Virtual Patient to Support Inter Professional Education and Inter Professional Collaboration

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ABSTRACT

The era of Society 5.0 is also known as the era of super smart society. The concept of society in the era of Society 5.0 is centered on humans based on technology. Therefore, life skills are needed, known as the 4Cs (Creativity, Critical Thinking, Communication, and Collaboration). This condition also applies in the world of education, especially health education. Inter Professional Education (IPE) is a method of collaborative practice between two or more health professions that aims to improve collaboration capabilities and the quality of health services. Ideally, IPE has started at the stage of academic education in order to create Inter Professional Collaboration (IPC) in providing health services. Each profession that should collaborate has different competency targets and activities. Virtual patient is one of the learning media that can be developed to facilitate these differences. So that this media is in line with virtual learning that characterizes the era of society 5.0. This study aims to implement virtual patients in Inter Professional Education involving three health faculties, namely the faculty of medicine, faculty of nursing and faculty of pharmacy. The results of the study found that virtual patients are useful for bridging the competencies that must be achieved in inter professional learning.

Keywords: IPE, IPC, Virtual Patient.

1. INTRODUCTION

Health problems are increasingly complex. People expect to get the best health services. Quality health requires an improvement in health services. Good health services need to focus on interdisciplinary services. Therefore, collaboration between different health workers is needed to improve the quality of health services.

Collaboration between health workers in practice areas is known as Inter Professional Collaboration or IPC. IPC will run well if every profession has implemented Inter Professional Education or IPE during the education period, both the academic education stage and the professional education stage. The practice of collaboration between health workers is very important to get quality health services.

According to Graves and Douce (1) This collaborative practice is to achieve the highest degree of patient health and the patient as the center of the health service itself. Perdana and Amar (2) confirmed that the implementation of IPE is still in its early stages in many

institutions of developing countries. This condition is very different from the collaborative practice that has been running in developing countries.

1.1. Background

Utami, Hapsari, and Widyandana (3) stated that the IPC has not yet fully run well. Problems of ineffective communication, poor interpersonal relationships, lack of trust between team members, and underestimating the role of other professions sometimes still occur in hospitals, as a joint practice area. Nurhidayah, Martina and Tanjung (4) stated that an effective team is a collection of competent individuals who have the technical skills and interpersonal skills needed to achieve goals. Team work ideally produces greater performance than individual work, because it is able to generate positive synergies through coordinated efforts.

It can be assumed that a good IPC comes from an effective team. The failure of the IPC can have a negative impact on the image of the hospital, for health workers as providers of health services and for patients as recipients of health services.

1.2. Purpose

Inter Professional Education (IPE) is a learning model that involves several students with different professional educational backgrounds. This study aims to implement virtual patients in the Inter Professional Education model. This study aims to implement virtual patients in Inter Professional Education involving three faculties of health, namely the medical faculty, nursing faculty and pharmacy faculty who are carrying out professional education at the hospital.

2. METHOD

2.1. Design

This Inter Professional research was designed with a qualitative approach. Data was collected through the Focus Group Discussion (FGD) method. The participants involved in the FGD were three clinical supervisors or preceptors from the three professions, namely nurses, pharmacists and doctors as well as students who took professional education from 3 faculties, namely the nursing faculty, the medical faculty and the pharmacy faculty.

2.2. Ethical Clearance

The research was conducted after passing the ethical clearance or ethical test conducted to the ethics commission in 2000. The ethical test aims to ensure that the research is carried out in accordance with ethical principles in research so that it can be ensured to have a minimal negative impact on the research subject.

2.2. Data Analysis

The results of the FGD will be generalized, through the following stages:
2.2.1. Data reduction, namely the process of selecting, separating, simplifying, and transforming data from written records in the field;
2.2.2. The presentation of data aims to make it easier for researchers to get an overview of the research, by describing the results of the interviews as outlined in the form of a narrative supported by documents;
2.2.3. Drawing conclusions by conducting continuous verification throughout the research process to obtain valid data. The data validity technique goes through two stages, namely validity (validity) over reliability (reliability).

3. RESULT

Based on the results of the focus group discussions, several themes were found, namely: difficulty of communicating, different competencies, and benefit of virtual patients.

3.1. First Theme

The first theme that arises is the difficulty of communicating. Communication turns out to be still an obstacle in the implementation of IPE. This can be caused by the interaction of each participant has never occurred at the stage of academic education. Like the following discussion excerpt:

"I felt awkward at first; because it was the first time we met in this team…" (P9)

"I didn't know what to say, but because the nursing students started asking questions, well… I started to open up." (P1)

"At first it was a bit stiff" (P3)

"I feel reluctant to start but after someone start talking; I am brave enough to continue" (P8)

3.2. Second Theme

The second theme found is the difference in competence in each professional education program. As illustrated in the following discussion excerpt:

"We from the pharmacy are usually behind the scenes, almost never see patients, sometimes we think why doctors give this drug when it should be another drug, but now we are a little more understanding with some considerations why the drug should be taken" (P6)

"So far, we only think about giving medicine and getting better or we will prescribe the patient to change the medicine if it doesn't fit, it turns out that from nursing they also think about things that have not crossed our minds." (P1)

"Here we learn a lot from different competencies that can complement each other." (P8)

"Our competencies are different but by learning together we can complement each other." (P2)

"The difference in competence of each profession sometimes becomes an obstacle in the implementation of IPE. Ideally, the authorized officials sit down together to discuss it." (P5)

3.3. Third Theme

The third theme relates to the benefit of virtual patients in the implementation of IPE, as can be seen from the results of the following discussion:

"Discussions like this are very useful for solving patient problems even if the patient is not real or virtual patient" (P12)

"I hope that we can implement virtual patients, especially in conditions where the number of patients is limited or the existing cases do not meet the

requirements to become a medical learner together." (P10)

"We believe that basically IPE is very useful, but it is very difficult to implement because of the difficulty of uniting the existing differences. Hopefully the virtual presence of patients can be a learning medium for students to implement IPE." (P11)

"Our insight becomes more open even though we only learn from virtual patients" (P2)

4. DISCUSSION

According to World Health Organization (WHO) Inter Professional Education is a process in which a group of students or health workers with different backgrounds learn together for a certain period of time during the education period, with interaction as the main goal, for collaboration in providing preventive, promotive, rehabilitative, and other health services (5).

Effective collaboration between health workers from various professions is an important key in increasing the effectiveness of health services and family/community safety. Attitudes and self-perceptions of inter professional team work greatly impact the delivery of health services.

Entering the era of society 5.0, various ways must be considered. Early January 2019 new ideas emerged from Japanese civilization. This idea emerged as a response to the industrial revolution 4.0, known as the digital era. Puspita, Fitriani, Astuti, and Novianti (6) stated era society 5.0 offers a human-centred society to balance economic progress with solving social problems through a system that is highly connected through the virtual world and the real world.

Actually, the concept of industrial revolution 4.0 and society 5.0 does not have much difference. The era of the industrial revolution 4.0 such as Internet on Things or internet for everything, Artificial Intelligence, Big Data, and robots to improve the quality of human life. Society 5.0 can also be interpreted as a concept of a human-centred and technology-based society.

Facing this era of society 5.0, there are some literacy skills are needed, such as the ability to read, analyse, and use information in the digital world, technological literacy, understanding how machines work, technology applications and human literacy, namely humanities, communication, and design.

First theme that was found was the problem of communication. Communication is still a barrier in IPE or IPC. This arises because there is still the ego of each profession. Nurhidayah and Revi (7) stated that there is an issue of professional ego where a profession is more important and has superior degrees and rights compared to other professions, which in fact until now some still persist with this mind set.

Therefore, communication really needs to be included in the competencies that must be mastered by students in IPE. With the virtual patient, MacLean (8) also said that the use of this virtual patient simulation was to improve communication and more detailed assessment skills.

The second theme finds about the differences in competence in each different profession. Morato, Diarthini, and Utami (8) said that IPE is a way to improve ability and competence collaboration between health workers so that they can create a professional health workforce, able to work together, and able to improve quality of health services.

Although basically their learning competencies are different, with a well-designed IPE, these differences can be minimized. Another important thing that can bridge this competency gap is the readiness of the ward to facilitate the implementation of IPE.

Nurhidayah and Revi's (9) research found that interaction between students from the three professions was almost non-existent. This happens because they focus on achieving different competencies of each.

The third theme finds about the benefit of virtual patients in the implementation of IPE. Braithwaite, Westbrook, Nugus, Greenfield, Travaglia, Runciman, et al. (10) said that virtual reality gives students the opportunity to collaborate with other professions for safe patient care. Students are able to strengthen their knowledge of inter-professional competence.

Wijoyo (11) confirmed that virtual patients improve communication between health workers and prospective health workers for collaborative learning. Conclusion: Virtual patient is a method used to bridge the gap between theory and practice and improve.

This virtual patient is very useful to practice working conditions in the future, where all work is based on the internet. As Mitzel, Funderburka, Buckheita, Gassd, Shepardson, and Edelman (12) finds that future work will have to build virtual integrated primary care teams and provide evidence-based recommendations to optimize virtual care.

5. CONCLUSION

IPE implementation in developing countries is far behind when compared to developed countries. Three themes were found, namely communication problems, differences in competence between professions, and the third theme was found about the benefits of virtual patients in the application of IPE.

The development of virtual patients requires a strong commitment from educational institutions and also the entire academic community. other than that the need for IPE development in stages academics to facilitate the learning process related to communication and the need for further research related to the process

collaborative education by using virtual patient is good in academic stage or professional level

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