

Research Article

The Influence of Nurses' Workload and Self-Efficacy on the Implementation of Patient-Centered Care

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Abstract Patient-centered care (PCC) is a healthcare approach that places the patient at the center of care by considering their needs, values, and preferences. However, in practice, the implementation of PCC in hospitals still faces various challenges, particularly related to nurses' workload and psychological factors such as self-efficacy. This study aims to analyze the influence of nurses' workload and self-efficacy on the implementation of patient-centered care in a Type B Hospital in Bekasi. This study used a quantitative design with a cross-sectional approach. The sample was 45 nurses working in the intensive care unit. Data were collected using a questionnaire and analyzed using multiple linear regression with the help of SPSS. The results showed that the regression model was significant with an F value of 25.662 ($p < 0.001$). The R Square value of 0.550 indicates that workload and self-efficacy together explain 55% of the variation in PCC implementation. Partially, workload had a significant negative effect on PCC ($\beta = -0.467$; $p < 0.001$), while self-efficacy had a significant positive effect on PCC ($\beta = 0.476$; $p < 0.001$). The conclusion of the study shows that optimal workload management and increasing nurses' self-efficacy are very important to improve the implementation of patient-centered care in hospitals.

Keywords: Hospital; ICU Nurses; Nurse Workload; PCC; Self-Efficacy.

1. Introduction

Patient-centered care (PCC) is globally recognized as a high-quality and high-value healthcare approach (Benson, 2012). PCC is a healthcare approach that places patients at the center of care by respecting their needs, preferences, and values throughout the care process (Dewi & Nazriati, 2024). PCC has been proven to improve service quality, patient satisfaction, and the effectiveness of healthcare systems (Wahyuni et al., 2025). In Indonesia, PCC has become part of hospital quality and accreditation standards; therefore, its implementation is no longer optional but an institutional obligation (Dewi & Nazriati, 2024).

PCC-based healthcare services require healthcare professionals to provide holistic care by involving patients and their families in decision-making processes related to treatment and care. In the hospital setting, nurses play a crucial role in implementing PCC because they are the healthcare professionals who interact most frequently and directly with patients.

However, in practice, the implementation of PCC in hospitals still faces various challenges. Qualitative studies conducted in Indonesian hospitals identified that the main barriers to PCC implementation are limited time and high nursing workload. Excessive workload makes it difficult for nurses to divide their time between administrative tasks and therapeutic interactions with patients, resulting in suboptimal PCC practices (Dewi & Nazriati, 2024).

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Based on observations conducted in a Type B hospital in the Bekasi region, the implementation of patient-centered care services has not yet been optimal. Commonly observed phenomena include limited time for nurses to provide patient education, suboptimal communication between healthcare professionals and patients, and limited patient involvement in decision-making processes. These conditions may affect the quality of healthcare services provided to patients.

One of the factors suspected to influence PCC implementation is nurses' workload (Richter et al., 2022). The high number of patients that nurses must handle during a single work shift often limits the time available for nurses to provide care focused on the individual needs of patients. High workload may lead to work fatigue and reduce the quality of interactions between nurses and patients. Previous studies in hospitals have shown that nurses' workload is significantly associated with the implementation of PCC. An excessive workload can affect nurses' ability to provide effective and patient-oriented care (Hastuti & Aini, 2024; Lee & Kim, 2025). This indicates that workload management is an important factor in supporting PCC implementation in hospitals and serves as a major barrier to optimizing PCC practices.

In addition to organizational factors such as workload, individual factors such as self-efficacy also play an important role in healthcare professionals' behavior in providing care. Self-efficacy refers to an individual's belief in their ability to perform specific tasks or actions effectively. Nurses with high self-efficacy tend to be more confident in communicating with patients and more actively involve patients in the care process. Previous studies have shown that healthcare workers' self-efficacy can influence healthcare service behaviors and patient involvement in the care process. Healthcare professionals with high self-efficacy are better able to overcome barriers in providing healthcare services and are more active in delivering patient-centered care (Elkefi & Asan, 2023; Iype, 2025).

Based on these phenomena, it is important to examine the influence of nurses' workload and self-efficacy on the implementation of patient-centered care in hospitals. Therefore, this study aims to analyze the effect of nurses' workload and self-efficacy on the implementation of patient-centered care at a Type B Hospital in Bekasi.

2. Literature Review

Person-Centered Care (PCC) Concept

Patient-centered care (PCC) is a service paradigm that emphasizes that patients are not merely recipients of medical treatment, but rather active partners in the care process (Zhao et al., 2016). This approach requires healthcare professionals to understand the patient's illness experience, preferences, values, information needs, family circumstances, and decision-making capacity. PCC extends beyond a friendly attitude and encompasses a systematic clinical process, including therapeutic communication, interprofessional coordination, education, family involvement, respect for patient dignity, and continuity of care after the patient moves to another unit or is discharged from the hospital (Benson, 2012).

The concept of PCC was initially developed as a response to traditional healthcare models that focused primarily on disease management rather than patient experiences and individual needs. According to the Institute of Medicine (IOM), patient-centered care is one of the core dimensions of healthcare quality, emphasizing care that is respectful of and responsive to individual patient preferences, needs, and values, while ensuring that patient values guide all clinical decisions (America, 2001). In this approach, patients are viewed holistically, not only from biological aspects but also from psychological, social, cultural, and spiritual perspectives.

PCC is generally understood through several key dimensions, including respect for patient preferences, coordination and integration of care, information and education, physical comfort, emotional support, family involvement, continuity of care, and access to care (Hastuti & Aini, 2024). These dimensions indicate that healthcare services should not solely focus on clinical outcomes but also prioritize patient experiences during treatment. Effective communication and collaboration between healthcare professionals, patients, and families are fundamental elements in achieving successful PCC implementation. Through active patient participation, healthcare services become more individualized and aligned with patient expectations and needs.

In nursing practice, PCC requires nurses to establish therapeutic relationships with patients and families through empathy, active listening, respect, and shared decision-making (Riley & Jones, 2022). Nurses are expected to involve patients and families in planning, implementing, and evaluating care. The implementation of PCC has been associated with improved patient satisfaction, better treatment adherence, enhanced patient safety, and improved healthcare quality outcomes (Epstein & Street Jr, 2011). Therefore, PCC is considered not only a clinical approach but also an essential strategy for improving healthcare quality and patient outcomes in modern healthcare systems.

Nurses' Workload

Nurses' workload refers to the overall work demands that nurses must complete within a certain period. Workload includes direct patient care activities, such as patient observation, medication administration, nursing interventions, assistance with basic needs, and communication with patients and families (Alghamdi, 2016). Workload also includes indirect activities, such as documentation, coordination with physicians, equipment preparation, reporting, infection control, and administrative tasks. In intensive care units (ICUs), workload tends to be higher because patients require continuous monitoring, rapid interventions, advanced medical technology, and more frequent interprofessional coordination (Hastuti & Aini, 2024). The Nursing Activities Score (NAS) is one of the instruments commonly used to assess nurses' workload in ICUs (Sardo et al., 2023).

From a theoretical perspective, workload can be categorized into physical workload, mental workload, and time workload. Physical workload refers to the amount of physical energy required to perform nursing tasks, while mental workload involves cognitive demands such as decision-making, problem-solving, concentration, and emotional control when dealing with critically ill patients. Time workload relates to the pressure nurses experience due to limited time and multiple simultaneous responsibilities. According to Carayon & Gurses (2008), excessive workload in healthcare settings can reduce healthcare professionals' performance, increase stress and fatigue, and negatively affect patient safety and quality of care. High workload may also decrease nurses' ability to provide comprehensive and patient-oriented services.

In nursing practice, workload is closely related to staffing adequacy, patient acuity levels, organizational systems, and the complexity of healthcare services (Duffield et al., 2011). ICU nurses often experience higher workload because critically ill patients require continuous observation, advanced procedures, and rapid clinical responses. High workload may limit nurses' opportunities to communicate effectively with patients and families, provide emotional support, and involve patients in decision-making processes. As a result, nurses may prioritize technical and administrative tasks over interpersonal aspects of care. This condition can negatively affect the implementation of patient-centered care because PCC requires sufficient time, communication, empathy, and active patient engagement (Lee & Kim, 2025).

Previous studies have consistently shown that workload has a significant relationship with the quality of nursing services and patient-centered care implementation. Hastuti & Aini (2024) found that excessive nurses' workload was associated with decreased quality of nursing care, particularly in communication and patient involvement aspects. Similarly, Cucolo et al. (2024) reported that high healthcare workload reduced the quality of therapeutic relationships between healthcare professionals and patients. Research conducted among ICU nurses by Lee & Kim (2025) demonstrated that work intensity negatively affected person-centered critical care nursing, whereas teamwork and compassion competence had positive effects. These findings indicate that workload management is an essential factor in improving nursing service quality and optimizing patient-centered care implementation in hospitals.

Nurses' Self-Efficacy

Self-efficacy is an individual's belief in their ability to plan and carry out actions necessary to achieve certain outcomes. According to Bandura's theory, self-efficacy influences how individuals think, make decisions, manage obstacles, and maintain effort when facing difficulties. Nurses with high self-efficacy are more confident in communicating with patients, managing difficult situations, providing education, collaborating with teams, and maintaining patient-oriented care despite work pressures (Bandura, 2023).

Self-efficacy in nursing can be developed through successful experiences, observing successful colleagues, verbal support from leaders or peers, and supportive emotional conditions. Nurses' self-efficacy is related to their ability to perform nursing skills, especially in situations requiring communication and sensitivity to patient characteristics. When self-efficacy is low, healthcare workers tend to avoid difficult interactions and become less effective in communication. Conversely, strong self-efficacy can increase nurses' confidence in involving patients and families in the care process.

PCC requires nurses to believe that they are capable of performing their professional roles comprehensively. In busy clinical conditions, nurses are not only expected to perform technical procedures but also provide information, express empathy, identify patient needs, and negotiate with families. Self-efficacy serves as a psychological resource that helps nurses cope with these demands. Nurses who believe in their abilities tend to be more proactive in seeking solutions, setting priorities, and maintaining communication quality with patients.

Self-efficacy has been shown to play an important role in supporting the implementation of patient-centered care among healthcare professionals (Moran et al., 2021). A supportive work environment can increase healthcare workers' confidence in their abilities, which subsequently encourages more patient-centered behaviors in clinical practice. Healthcare professionals with strong self-efficacy tend to communicate more effectively, provide better emotional support, and involve patients more actively in the care process.

In addition, self-efficacy also influences healthcare workers' readiness and ability to support patient self-care. Healthcare professionals who are confident in their competencies are more likely to provide education, guidance, and motivation to patients and families, thereby improving patient participation in managing their health conditions. Consequently, self-efficacy becomes an important psychological factor in improving the quality of patient-centered healthcare services. Meanwhile, Zhang et al. (2022) found that self-efficacy predicted health-protective behaviors among hospital pharmacists during the COVID-19 pandemic.

Research Conceptual Framework

Based on the literature review, this study positions nurses' workload as an organizational factor and self-efficacy as an individual factor influencing PCC implementation. Workload is expected to have a negative influence because the higher the job demands, the more limited the nurses' time and energy to carry out communication, education, emotional support, and patient engagement. Conversely, self-efficacy is expected to have a positive influence because the stronger the nurse's confidence in their abilities, the more likely the nurse is to actively and consistently engage in PCC behaviors.

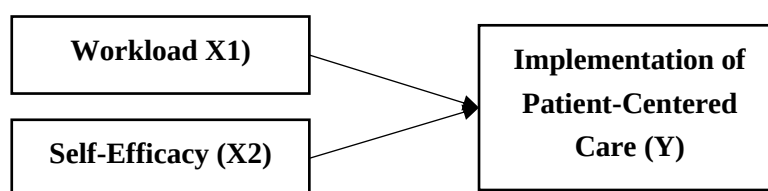


Figure 1. Conceptual Framework.

Research Hypothesis

Based on theories and findings from previous studies, the hypotheses in this study are as follows: (1) nurses' workload has a negative effect on the implementation of patient-centered care; (2) nurses' self-efficacy has a positive effect on the implementation of patient-centered care; and (3) nurses' workload and self-efficacy simultaneously influence the implementation of patient-centered care in a Type B Hospital in Bekasi.

3. Proposed Method

This study employed a quantitative design with a cross-sectional approach. The study was conducted among nurses working at a Type B Hospital in Bekasi. The study population consisted of all nurses working in intensive care units. The sampling technique used was total sampling, with a total of 45 nurse respondents.

The independent variables in this study were nurses' workload and nurses' self-efficacy. Nurses' workload describes the amount of nursing activities that nurses must perform in providing care to ICU patients, including both direct and indirect nursing activities. Nurses' self-efficacy describes nurses' beliefs in their ability to perform nursing procedures, communicate effectively, provide education, and involve patients and families in the care process. The dependent variable was the implementation of patient-centered care, defined as nursing service behaviors that respect patient preferences, provide information, demonstrate empathy, and involve patients and families in decision-making processes.

In this study, the concept of nurses' workload was adapted from Padilha et al. (2008) using the Nursing Activities Score (NAS) instrument, which measures nurses' workload based on nursing activities performed in patient care. The self-efficacy measurement scale used in this study was adapted from Bandura (1997) Self-Efficacy Theory.

Data were collected using structured questionnaires distributed to respondents who met the inclusion criteria. Before completing the questionnaire, respondents received explanations regarding the objectives of the study, data confidentiality, and their freedom to participate voluntarily. The collected data were then checked for completeness, coded, and processed using statistical software. Data analysis was conducted in stages, beginning with descriptive statistics, followed by regression assumption tests, and multiple linear regression analysis. The interpretation of the results was based on significance values, regression coefficients, F values, and R Square values to determine the contribution of the model to the implementation of patient-centered care (PCC).

4. Results and Discussion

Respondent Characteristics

Based on Table 1, the characteristics of the respondents show that the majority of respondents were female, while the respondents with the fewest number were male. Judging from the last education, the majority of respondents had a Diploma, while the fewest respondents had Nursing education. Based on length of service, most respondents had 3–4 years of service, while respondents with more than 4 years of service were the group with the fewest number. Based on age category, most respondents were in the 26–30 age group, while the age group with the fewest number of respondents was 36–40 years.

Descriptive Statistics of Research Variables

Descriptive statistical analysis was conducted to determine the general description of the minimum, maximum, average (mean), and standard deviation values of each research variable, including nurse workload (X1), nurse self-efficacy (X2), and patient-centered care (Y).

Table 1. Descriptive Statistics of Research Variables (n = 45).

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
Workload (X1)	45	4	12	8.60	2.368
Self-Efficacy (X2)	45	3	12	6.71	2.590
Patient-centered Care (Y)	45	6	16	10.02	2.607

Based on Table 2, the nurse workload variable (X1) has a minimum value of 4 and a maximum value of 12, with a mean of 8.60 and a standard deviation of 2.368. The nurse self-efficacy variable (X2) has a minimum value of 3 and a maximum value of 12, with a mean of 6.71 and a standard deviation of 2.590. Meanwhile, the patient-centered care variable (Y) has a minimum value of 6 and a maximum value of 16, with a mean of 10.02 and a standard deviation of 2.607. The descriptive statistics show that the highest mean value is found in the patient-centered care variable, while the lowest mean value is found in the nurse self-efficacy variable.

Regression Assumption Testing

Before conducting multiple linear regression analysis, classical assumption tests were first conducted, including tests for normality, multicollinearity, and heteroscedasticity.

Normality Test

The normality test aims to determine whether research data is normally distributed. In this study, the Kolmogorov-Smirnov test was used to test normality.

Table 2. Normality Test Results.

Variabel	Sig	Description
Residual	0,190	Data is normally distributed

The results of the normality test show that the significance value is greater than 0.05 so it can be concluded that the research data is normally distributed and meets the assumptions for linear regression analysis.

Multicollinearity Test

The multicollinearity test aims to determine whether there is a strong correlation between the independent variables in a regression model.

Table 3. Multicollinearity Test Results.

Variabel	Tolerance	VIF	Description
Workload (X1)	0,943	1,060	There is no multicollinearity
Self-Efficacy (X2)	0,943	1,060	There is no multicollinearity

Based on the results of the multicollinearity test, all independent variables had a Tolerance value greater than 0.10 and a VIF value less than 10. Therefore, it can be concluded that there is no multicollinearity in the regression model.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the effect of workload and nurse self-efficacy on the implementation of patient-centered care.

Tabel 4. Summary Model.

Model	R	R Square	Adjusted R Square	Std. Error
1	0,742	0,550	0,529	1,790

Table 5. ANOVA Test Results.

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	164.424	2	82.212	25.662	<0.001
Residual	134.554	42	3.204		
Total	298.978	44			

Tabel 6. Koefisien Regresi.

Variabel	B	Beta	t	Sig
Konstanta	11.232	—	8.039	<0.001
Workload (X1)	-0.514	-0.467	-4.383	<0.001
Self-Efficacy (X2)	0.479	0.476	4.462	<0.001

The regression analysis results showed that the R Square value was 0.550, indicating that the variables of workload and self-efficacy explained 55% of the variation in the implementation of patient-centered care, while the remaining 45% was influenced by other factors not examined in this study.

The simultaneous test results showed an F value of 25.662 with a significance value of less than 0.05, indicating that workload and self-efficacy simultaneously had a significant effect on the implementation of patient-centered care. Partially, the workload variable had a significant negative effect on patient-centered care, indicating that the higher the nurses' workload, the lower the implementation of patient-centered care tended to be. In contrast, the self-efficacy variable had a significant positive effect on patient-centered care, indicating that higher levels of nurses' self-efficacy were associated with better implementation of patient-centered care.

Discussion

The Effect of Nurses' Workload on the Implementation of Patient-Centered Care

The results of this study showed that nurses' workload had a negative and significant effect on the implementation of patient-centered care in a Type B Hospital in Bekasi. This finding indicates that the higher the workload experienced by nurses, the lower the implementation of patient-centered services tends to be.

This condition can be explained by the fact that high workload often limits nurses' time to provide optimal care to patients. Nurses who must handle many patients during a single work shift have less time to conduct therapeutic communication, provide patient education, and involve patients in decision-making processes related to care. In fact, intensive interaction between healthcare professionals and patients is one of the essential components of patient-centered care implementation. High nurses' workload may also lead to work fatigue, which can reduce the quality of healthcare services provided to patients. Such conditions may reduce nurses' attention to patients' individual needs, resulting in healthcare services that focus more on task completion than on holistic patient needs.

These findings are consistent with Dewi & Nazriati (2024), who found that barriers to PCC implementation in Indonesian hospitals included limited time, high workload, lack of resources, and communication challenges. The similarity of the Indonesian context makes these findings highly relevant to the interpretation of this study. High workload causes nurses to struggle in allocating sufficient time for communication, education, and involving patients or families. Therefore, barriers to PCC are not solely caused by nurses' lack of willingness, but also by structural limitations within the work environment.

The findings also indicate that high healthcare workload can affect the quality of patient care and reduce the quality of relationships between healthcare professionals and patients. Excessive workload may limit healthcare workers' opportunities to provide more personalized care, communicate effectively, and build therapeutic relationships with patients. As a result, healthcare services may become more task-oriented rather than focused on patients' individual needs and experiences. High workload can limit healthcare workers' opportunities to provide more personalized care. In addition, Hastuti & Aini (2024) showed that high nurses' workload was associated with decreased quality of nursing services, including communication and patient involvement in the care process.

In the context of modern healthcare services, implementing patient-centered care requires time, effective communication, and active engagement between healthcare professionals and patients. Therefore, hospital management should pay attention to nurses' workload arrangements to ensure that nurses have adequate opportunities to provide patient-oriented care.

The practical implication of these findings is the need for periodic workload measurement, especially in intensive care units (ICUs). Hospital management may consider nurse-to-patient ratios based on patient dependency levels rather than merely the number of beds. In addition, documentation burdens should be evaluated to ensure they do not reduce nurses' interaction time with patients. If digital documentation systems are implemented, they should facilitate nurses' work rather than increase administrative burdens. Shift arrangements, patient distribution, and support staff should also be managed to provide adequate space for PCC practices.

The Effect of Nurses' Self-Efficacy on the Implementation of Patient-Centered Care

The results of this study showed that nurses' self-efficacy had a positive and significant effect on the implementation of patient-centered care in a Type B Hospital in Bekasi. This finding indicates that higher levels of nurses' self-efficacy are associated with better implementation of patient-centered services.

Self-efficacy refers to individuals' beliefs in their ability to perform certain actions or tasks effectively. Nurses with high self-efficacy tend to be more confident in providing patient care, more active in communicating with patients, and more capable of handling various challenges in clinical practice. Nurses with high self-efficacy also tend to have stronger motivation to provide optimal care to patients. They are better able to explain patients' health conditions, provide education to patients and families, and involve patients in decision-making processes related to care.

These findings are consistent with Bandura (1997) self-efficacy theory, which states that individuals' beliefs in their abilities influence their behavior, motivation, and efforts in completing tasks. Self-efficacy affects how individuals think, feel, motivate themselves, and act. Strong self-efficacy makes individuals more persistent in facing obstacles and more capable of maintaining expected behaviors. In the context of this study, self-efficacy may help nurses maintain therapeutic communication and patient involvement despite work pressures.

Healthcare professionals with high self-efficacy tend to be more capable of providing responsive care according to patient needs and more active in building therapeutic relationships with patients. Strong self-efficacy enables healthcare workers to communicate effectively, provide patient education, and involve patients more actively in decision-making processes related to care. Conversely, low self-efficacy may cause healthcare workers to avoid interactions with patients, which can reduce the quality of communication and overall healthcare services provided to patients.

Therefore, improving nurses' self-efficacy is an important factor in enhancing the quality of patient-centered healthcare services. Hospitals can improve nurses' self-efficacy through therapeutic communication training, enhancement of clinical competencies, and adequate organizational support.

The Effect of Workload and Self-Efficacy on Patient-Centered Care

The results showed that workload and self-efficacy simultaneously had a significant effect on the implementation of patient-centered care, contributing 55% to the model. This indicates that both factors are important determinants of patient-centered service implementation in hospitals. High workload may hinder nurses from providing care focused on patient needs, whereas high self-efficacy may encourage nurses to be more confident and proactive in providing patient care.

In the ICU context, this balance becomes particularly important because patients are often unable to directly communicate their preferences due to critical conditions, ventilator use, sedation, or communication limitations. In such situations, families become important sources of information regarding patients' values, habits, and needs. Therefore, PCC in ICUs does not merely involve listening to patients but also building meaningful communication with families. High workload may hinder family communication, while good self-efficacy may help nurses handle family questions, anxiety, and emotional dynamics.

The 55% contribution value also indicates that 45% of the variation in PCC implementation is explained by other factors outside the research model. These factors may include organizational culture, ward leadership, supervisory support, teamwork, compassion competence, communication training, resource availability, documentation systems, and hospital quality policies. Therefore, these findings should not be interpreted narrowly as if workload and self-efficacy are the only determinants of PCC, but rather as two major factors that should be prioritized in quality improvement strategies.

In healthcare practice, the implementation of patient-centered care is influenced not only by individual healthcare worker factors but also by organizational factors such as workload, organizational culture, leadership support, and healthcare service systems implemented by hospitals. Organizational conditions that support effective communication, teamwork, and professional development can encourage healthcare professionals to provide more patient-centered services. In addition, psychological factors such as confidence, motivation, and professional competence also play important roles in shaping healthcare workers' behaviors in implementing patient-centered care.

Therefore, improving the implementation of patient-centered care in hospitals requires a comprehensive approach involving workload management and enhancement of healthcare professionals' individual capacities through competency development and self-efficacy improvement.

5. Conclusions

Based on the study results, it can be concluded that nurses' workload has a significant negative effect on the implementation of patient-centered care, whereas nurses' self-efficacy has a significant positive effect on the implementation of patient-centered care. Simultaneously, workload and self-efficacy significantly influence the implementation of patient-centered care among nurses in a Type B Hospital in Bekasi.

6. Managerial Implications

Hospital management should optimally manage nurses' workload through proper task distribution and balanced nurse-to-patient ratios. In addition, nurses' self-efficacy should be improved through training, competency development, and organizational support to encourage the implementation of patient-centered care.

7. Recommendations

Hospitals are recommended to evaluate and monitor nurses' workload management and enhance training programs related to patient-centered care services. Behavioral and competency improvements should also be integrated into Key Performance Indicators (KPIs). Future studies are recommended to include additional variables such as organizational culture, nursing leadership, or work environment to provide a more comprehensive understanding of factors influencing the implementation of patient-centered care.

8. Research Limitations

This study has several limitations that should be considered in interpreting the findings. First, the study used a cross-sectional design; therefore, the relationships found between workload, self-efficacy, and the implementation of patient-centered care only represent conditions at one point in time and cannot directly explain causal relationships. Second, the number of respondents was relatively limited and involved only one Type B Hospital in Bekasi; therefore, the findings cannot yet be generalized broadly to other hospitals with different characteristics. Third, data collection used self-report questionnaires, which may introduce subjective bias in respondents' answers.

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