Continuum Of Promoting Interprofessional Education In Nursing Students

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ABSTRACT

Background: One of the field that highly requires interprofessional education (IPE) approach is health sector, which the final purpose is to achieve high quality of patient outcome. However there are various obstacle faced to meet the goal, for instance usually some health care diciplines have different curriculum schedule to allow their students joint in IPE.

Objectives: To identify strategy of promoting interprofessional education in health sciences students.

Methods: Searching method was conducted using EBSCO, ProQuest, Pubmed, Science Direct, Scopus database and found 323 studies. Search limitation included peer-reviewed article, article's are not more than 10 years, article have to written in English language and found ten articles.

Result: A total ten articles, which consist of eight articles describe an IPE promotion strategy and two remain articles explain IPE promotion steps. This combination provides adequate relation between IPE strategies and its promotion steps. The review found a continuum of engagement in IPE. Recognization of IPE philosophy to organization or faculty members is the basic step to integrate IPE accross faculty system and activity.

Conclusion: Engagement in IPE continuum will guide the organization or faculty to step-by-step in implementing IPE and learning approach to their students. Faculty's readiness to perform IPE curriculum accompanied by clinical acceptance to interprofessional and collaborative practice will lead the healthcare professional to deliver safe and quality care in attempt to improve patient outcome.

Keywords: *Interprofessional Education*

INTRODUCTION

Interprofessional education (IPE) has been known for more than 30 years and spread broadly in most of country in the world. This approach addresses to facilitating two or more professions learn together in certain concern and building readiness for interprofessional collaboration. One of the field that highly requires this approach is health sector, which the final purpose is to achieve high quality of patient outcome. Interprofessional education process can happen at the education or workplace stage, in many setting such as classroom or laboratory setting, clinical area, and involve a range of different health and social professions. Furthermore, IPE have to be introduced not only in education and workplace stage but also to stakeholders so that appropriate policy can be arranged to recognize IPE practices broadly (1).

World Health Organization (2) publishes health and education systems schema to visualize the corellation between IPE and patient outcome. This schema describes that if IPE practices are implemented in present and future workforce, it will provided health care readiness to performing collaborative practice. Collaborative practice will enhance optimal health services, strengthen health system, and the final goal is improvement of patient health outcomes and quality of life. The key message of the WHO health and education systems schema is that implementation of IPE and collaborative practices have to be adapted with local health needs. By concidering local needs, will help policy makers to determine IPE and collaborative practice's strategies that will be most beneficial in their own juridiction (2).

In attempt to applying IPE and collaborative practice, some promotion strategy have been introduced and showed its significancy. Barnsteiner et al (3) study found that within promoting and conducting IPE, there are essential to faculty to recognize a continuum of engagement in IPE that can start from asking students to read other profession's roles, to a wholly integrated, co-created curriculum that embeds and designs IPE philosophy appropriately. When the faculty fully engagement in IPE, the further step has been arranged to facilitate broader and active involvement. Five strategies to getting started are first, find out if the faculty has iniciatives or has became a part of larger collaborative that promote IPE. Second, join together with other health profession to work together, recognize other responsibilities, and solve the problem in interprofessional consideration. This step can be performed with case study have to solved by teams that consist of multi profession. The third strategy is involved in meetings that support to interprofessional education practices. Fourth, actively read and subscribe interprofessional journals and can be acessed by students. And the final step is actively involve in policy level, working with nursing council and other professions (3). This literatur review aims to identify strategy of promoting interprofessional education in health sciences students.

MATERIALS AND METHODS

Searching method in literature review of promoting interprofessional education (IPE) to nursing students was conducted using several data base, there are EBSCO, ProQuest, Pubmed, Science Direct, and Scopus. To find specific articles,the writter used Bolean terms: "IPE" AND "nursing students" and using some limitation such as peer-reviewed article (except Pubmed and Science Direct), article's are not more than 10 years, and article have to written in English language . The result of literature searching, will be described in the schema below.

Figure 1. Article Selection

Eight articles are used to complete description about interprofessional education promotion strategy, two remain articles used to explain IPE promotion steps, so that obtained aduquate relation between IPE strategies and IPE promotion steps in nursing students.

RESULTS

Table 1. Article Selection

Author	Year	Method	Participant	Intervention	Key Finding
Titzer et al.	2012	Clinical simulation	Four health profession programs, consist of : 79 nursing, 15 radiologic technology, 27 occupational therapy, 10 respiratory therapy students	The simulation was did four times and was identified by faculty members. The activity included: • Video presentation to introduce each profession's role.	• The students expressed that the simulation taught them about other health professional's role, interprofessional teamwork, and safe practical environment.
				• Seven students from all profession were choosen to involved in each simulation, included 2 nursing ,2 radiologic, 2 occupational therapy, and 1 respiratory therapy students • The similation was provided with scenario and a high-fidelity phamtom as a patient. • Some remaining student participated as observers in the simulation, consist of 20 nursing, 2 radiologic, 5-8 occupational therapy, 1-2 respiratory therapy students. • The last remaining students viewed the simulation from classroom video recorded the simulation process. • After simulation process completed, debriefing provided in two sessions. First session was conducted for each specific profession. Second session was conducted for IPE discussion among all students and faculty members. • When debriefing finished, students were asked to complete 2 questionares, consist of the Educational Practices in Simulation Scale (EPSS) and the Healthcare Provider Priority Survey (HPPS).	• IPE simulation provided opportunity to share knowledge, perform critical thinking, effective communication skills, smart decision making, and could be part of educational curriculum. • Student who participated in IPE activities usually had better preparation to face real healthcare professional setting.
Bolesta,S & Chmil, J.V	2014	IPE clinical laboratory	One hundred twenty students consist of 69 pharmacy and 51 nursing students	Interprofessional education clinical laboratory practice was designed with a scenario about acute-care patient with heart failure developed weakness and new onset of shortness of breath. The sequence was: • Participants working in groups, consist of 2 nursing and 2-3 pharmacy students	• Score of RIPLS showed that students were more ready after did practice. • The practice helped them to think positively about other professions and their roles.

				• The same information about the scenario was provided to both dicipline students 1 week prior and during the laboratory practice time. They also were given homework to read on various cardiovascular disorder. • Human patient from high-fidelity simulator was used as a patient • The practice room devided into 3 rooms, consist of patient room, room for IPE debriefing, and 2 separate rooms for dicipline-specific debriefing. Every room was assigned with 2 facilitator, 1 pharmacy and 1 nursing faculty member, and 1 addition facilitator to control the simulation portion, so that 7 facilitators were provided. • In the day of the clinical laboratory practice, students took 20 minutes to complete simulation continued with debriefing IPE case, and the last session for dicipline-specific debriefing.. • The outcome was evaluated with prelaboratory and postlaboratory survey using a modification of the readiness of interprofessional learning scale (RIPLS).	• the human patient simulation design improved student's communication skill.
Stewart,M., Kennedy, N., & Grandider, H.C.	2010	Simulation workshop	The participant of Interprofessional Education-Pediatric Simulation (IPE-PS) are 46 medical and 49 children's branch nursing students.	Every group consist of 3-4 students with one scenario for 20 minutes simulation workshop. • The workshop was continued with debriefing session followed by participants and educators to reflect their performance, discuss scenario, and demonstrated some clinical skill, such as BLS. • After finished workshop, students were given questionnare included quantitative and qualitative statements	• Participants expressed that the workshop allowed them to learn patient management and problem solving in a safe risk-free environment. • The study suggested that needed sufficient prior knowledge related to scenario and required long- term follow up to better improvement.
Williams et al.	2010	Mix methods simulation	The total participant was 394 undergraduate students, consist of 97 paramedics, 19 occupational therapies, 87 physiotherapies, 191 nursing students.	The intervention on the study was DVD simulation with 11 topics (e.g. burn, intracerebral haemorrhage). The arrangement of intervention was:	• All student stated positive perception and attitude toward the DVD simulations.

				• Participants completed written consent • They viewed 2 or more DVD simulations and were asked to complete 25-items self-report questionnaire. • Four weeks after intervention, 24 students were involved qualitative data completion, in 3 weeks full-time clinical practice and asked to respond qualitative questionnaire.	• The DVD simulation was useful supplement tool prior clinical work placement and strengthened understanding about professional roles, multidiciplinary teamwork and their learning objectives. • This strategy might be a cost-effective tool to facilitate student clinical knowledge and skills.
Dahmen et al.	2016	Self-assessment role play.	The total participant was 54 consist of medicine, physiotherapy, and nursing students	The study was purposed to provide recommendation in an innovative constructivist educational concept. The interventions to achieve this purpose were: • Exploring student's prior knowledge about the clinical scenario and an interprofessional treatment should be done. • All of the participant discussed and shared their work together. • The participants did the role play and filmed it. • After the role play finished, they continued with a structured self-assessment by reflecting on one's own actions. • All participant asked to semi-structured questionnaire.	The recommendations were: • Appropriate simulation situation would provide equal opportunity in role play. • Needed early coordination regarding the group selection, schedule, and conducting policy to recruitment across all profession. • Self- assessment approach showed sucessfull result in supporting and strengthening the development of IPE.
McDonnell et al.	2016	Examination simulation	The study was followed by five diciplines, consist of 120 fourth-year nursing students, 121 second-year medical students, 120 third professional- year PharmD students, 48 second-year graduate students in social work, and 34 second-year doctor of physical therapy students.	The workshop intervention assessed students perception of teamwork and evaluated student ability to identify domestic violanve throught standardized patient interview. • The team contained of minimum 1 student of each dicipline • Teams performed exercise to assess history of patient disease, perform physical examination, compose diagnosa, and plan intervention	• The student expressed improvement in abilities, competencies, and understood each participant's role. • The workshop provided opportunity to teams in direct patient care and share decision-making effectively.

				• In the last activity, students were asked to complete Student Perception of Physician-Pharmacist Interprofessional Clinical Education –Revised (SPICE-R) questionnaire and could be compiled in 20 days after the workshop.	
Meffe, F., Moravac, C.C. & Epsin, S.	2012	Qualitative study of workshop	Nine students, consisted of 3 midwifery, 3 medicine, and 3 nursing students	The study was conducted with six workshops and two clinical shadowing experiences. • The students were invited to the workshops and obtained nine students. • Each participat was on rotation in labor & delivery or postpartum care at hospital during the study period • Each participant followed multiple interview sessions • The interview was conducted for 30-60 minutes per session with semi-structured questionnaire. Interviews were completed at 2nd week post-program, 3rd week and until twenty-five semi-structured interviews completed	• This qualitative study found that the student perceived effectiveness of the program related to the use of small group learning techniques, mixed teaching strateies, group directed learning by exposure to IPE in faculty and shadowing experiences
Judge et al.	2016	Joint simulation intervention	30 students from community college and 20 students from university	This study described methods to developing IPE between two type of nursing school with joint simulation intervention. • This study was begun with one sumilation developed by each campus (community college and university). • Location setting used laboratoty and high-fidelity mannequins. • All of the student has received education in both medical surgical and mental health nursing. • Students were paired in 4 members, that consist of 2 students from each campus	• Students described that working with students from another school was beneficial. • The simulation developed faculty trust and relationship among the colleagues to find the higher IPE methods for all nursing student, regardless on the degree of the program.

- Roles in simulation were reversed for each campus which the BSN (Bachelor of Science in Nursing) students acting as a team leader at the community college, and the ASN (Associate of Science in Nursing) students was acting as team leader at the university.
- At the end of the simulation day, the student were given an evaluation form to express their experiences.
- The final joint meeting was held to evaluate simulation been done.

The ultimate goal of IPE is improvement of patient health outcome receiving safe and quality care. In attempt to bridging this goal, several provision is needed such as heathcare understand in other profession's role and able to communicate and work effectively together. However there are various obstacle faced to meet the goal, for instance usually some health care diciplines have different curriculum schedule to allow their students joint in interprofessional education. Currently, many study have designed various strategies to overcome the obstacles and implement interprofessional education effectively. Barnsteiner et al (3) introduces a continuum of engagement in IPE, that begin with recognization of IPE philosophy to organization members, up to permeates and integrated IPE accross faculty system and activity. Continuum for full engagement of IPE Barnsteiner et al (3), included :

1. Introduce philosophy of IPE to the organization, in order to well-known, observable, and measurable.
2. Co-creating learning experiences that involve different professions.
3. Provide opportunities to students to learn collaboration, teamwork, and how it relates to patient safety and quality care delivery (4; 5).
4. Embed IPE learning experiences in the curricula and part of the required course for students.
5. Facilitate students to demonstrate competence with a single set of interprofessional competencies, such as clinical simulation (4); IPE clinical laboratory (6); simulation workshop (7); Mix methods simulation (8); Self- assessment role play (9); Examination simulation (10); Qualitative study of workshop (11); Joint simulation intervention (5).
6. Facilitate organizational infrastructure that fosters IPE, such as support for faculty time to develop IPE options, incentive systems for faculty to engage in IPE, and integrated activities across school and professions for students and faculty.

In the first and second step of the continuum are the introduction of philosiphy IPE to faculty members nad how to creating learing experience accross different professions. The philosophy have to reflects IPE's outcome, safe and quality care. In the beginning of IPE introduction, faculties have to held discussion together and reveal intention to applying IPE in their students. This discussion can include strategy arrangement to deliver IPE in effective and creative way (3). Many study have described strategies and its effectiveness to improve IPE implementation. Some strategy such as problem based learning (PBL), case study, simulation and video simulation have been mixed into more creative strategy to improve students from different healthcare dicipline in understanding and readiness to implement IPE in future real workplace (4,5,6,7,8,10).

Bolesta et al. (6) implement IPE clinical laboratory to nursing and pharmacy students in a structured and creative way. The study designed with well preparation, started from voluntary participant recruitment and gave the specific topic to be learned before the of clinical laboratory practice. In execution day, the student was given a scenario and have to passed three rooms such as standard patient's room adapted to scenario, IPE debriefing's

room, and dicipline-specific debriefing's room. The students were given opportunity to practicing IPE. The key finding state that IPE clinical laboratoty practices improve students understanding in other's role, enhance communication skills, and students readiness to interprofessional collaboration.

Different strategy was explained. Dahmen and colleagues (9) designed self- assessment role play to provide recommendation in an innovative constructivist IPE concept. Self- assessment role play was done by prividing students with specific clinical scenario that reflect equal opportunity in role play. The students discussed scenario together and performed role play. When the role play finished, they continued with self-assessment by reflecting on one's own actions. Key result form this approach was self-assessment role play supporting and strengthening the development of interprofessional skills.

The third step for continuum engagement in IPE with giving opportunities to the students in learning collaboration and teamworksafe to achieve safe and quality care. When the joined faculty have designed strategy, the following step is let their students to implement it, for instance simulation or self-assessment role play as described above. Step four is embedding IPE in the curricula and part of the required caseload for students. previous studies (4,5,6,7,8,10) have proven that all strategy tested show the effectiveness of IPE and enhance students readiness to interprofessional collaboration. Based on this result, they suggest to cultivate IPE in the educational curriculum to prepare their students encounter real-clinical setting. The last step is administrational recomendation. The faculty members who joint in IPE implementation have to improve the learning infrastructure, such as time and facilities adapted to IPE strategies developed. When all of the continuum in IPE engagement has fulfilled, meaning the facuty is ready to take a part in patient outcome, patient safety and quality of care. The faculty engagement in IPE can be expanded until get participation in policy level (3,12).

Interprofessional education has been applied in several healthcare professional faculty in Indonesia, both state and private university. However, it is still limited in health science faculties. Creative strategy from various literature above can be adapted correspond to faculty resources.

CONCLUSION

Interprofessional education will prepare students to perform collaborative practice in real workplace and patient care. This approach can be delivered by various strategy, such as simulation, self-assessment role play, case study, video simulation, and many kind other creative strategy. These various strategy has taught the students to understand their professional role and other profession's roles. This approach also prepares students readiness by their acquisition in communication skill effectively, smart decision making to performing interprofessional collaboration in real clinical setting.

Engagement in IPE continuum will guide the university or faculty to step-by-step in implementing IPE and learning approach to their students, so that the students more ready to face their professional workplace. Faculty's readiness to perform IPE curriculum accompanied by clinical acceptance to interprofessional and collaborative practice will lead the healthcare professional to deliver safe and quality care in attempt to improve patient outcome.

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