



APPROACH TO PROBLEM BASED LEARNING MODELS IN NURSING EDUCATION: SYSTEMATIC REVIEW

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ABSTRACT

Background: Profession nurse is one of the profession as a health worker who plays an important role in achieving health development goals. In producing competent nursing student graduates, educators need to design learning that can generate students' potential in using their critical thinking skills to solve problems. One of the learning approaches is to use the learning model of "Problem Based Learning (PBL)". **Methods:** This study uses a systematic method of review which combines several research journals to be reviewed and analyzed and taken a conclusion. **Results:** Exposure to research conducted by Williams and Beattie (2008), Shin and Kim (2013), as well as research conducted by Hernando et al. (2014) it can be seen that the application of PBL in nursing education can encourage students to have the initiative to learn independently. This experience is indispensable in everyday life where the development of one's mindset and work patterns depends on how he or she taught himself. **Conclusions:** Problem Based Learning (PBL) should be used in learning, especially in nursing learning because with PBL there will be meaningful learning. The PBL learning model also encourages students to integrate knowledge and skills on an ongoing basis and apply them in a relevant context.

Keywords: problem based learning, nursing education, learning model

INTRODUCTION

Nurse profession is one of the profession as health worker that plays an important role in achieving health development goals, where nursing service is very determining the quality of health services in the hospital as a whole due to the closely related duty nurse who for 24 hours serving patients and the number of nurses who dominate the energy health in hospitals. For that, the nurse profession is required to be able to provide excellent service to patients in accordance with their competence.

In producing competent nursing graduates who are able to provide safe and appropriate care skills for patients in a clinical setting, it must be supported by the provision of quality nursing education.

Nursing education is categorized into two disciplines namely academic discipline and professional discipline, the two disciplines is an integrated stage of education so that can not be separated from one another. The academic discipline emphasizes descriptive knowledge and theory, relating to theoretical nursing education, emphasizing descriptive knowledge and theory, while professional discipline is oriented toward practical purposes, resulting in prescriptive and descriptive theory. All matters relating to the learning process in clinics such as hospitals, health centers, nursing homes or in communities/communities included in the professional discipline. The discipline of the profession will only be obtained in the clinical environment because the clinical



environment is a dynamic multipurpose environment as a place of achievement of various clinical practice competencies in the professional curriculum (Nursalam & Efendi, 2008). The discipline of the profession is also called learning or clinical education.

The learning process at the clinic will confront the learners, in this context the student nurses in the case or the real problems that occur in the patient. This will require students to be able to quickly and precisely in making decisions related to the implementation of nursing what will be given to the patients under their management. The ability to think critically will be a top priority in clinical education. Therefore, educators should equip students with the ability to think critically to overcome the problems they encounter while in the practice area.

Based on this, educators need to design learning that can generate students' potential in using their critical thinking skills to solve problems. One of the learning approaches is to use the learning model of "Problem Based Learning (PBL)". This learning approach focuses on issues presented by educators and students solving the problem with all their knowledge and skills from various sources that can be obtained. This is behind the author to make a systematic review of the approach model Problem Based Learning (PBL) in nursing education.

METHODS

This study uses a systematic review method, which incorporates several research journals, among others: Proquest, Springer, ScienceDirect, International Journal of Current Research and Review, and International Journal of Nursing to be

reviewed and analyzed and taken a conclusion. This systematic review uses keyword problem learning, nurse education, learning model. The criteria of the articles or journals used are published from 2008 - 2015.

RESULTS

Problem Based Learning (PBL) was first implemented in medical school at McMaster University Canada in the 60s and was developed based on Barrow and Tamblyn (1980) research results. PBL is considered effective for medical schools where students are faced with the problem and then required to solve it. This is understandable because these prospective physician students are in fact always faced with the patient's problem so they must be able to solve it. Although first developed in learning in medical school but in subsequent developments applied in general learning including applied in the curriculum of nursing education and other health sciences.

According to Hernando et. al. (2014), PBL is a way of providing knowledge in the form of teaching and learning strategies that have essential meaning essential to the improvement of proficiency in knowledge and play a role in the development of student skills as well as the development of their behavior. PBL aims to improve students' acquisition of knowledge and development of integrated capabilities, which students are expected to be able to identify objectives, conduct, discover, and have more curiosity about what increases leadership capacity, communication and decision making, creativity, critical thinking and how to encourage teamwork. Shin & Kim (2013) stated that PBL can improve students'



ability in applying theory gained to overcome problems encountered while undergoing nursing clinic education. In the context of problem-solving, the focus of the PBL model is to encourage students to develop critical thinking skills and provide analysis based on existing theories (Williams & Beattie, 2008).

From the exposure can be seen that the application of PBL in learning can encourage students have the initiative to learn independently. This experience is indispensable in everyday life where the development of one's mindset and work patterns depends on how he or she taught himself. Thus, the end result to create competent learners both theoretically and practically, highly competitive students, ready cognitively and mentally ready in the face of various problems encountered in the practice field during the learning or education of nursing clinics, able to think critically in making decisions and able to work together in teams will be achieved.

DISCUSSION

Given the many benefits that students have in applying this PBL model that encourages some researchers to research the learning model. Hernando et al. (2014) conducted a study to measure student satisfaction in the application of PBL model, the research was conducted on 134 students at the University of Valladolid Spain and obtained the result that 78% of students expressed satisfaction with this learning model. Student satisfaction with PBL learning model is also supported by research conducted by Hamdan et al. (2014), a study conducted on 94 nursing students in Johor Bahru, Malaysia demonstrates the satisfaction and effectiveness of the PBL learning model in

their curriculum. Similar results are also shown from the results of research conducted by D'Sa (2015) which states that there is a significant difference between the use of PBL learning model with traditional learning model, the PBL model is more effective in improving student nurse learning motivation than the traditional model.

PBL learning model that is considered more effective than traditional learning model is disputed by the opinion of Smith & Coleman (2008) where according to them learners are more familiar with the traditional learning model that uses educator-based approach, learners are less likely if they seek information related to their own learning materials, they tend to prefer to focus on learning materials provided by educators. This is supported by studies conducted by Javid (1998) and Mc.Parland et al. (2004) in Shin & Kim (2013) stating that there is no difference in outcomes among students between the use of traditional learning models and PBL models.

The author sees that PBL learning model as one of the application of adult learning model, where this model demands to more proactively seek and expand our knowledge from all sources, honing our ability in critical thinking and skills in overcoming the problems that we will later encounter on the practice ground. In addition, this model is also able to train our ability to work with the team because in the process of solving the problems raised involve small groups to discuss or sharing. These capabilities should be sharpened frequently when nursing students take clinical education in order to attach it and become a personal build character of a professional nurse. This



ability can be developed through PBL learning where problems are presented first and students are required to complete them with all the knowledge and skills they have. Learning is no longer a "transfer of knowledge", but it expands students' potentials consciously through more dynamic and applicative abilities.

In the application, there are several characteristics of the PBL model, ie the learning process begins by raising a problem to be analyzed, then the student ensures that the problem is related to the reality that occurs in the field, organizes lessons around the problem, not around the discipline, students to form and run their own learning process directly, forming small groups as a means for sharing and demanding students to provide feedback on issues raised, for example by demonstrating what they have learned in the form of products or performance. It is clear that learning by PBL model is initiated by a problem which in this case can be raised either by students or by educators, then students deepen their knowledge of what they already know and what they need to know to solve the problem. Students can highlight and highlight issues that are considered interesting or problems that are becoming the latest trends and issues to solve so they are encouraged to play an active role in learning.

The learning focus of the problems raised can be analyzed and solved by the students through group work so as to provide diverse learning experiences such as teamwork and interaction, in addition to learning experiences related to problem solving such as hypotheses, designing experiments, investigating, collecting data, interpret data, make conclusions, present,

discuss, and create reports. The circumstances indicate that the PBL model can provide students with comprehensive experience. In other words, the use of PBLs can improve students' understanding of what they are learning so they are expected to apply it in real-life situations, especially in nursing clinics.

The innovation of educators in updating the traditional learning model toward the PBL model to be applied to nursing clinical education will certainly give a positive effect especially for the students. PBL is a learning model that is oriented to theoretical framework of constructivism. In the application of this learning model, the focus of learning is on the issues raised so that students not only learn the concepts related to the problem but also the scientific method to solve the problem. Therefore, students must not only understand the concepts that are relevant to the issues that are the center of attention but also acquire learning experiences related to the skills of applying scientific methods in problem solving and fostering critical thinking patterns. This skill a nurse must possess in order to manifest professionalism in its performance.

The pattern of critical thinking on the students can be sharpened by educators through the implementation of this PBL model, the more often students' critical thinking ability to be sharpened, the students will be better prepared mentally in facing various cases encountered while conducting clinical education. When learning is started with a problem especially if the problem is contextual, it can occur cognitive imbalance in students. This can encourage curiosity to raise a variety of questions around the problem. When these questions have arisen within



the student then the student's intrinsic motivation for learning will grow. Under these conditions it is necessary for the role of educator as a facilitator to direct the students about what concepts are needed to solve the problem, what to do or how to do it and so on.

CONCLUSION

Problem Based Learning (PBL) should be used in learning, especially in nursing learning because with PBL there will be meaningful learning. Students who learn to solve a problem will make them apply the knowledge they have or try to know the knowledge they need. This means that learning exists in the context of concept applications. Learning can be more meaningful and expandable when students are confronted with situations where the concept is applied while in practice.

The PBL learning model also encourages students to integrate knowledge and skills on an ongoing basis and apply them in a relevant context. That is, what they do in accordance with the application of a concept or theory they find during the learning takes place. PBLs can also improve critical thinking skills, foster student initiatives in work, internal motivation to learn, and can develop interpersonal relationships in teamwork.

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Proceeding

3rd International Nursing Conference

Community Health Empowerment: Step Up Action Attaining Sustainable Development Goals
Faculty of Nursing University of Jember
November 4-5, 2017 Royal Hotel Jember, East Java-Indonesia
ISBN: 976-602-5617-11-9



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