

CASE STUDY-BASED LEARNING MODEL ON STUDENTS' KNOWLEDGE IN SELF-CARE DEFICIT PATIENTS

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ABSTRACT

Background: Self-care deficit is a psychiatric nursing issue that requires students to develop appropriate nursing knowledge in assessing, diagnosing, planning, implementing, and evaluating nursing care. However, lecturer-centered learning often fails to develop students' critical thinking skills and clinical understanding. Therefore, this study aimed to determine the effect of the case study learning model on students' knowledge in caring for psychiatric patients with self-care deficits.

Methods: This study used a pre-experimental design with a one-group pretest-posttest approach. The sample consisted of 30 nursing students enrolled in a psychiatric nursing course and were selected using a random sampling technique. The intervention involved the application of a case study learning model focused on nursing care for patients with self-care deficits. Students' knowledge levels were measured using questionnaires before and after the intervention. Data were analyzed using statistical tests appropriate to the data distribution with a significance level of $p < 0.05$.

Results: The results showed an increase in students' average knowledge score after the case study learning compared to before the intervention, from 80.67 to 90.67. Statistical analysis showed a significant difference between pretest and posttest scores ($p < 0.05$), indicating that the case study learning model was effective in improving students' knowledge regarding caring for patients with self-care deficits.

Conclusions and Recommendations: This method can be used as an alternative learning strategy in nursing education to improve critical thinking and clinical problem-solving skills. Future research is recommended to use an experimental design with a control group and a larger sample size to obtain more robust results.

Keywords: case study, students, caring, mental patients

INTRODUCTION

Nursing education is required to produce competent graduates, particularly in practical skills, including caring for patients with mental disorders, particularly in cases of self-care deficits. One of the problems frequently encountered in patients with mental disorders is self-care deficits, which include difficulties in performing basic activities such as eating, bathing, dressing, and personal hygiene (Kozier et al., 2018). This condition requires appropriate nursing interventions and effective communication skills from nursing students. This research activity identified a case study-based psychiatric nursing laboratory learning model with the characteristics of patients with self-care deficits. In implementing psychiatric nursing laboratory practices, nursing students often experience limitations in trying to apply the implementation strategies they have created as a theoretical basis for interacting with patients.

Moreover, students carry out psychiatric nursing clinical practice, they face several limitations, such as safety concerns, the complexity of patient conditions, and limited facilities to support direct patient care. This creates a gap between theory and practice in nursing students' skill acquisition (Nursalam, 2020). Therefore, a learning model or design is needed in the psychiatric nursing laboratory on nursing campuses that approximates the real-world conditions of practice, namely mental hospitals, through case study learning methods.

In order to support the improvement of nursing students' competency in serving psychiatric patients, an innovative simulation-based learning approach is needed before students practice at the Mental Hospital. The psychiatric nursing laboratory is designed to resemble real clinical situations so that students can develop practical skills within the scope of safe, comfortable, controlled, and structured nursing care (Jeffries). Through simulations of patients with self-care deficit scenarios, students can improve their understanding of patient needs and learn how to implement appropriate nursing interventions, from communicative approaches to physical care in meeting their self-care needs. Based on previous research, simulation-based learning can improve students' clinical skills, self-confidence, and decision-making in caring for patients (Cant & Cooper, 2017). Therefore, the application of the Mental Nursing Laboratory Model has great potential to improve students' skills in caring for patients with self-care deficits.

Psychiatric nursing education still faces challenges in bridging the gap between theory and clinical practice. Students often memorize nursing concepts but struggle to apply this knowledge to complex, real-life clinical situations (Ma, Jiang, & Lin, 2023). This condition results in poor clinical reasoning, decision-making, and problem-solving skills, which are essential for professional nursing practice. Therefore, innovative learning models are needed that can increase student engagement and more effectively connect theory with clinical practice.

This research is crucial for evaluating the model's effectiveness and contributing to the development of innovative learning methods in psychiatric nursing education. The results are expected to form the basis for formulating more effective and applicable curricula and practical learning strategies.

The novelty of this study lies in the application of a case study practical learning model specifically designed to enhance students' knowledge in caring for patients with primary self-care deficits in psychiatric nursing settings. This study not only confirms the effectiveness of case-based learning as reported by previous studies but also expands its application to specific psychiatric nursing competencies that are still rarely studied in the literature for the 2023–2026 period. Therefore, the use of contextual case studies that are relevant to real clinical problems can be an effective strategy to bridge the gap between theory and practice in psychiatric nursing education.

METHODS

The research method used in this study is the One-Group Pretest-Posttest Design, a form of quasi-experimental design involving one group of research subjects who are given a specific treatment. The treatment provided is a simulation laboratory learning model for patients with self-care deficits. In this design, measurements are taken twice: before treatment (pretest) and after treatment (posttest). The goal is to evaluate the effects of the treatment by comparing the pretest and posttest results in the same group.

The respondents for this research activity were 30 fourth-semester students of the Purwokerto Nursing Study Program. The sample was drawn using a random sampling method from five practice groups, each consisting of eight students. Data collection was carried out by enumerators who were nursing students as members of the research team consisting of lecturers and students.

RESULTS AND DISCUSSIONS

The research results presented include respondent characteristics, pre- and post-test scores for students' knowledge of nursing care for patients with self-care deficits, and average pre- and post-test scores.

Table 1 presents demographic data for the 30 respondents, including gender, age, interest in future psychiatric nursing, and learning resources frequently used to enhance their knowledge.

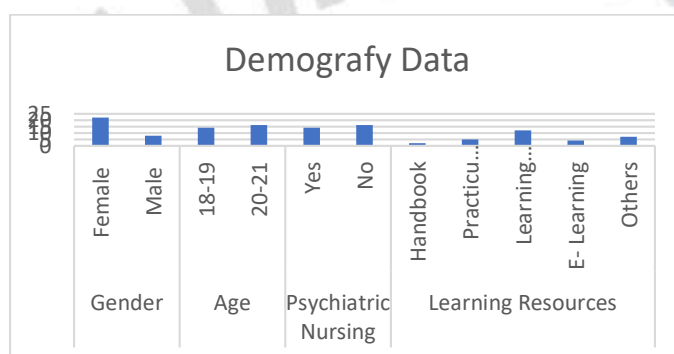
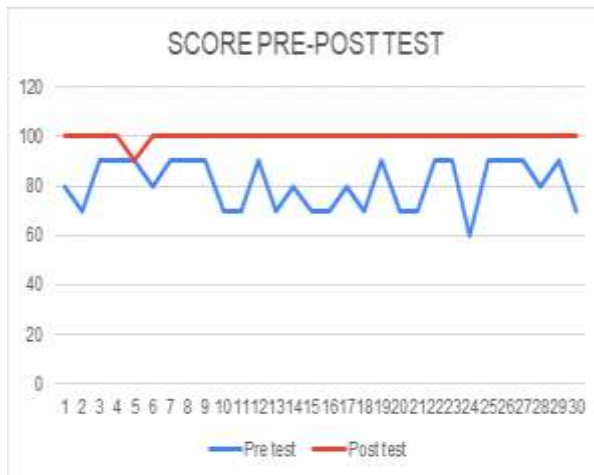


Table 1. Demographic Data



Based on demographic data, it can be seen that there are 22 female students and 8 male students. They are 14 in the 18-19 age range and 16 in the 20-21 age range. Their interest in working as a psychiatric nurse in the future is almost equal, with 14 answering yes and 16 answering no. The learning resources they frequently use to improve their knowledge are learning videos, practical modules, and e-learning.

Table 2. Pre-posttest scores

Table 2 shows that the minimum and maximum pre-test scores were in the range of 60-90, and the minimum and maximum post-test scores were 90-100. The pre-posttest results indicate an increase in students' knowledge in caring for psychiatric patients whose primary problem is self-care deficits.

Variabel	n	Mean	SD	Median	Min - Maks	p-value	Cor'
Pre-test	30	80,67	9,80	80	60-90	0,001	-0,185
Post-test	30	99,67	1,83	100	90-100		

Table 3. Descriptive Statistic

In table 3, the results of the study show that the average student knowledge score before being given the case study learning model was 80.67, while after the intervention it increased to 99.67. Based on the Wilcoxon test results, there was a significant difference between the pre-test and post-test scores $p = 0.001$, which indicates that the case study learning model is effective in improving students' knowledge in caring for patients with self-care deficits. However, there is a very weak negative correlation, this result occurs because almost all post-test scores are the same, namely 100, so the variation in post-test data is very small. Practical case study-based learning methods in nursing education can improve students' clinical

competence. They gain a comprehensive understanding and strong knowledge for application in hospital clinical situations. Research by Al Yazeedi et al. (2024) reported that case analysis learning activities positively contributed to the development of clinical competence, critical thinking skills, and decision-making skills in nursing students.

Similarly, research by Yao et al. (2023) also showed that a case-based learning approach significantly improved their clinical reasoning skills and problem-solving abilities in hospital clinical situations. Furthermore, case-based learning in both academic and clinical settings has been shown to significantly improve critical thinking skills and motivate healthcare students, particularly nursing students, to engage in independent learning activities (Zhao et al., 2024). Therefore, students need to practice critical thinking through the case study method.

Based on the research results, it shows that the case study-based learning model not only plays a role in improving students' cognitive aspects, but is also able to develop higher-order thinking skills which are very necessary in decision-making and providing appropriate nursing care to patients with various health and nursing problems, including mental disorders with self-care deficits

The results of this study indicate that the application of the case study learning model significantly improved students' knowledge in caring for patients with self-care deficits. These results support previous research that suggests that case-based learning (CBL) methods can improve nursing students' conceptual understanding, critical thinking skills, clinical reasoning, and decision-making. A meta-analysis conducted by Zou et al. (2026) found that case-based learning has a positive impact on nursing students' problem-solving abilities, independent learning, and communication skills compared to conventional learning methods.

The results of this study also support the research findings of Fei et al. (2026) who reported that the integration of the Case-Based Learning model was able to significantly improve knowledge in nursing care for patients in the clinic and the learning engagement of nursing students in interacting with patients. Students involved in clinical case analysis demonstrated better ability to connect theory with clinical practice situations in nursing services to patients compared to students who only received lecture-based learning. Therefore, practical learning in activities in the psychiatric nursing laboratory needs to be supplemented with various case studies to improve students' analytical skills.

Furthermore, the results of this study also expand the scientific evidence that the case study learning model is effective for use in laboratory and clinical practicums in psychiatric nursing. These findings complement the results of a systematic review by Komuhangi et al. (2025) which stated that active learning approaches such as Problem-Based Learning and case-based learning can improve clinical decision-making skills and situation-based understanding of clinical situations experienced by mental patients that require critical analysis from students undergoing practicum activities in hospitals. Therefore, nursing students need to continue to be trained in critical thinking through case studies as a model for implementing active learning in the field of psychiatric nursing that still needs to be developed.

CONCLUSIONS

The case study practicum learning model has an impact on improving students' knowledge in caring for patients with self-care deficits. Through student-centered learning based on real-life clinical problems, students have the opportunity to integrate theoretical concepts with nursing practice situations, thereby developing a more comprehensive understanding of the psychiatric nursing care process. Therefore, case study learning can be an effective learning strategy in improving students' knowledge in psychiatric nursing courses, particularly in caring for patients with self-care deficits.

Psychiatric nursing lecturers are expected to develop case scenarios that reflect real clinical conditions so that students have a more contextual and meaningful learning experience. Furthermore, a combination of case study learning with other active learning methods, such as clinical simulations and group discussions, is needed to optimize student competency achievement. For future researchers, it is recommended to examine the effectiveness of the case study learning model on other competency aspects, such as critical thinking skills, clinical reasoning, therapeutic communication skills, and clinical practice performance, in a larger sample size and with a more robust research design.

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Write down all research contributors, if any, must be stated briefly in the manuscript before references.

CONFLICT OF INTEREST AND FUNDING DISCLOSURE

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AUTHOR CONTRIBUTIONS

Write a description regarding the role of each author in writing this article. Author contribution roles: conceptor, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, resources, software, supervision, validation, visualization, roles/writing original draft, writing review & editing.

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