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Nursing Students' Perception on Tutor Performance and Students' Critical Thinking in PBL Online

Abstract

Background: The COVID-19 pandemic has influenced health education in many countries, including nursing education that moves to online learning. It has affected the tutor's performance and students' critical thinking skills, especially in online PBL tutorials. Tutor and nursing students have to re-adapt to a new online meeting atmosphere that previously had face-to-face meetings. There was no previous investigation into the effect of online PBL on tutor performance and nursing students' critical thinking skills in UMY.

Purpose: This study aims to determine students' perceptions of tutor performance in online problem-based learning tutorials and the critical thinking skills of nursing students in UMY.

Methods: This research is a cross-sectional quantitative study. The sample included 91 second-year nursing students, using the total sampling technique. The researchers used two questionnaires with closed questions about the tutor's performance in PBL tutorials and the critical thinking skills. Data were analyzed by univariate analysis.

Result: The majority of respondents were female (83.5%) and 19-20 years old (91.2%). The study results showed that the tutor's performance on the online PBL tutorial was good (95.6%), while the critical thinking ability was poor (54.9%).

Conclusion: This study showed that students still needed to adjust and adapt maximally to online problem-based learning tutorials and needed support and motivation to improve the quality of learning.

Keywords: Critical Thinking; Nursing Students; Problem Based Learning; Tutor Performance

INTRODUCTION

The COVID-19 pandemic has had various impacts on countries worldwide, affecting the health care system and various sectors ([Dewart G et al., 2020](#)). The schools or universities are closed, and learning is switching to an online system ([Li W et al., 2021](#)). Online and distance education using digital tools in higher education has increased over the last decade,

particularly during the COVID-19 pandemic ([Langegård et al., 2021](#)).

There are some differences between conventional and online learning or e-learning. This e-learning excels in the learning system in lectures because it is available anywhere and anytime. However, it has many drawbacks, including student feedback and

self-motivation needs, limited internet networks, expensive digital tools, and the dangers of using gadgets for a long time (Singh et al., 2021). Several studies have compared traditional learning and virtual education, and there is no significant comparison. Another advantage of this online learning is that students can learn directly through the internet, and knowledge can be transferred through various media (Hakami, 2021). However, there are other challenges for international students who study far from their home country due to limited resources, technological readiness. readiness of institutions and infrastructure that are not always available (Li et al., 2021)

In tutorial groups, learning and its dynamics are the basis for problem-based learning. This dynamic is influenced by how a tutor interacts with his group. (Edelbring et al., 2020). One of the big problems faced now in problem-based learning tutorials, especially during the COVID-19 pandemic, requires teaching staff such as student lecturers to do learning from home. Studying at home has now become more common nowadays. No specific reports are using PBL specialists to assess tutor performance, the quality and quantity produced by tutorial groups (Addae et al., 2017)

In learning, educators are adopting innovative steps in maintaining learning opportunities for students who are at home and unhurried during the pandemic with several methods of lectures, tutorials, demonstrations of skills, and even studying in bed (Foo et al., 2021). PBL is supposed to provide students with relevant problem-solving skills applicable to medical settings. The results of PBL education are determined by the quality of the group interaction of students' learning motivation PBL cases and tutor qualifications (Grasl et al., 2020).

PBL is flexible and can add odd and odd parts in environments. Some predominances employ Traditional or Pure PBL schemes; Others wish to modify the traditional number adding system scheme. The results of this variation could enhance course efforts to increase the number of breeders and instructors or create failed businesses and missed opportunities (Salari et al., 2018). Therefore awareness and proper understanding of PBL is very important because these aspects can affect the

academic achievement of nursing students (Svensson et al., 2021).

Critical thinking in undergraduate students is one of the important factors in learning achievement in undergraduate study programs. Elements of the national standards of higher education (Directorate General of Higher Education, 2014) have four important elements: attitudes, knowledge, general skills and special skills. Undergraduate students are expected to apply, study, design, and solve their problems using critical thinking skills because this ability dominates learning outcomes. Critical thinking also trains the development of clinical judgment, or reasoning skills will be better, a student will be more professional in making a decision (Jiménez-Gómez et al., 2019)

A preliminary study was conducted on six students from the 2019 Nursing Science Study Program class, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, by conducting interviews. Some students were still less than optimal in learning PBL online tutorials, with less than optimal in learning this online tutorial they could have an impact on the poor ability to think critically or think critically in students, including the perceived obstacles are the difficulty of a stable signal, limited internet data, delivery of material from lecturers that is not optimal, material that is difficult to reach, limited learning resources, obstacles from cell phones, and less effective communication. Hence, students become less active in conducting discussions during online learning and online tutorials. Bad online learning can impact unfavorable events to affect the students' achievement index.

Based on the above phenomenon, the researchers are interested in researching student perceptions of tutor performance in online problem-based learning tutorials and identifying the critical thinking skills in the second years nursing students of the School of Nursing, Universitas Muhammadiyah Yogyakarta (UMY).

METHODS

This research method was a cross-sectional quantitative method using two questionnaires. The study sample was 91 second-year nursing students who underwent the PBL online tutorial in the pandemic era. Two questionnaires were delivered

to the students by google form. Data were analyzed using descriptive analysis.

The sample was from a predetermined population, students from batch 2019 School of Nursing, Faculty of Medicine and Health Sciences UMY, selected using the total sampling method. This technique meets the inclusion and exclusion criteria set by the researcher in the study, where the number of samples is the same as the total population. The number of samples taken based on the total calculated from the class of 2019 was 91 students. The research was conducted at the Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta. The research was conducted from February 2021 to May 2021. The tutor's performance assessment instrument was made by Degrave et al. (1991) and Dolmans et al. (2003), with the validity and reliability results being tested. Students' abilities have been measured using a questionnaire developed by O'Hare (2005) in this critical thinking ability variable.

Students had been assessed individually for their critical thinking abilities. During online tutorial discussions, these questionnaires were tested for validity and reliability by 30 students from batch 2017 School of Nursing, UMY. The decision in the validity test concluded that both questionnaires were valid because the value of r counted all items $> r$ table 0.361. The method of collecting data on tutor performance assessment variables and Critical Thinking Ability variables using offline and online methods was carried out from February 15 to March 30, 2021. The analysis in this study only produced the frequency distribution and the percentage of each variable displayed in tables and curves in general. To obtain data with the research objectives, the researchers used computer-based analysis. Before conducting the research, the researchers asked for permission regarding the ethics of the Research Ethics Committee of the Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta. In collecting research data, respondents were first explained and asked to sign a consent form to become respondents in this study.

RESULT

The characteristics of respondents in this study were classified based on gender and age. The following table shows the characteristics of the respondents.

Table 1 shows that most respondents are female (83.5%) and were 19-20 years old (91.2 %). Table 2 shows that the level of tutor performance assessment is mostly in the good category (95.6%). While Table 3 shows that most students are in the poor category of critical thinking (54.9%).

DISCUSSION

Salari et al. (2018) found several positive impacts of PBL, such as improving students' overall and higher-order performances and increasing instructional efficacy index in the specific subject. The PBL tutorial can be flexible depending on each institution. Usually, several students follow the PBL tutorial in a small group with one tutor.

The data obtained showed that most tutors' performance assessments in online PBL tutorials for School of Nursing UMY students batch 2019 were in a good category. This result is possible because when the learning process began, the tutor had directed and guided the course of this online tutorial following the adapted learning method. From the results, there was no significant difference between the performance of tutors and students in the class of 2019. Similarly, (Prayekti & Nurdin, 2011) stated that as a tutor, they must act as a mentor and help students solve problems instead of becoming a lecturer who gives courses. The role and performance of the tutor need to be investigated further, especially the interaction of tutors and groups during PBL and coaching or training that the tutors follow. This suggestion is related to Grasl et al. (2020). They stated that most tutors could achieve two-thirds to three-quarters of learning objectives despite having different academic backgrounds. On the other hand, students can have different perceptions about tutor performance if the student still follows online tutorials solely to complete the attendance schedule and get the best score. The nursing literature is full of studies showing that applying appropriate teaching strategies such as active learning improves students' CT scores (Boso et al., 2020).

(Ahmad, 2017) revealed that one of the important tasks of managers or heads of departments towards lecturers is to assess the performance achieved whether it is good or still lacking, especially in assessing the performance of tutors in this PBL online tutorial process to evaluate the work performance of employees and lecturers and determine further policies. The ability of lecturers psychologically consists of potential abilities (IQ) and reality abilities (knowledge + skills). A high educational background becomes one of the factors influencing the tutor's performance to achieve the expected performance. Besides, the attitude of a tutor must always be ready to accept all conditions when dealing with work situations, and motivation is needed to move students to be more focused on achieving educational goals. Tutor performance is important in a PBL tutorial, while on the other hand, other essential components can support and hinder students in achieving learning outcomes, including an understanding of the level of depth of knowledge, tutor involvement and interaction in groups (Svensson et al., 2020)

Some of the causes of online learning are quite a concern because not everyone has internet data and a good network in online learning. This issue can decrease students' learning achievement. The results showed that most students' critical thinking skills in online PBL tutorials fell poorly. Students who participated in these online tutorials were judged on the knowledge and skills demonstrated during the tutorial. Although online learning offers convenience and better accessibility of information regardless of the location or time of online learning, it also has limitations, including problems with Internet access, poor Internet connection quality and a high number of respondents (Muflih et al., 2021).

Suparni (2020) explained in his research that in thinking, a person does not realize the importance of thinking critically in life. As a result, if students fail to think that involves reasoning activities, students will not realize the right standards in thinking, such as clarity, accuracy, logic, and thoroughness. In critical thinking, students must actively analyze their minds and have important knowledge of the problems they face.

In PBL, critical thinking plays a major role in selecting the best idea for making changes if the idea is needed. In qualitative research conducted by Boso

et al. (2019), three factors could influence critical thinking: educators' behavior, students' characteristics, and administrative factors/support within the university environment.

The ability and skills to solve these problems are emphasized in the PBL learning process. The problems or scenarios used in PBL function as a trigger for the students to be actively involved in asking questions and responses related to the content and context of the scenario. Students are expected to show a critical, thorough, careful and responsible attitude, one of which is to continue to hone critical thinking skills through collaboration and actively participate and encourage cooperation among students because this is one of the factors to improve critical thinking skills.

CONCLUSION

Based on the results, the perception of second-year nursing students of the School of Nursing, UMY, on the tutors' performance in online tutorials was in a good category (95.6%). Second-year students' critical thinking skills were poor (54.9%). Many aspects can affect nursing students' critical thinking skill learning that has to be a concern in online learning in the pandemic era.

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Table 1. Characteristics of Respondents

Characteristics	Frequency (F)	Percentage (%)
Gender		
Male	15	16,5%
Female	76	83,5%
Age		
>20	5	5,5%
19-20	83	91,2%
<18	3	3,3%
Total	91	100%

Table 2. Distribution of the frequency of tutor performance

Tutor performance assessment	Second-year nursing students	
	frequency (F)	percentage %
Good	87	95,6%
Poor	4	4,4%
Total	91	100%

Table 3. Frequency distribution of critical thinking abilities

Critical thinking skill	Second-year nursing students	
	Frequency (F)	Percentage %
Good	41	45,1%
Poor	50	54,9%
Total	91	100%