

ORIGINAL ARTICLE

Nurse's self-efficacy in patient engagement during the covid-19 pandemic

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ABSTRACT

Introduction: Active patient involvement is part of a patient-centered care approach that must be facilitated by all healthcare providers, including in hospitals. The concern of nurses being exposed to the Covid-19 virus during this pandemic is one obstacle and challenge in providing patient engagement in nursing care. Patient engagement is a method to facilitate and support patient involvement in the care process by making patients active partners in improving their quality of care. **Objectives:** This study aims to determine the relationship between nurse self-efficacy and patient engagement in nursing care during the Covid-19 pandemic. **Methods:** This study used a cross-sectional research design. The respondents in this study were all nurses in the inpatient room, whether a Covid or non-Covid inpatient room, totaling 238 nurses. Data collection in this study was carried out using an online questionnaire: the Self-Efficacy in Patient Centeredness Questionnaire (SEPCQ-27) and the Patient Engagement Index (PEI) questionnaire, which the researcher had modified. **Results:** The bivariate Pearson correlation analysis showed a significant relationship between nurse self-efficacy and patient engagement ($p < 0.001$). **Conclusions:** Nurses' self-efficacy in engaging patients is an essential internal factor for nurses to support optimal patient participation and active involvement in the nursing care process.

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1. Introduction

According to The Institute of Medicine, patient-centered care is one of the six dimensions of quality of care that every healthcare provider should have (Ree et al., 2019). One strategy that can be used to achieve successful patient-centered care is to involve patient preferences (Castro et al., 2016). Healthcare providers must establish processes and regulations to support the patient's engagement in the care process (Carman et al., 2013; KARS, 2018; WHO, 2016). Patient engagement is a method to facilitate and support patient involvement in the care process by making patients active partners in improving the quality of care (Carman et al., 2013; Dishman & Schroeder, 2020; WHO, 2016; Xu et al., 2018). Patients and families also have a significant role as professionals in improving and maintaining their health (Richards et al., 2013; Xu et al., 2018).

The emergence of the Coronavirus disease 2019 (COVID-19) has affected health workers' psychological and mental health. Several studies have examined the psychological effects of COVID-19 on the psychological health of health workers in Jordan related to fear, anxiety, depression, stress, and social support (Alnazly et al., 2021). The nurse's internal factors cause obstacles, challenges, and limited relationships and interactions between patients and nurses during the Covid-19 pandemic (Abrams et al., 2020; Houchens & Tipirneni, 2020; Wasserteil et al., 2020). The commitment to engaging patients in making treatment decisions during the Covid-19 pandemic is still often ignored (Murphy et al., 2020).

Patient engagement is a method to facilitate and support patient involvement in the care process by making patients active partners in improving the quality of care (Carman et al., 2013; Dishman & Schroeder, 2020; WHO, 2016; Xu et al., 2018). Nurses facilitate patients to be actively

engaged in their health care by providing information and education, encouraging two-way communication, conducting consultations or discussions with patients, sharing decisions, and making patients as partners in the care process (Bombard et al., 2018; Carman et al., 2013; Higgins et al., 2017; Hwang et al., 2019; Kuluski et al., 2017; Wong et al., 2018). Patient engagement is one of the dimensions of patient-centered care, but in its application, patient engagement in nursing care could be more optimal.

A study conducted in 74 hospitals in Europe revealed that only about 50-64.8% of patients were actively involved in the care process (Groene et al., 2014). Patient engagement carried out by 355 nurses in Korea was also considered not optimal, with a mean value of only 3.61 ± 0.64 (Hwang et al., 2019). In another survey conducted by Liang et al. (2018) on 142 healthcare providers, the results showed that patients did not play an active role in sharing experiences, asking questions, and improving communication. Another study in Indonesia conducted by Kaharuddin (2014) revealed that patient engagement in decision-making is still relatively low (38.6%).

During the Covid-19 pandemic, Murphy et al. (2020) revealed that patient engagement is more critical than ever. Prioritizing patient engagement in the care process is beneficial for increasing maximum treatment outcomes (Higgins et al., 2017; Mahoney et al., 2019). Patient engagement during the Covid-19 pandemic can provide benefits for increasing patient motivation, compliance, information and education, and patient confidence to manage their health (Chen et al., 2020; Stoy, 2020). One of the patient engagement programs proposed by IQVIA during the Covid-19 pandemic is claimed can increase 14% patient compliance with care by and reduce 22-23% medical costs (Stoy, 2020).

The adverse effects caused by non-optimal patient engagement can be influenced by internal and external factors of the nurse herself (Carman et al., 2013; WHO, 2016). Hwang et al. (2019), in their study of 355 nurses, revealed that one of the factors that hindered patient engagement was the need for more awareness among nurses about the importance of patient engagement. Another study revealed that the lack of professional confidence was also considered one of the inhibiting factors for patient engagement (Hardavella et al., 2017). Self-efficacy and awareness is the essential factor that will influence the behavior of nurses in engaging patients in hospitals (Hwang et al., 2019; Moy et al., 2020; Zachariae et al., 2015). Another study conducted by Michael et al. (2019) on 653 respondents revealed that the higher the awareness and confidence in patient-centered communication, the better the implementation of patient-focused care.

The pilot project conducted by researchers at one of the DKI Jakarta Regional General Hospitals revealed that only 49.54% of patients were actively engaged in the handovers (Fauziyah et al., 2020). Preliminary studies conducted by researchers through online-based interviews revealed that educational activities and bedside handovers for patients tended to be reduced and limited during the Covid-19 pandemic. Nurses also complained about their concerns and fear of being exposed to the Covid-19 virus while treating patients who were confirmed positive for Covid-19. Based on that phenomenon, the researchers considered determining the relationship between nurse self-efficacy and patient engagement in nursing care during the Covid-19 pandemic.

2. Methods

This study uses a quantitative approach with a cross-sectional research design to determine the relationship between the independent variable, the nurses' self-efficacy, and the dependent variable, the patient engagement in nursing care during the Covid-19 pandemic. The study was conducted in three hospitals, with the research population being all nurses in inpatient installations, both Covid and non-Covid treatment rooms. The sampling technique used

proportional sampling, where the number of samples obtained was 238 respondents. The inclusion criteria in this study included nurses in inpatient installations with vocational and professional education, being at the Pre-PK to PK III clinical career levels, being in the Covid/Non-Covid treatment room, and being willing to be respondents.

Data collection in this study was conducted using an online questionnaire with the Google Form application. The questionnaire consists of three questionnaires, namely the respondent characteristics questionnaire, the nurse self-efficacy questionnaire, and the patient engagement questionnaire in nursing care during the Covid-19 pandemic. The self-efficacy questionnaire was modified by researchers from the Self-Efficacy in Patient Centeredness Questionnaire (SEPCQ-27) (Zachariae et al., 2015), while the patient engagement questionnaire was a questionnaire modified by researchers from the Patient Engagement Index questionnaire (Xu et al., 2018) and The Conceptual Framework of Patient Engagement (Wong et al., 2018). Bivariate analysis was carried out in this study using Pearson correlation analysis.

3. Results and Discussion

Table 1 shows that the average respondent is 30.62 years old, with the youngest age being 23 years old and the oldest being 54 years old. The median value of the respondent's tenure is five years, with a maximum period of 30 years and a minimum of 1 year. Kristianingsih et al. (2022) state that the length of work increases the performance of nurses in the inpatient room, and the longer the working period, the better the performance of a nurse.

Table 1. Characteristics of respondent's age and tenure (n=238)

Variable	Age		
	\bar{x}/σ	Min-Max	95% CI
Hospital A	33,89/6,26	23-54	32,35-35,43
Hospital B	28,94/3,16	24-38	28,39-29,50
Hospital C	30,53/4,03	25-43	29,32-31,75
TOTAL	30,62/4,85	23-54	30,00-31,24

Variable	Tenure		
	Mean	Min-Max	95% CI
Hospital A	4,00	1-27	3,70-4,66
Hospital B	10,0	1-30	7,57-10,49
Hospital C	6,00	2-23	5,80-8,38
TOTAL	5,00	1-30	5,48-6,67

Table 2 shows the gender of the nurses in the three hospitals; the majority are women 180 people (75.6%), the majority of education D3 Nursing 153 people (64.8%), career path PK I as many as 95 people (39.9%), the majority room There are 127 people in the covid isolation room (53.4%), the employment status of permanent employees is 146 people (61.3%), the majority of communication training has attended as many as 174 people (73.1%), and the majority of Javanese ethnic groups are 100—people (42.0%).

Table 2. Characteristics of gender, education, career path, room, and national employment status of respondents (n=238)

Variable	Hospital A		Hospital B		Hospital C		Three Hospital	
	n	%	n	%	n	%	n	%
Gender								
a. Man	19	15	23	34,8	16	35,6	58	24,4
b. Women	108	85	43	65,2	29	64,4	180	75,6
Education								
a. D3 Nursing	79	62,2	45	68,2	29	64,4	153	64,8
b. S1 News	48	37,8	21	31,8	16	35,6	85	35,2
Career Path								
a. Pra PK	27	21,3	6	9,1	0	0,0	33	13,9
b. PK I	64	50,4	18	27,3	13	28,9	95	39,9
c. PK II	34	26,8	24	36,4	17	37,8	75	31,5
d. PK III	2	1,6	18	27,3	15	33,3	35	14,7
Room								
a. Inpatient room	47	37,0	31	47,0	33	73,3	111	46,6
b. Covid Isolation room	80	63,0	35	53,0	12	26,7	127	53,4
Employment status								
a. Contract	33	26,0	14	21,2	2	4,4	49	20,6
b. Permanent employees	94	74,0	9	13,6	43	95,6	146	61,3
c. Government employees	0	0,0	43	65,2	0	0,0	43	18,1

Table 3 shows the total average patient engagement in nursing care in the three hospitals, which is 113.3 (61.71% of the maximum value), and it is believed that 95% of the average patient engagement in nursing care is between 110.1 to 116.5. In the three hospitals, the discussion item was the highest item, with an average score of 19.9 (73.53% of the maximum value). The item providing information and education was the lowest, with an average value of 33.6 (64.52% of the maximum value).

Table 3. Description of patient engagement in nursing care during the Covid-19 pandemic (n=238)

Patient Engagement in Nursing Care	Three Hospitals			
	\bar{x}/σ	% Max value	Min-Max	95% CI
Information/Education Communication	33,6/4,46	64,52%	22-40	32,8-35,4
Discussion	27,1/3,36	65,57%	21-40	26,7-28,7
Shared decision making Partnership	19,9/3,61	73,53%	9-25	18,6-20,2
	12,9/1,74	68,97%	9-20	12,4-13,3
	19,10/2,57	67,57%	12-25	18,4-19,7
TOTAL	113,3/10,73	61,71%	85-137	110,1-116,5

The results show that patient engagement in nursing care during the Covid-19 pandemic is only 61.71%. The description of patient engagement in nursing care has yet to be widely explored in Indonesia. Reaching 50% can be pretty good data regarding patient engagement in Indonesia. This is because the data collected by researchers in a pilot project conducted at one of the hospitals in DKI Jakarta revealed that the process involving patients and families was still 49.54% (Fauziyah et al., 2020). The patient and family rights standard in SNARS (2019) states that hospitals must establish regulations and processes to support patient engagement or participation in care. Each staff must be trained in implementing regulations and their role in supporting the rights of patients and families to be involved in the care process (KARS, 2019).

Patient engagement carried out by staff, including nurses, is an effort to facilitate and support patient involvement in the care process by making patients active partners in improving

the quality of care (Carman et al., 2013; Dishman & Schroeder, 2020; WHO, 2016; Xu et al., 2018). Patients, families, and even communities are required to play an equally important and active role as professionals in maintaining and improving health (Richards & Scowcroft, 2020; Xu et al., 2018). No less important is the engagement of patients during the Covid-19 pandemic. Nurses as frontline health workers have critical roles and functions during the Covid-19 pandemic, including their role in patient engagement (Chen et al., 2020; Richards & Scowcroft, 2020). Nurses play an essential role in motivating patients to be actively involved in the care process, educating and training patients in carrying out infection prevention. The nurse also encourages patients to be engaged in making treatment decisions, re-designing and innovating care processes, policy making, and of course, in research on Covid -19 (Chen et al., 2020; Gao et al., 2020; Leung et al., 2019; Richards & Scowcroft, 2020; Srinivasan et al., 2020).

The need to maintain distance, reduce contact, and reduce time when interacting, including eliminating bedside handover activities, can be obstacles to patient engagement in nursing care (Abrams et al., 2020; Houchens & Tipirneni, 2020; Wasserteil et al., 2020). Murphy et al. (2020) also revealed that during the Covid-19 pandemic, commitments to engage patients in joint decision-making should be addressed. Even though a publication claims that one of the solutions to overcome Covid-19 will come from various sources, including patients as the main contributors (Murphy et al., 2020). One of the health research bodies in the United States, IQVIA, in its publication on "Patient Engagement in The Time of Covid-19," revealed that patient engagement during the pandemic would be very beneficial (Stoy, 2020). Patient engagement during the Covid-19 pandemic can provide benefits for increasing patient motivation, increasing patient compliance, providing information and education to patients, and increasing patient confidence to manage their health (Chen et al., 2020; Stoy, 2020)

The lowest percentage of patient engagement was the item providing information/education (64.52%). Providing information or education is one of the essential roles of nurses that must be carried out, especially during this Covid-19 pandemic. Nurses as caregivers must pay attention to 5 domains of the role and function of nurses during the COVID-19 pandemic, one of which is the provision of education (Chen et al., 2020). Chen et al. (2020) revealed that the first domain that nurses do is conduct education which includes infection prevention and control strategies, including hand hygiene education, the use of masks, maintaining distance, limiting patient visits and waiting, avoiding touching the eyes, nose, and mouth before washing hands; and avoiding crowding activities (Dishman & Schroeder, 2020).

The analysis results also show that the discussion item with the highest percentage of patient involvement in nursing care is 73.53%. The discussion conducted by the nurse and patient is a two-way communication that contains an element of feedback where the patient also has the opportunity to ask questions. This is in line with the aims and objectives of HPK 2, which emphasizes the participation of patients and families in the care process, one of which is that patients are free to ask questions about care (KARS, 2018). The intent and purpose of MKE 11 in SNARS (2019) also state that the education process goes well if using the correct method; patients are encouraged to ask questions or discuss to participate in the care process. With discussion, patients can ask questions, submit suggestions, input, and valuable feedback as important information that can be used to improve nursing care (Al-Hussain et al., 2017)

Researchers assume that during the current Covid-19 pandemic, the provision of education is usually carried out at the patient's bedside and can take a long time to change significantly. The decision to eliminate bedside handover will also reduce the opportunity for nurses to provide information and education, so in this study, the item has a low value. In contrast to the discussion item, which is the highest item on patient involvement, the discussion on patient involvement includes a discussion of treatment plans, discharge plans, and treatment options. The researcher assumes that the sections in the discussion will spend less time than providing education. So that during a pandemic like this, short discussions can still be carried out because these parts of the discussion must be noticed in the care process.

Table 4 shows the average total self-efficacy of nurses in the three hospitals, which is 66.3 (70.83% of the maximum value). It is believed that 95% of nurses' average self-efficacy is between 63.45 to 69.22. In Table 5, it can be seen that in the three hospitals, nurses' self-efficacy in facing communicative challenges was the highest item, with an average value of 16.1 (76.92% of the maximum value). The nurse's self-efficacy in exploring the patient's perspective was the lowest item, with an average value of 24.4 (68.18% of the maximum value).

Table 4. Self-efficacy of nurses in engaging patients in nursing care during the Covid-19 pandemic (n=238)

Nurse's Self-Efficacy in Patient Engagement	Three Hospitals			
	\bar{x}/σ	% Max Value	Min-Max	95% CI
Explore patient perspective	24,4/3,41	68,18%	14-30	24,04-24,91
Sharing information and power	28,0/4,02	70,0%	15-35	27,53-28,56
Dealing with communicative challenges	16,1/2,30	76,92%	6-20	15,87-16,46
TOTAL	66,3/9,61	70,83%	35-85	63,45-69,22

The description of the three hospitals showed that the average self-efficacy of nurses was 66.3 (70.83% of the maximum value). Then when viewed per item, the highest item in the nurse's self-efficacy is the item facing communicative challenges (76.92% of the maximum value). The results of this study indicate that nurses in inpatient installations in the three hospitals have high confidence or confidence in facing communicative challenges when involving patients. (Zachariae et al. (2015) revealed that self-efficacy in engaging patients includes the ability of nurses to control emotions when with patients, the ability of nurses to build good relationships with patients even when they are angry, being able to focus on work, and being able to control their thoughts when with patients so they do not have destructive prejudices.

Meanwhile, in this study, the lowest item in the nurse's self-efficacy was exploring the patient's perspective (68.18% of the maximum value). These results indicate that nurses in inpatient installations in three hospitals have low confidence or self-confidence in exploring patient perspectives. Nurses may fear direct contact with Covid-19 patients, so the time to explore the patient's perspective is short. Rizki et al. (2022) revealed that besides fear, nurses might also face mental stress conditions while treating covid patients. Research conducted by Dwi et al. (2022) states that the Covid-19 pandemic has resulted in psychological changes, especially fear, depression, anxiety, and tremendous stress in Indonesian society, including Indonesian nurses.

Walters & Duthie (2017) mention that nurses can support patient involvement in care by considering the patient's perspective. Nurses can explore the patient's perspective by empathizing and listening to the patient, being responsive to the patient, being able to recognize the patient's thoughts and feelings, and behaving caringly, so that trust can be established and the patient feels free to convey his perspective (Zachariae et al., 2015).

The researcher analyzes nurses' self-efficacy in facing high communicative challenges because this is an action or behavior that only involves the individual nurse herself. In facing communicative challenges, nurses' internal factors are the most influential, including how nurses control their emotions, thoughts, behavior, and focus while working. While the item explores the patient's perspective, which requires the patient's involvement in conveying his perspective will be tricky. Because of how hard the nurse tries to explore the patient's perspective, if the patient himself does not want to convey his perspective or opinion, the patient's exploration fails. This can be a possibility of low self-efficacy of nurses in exploring patients in this study.

Table 5. The relationship between respondent characteristics and nurses' self-efficacy with patient engagement in nursing care during the Covid-19 pandemic (n=238)

Independent Variable	Dependent Variable	R-Value	P Value
	Respondent Characteristics	-	> 0,005
	<i>Self-efficacy</i> total	0,523	0,000*
Patient Engagement in Nursing Care	Explore patient perspective	0,481	0,000*
	Sharing information and power	0,321	0,021*
	Dealing with communicative challenges	0,431	0,002*

Table 5 showed that there was a significant relationship between the self-efficacy of nurses in the three hospitals and the patient's engagement in nursing care during the Covid-19 pandemic ($p < 0.001$) with a moderate correlation strength ($r = 0.523$) and a positive direction, meaning the better the self-efficacy of nurses, the better the involvement of patients in nursing care during the Covid-19 pandemic. This is in line with several studies which reveal that self-efficacy and awareness of the importance of patient engagement will affect the behavior of nurses in engaging patients in hospitals (Hwang et al., 2019; Moy et al., 2020; Zachariae et al., 2015). Another study by Michael et al. (2019) revealed that the higher the awareness and confidence in patient-centered communication, the better the implementation of patient-centered care.

Self-efficacy, often interpreted by the term belief or self-confidence, must always be owned by nurses in every action of patient-centered nursing care (Hwang, 2015; Ree et al., 2019). In patient engagement, self-efficacy is defined as three core attributes: confidence and self-confidence to (1) explore the patient's perspective; (2) share information and strengths. Moreover, (3) face communication challenges (Chéret et al., 2018; Michael et al., 2019; Zachariae et al., 2015). The "engagement capacity model" theory reveals that patient engagement behavior is influenced by four interrelated dimensions: motivation, self-efficacy, resources, and abilities/skills (Moy et al., 2020; Sieck et al., 2019).

Individuals who have high levels of self-efficacy are more likely to believe that they can follow or pursue specific actions so that they are successful in doing so. On the other hand, if an individual has a low level of self-efficacy, it will prevent him from succeeding in doing something (Hardavella et al., 2017; Herald et al., 2019; Zachariae et al., 2015). This is in line with the opinion that individuals who are more confident in their abilities tend to be associated with good patient involvement behavior as well (Herald et al., 2019).

The researcher's analysis of the relationship between patient engagement and self-efficacy is that one's belief or confidence in engaging patients in nursing care during the Covid-19 pandemic will significantly determine the continuity of patient involvement in the room. Nurses who have high self-efficacy will tend to involve patients optimally. On the other hand, nurses with low self-efficacy in their ability to involve patients will inhibit themselves from maximally engaging patients.

4. Conclusion

Statistically, there is no significant relationship between respondent characteristics of age, gender, education, career path, years of service, room, employment status, history of communication training, and ethnicity with patient involvement in nursing care at the three hospitals. The analysis results show a significant relationship between nurse self-efficacy and patient involvement in nursing care during the Covid-19 pandemic. The self-efficacy of nurses is an internal factor that is very important for the optimal nursing care process. Nurses' confidence in exploring patient perspectives, sharing information, and facing communication challenges is essential for optimizing patient involvement in nursing care. The higher the nurse's self-efficacy in patient involvement, the better the nurse's engagement of patients in nursing care during the Covid-19 pandemic. 19.

Ethics approval and consent to participate

This research has received an ethical clearance certificate from the Ethic Research Committee, Faculty of Nursing Universitas Indonesia, number SK-28-/UN2.F12/D1.2.2/ETIK2020.

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