



## HARMONIZATION OF INTERPROFESSIONAL COLLABORATION TO IMPROVE THE QUALITY OF HEALTH CARE

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### ABSTRACT

Cooperation among health workers need to be increased in order to provide better health services in Indonesia as well as develop good cooperating skills among professions. Collaborative services given by health workers will give positive impacts to patient outcome. Good collaboration among health workers can be prepared starting from education level through IPE (Interprofessional Education). IPE is applied to undergraduate students such as medical students, dentistry students, pharmacy students, nutritionist students, public health students, and midwifery students. For literature review and condition analysis, the writer applied a method that requires collecting and analyzing sources such as research articles and other literatures on IPE. IPE itself is an education process with two or more different disciplines used to apply interactive learning process in increasing collaboration and quality of health services and practices of each discipline. By applying IPE on students, it aims to make them learn how to give contribution in a team interprofession through knowledge, skills, and cooperation among teams in providing patients with satisfying health services. Students' ability to handle conflict and good attitudes in problem solving indicates whether the application of IPE succeeds or not. There are several obstacles in applying IPE on institutions, such as difficulties in time management among health professional students due to differences of the schedule; the lack of academic regulation regulating aligned IPE application; problems in communication among professions; and the lack of interdisciplinary teachers. In conclusion, IPE is an important method that needs to be applied on health students in order to improve collaboration skills among professions and health workers. The methods that can be used in applying IPE are classic lectures, Problem-Based Learning (PBL), and Team Collaboration Health Care (TCHC).

**Keywords:** *care, collaboration, health, interprofessional*

### INTRODUCTION

Cooperation among health workers needs to be increased in order to provide better health services in Indonesia. Further examination is required to develop good cooperating skills among professions. One of factors causing medication error is lack of communication among health workers (Donsu Y.Ch, et al, 2016). Collaborative health services among health workers must be applied on both outpatients and those hospitalized in Indonesia. This also means a security guaranty for patients' treatments. Furthermore, any lawsuit that might stand for malpractice requires competent health workers (Suharjono, 2013). Health services given by health workers are complements and must be able to give positive impacts on patient outcome.

According to the data obtained from the Ministry of Health of Republic of Indonesia (2015), there are 647.170 health workers (KEMENKES RI, 2016). With that given condition, those health workers are potential in giving good and appropriate health services to Indonesian citizens when there is a corporation among health workers.

Good collaboration among health workers can be prepared starting from education level through IPE (Interprofessional Education). It is a learning type for two or more professions focusing on increasing collaboration and quality of health services (Becker, K.L, et al, 2014). Currently in



Indonesia, there has been a student organization which helps college students learn how to apply IPE. That organization consists of undergraduate health students such as medical students, dentistry students, pharmacy students, public students, and midwifery students. However, in terms of learning curriculum, not all universities conducting health majors apply IPE.

## **METHOD**

The method to discern literature reviews and condition analysis in this study was to collect and analyze research articles and other literatures on IPE. These sources were obtained from both electronic and conventional searches. The criteria of inclusion used in literature review covers numerous publication of books and research articles published during 2005 – 2016.

## **FINDINGS AND ARGUMENTS**

### **Definition**

According to American College of Clinical Pharmacy, IPE is a learning process with two or more disciplines used to conduct interactive learning process in order to increase collaboration and service quality of each discipline. The purpose of IPE application is to help students learn how to contribute in a team of among professions through knowledge, and skills as well as apply them to better patient output (American Collage of Clinical Pharmacy, 2009). A team consists of members from different professions who have knowledge, skills, and specialties (Buring, S.M, et al, 2009) The team members use their knowledge to collaborate and communicate with each other to optimize their treatments to patients.

Interprofessional education is generally well accepted by health students (Sundari, Sri & Adi Sembodo, 2013; Fallatah, H.I, et al, 2015). In A Best Evidence Systematic Review of Interprofessional Education, it is stated that IPE application in educational process is able to increase cooperation among teams in providing satisfying health services to patients (Sundari, Sri & Adi Sembodo, 2013).

From the result of a survey conducted in 42 countries, those countries have applied Interprofessional Education (IPE) strategy that show positive impacts on collaboration system among professions in health field as well as an increase treatment quality and patients' satisfaction. This occurs not only to those very countries but also to other countries on which the same strategy is used (WHO, 2010). However, the curriculum of IPE in Indonesia has not been developed yet evenly at education institutions.

### **The Supporting Evidence of IPE Implementation**

The evaluation of IPE program from various studies can be a proof of the effectiveness of IPE in performing problem solving in public health. Hammick (2007) systematically reviewed 21 studies on the evaluation of IPE [10], and 13 reviews of IPE training program by Clifton, et al (2006) . He reported the results of the evaluation of the IPE are equally positive in the view of learners' reactions, positive changes of the knowledge and professional ability and health workers. Both in terms of the ability of communication and coordination, as well as the ability to solve a problem in the health field together.

Doctors and nurses are the most frequent participants involved in an inter-professional collaboration. Other health workers such as pharmacist, dentists, nutritionists, and physiotherapists, are less involved in IPE. (Clifton, M., et al, 2006) The fact indicates that the current application of the IPE is not yet thoroughly to all professions and health care personnel.

Kuper and Cynthia in 2012 suggested that health workforce practitioners and educators should design an arrangement position of health profession as a consideration regarding the changes to make collaboration practices in our health care system become more effective . Thus, the existence of IPE do not intervene in the competence of each profession and health workers (Kuper, Ayelet & Cynthia Whitehead, 2012)



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Currently, there is no legal basis or a statute that is purposed to coordinate the various professions and health care personnel that their professional perceptions are not mutually integrated. It proves the importance of IPE and all aspects that support the IPE to be implemented in a systematic and integrated way.

The practice of IPE learning has been implemented. Yet, the obstacles are present. There are obstacles in organizing health workers, technical implementation of the IPE, communication between health workers, culture or attitude of health workers' perspective. Therefore, an action is needed in addressing the barriers such as preparation of health professions students and practitioners to collaborate effectively

Other obstacles that appear on the implementation of IPE in institutions are the difficulty of adjusting time between health profession students because of the difference in the schedule of lectures, the presence of academic regulations governing passage of IPE are aligned, the problem of communication between professions, as well as the lack of interdisciplinary lecturers (American Collage of Clinical Pharmacy, 2009). In addition, not all institutions implement IPE in the learning process.

The actions required to overcome the obstacles that emerge can be done by adjusting the schedule between the related professions. The existence of the discipline attitude and mutual understanding for the good communication, the standardization of learning materials, and the provision of supporting facilities in the IPE is indispensable template.

**The Need of IPE Implementation**

Collaboration practices used to develop access and coordination of health services to improve health from chronic diseases and increase the awareness as well as patients' safety. Collaboration practices could also reduce the risk of malpractices and mortality rate. Collaboration practices in the setting of mental health communities could reveal the increase of patients' satisfaction, better handling, fee reducing, and hospitalized patients decreasing. Health system could also get beneficial experiences from collaboration practices (CIHC, 2007). Learners should have competencies To achieve this the learners must have competence in table 1.

In the IPE program, inter-professional health that must be able to handle conflict and provide a good attitude to solve a problem is an indicator of the success of the IPE program. Students do not only learn to control conflicts, but also use IPE programs to enhance cooperation with other professional students to solve a problem.

Table 1. Student Competencies and Objectives for Interprofessional Education (Oandasan, 2005)

Assess and Enhance Team Performance	Team Organization/Function
Routinely assess the performance of an interprofessional team collaboratively and individually.	Explain your role and the roles of other team members.
Routinely assess individual interprofessional team member performance through self and peer assessment.	Determine professional responsibilities, roles and boundaries
Modify the team's performance and roles accordingly to enhance interprofessional performance.	Determine critical team rules about: a) purpose; b) composition; c) attendance; d) case management system/process; e) team development.
Modify the team's performance and roles accordingly to enhance interprofessional performance.	Determine alignment among different professions and settings of care to make optimal use of intellectual, physical and sociobehavioral skills, and their overlap.



Identify deficient individual and team skills whose development would serve to improve team performance.	Delineate procedures and processes for seamless documentation of patient-centered care. Determine the financial aspects of functioning in an interprofessional team for patient care.
<b>Intrateam Communication</b>	<b>Leadership</b>
Choose effective communication tools and techniques that enhance team function.	Facilitate an effective team meeting that incorporates at least the following: 1) clarify objectives; 2) determine team roles; 3) review tasks; 4) complete tasks; 5) document task completion and consensus on team decisions; 6) plan next steps; 7) assess meeting.
Identify and overcome barriers that interfere with the quality of communication within the interprofessional team.	Assume or delegate the role of providing team socio-emotional support (team mediator) to sustain the culture of the team. Assume and relinquish goal-oriented leadership appropriate to one's expertise and the stage of patient care needed.

Table 2. Elements Critical for Implementing Interprofessional Education (Barr, H.K., et al, 2005)

Resolving Conflict and Consensus Building	Setting Common Patient Care Goals
Identify and address organizational, institutional and health care systems issues that give rise to team problems. Identify and address the origins of team problems within the team.	Identify and achieve a common patient-centered care goal.
Identify, discuss, choose and implement strategies for managing and overcoming an interprofessional team conflict	Assess, plan and implement effective, efficient and seamless care collaboratively.

### **The Development of IPE**

The implementation of IPE can use learning method in the form of classical lectures. The lecture setting involves several teachers from various disciplines (team teaching) and involves students from various health professions. The curriculum used is an integrated curriculum of various health professions. Lectures can be a scientific sharing of a problem or material under discussion [14]. Important things in the application of detailed IPE in table 2

In addition, the method that can be used is Problem based learning (PBL); learning tutorial lessons. Tutorial lessons can be done with small group discussions involving students from various health professions to discuss a problem, to try to identify, and to solve problems. Lecturers, as team teaching from various professions, serve as facilitator in the discussion.

The important thing in the implementation of IPE is to improve the effectiveness of team work of the health profession. The method that can be used is Team Collaboration Health Care (TCHC). TCHC is a method that the team members can share knowledge and understanding related to the clinical performance competence of health personnel. Based on the complexity of the patients' cases, the in-patient treatment room becomes one of the most suitable settings for TCHC application. So, in the future, there will be a collaboration simulation for the handling and treatment of patients in the venue.



In general, the TCHC concept refers to the sharing of relevant knowledge among members in reaching effective teamwork. With the TCHC method, health workers can share knowledge, attitudes, and understanding related to patient safety improvement. Interdisciplinary team members can identify each role and responsibility of each profession and determine the solution of existing health problems in society through team discussions. Application of TCHC since college level can make learners ready to collaborate with other health professional in the practice life (Figure 1.)

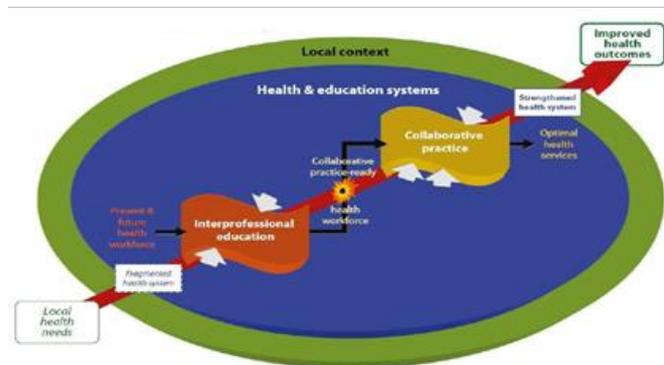


Figure. 1. Action Framework on Interprofessional Education and Collaborative Practice (WHO, 2010)

## CONCLUSIONS

IPE program is an important program that must be applied in medical students as a method of learning to improve the ability to collaborate among professionals and health workers.

## REFERENCES

- American College of Clinical Pharmacy. Interprofessional Education: Principle and Application, A Framework for Clinical Pharmacy. *Pharmacotherapy*, 29(3), pp. 145-164. 2009. [Online]. Available at: <http://www.accp.com/docs/positions/whitePapers/InterProfEduc.pdf> (on 15th okt 2018)
- Barr H, Koppel I, Reeves S, Hammick M, Freeth D. *Effective Interprofessional Education: Argument, Assumption & Evidence*. Oxford, UK: Blackwell; 2005
- Becker, K.L, Hanyok, L.A, Walton-Moss, B. (The turf and baggage of nursing and medicine: Moving forward to achieve success in interprofessional education. *The Journal for Nurse Practitioners*, 10:4, pp. 240-244. 2014.
- Buring, S. M., Bhushan, A., Broeseker, A., Conway, S., Duncan-hewitt, W., Hansen, L., & Westberg, S. INTERPROFESSIONAL EDUCATION SUPPLEMENT *Interprofessional Education: Definitions, Student Competencies, and Guidelines for Implementation*, 73(4). 2009
- CIHC. *Interprofessional Education and Core Competencies, Literature Review*. Canada. 2007.
- Clifton Maggie, Colin Dale, and Chris Bradshaw. *The Impact and Effectiveness of Interprofessional Education in Primary Care*. Royal College of Nursing. 2006.
- Donsu Y.Ch, Heedy T., Widdhi B.. Faktor Penyebab Medication Error Pada Pelayanan Kefarmasian Rawat Inap bangsal Anak RSUP Prof.Dr Kandou Manado. *PHARMACON Jurnal Ilmiah Farmasi – UNSRAT Vol. 5 No. 3 : Manado*. 2016
- Fakultas Kedokteran Universitas Gadjah Mada. *Buku Panduan CFHC-IPE*. Yogyakarta. 2014
- Fallatah, H.I., et al. Interprofessional Education as a Need: The Perception of Medical, Nursing Students and Graduates of Medical College at King Abdulaziz University. *Creative Education*, vol. 6, pp. 248-254, 2015.
- Hammick, M., et al. A Best Evidence Systematic Review of Interprofessional Education. *Medical Teacher*. 2007.
- Kementerian Kesehatan Republik Indonesia. *Profil Kesehatan Indonesia*. 2016



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- Kuper Ayelet, and Cynthia Whitehead. The paradox of interprofessional education: IPE as a mechanism of maintaining physician power. *J Interprofessional Care*. vol. 26, pp. 347–349. 2012.
- Oandasan I, Reeves S. Key elements for interprofessional education. Part 1: the learner, the educator and the learning context. *J Interprof Care*. vol. 19(Suppl 1), pp. 21-38. 2005.
- Oandasan I, Reeves S. Key elements of interprofessional education. Part 2: factors, processes and outcomes. *J Interprof Care*. vol. 19(Suppl 1), pp. 39-48. 2005.
- Suharjono. Kolaborasi Apoteker dan Dokter dalam Penanganan Pasien di Rumah Sakit. Padang Seminar Nasional Perkembangan Terkini Sains Farmasi dan Klinik III. Padang, Indonesia. 2013.
- Sundari, Sri & Adi Sembodo. Perbedaan Persepsi Mahasiswa Tahap Profesi di FKIK UMY tentang Interprofessional Education di Asri Medical Center Yogyakarta. Yogyakarta, Indonesia: Fakultas Kedokteran dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta, 2013.
- World Health Organization (WHO). Framework for action on interprofessional education & collaborative practice. Geneva: World Health Organization. 2010.