Impact of Interprofessional Education on Collaboration Attitudes Among The Student of Medical Faculty and Health Sciences Universitas Muhammadiyah Yogyakarta

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Abstract
Background: Overlapping roles of health professionals may lead to many medication errors at the Hospital. This is due to a lack of understanding of a health profession on the competence of other health professions. So we need the IPE (Interprofessional Education) which is given to students at the stage of pre-clinical and clinical. IPE is a collaborative learning among healthcare professionals in promotive, preventive, curative, rehabilitative and other matters related to health.
Objective: This study aims to know the impact of IPE on collaboration attitudes among the student of Medical Faculty and Health Sciences Universitas Muhammadiyah Yogyakarta (FKIK UMY).
Methods: The study was descriptive with cross sectional approach. The sampling technique is purposive. Sample consists of 94 students who had followed the IPE, they are 23 students medical profession, 25 students dentistry profession, 25 students nursing profession and 21 pharmacy undergraduate students. Instrument used in this research was questionnaire, which referred to the *Attitudes Toward Health Care Teams Scale (ATHCT*. Collaboration attitudes consists of the attitude towards team's value, attitudes toward team's efficiency, and attitudes toward roles in the team .Collaboration attitudes can be divided into four categories: good, adequate, low and poor.
Results: 70,2% of students have good collaboration attitudes. The highest percentage in good category is the attitudes toward team's values (88.3%). **Conclusion:** IPE program can improve collaboration attitudes of students. A good collaboration attitudes can improve health services for patients when they have been working as a professional health workers
Keywords: Collaboration attitudes, IPE

INTRODUCTION

The development of health care requires a good collaboration among health workers for an optimum service[1]. The increasing number of human errors conducted by health care workers leads to an improvement of treatment management and education system of professional health care.

Collaborative work is an essential aspect in health care service in order to minimize the rate of errors conducted by health workers. WHO admitted that the interprofessional collaboration in education and practice as an innovative strategy would play a significant role in minimizing crisis of health workers in the global level. Collaborative work is aimed to strengthen the healthcare system and improve the health service result[2]. The unmet needs of health care is influenced by the health background and interprofessional education at global level.

Through the learning system that involved interaction of other health professions, students were able to observe and discuss how professional health care workers collaborate so that they could improve their knowledge, attitued, and skills needed to do interprofessional collaboration effectively[3]. Therefore, in 2007 WHO carried out a study group on interprofessional education.

Interprofessional Education is defined as a process wherein a group of students or health care workers from various professional background learn together for a defined period of time to collaborate in promoting promotive, preventive, curative, rehabilitative and other approaches related to health care system[4].

In Indonesia, IPE is perceived as a novel concept in professional health education seeing the fact that the collaboration of professional health education is far under expectation. The overlapping role of other professions in health care system is frequently occured due to, among others, the lack of understanding on other professions' competence. Therefore, it is considered necessary to give IPE to students at pre-clinical and clinical stages.

Since 2012 FKIK UMY has conducted a simulation on IPE learning. This simulation is found to give positive contribution to both students' learning and the development of FKIK UMY. Starting in 2013 FKIK UMY officially included IPE in its curriculum, involving students of Medical education profession, Dentistry education profession, Nursing education profession and students of undergraduate program of Pharmacy. The activity of IPE included: 1) General Lecture on IPE; 2) Bedside Teaching (BST); 3) Clinical Tutorial; 4) Case Presentation; 5) Reflection on Cases; 6) Summative Test.

RESEARCH METHODOLOGY

A. Research Design

This is a descriptive research using cross sectional approach.

B. Time and Place of Research

This research was conducted at School of Medical and Health Science (FKIK) of University Muhammadiyah Yogyakarta (UMY) from June to September 2014.

C. Population and Sample

This research involved students of Profession Program at FKIK UMY, namely Profession Program of Medical, Dentistry, Nursing and Undergraduate program of Pharmacy. This research employed non Probability Sample with Purposive sampling.

D. Research Variables

The research variables included:

a. Free Variables: IPE Learning
b. Dependant Variables : Collaboration Attitudes of FKIK UMY Students

E. Research Instrument

Instrument used in this research was questionnaire, which referred to the *Attitudes Toward Health Care Teams Scale (ATHCT).*

F. Operational Procedure

The Operational Procedure of the research was divided into several steps, namely:

1. Preparation Stage; in this stage researcher carried out a study of literature such as journal and reference book, stating the research theme, title and instrument.
2. Implementation Stage; researcher collected the data from students of FKIK that had been exposed to IPE.
3. Data Analysis Stage; researcher analyzed and processed the collected data, drew a conclusion and wrote the result as a research report.

G. Data Analysis

Variables are described in a table of frequency distribution and percentage (%) on level of collaboration attitudes. This technique is chosen because the data scale is in ordinal form. The next step is carrying out data normality test. If the result of normality test of the four group shows a normal distribution of data, then a comparative test using One Way ANOVA is conducted. If the data do not show a normal distribution, Kruskall-Wallis test is performed.

RESULTS AND DISCUSSION

A. Characteristics of Respondents

Table 1. Characteristics of each respondents attended IPE at FKIK UMY

Characteristic	Frequency	Percentage (%)
Medical Profession Program	23	24,46 %
Dentistry Profession Program	25	26,59 %
Nursing Profession Program	25	26,59 %
Pharmacy Undergraduate	21	22,34 %
Total Respondents	94 people	100%

B. Collaboration attitudes of students

The data on the collaboration attitudes consisted of three components, namely attitudes toward team's values, attitudes toward team's efficiency, and attitudes toward roles in the team. The results of the collaboration attitudes category of the Medical Faculty UMY students are presented in table 2 below.

Table 2. The frequency distribution of collaboration attitudes of students

No	Category	Frequency (f)	Percentage (%)
1	Good	66	70,2
2	Adequate	28	29,8
3	Low	0	0
4	Poor	0	0

The table showed that most (70.2%) of Medical Faculty UMY students had good attitude toward collaborative working.

A research carried out by Mitchel (2010)[5] revealed that medical doctor and nursing students in Southampton University, England had positive attitude to work collaboratively in learning with students from other departments. This is because the students were often exposed to working collaboratively with other health

care professions.

To find out whether there is any significant difference on the attitude toward working collaboratively among the students from four departments, a comparative test was carried out using non parametric *Kruskall-Wallis* test. The result showed that there is no significant difference on the attitude toward working collaboratively among the students from four departments (p>0,05). Morison (2003)[6] pointed out that the awareness and knowledge to work collaboratively with other health care professions influence the attitude toward working collaboratively with other health care professions.

To further analyze the attitude toward working collaboratively of the students of Medical Faculty UMY, an analysis on the components of working collaboratively such as attitudes toward team's values, attitudes toward team's efficiency, and attitudes toward roles in the team was carried out.

Table 1. Frequency distribution on the collaboration attitude components

No	Components	Good		Adequate		Low		Poor	
		F	%	F	%	F	%	F	%
1	Attitudes toward team's values	83	88,3	11	11,7	0	0	0	0
2	Attitudes toward team's efficiency	51	54,3	29	30,9	12	12,8	2	2,1
3	Attitudes toward roles in the team	49	52,1	21	22,3	14	14,9	10	10,6

The table illustrates that all components for the attitude toward working collaboratively falls into good category. The highest percentage in good category is the attitudes toward team's values (88.3%). It is because the respondents had learned to work collaboratively with other health care professionals in their classes, so that they understand the attitude toward the value in inter-professions. The high score of team values is expected to be able to encourage the students in working collaboratively when they give cares to patients.

In good category, the lowest percentage was in the component of attitude toward the roles in the team (52,1%). It is because the opportunity to work collaboratively to provide health care to patients was limited.

According to MacDonald (2009)[7], students found it difficult to share roles with other professions because of the lack of understanding of the roles of other health care personnel. In fact, the students' perception on other professions was also good with the least percentage. Thus, it can be inferred that their perception toward other professions influenced their attitudes.

Leaviss (2000)[8] pointed out that the respondents who had positive attitude toward sharing roles in the team usually had a good understanding about roles of other health care professions. Understanding the roles of other health care professions can be increased by improving the inter-professions communication skills (McDonald, 2009)[9].

A comparative test using *Kruskall-Wallis* on the components of the attitude toward working collaboratively among the students from four departments revealed that there was no significant difference on the attitude toward the team's value (p=0.767) and the attitude toward the team's efficiency (p=0,621). However, there was a significant difference on the attitude toward sharing the roles in the team (p=0,011).

CONCLUSION

From the research that has been carried out, conclusions that can be drawn are:

1. The *Interprofessional Education* (IPE) has significant effects toward the collaboration attitudes among the students of Medical Faculty UMY.
2. There is no significant difference on the collaboration attitudes among the students of Medical Faculty UMY.

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