



The Use of Case Based Learning in Anatomy Physiology for First Year Midwifery Students

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Abstract. Human physiology anatomy is studied by first year midwifery students to give students the ability to understand the anatomy and physiology of all body systems related to the female reproductive system. This paper aims to describe the implementation and benefits of learning Anatomy Physiology using the Case Based Learning (CBL) method for first year midwifery students. Reflective writing analysis is done to find out student's understanding of the relationship between the case and the theory of anatomy and physiology of the female reproductive system. Four issues that are of concern to the students: the length of the postpartum period; breastfeeding problems; mother's-psychological condition and nutrition fulfillment. Ten out of 13 students are able to describe the client's problems and the relationship between conditions in the reproductive organs and other organ systems. CBL method can be applied in learning anatomy and physiology for first year midwifery students. The CBL method increases students' confidence and interest in interacting and exploring health phenomena experienced by clients.

Keywords: case based learning · anatomy and physiology · midwifery students

1 Introduction

Choosing the right learning method can make it easier for students to achieve learning outcomes for each subject. The diversity of learning increases the opportunity for students to develop creativity and understanding of the topic presented by the lecturer. One of the learning methods that has the characteristics of student-centered learning is case based learning (CBL).

The CBL method utilizes cases as the implementation of theoretical learning in an effort to stimulate the thinking process and to build critical thinking skills [1]. This learning challenges students to analyze the problems described in the form of real cases in discussion, draw conclusions based on the processing of available information [2] [4]. Students will be active and enthusiastic in studying the real case.

Human physiology anatomy course is studied by first year midwifery students. The learning achievement of this course is to provide students with the ability to understand basic anatomy, describe the anatomy and physiology of all body systems related to the female reproductive system, distinguish the anatomy and physiology of all body systems

related to the female reproductive system, and categorize the anatomy and physiology of the female reproductive system. Body related to the female reproductive system. The learning achievement of graduates is mastering the theory of application of the concepts of anatomy, physiology of the human body, reproductive biology and obstetrics related to conception, reproductive health and human development so that they can perform midwifery care in the health care setting.

This paper aims to describe the implementation and benefits of learning Anatomy Physiology using the CBL method for first year midwifery students. It needs to design a mobile- based app to facilitate mother and children homecare services to be further developed and implemented in Indonesia. This paper aims to describe the user's needs for a mobile-based mother and children homecare service application along with the details of the proposed design.

2 Methods

Research uses descriptive methods to present a complete picture of a social setting or is intended to explore and clarify a phenomenon or social reality. Thirteen first-year midwifery students attended a lecture on anatomy and physiology with a sub-subject of the benefits of anatomy and physiology for midwives. Before CBL is implemented, the lecturer conducts a tutorial to explain the learning procedure. The client is a nursing mother who has a 2 months-old child. Students hold online meetings with clients, accompanied by a supervisor. Next, students writing a reflections according to the Gibbs method [5]. The results of learning reflections are analyzed to understand the phenomena that arise after the interaction between clients and students, about the benefits of anatomy and physiology to understand clinical cases.

3 Result and Discussion

There are 4 main issues that are of concern to students: the length of the puerpural period; breastfeeding problems; mother's-psychological condition, and nutrition fulfillment.

3.1 The Length of the Puerpural Period

A total of 12 students wrote about the length of the postpartum period in learning reflection. The phenomenon of the length of the puerpural period experienced by clients is different from the understanding of students so far.

Student 006.

..... only have 20 days, while as far as I understand it is usually for 40 days for puerpural period.

Student 008.

.... After hearing what the informant said, I think it's a normal situation because there are no problems during the puerperium.

3.2 Breastfeeding problems

There are 9 students who write down breastfeeding problems in their learning reflection.

Student 000.

..... *The patient experiences a reaction when breastfeeding, the mother feels pain or soreness when breastfeeding.*

Student 010.

.... *Experienced a slight scratch on her nipple, ... after giving birth and wanted to breastfeed the baby had a problem due to her breast milk came out a little.*

3.3 Mother's-psychological condition

Thirteen students wrote down their mother's-psychological issues in their learning reflection.

Student 00.

.... *And always be happy so that milk production is abundant...*

Student 009.

.... *be calm and don't panic too much.*

3.4 Nutrition Fulfillment

The issue of nutrition fulfillment was written in the learning reflection by 13 students who took part in CBL

Student 002.

...*Must improve and balance the diet..*

Student 005.

... have to improve her diet regularly, because she still breast milk the baby.

The results of learning reflection show that first year midwifery students are able to recognize the problems faced by clients. A total of 10 students were able to describe the client's problems and show the relationship between the conditions of the reproductive organs and other organ systems. There were 2 students who wrote about the use of contraception immediately after the postpartum period and the effect of contraception on the menstrual cycle. As many as 13 students stated that they would later maintain their diet, keep healthy and control their psychological condition to maintain abundant breast milk production.

Health sciences are studied in relation to the case, are integrated with clinical conditions and student learning is therefore associated with real-life settings [2, 6]. Providing information through CBL that involves interactive conditions, exploration of realistic and specific situations will have a great influence on the level of knowledge and understanding of a problem [1, 3, 7].

All participants enjoy CBL and think that it enhances their learning ability. CBL appears to foster learning for the first years midwifery students. Clients also enjoy CBL and feel free to interact with all students.

Client's statement is as follow:

Students are cooperative and actively ask questions. The program is interesting to add to the learning process. It's better to add more clients, so for example the case of

postpartum mothers is that there are normal postpartum mothers and post SC and post partum complications, it might be more interesting and of course the complaints or the postpartum process will be different. The way students ask questions is good.

In conclusion, the CBL method can be applied in learning anatomy and physiology for first year midwifery students. The ability to identify client problems and show the relationship of conditions in the reproductive organs to other organ systems shows that the CBL method helps students understand the anatomy and physiology material in a fun way, fosters self-confidence and student interest in interacting and exploring health phenomena experienced by clients.

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