Cooperation with practicing land partners was also needed to be planned in detail. When the researchers processed students' questionnaire data, there were two students who stated that the Interprofessional education module was highly expected and Interprofessional education learning could be immediately applied in the Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University.

Various studies on IPE barriers had been carried out. These obstacles existed in various levels and were found in organization, implementation, communication, culture or attitude. It was very important to overcome these obstacles in preparation for better students and health professional practitioners for collaborative practices to change health care systems (Sedyowinarso et al, 2011). Barriers that may arise were academic dating, academic regulation, structure of academic awards, clinical practice areas, communication issues, discipline, professional parts, evaluation, teaching development, financial resources, geographical distance, lack of interdisciplinary teaching, leadership and administrative support, level of preparation of students, logistics, strength of regulation, promotion, attention and appreciation, change resistance, scholarship, payroll system, and commitment to time (ACCP, 2009).

There was not a single method of applying IPE which was the main choice. The IPE learning method could change at any time according to the learning necessity of students and how the lecturer could maintain the students' attention to the lesson. The existing learning methods could reinforce each other, not stand alone. Teaching and learning approaches that can be applied in IPE were exchange-based learning, action-based learning, practice-based learning, and e-based learning (Sedyowinarso et al., 2011).

# **5** CONCLUSIONS

It could be concluded that the majority of respondents are female. The Study Program of respondents were not too significantly different from general medicine, nursing, pharmacy, and public health. Most of the students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University had worked with other health students. Most of students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University perceived both the interprofessional education module. Most students at Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University had a good readiness for interprofessional education modules. There was a relationship between gender and study program with the perception and readiness of students Faculty of Medicine and Health Sciences, Syarif Hidayatullah State Islamic University on the Interprofessional education. There was a relationship between perceptions and the readiness of students on the Interprofessional education.

The formulation of policies in the development of interprofessional education curriculum was in the form of modules that were strengthened in the Decree (SK) and other infrastructure (physical environment) for the creation of interprofessional education. A further study with the meeting among study programs was to design the curriculum in one course that became the basis of joint knowledge of each study program so that an applicative curriculum the implementation was formed on of interprofessional education with a minimum integrative in the academic program and in the future in the clinical program. It improved soft skills in collaborating among students from health department both formally in learning and through campus activities so that students would not experience problems in working with other health workers by having a culture of cooperation in handling patients holistically (multidisciplinary science).

# **CONFLICT OF INTEREST**

The authors state that they have no competing interests.

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