

EFFECTIVENESS MODEL IN INTERPROFESSIONAL EDUCATION (IPE): A SYSTEMATIC LITERATURE REVIEW

D Hartati^{1*}, N Kurniati², Mufdlillah³

¹ Master of Midwifery Student, Faculty of Health Sciences, University 'Aisyiyah Yogyakarta

^{2,3} Master of Midwifery Program, Faculty of Health Sciences, University 'Aisyiyah Yogyakarta

*corresponding author: hartapambudi2@gmail.com

Abstract

A variety of approaches to prepare students and practitioners for interprofessional collaboration has been investigated include simulation and practice-based learning, small and large group activities, synchronous and asynchronous web-based discussion, and discussion of patient cases that focus. Disparity in quality between education and dipelayan, hence improving the health need of redesigning the health system is a key element to deliver health services and the way in which health professionals are ready to enter practice. With the way the concept of collaboration including shared responsibility, shared decision making, values together, joint planning, intervention, and a variety of professional perspectives. Then the health workforce has participated in interprofessional education (IPE), Objective: to summarize and examine the literature (literature examine) the effectiveness of the model in interprofessional education (IPE). Methods: Identification of obstetric problems, prioritize problems and research questions, define the framework, Literature searching, Election articles, Critical Appraisal, data extraction, mapping. Systematic Literature Review used the PubMed, One Search, Direct Scien databases with a period of 2008-2018 Findings: Of the 17 journals were found, thematic analysis was conducted to identify the main points. We classify the main points is a model in education and effective interprofessional education models. Conclusion: AThere are certain models of the IPE that can significantly improve the performance of collaborative interprofessional participants. And the provision of additional studies for inclusion IPE early, simulations and workshops in health professional education in general can encourage better communication and collaboration between students and health professionals. Therefore it is important to have an attitude and perception of interprofessional education (IPE). Effectiveness in interprofessional educatin (IPE) interprofessional education led to an increase in attitudes towards interprofessional team and interprofessional learning, and the ability of the interprofessional team, and the confidence, knowledge, and ability to manage people with long term conditions. Showed that administration of proven interventions directly and effectively and contribute to the development of health professionals who are ready to collaborate with others to improve services to patients.

Keywords : effectiveness, interprofessional, education

1. INTRODUCTION

Interprofessional education proposed as ways to improve collaborative practice and patient care. It is one of the main health education reforms recommended to strengthen health systems. Interprofessional education occurs when health professionals from more than one discipline of learning about, from and with each other [2]. A theory is a set of concepts and definitions which play an effective role in explaining and predicting outcomes. Applying the theory in educational programs leading to the development of the right goal, directing the educational process and evaluation of the program [4].

According to a systematic review on interprofessi education program, most of the studies conducted in this field have not been based on the theory. In addition, most of the available studies have evaluated attitudes and readiness of learners to education interprofessional, and only a few studies have focused on assessing the performance of interprofessional of learners, therefore, been recommended to evaluate the effectiveness of educational interventions interprofessi-based theory

and education outcomes transtheotical intervention associated with the model (TTM) [4]. The main theme of the institute of medicine reported that the disparity in quality between education and dipelayan, hence improving the health need of redesigning the health system. With the way the concept of collaboration including joint responsibility, joint decision-making, values together, joint planning, intervention, and a variety of professional perspectives. Then the health workforce has participated in interprofessional education (IPE). In this step the collaborative interprofessional education expert panel indicated its determination to implement the collaborative care interprofessional education and practice [7].

2. METHODS

There are six steps used in preparing a systematic literature review include: 1) identify problems and research questions, 2) determine the inclusion and exclusion criteria, 3) a literature search, 4) election of the article, 5) data extraction, 6) data mapping

Step 1: identify problems and make-research questions

Based on this background, the identification of problems that will be used as review articles, namely: model in interprofessional education (IPE). how effective model of interprofessional education (IPE)?

Step 2: Determine the inclusion and exclusion criteria

<i>Element</i>	<i>inclusion</i>	<i>exclusion</i>
<i>population</i>	<i>Interprofessional education</i>	<i>Not interprofessional education</i>
<i>Expoaure / event</i>	<i>Simulations</i> <i>Workshop</i> <i>workshops</i>	
<i>outcome</i>	<i>Models of interprofessional education</i> <i>Effectiveness of Interprofessional education</i>	
<i>Study design</i>	<i>quantitative</i>	

Step 3: literature searching

In accordance with the objectives and research questions, the article used in this study were obtained through a systematic search system (Systematic Literature Search). Effectiveness model of interprofessional education (IPE) will review included sampling method, variables contained in the journal were taken, and the results of research. The search method in this study article in the period 2008 to 2018, was identified using an electronic database search of PubMed and Disbursement one database, scanning and screening articles done independently by researchers following the terms in fulfilling the inclusion criteria.

Step 4: the article selection

In search of articles identified 259 articles from Pubmed, 286 articles from One Search and 301 articles of Scien Direct, the total there are 846 articles, and the article is in the identification of duplications and found seventeen same article so 846 articles were once screened the title, abstract, methods research found 18 articles to be taken and reviewed independently based on inclusion and exclusion criteria. Then do further screening article to find accurate and complete reference on interprofessional education (IPE) and obtained 17 articles to do a critical appraisal. Writer filter based on a critical appraisal and obtained 17 articles to do a final review

Step 5: Extracting the Data

Step 6: Mapping the Data

3. RESULTS AND DISCUSSION

a. Characteristics articles and Thematic Analysis

The findings obtained by systematic searches of articles published in 2008 - 2018, the author and the source of the data obtained came from European countries (n = 9), United States (n = 7), Iran (n = 1). So that the findings can be grouped article consisting of 16 articles in the developed world (Europe, USA) and the first article in a developing country (Iran). There are 17 articles taken in this systematic literature review is a journal with the quality Q1 and Q2. All articles using quantitative research methods. There are 14 research articles with Q1 quality conducted in New Zealand, Finland, Belgium, Irish, Scotland, Canada, USA, also Iran. There are 3 articles with quality research carried out in Canada Q2, Irish, and the United States.

b. Models in interprofessional education (IPE)

The results of the Ruebling et al, 2014 is a case-control study, entitled A comparison of student attitudes and perceptions before and after an introductory interprofessional education experience. This study get results as much as Three hundred and fifty students completed questionnaires about attitudes and perceptions of interprofessional collaboration before and after the introduction IPE courses. Also 202 students of health professionals without IPE complete the same questionnaire. the questionnaire includes questions from the University of West England interprofessional Questionnaire (IQ UWE) and readiness for interprofessional Learning Scale (RIPLS), independent sample t tests interprofessional Questionnaire (IQ UWE) and readiness for interprofessional Learning Scale (RIPLS) independent samples t test revealed significant positive changes before and after the course IPE for IP-Learning UWEIQ subscale ($p \leq 0.012$) and RIPLS ($p \leq 0.05$). This study provides some evidence that students who participated in the IPE, they have the ability to keep a positive attitude towards learning interprofessional, which they ultimately expected to be able to practice collaborative interprofesional (Ruebling, et al, 2014)

The results of the Keshmiri et al, 2017 a quasi-experimental study, entitled "Effectiveness of an interprofessional education models based on the transtheoretical a model of behavior change to improve interprofessional collaboration". The average value of ICAR score at 3 months after intervention was 99.82 ± 22.32 and 88.29 ± 16.87 in the intervention and control groups, respectively. After 6 months, the average value score ICAR of intervention and control groups were 98.6 ± 23.40 and 87.98 ± 16.01 , respectively. The results showed that the intervention had the effect size of secondary education (partial $\eta^2 = 0.06$) on the performance of the participants.

The results showed that the model IPE tailored to the learner stage of readiness for change improve interprofessional collaboration on the participants.

According to Piette, et al, 2018, there was statistically significant improvement in both scoring knowledge of pre ($M = 4.79$, $SD = 1.47$) to the post-course ($M = 6.02$, $SD = 1.51$), $t(57) = -5.863$, $p = .000$, and score the trust of a pre ($M = 858.71$, $SD = 169.10$) to the post-course ($M = 957.50$, $SD = 126.76$), $t(56) = -6.713$, $p = .000$. Eta squared statistics indicate a large effect size respectively 0.37 and 0.45. Total score before and after the course as a percentage was 53% and 67% for knowledge, and 71% and 80% for confidence, with the percentage change in each of 14% and 9%.

The research result Brisolara, et al, 2018, in four questions related to sub-competencies Education interprofessional education (IPEC) and three questions related to the professional role of the immunization, no significant difference statistically in the survey results before / after test ($P < 0.0001$). Student learning related to the collaboration required to make a greater impact on patient outcomes demonstrated by votes open question. IPE experience can improve the perception of first-year students of the sub-competencies IPEC on the importance of population health and team work. By utilizing a population health focus with IPE activities, The results of the study Brown, et al, 2018, paired T-test of the pre-education to the size of socialization interprofessional education and Valuing Scale score ($n = 136$) showed a statistically significant increase in the subscale and total score ($p < 0.001$). These results indicate that active interprofessional education can produce positive student attitudes about interprofessional team-based care, and satisfaction with the learning.

The research result Umland, et al, 2017, IPE curriculum during the first three years of education for students JCP seems to have a positive impact on their perceived preparedness for IP interaction in recent years APPE. This study provides evidence that by participating in a two-year longitudinal IPE program and various other IPE experience, JCP students are considered prepared for their IP interaction.

c. Effectiveness in interprofessional education (IPE)

Research results from Darlow, et al, 2015 which is a case-control study, entitled "The positive impact of interprofessional education: a controlled trial to Evaluate a program for health professional students". This study is the eleventh hour IPE program is focused on long-term conditions. Students pre-registration of disciplines dietetics ($n = 9$), drugs ($n = 36$), physiotherapy ($n = 12$), and radiation therapy ($n = 26$) is allocated to an intervention group ($n = 41$) were receive IPE program or a control group ($n = 42$). The size is the result Attitudes Toward Health Care Teams Scale (ATHCTS), readiness for interprofessional Learning Scale (RIPLS), Team Skills Scale (TSS), and Scale Management of Long Term Conditions (LTCMS). Score mean post-intervention stance was significantly higher in the intervention group than the control group for all scales. Mean difference to ATHCTS was 0.17 (95% CI 0.05 to 0.30; $p = 0.006$), for RIPLS was 0.30 (95% CI 0.16 to 0.43; $p < 0.001$), for TSS was 0.71 (95% CI 0.49 to 0.92; $p < 0.001$), and for LTCMS was 0.75 (95% CI 0.56 to 0.94; $p < 0.001$).

Average effects similar interventions for students from the two sub-discipline of a larger group of drugs and radiation therapy. An eleven-hour IPE program led to an increase attitudes towards interprofessional team and interprofessional learning, and the ability of the interprofessional team, and the confidence, knowledge, and ability to manage people with long term conditions. (Darlow, et al, 2015) Mean difference to ATHCTS was 0.17 (95% CI 0.05 to 0.30; $p = 0.006$), for RIPLS was 0.30 (95% CI 0.16 to 0.43; $p < 0.001$), for TSS was 0.71

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There is a significant group main effect for time, where both RIPLS-total and IEPs-total value increased from the beginning to the end of the IPE forum for both groups ($p < 0.001$). Participants in the group-one (2010 - 2012) showed a greater change in both RIPLS-Total ($p < 0.001$) and IEPs-Total ($p < 0.001$) when compared to group two (2013-2015). See Figures 1 and 2. RIPLS subscale scores of teamwork and collaboration and a positive professional identity shows the same trend shows an increase in the average value for the two groups from the beginning to the end of the forum IPE ($p < 0.001$). Participants in the group-one (2010 - 2012) showed major changes in RIPLS teamwork and collaboration score ($p < 0.001$, partial eta squared = 0, However, there was no significant difference between the groups when comparing the change in the value of a positive professional identity RIPLS ($p = 0.49$). (Lairamore, et al, 2017).

A total of 41 students answered the questionnaire, each 19 participants from Finland and 22 from Turkey, which is a 100 percent response rate. Overall, according to the NPC Scale, self-reported professional competence receive a higher rate in general among students PECN Sweden. Analysis showed a statistically significant difference between the two groups in the fields of competence 6: Legislation in the planning of nursing and safety (an average score of 2.18 vs 2.65, $p < 0.01$). Students from Finland scores significantly higher on the items in the fields of competence 7 (Leadership in and development of nursing) and university students from Sweden score significantly higher on the items in the fields of competence 1 (Nursing Care) 3 (Medical care / technical) and 6 (Legislation in the planning of nursing and safety). (Castren, et al, 2017).

Overall 90% of all participants indicated that IPCIHC modules increase their knowledge about the role and duties of other professional groups. 80% believe that IPCIHC-module to change their understanding of how other professional groups work. Less than 60% of participants experienced a change in attitude towards other professional groups. Participants commented that they already have a positive attitude before IPCIHC-module. The percentage of positive value for this question increased between 2005 and 2014. On the question of whether they think that the course in interprofessional learning will have an effect on their future relationships with other professional groups (Tsakidzidis, et al, 2017).

Competency Self-Assessment Tool, two cross-sectional studies conducted to measure whether the learning interprofessional core competencies to improve after participation in the workshop IPE, and if such improvements differ between students and health professionals. In the first study, 67 participants attended the workshop IPE pediatric head. Of these, 19 students and 22 health workers agree to participate and complete the survey IPEC. In the second study, 99 participants attended the workshop IPE Disclosure error. Of these, 26 students and 29 health workers agree to participate and complete the survey IPEC. This study shows that IPEC Competency Self-Assessment Tool discrimination competency ratings between students and health professionals in both studies and demonstrate the positive impact of the workshop IPE in students 'and health professionals' competencies interprofessional. (Roberts, et al, 2017).

Results showed an increasing perception of professional competence, necessary cooperation, actual cooperation, and the role of the training value of the pre-to-post. Implications show that interprofessional education online is useful but added component professional dialogue about patient case offers promise in promoting collaborative practice. Of the 101 participants, 81 people have completed the demographic information and IEPs. Repeated measures ANOVA was used to analyze sub-score of IEPs at three time points (see Figure 1). Autonomy Professional Competence subscale and rising over time ($F = 4.07$, $p = .02$), with an increase of 0.14 between pre- and post-training, and an increase of 0.36 between pre-training and IP dialog. Actual Cooperation Cooperation subscale also increased ($F = 6.21$, $p < .01$), with an increase of 0.16 between pre- and post-training, and an increase of 0.39 between pre-training and IP dialog. The need for cooperation subscale higher measured over time, although statistical significance was not reached ($F = 2.21$, $p = .11$). (Puskar, et al, 2017).

4. CONCLUSION

Models in interprofessional education (IPE)

Results from studies suggest that there are several models in the IPE that can significantly improve the performance of collaborative interprofessional participants. And the provision of additional studies for inclusion IPE early, simulations and workshops in health professional education in general can encourage better communication and collaboration between students and health professionals. Therefore it is important to have an attitude and perception of interprofessional education (IPE).

Effectiveness of interprofessional education (IPE)

Interprofessional education led to an increase in attitudes towards interprofessional team and interprofessional learning, and the ability of the interprofessional team, and the confidence, knowledge, and ability to manage people with long term conditions. Showed that administration of proven interventions directly and

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