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The development of an islamic nursing care model to improve patient satisfaction

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ABSTRACT

Introduction: Nurses are the determinants of patient satisfaction because the majority of actions involve nurses and provide holistic nursing care consisting of spirituality. Spirituality is an important key because it is one of the strong factors in assisting healing and recovery of the patient himself. Spirituality can be fulfilled through Islamic nursing care. This study aimed to the development of an Islamic nursing care model to improve patient satisfaction.

Methods: Cross-sectional design random sampling technique on 134 respondents, consisting of patients and nurses in the surgical inpatient room, internal medicine inpatient room, and postpartum and gynecology inpatient rooms, using simple random techniques. The variables of this study were the nursing factors, Islamic nursing care, and patient satisfaction and were collected using questionnaire. The data were collected using questionnaire in December 2021 at Islamic Hospital, Indonesia, and processed using a Smart Partial Least Squares (SmartPLS) analysis and Sommers' correlation test.

Results: The Sommers' test results show significant relationship between nursing factor (nurse knowledge, nurse's attitude, nurse competence, nurse personality) and patient satisfaction; nurse knowledge (p=0.000); nurse attitude (p=0.000); nurse competence (p=0.000); nurse personality (p=0.000; α<0.05). SmartPLS test results show the nurse factor with Islamic nursing care has a strong significant influence (p value 0.000; β value 0.539; t value> 1.96). Then for Islamic nursing care with patient satisfaction, it has a very strong significant effect (p value 0.000; β value 0.753; t value> 1.96).

Conclusions: Islamic nursing care as a mediator of nurse factors with patient satisfaction can be described in this study model because Islamic nursing care is a real form of care by nurses that is felt by the patient and the application of Islamic values so that the form of nursing care makes patients feel satisfied. This model is a new breakthrough for the world of nursing and hospitals in improving the quality of nursing care.

Introduction

The current era shows that hospitals as health service industries are experiencing very tight competition. Competition between hospitals relies heavily on aspects of service quality, with the method used to improve the quality of health services, namely by developing Islamic-based services (Washeya and

Fürst, 2021). A reflection of the Muslim population with the second largest population in the world, s about 1/3 billion, it can be used as an opportunity for hospitals to improve Muslim services. In India, Muslims account for about 25%, for the second most, namely Africa, there is 17%, then in Arab countries it is 18%, 10% in the Old Soviet Republic and the non-Arab Middle East and for

Southeast Asia alone, there are 17% (Amir, 2020), In Indonesia there are 237,531,227 Muslims with Central Java alone having 35, 607,889 or 96,5with Islam as their religion (Statistic Center, 2021). It can be used as an opportunity for hospitals to improve Muslim services or Islamic health services. Islamic health services include all forms of management of activities including medical care and nursing care that are framed in Islamic principles. Nursing services are an important part of quality and safety in hospital care and are a determining factor in patient satisfaction with treatment outcomes, satisfaction is a happy state and means satisfaction with an action or an event after the patient uses the service (Aboosalehi *et al.*, 2022). Thus, nursing care is an important part in determining patient satisfaction (Dewi, Yanti and Saputra, 2020).

The reason why Islamic nursing care can increase patient satisfaction is because patient satisfaction is influenced by aspects of the patient's religion, as stated by Wardah, Usman and Wardani, (2020) in a qualitative study which showed that the majority of the population in Indonesia is Muslim, so society has strong Islamic values and ideology in daily life that are guided by the Al-Quran and Hadith (the teachings of the Prophet). The principle of patients following Islamic teachings plays an important role in decision-making, family dynamics in health practices, and service selection; therefore, this aspect is the basis for why Islamic nursing care can increase patient satisfaction. However, until now, there has been no research regarding the relationship between Islamic nursing care and increasing patient satisfaction, so further quantitative research is needed on this topic. Islamic nursing care is different from ordinary nursing care because it applies Islamic values, the application of which is as follows (1) Before carrying out the action the nurse reads *Bismillah* and invites the patient to pray to Allah SWT to ask for healing and after the nursing action the nurse reads *Hamdallah* or *Alhamdulillah*; (2) Remind and assist patients in carrying out the prayer service (3) Nurses in communicating with patients, families or fellow medical personnel must apply Islamic communication ethics, (4) The patient will be cared for by a nurse of the same gender as the patient, because the patient has the right to receive treatment based on his or her gender, (5) Nurses in providing nursing actions also apply Islamic values such as listening to the chanting of the Qur'an when the patient feels pain or anxiety so that the patient feels comfortable because he hears the chanting of the Qur'an. These values differentiate Islamic nursing care from ordinary nursing care, so that Islamic nursing care can meet the spiritual needs of patients. Aspects of

spirituality cannot be separated from nursing care, which is an integral part of nurses' work with patients. This is because the spiritual dimension is one of the strong factors in assisting healing and for the recovery of the patient himself (Talibo, Kurniati and Widakdo, 2019). Patient satisfaction, in addition to being influenced by Islamic nursing care, is also influenced by factors related to nurses. This is because, when providing services to clients or patients, nurses with a good knowledge, attitude, competence, and personality can make patients feel nurses are working professionally and caring (Dehghani, Sobhanian and Jahromi, 2022).

Nurse knowledge can make patients feel satisfied; this has been proven in research conducted by Kartini *et al.* (2022) which shows that nurse knowledge has a relationship with nursing care because the patient feels that nursing care is carried out correctly because nurses have a level of knowledge that is reflected in good skills and competence, as well as problems that are resolved quickly. Another nurse factor that can influence nursing care is also formed by nurses' attitude indicators, as in the research by Belladona, Istichomah and Monika, (2020) which showed that nurses' caring attitudes influence nursing care. Nurses' attitudes can shape nursing care because they are influenced by their interactions with patients. Additionally, the services provided by nurses are among the various basic services available in health services or hospitals. This cannot be denied as the cause of nurses' interactions with patients becoming more intense, but there is no research on nurses' attitudes toward patient satisfaction (Kartika, Hariyati and Nelwati, 2018). Additionally, nurse competence can affect the quality of nursing care Takase, Yamamoto and Sato, (2018) showed that competence was related to nurse performance, which is the ability of nurses to effectively demonstrate a series of attributes, such as attitudes, knowledge, and skills, to professionally fulfill their responsibilities (Suprapto, Mulat and Lalla, 2021). Another factor that affects the performance of nurses, namely, personality, is evident from a study showing that the performance of nurses is influenced by personality (Sovia *et al.*, 2019). Personality is related to individual behavior, individual character of other people, and qualities that make them attractive (İspir, Elibol and Sönmez, 2019).

Nurse factors show that the spiritual dimension influences patient satisfaction, but there has been no research related to Islamic nursing services, even though Islam is the majority religion in the world; therefore, the spiritual needs of Muslim patients are very high. This research was conducted at an Islamic hospital located in Central Java. Regarding the role of nursing factors these

are nurse knowledge, nurse attitude, nurse competence, and nurse personality, but there is no research as to Islamic nursing. Seeing the role of Islamic nursing care in patient satisfaction, the researcher is interested in researching about the role Islamic nursing care model as a key mediator of nurses with patient interaction in Islamic hospitals. Thus, the purpose of this study was the development of an Islamic nursing care model to improve patient satisfaction.

Materials and Methods

Design

This research is analytically observational with a cross-sectional design (Nursalam, 2020).

Setting

The study was conducted at an Islamic hospital in in Demak Regency, Central Java Province, Indonesia. Data collection was carried out in December 2021.

Population

The number of respondents in this study was 142. From the total sampling calculated with the Slovin formula, the total population was 71 patients and 71 nurses; after calculating the result was 67 inpatient nurses and 67 patients treated in inpatient rooms (Nursalam, 2020).

Data collection

The sampling was done using simple random sampling. The randomization system in this study uses a lottery that is shaken in a tube container, and the bed and room number listed in the lottery that comes out is used as the respondent. The inclusion criteria set for patients were patients in the inpatient room (in the surgical inpatient room, internal medicine inpatient room, and postpartum and gynecology inpatient rooms.), able to read and patients with Islam religion, with the exclusion criteria being outpatients to avoid research bias caused by outpatients only experiencing temporary services, unlike inpatients who experience it for more than 24 hours, patients in the intensive care unit, or patients with decreased consciousness. This was done to avoid bias research because the majority of patients in the intensive care unit experience decreased consciousness, so they cannot assess satisfaction with nursing care. In addition, exclusion criteria involved neonatal or pediatric inpatient rooms, because babies or children cannot assess patient satisfaction directly, they have to go through the family or parents, so that even though this research assesses satisfaction from patients not from the family, to avoid research bias, they were excluded. Inclusion criteria for nurses were determined as inpatient nurses with a minimum education for the associate degree in nursing at the first level and included people graduating from senior high school taking an associate degree in nursing for 3 years, at the second level graduating from bachelor of nursing, and at the third level graduating from master of nursing. Exclusion criteria were nurses in neonatal or pediatric inpatient rooms, intensive care units and emergency units, the reason being because this study assesses patient satisfaction with Islamic nursing care felt by patients, and patients in outpatient rooms, neonatal or pediatric inpatient rooms, Intensive care units, were not respondents in this study for the reason that patients in these rooms were excluded from this study as stated explained in the patient exclusion criteria, this was done to avoid research bias.

In quantitative research, the credibility of a study relies on the development of instruments used to measure the underlying concepts. The measurement of a variable is designed to achieve consistency, adequacy, accuracy, precision, uniformity, and comparability in assessing and explaining a specific concept. Therefore, the measurement approach encompasses testimony and confirmation variables that function as representations of constructs (Hair and Brunsveld, 2019). This study has exogenous variables of nurse

Table 1 List of questions for participants in in-depth interview

Variables	Indicator	Items	Sources
Nursing factors	Nurse knowledge	10	(DSN-MUI and Mukisi, 2017).
	Nurse's attitude	5	(Sunaryo, 2013)
	Nurse competence	8	(Sutrisno, 2011)
	Nurse personality	5	(Yuniarsih and Suwatno, 2008)
		28	
Islamic nursing care	Assessment	5	(Puspitasari et al., 2020)
	Diagnosis	5	(Puspitasari et al., 2020)
	Intervention	5	(Puspitasari et al., 2020)
	Implementation	5	(Puspitasari et al., 2020)
	Evaluation	5	(Puspitasari et al., 2020)
		25	
Patient satisfaction	Reliability	6	(Nursalam, 2020)
	Assurance	3	(Nursalam, 2020)
	Reality	5	(Nursalam, 2020)
	Empathy	5	(Nursalam, 2020)
	Responsibility	4	(Nursalam, 2020)
		23	

Table 2 Demographic characteristics of nurse and patient and distribution of variable frequency

Demographic characteristics of nurse and patient and distribution of variable frequency				
Variable			**n**	**%**
Nurse	Age	17 – 25 years (late adolescence)	6	9.0
		26 – 35 years (early adult)	25	37.3
		36 – 45 years (late adulthood)	36	53.7
	Education	Associate degree of nursing	12	17.9
		Nurse profession	54	80.6
		Master of nursing	1	1.5
Patient	Age	17 – 25 years (late adolescence)	21	31.3
		26 – 35 years (early adult)	13	19.4
		36 – 45 years (late adulthood)	12	17.9
		46 – 55 years (early seniors)	3	4.5
		56 – 65 years (late elderly)	11	16.4
		>65 years old (seniors)	7	10.4
	Education	Primary school	11	16.4
		Junior high school	12	17.9
		Senior high school	33	49.3
		Associate degree	5	7.5
		Bachelor	5	7.5
		Master	1	1.5

Distribution of variable frequency						
Variable		**Category scale**				
		Enough		**Good**		
		n	**%**	**n**	**%**	
Nursing factor	Nurse knowledge	12	17.9	55	82.1	
	Nurse attitude	13	25.4	54	80.6	
	Nurse competence	16	23.9	51	76.1	
	Nurse personality	17	25.4	50	74.6	
Islamic nursing care	Islamic nursing care	14	20.9	53	79.1	
Patient satisfaction	Reliability	15	22.4	52	77.6	
	Assurance	16	23.9	51	76.1	
	Reality	14	20.9	53	79.1	
	Empathy	18	26.9	49	73.1	
	Responsibility	15	22.4	52	77.6	

factors, with endogenous variables being Islamic nursing care and patient satisfaction, with nurse factor indicators namely nurse knowledge, nurse attitudes, nurse competencies, and nurse personality, and patient satisfaction indicators consisting of Reliability, Assurance, Tangible, Empathy, and Responsiveness (RATER). Consequently, the study encompasses a total of 10 indicators representing its three latent variables. All variables in this study were assessed through the use of a questionnaire, and permission to modify or employ the instrument was obtained from the original authors.

The variables used a Likert scale, for nurses and Islamic nursing care factors with strongly disagree, disagree, neutral, agree and strongly agree, while patient satisfaction answers were very dissatisfied, dissatisfied, neutral, satisfied and very satisfied. All variables have a variable scale that is ordinal with an indicator rating of 76%-100% good, 55%-75% enough, and less than 55% (Nursalam, 2020). The validity test results for the nurse factor questionnaire have a validity value of 0.559 to 0.986 and reliability 0.928 to 0.953, and the results for the nursing care questionnaire having a validity value of 0.559 to 0.986 and reliability 0.928 to 0.953. Islam received a score of 0.656 to 0.933, and the patient satisfaction questionnaire received a score of 0.552 to 0.876, with a reliability of 0.906.

Attempts have been made to overcome research bias by providing multiple inclusion and exclusion criteria, which tightens the bias and ensures that the criteria are met for the respondents. The steps in the data collection sequence are: first, by taking care of licensing after obtaining ethical approval; then proceeding with submitting research at a hospital, and finally, after all permits, the research team has completed collecting data through a research questionnaire. The descriptive test uses a frequency distribution test with analysis using Smart Partial Least Squares (PLS).

Data analysis

The inferential analysis used is a structural equation model based on variations and components called structural equation modeling-partial least squares (SEM-PLS), namely Smart PLS. Smart PLS has the advantage because it does not assume that data must have a certain measurement scale. Small samples can also be used to confirm theory and allow testing a series of relationships between variables that are relatively complicated simultaneously. Smart PLS analysis is carried out using Smart PLS software which includes a measurement model (outer model), structural model (inner model), and hypothesis testing. So, seeing the advantages of SmartPLS, it is very suitable for this

Table 3 Analysis of nursing factors correlation with patient satisfaction care in Islamic hospitals

Variable nursing factors		Patient satisfaction				Total		P value
		Enough		Good				
Variable	Category Scale	n	%	n	%	n	%	
Nurse knowledge	Enough	8	66.7	4	33.3	12	100	0.000
	Good	6	10.9	49	89.1	55	100	
Nurse attitude	Enough	10	76.9	3	23.1	13	100	0.000
	Good	4	7.4	53	79.1	54	100	
Nurse competence	Enough	10	62.5	6	37.5	16	100	0.000
	Good	4	7.8	47	92.2	51	100	
Nurse personality	Enough	10	58.8	7	41.2	17	100	0.000
	Good	4	8.0	46	92.0	50	100	

research, thus o SmartPLS is used as a data processing device in research (Ghozali, 2021).

Guidelines for the outer model or validity test are namely an indicator that is said to be valid if it has an average variance extracted (AVE) value > 0.5 or shows all outer loading variable dimensions that have an outer loading value > 0.5. The second test is the structural model or inner model test, namely the structural model test is carried out to predict the causality relationship between latent variables. The structural model is evaluated by looking at the percentage of variance explained by R^2 (R square) for the dependent variable, then the prediction relevance test (Q-square) known as Stone-Geisser to measure how well are the observed values produced by the model and also its parameter estimates. If the Q-square value is greater than 0 (zero), it indicates that the model has predictive relevance or shows relevance when applied in different areas. Therefore, if the Q-square value is less than 0 (zero), then it has less predictive relevance. To see the magnitude of the structural path coefficient or the magnitude of the relationship or influence of latent variables, a bootstrapping procedure is performed. Hypothesis testing is done by testing the t-statistic or bootstrapping the significance of the hypothesis is obtained by comparing the values of the T-table and t-statistic. If the T-statistic value is higher than the T-table or t > 1.96 and the p-value ≤ 0.01 (Ghozali, 2021). The second was the bivariate test to test the nurse factors of nurse knowledge, nurse attitudes, and nurse competence of nurses and nurse personality on patient satisfaction using the Sommers' correlation test.

The study was ethically approved by the Medical and Health Research Ethics Committee (MHREC) of the Faculty of Nursing Sultan Agung Islamic University Health Research Ethics Committee on December 8, 2021, under No. 918/A.1-S1/FIK-SA/XII/2021 and obtained the participants' consent through informed consent, thus patients first received an explanation from researchers about the research carried out in full orally and in writing. After the patient understands the research being conducted, the researcher is given informed consent in writing, and then the patient who agrees to be a respondent can sign the informed consent sheet, which is in accordance with the ethical principles of research, namely informed consent, anonymity, confidentiality, fidelity, and autonomy.

Results

The results characteristics of the nurses in the hospital in Table 2 show that the age of the majority of nurses is between 36 years and 45 years of age, or late adulthood (53.7%), with the majority of classified level of nurses' education (80.6%). The age majority is late adolescents aged 17–25 years (31.3%), with the majority education level being high school (49.3%). The frequency distribution test showed in Table 3 that the majority of the variables studied had good levels. This was reflected in the results which showed that the majority of nurses had good knowledge (82.1%). Then the variable on the attitude of nurses had good levels as
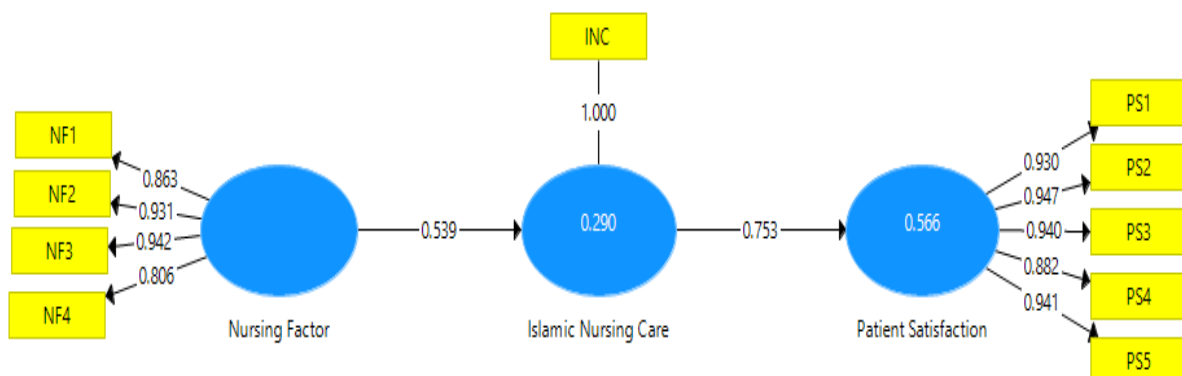

Figure 1. Measurement model evaluation

Table 4. Measurement model evaluation, coefficients of determination, and path coefficients

		Measurement model evaluation				
Latent variable	Items	Convergent validity		Internal consistency reliability		Discriminant validity
		Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT <1
Nursing factor	NF1	0.863				
	NF2	0.931	0.788	0.937	0.909	Yes
	NF3	0.942				
	NF4	0.806				
Islamic nursing care	INC	1.000	1.000	1.000	1.000	Yes
Patient satisfaction	PS1	0.930				
	PS2	0.947				
	PS3	0.940	0.862	0.969	0.960	Yes
	PS4	0.882				
	PS5	0.941				
		Coefficients of determination				
Variable		R Square			R Square Adjusted	
Islamic nursing care		0.290			0.280	
Patient satisfaction		0.566			0.560	
		Path coefficients				
Hypothesis		β	SD	t-value	ρ-value	Test result
Nursing factor ➜ Islamic nursing care		0.539	0.095	4.706	0.000	Supported
Islamic nursing care ➜ patient satisfaction		0.753	0.115	7.944	0.000	Supported

Smartpls Output

well. Then, in the third variable, namely the competence of nurses, the majority of nurses have a good level of competence (76.6%), and the majority of nurses have a good personality (74.6%), the nursing care variable shows the majority have good nursing care, (79.1%). Patient satisfaction has five indicators and shows that the majority of nurses have good reliability (77.6%), themajority have good guarantees (79.1%), then on empathy, the majority have good empathy (73.1%), and lastly, the majority have good responsibility (77.6%). There is an effect of nurse knowledge, nurse attitudes, and nurse competence of nurses and nurse personality on patient satisfaction in Islamic hospitals. The nurse knowledge variable shows there is a correlation with p value 0.000 <0.01. The nurse personality variable shows there is a correlation with a correlation p value 0.000 <0.01. The next analysis shows the effect of the nurse competence that there is a correlation with p value 0.000 <0.01, and the last analysis shows the relationship of the nurse personality and there is a correlation with p value 0.000 <0.01.

The interpretation of the measurement model in this test in Table 4 is valid because the reliability of the indicator for each part of the outer loading is higher than 0.7. The AVE value for all variables, was higher than 0.7. The reliability test in this study uses a reference to the value of composite reliability and Cronbach's alpha, which in all variables shows that the value of composite reliability and Cronbach's alpha is more than 0.7 with very reliable results because it is more than 0.80. In the Fornell-Larcker matrix, the square root value of the AVE (diagonal) is greater than all values, and the HTMT value is smaller than 1, so it can be concluded that the

discriminant validity of the measurement model is confirmed.

The coefficient of determination in Table 3 shows that the nurse factor is able to determine Islamic nursing care by 0.290 (0.290x100 = 29) or 29% of Islamic nursing care is predicted or determined by the nurse factor while the remaining 71% (100% - 29% = 71%) is determined by other factors. The next coefficient of determination is the value for the ability of Islamic nursing care in determining patient satisfaction which shows the results of 0.566 (0.566x100 = 56.6) or 56.6% of patient satisfaction is determined by Islamic nursing care while the remaining 43.4% (100% - 56,6% = 43.4%) is determined by other variables outside this study.

The evaluation of the model structure in Figure 2 shows the results of the structural model analysis. The results of this study show the path coefficients along with the level of significance. The path coefficients contained in Table 3 are used to test the hypothesis; the path coefficient test shows a significant relationship between the nurse factor and Islamic nursing care, the nurse factors form a strong significant influence with a positive direction (p value 0.000 <0.01; value 0.539; t value> 1.96, then for the second hypothesis, namely Islamic nursing care with patient satisfaction, this is also accepted because having Islamic nursing care has an influence on patient satisfaction with a very strong significant effect in a positive direction (p value 0.000 <0.01; value 0.753; t value> 1.96).

There are several cultures and beliefs associated with the health condition of children in general. Particularly for adolescent mothers, the stigma of being pregnant is synonymous with the moral problem that they got pregnant before marriage, making them
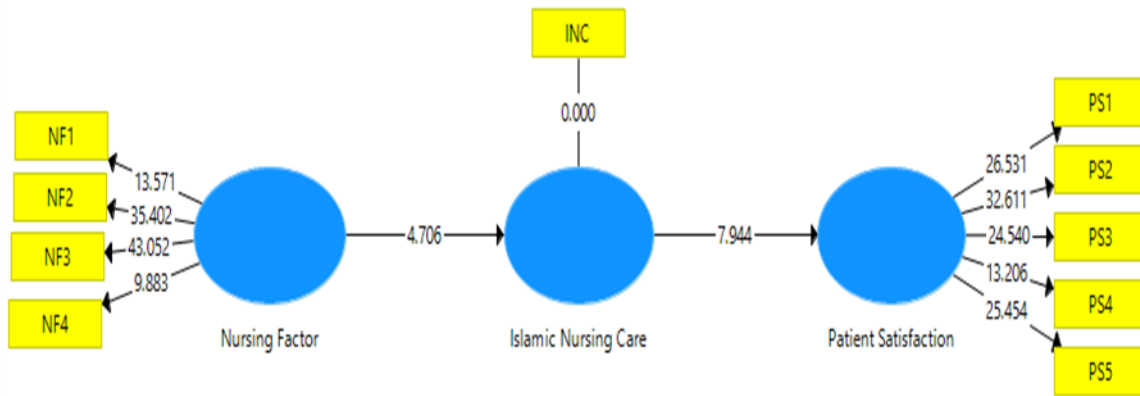
Figure 2. Structural model evaluation

reluctant to have an examination. Apart from that, their disobedience in consuming iron tablets, because of the belief that iron tablets will make the baby bigger, makes pregnant women the target of "kuyang" ghosts, and consuming iron tablets is a prayer so that pregnant women become sick, due to taking medicine.

Discussions

The majority of nurses in this study were 36–45 years old or in early adulthood, which shows that the majority of nurses were in the late adult age range, with female gender. These results are in line with a study which showed that the majority of nurses were aged 31 - 40 years with the majority being female. This study also showed that age and gender were not related to the implementation of nursing care. Age in this study does not form a construct of nursing factors because the knowledge, competence and skills of nurses or the performance of nurses in providing nursing care are not only influenced by the age and gender of a nurse but by various other influencing factors such as skills, length of work, and training (Andrew *et al.*, 2023).

The results of this study also show that nurse education is one of the indicators that is unable to form nursing factors. These results are in line with studies which show that the education of the majority of nurses is Diploma 3 and this level of education cannot be related to the implementation of nursing care (Furroidah, Maulidia and Maria, 2023). The results of this research show that the majority of nurses' education is still Diploma 3 so it still needs to be improved because a higher level of education can increase the knowledge and skills of nurses. But, because in this research the majority of nurses still have Diploma 3 education, they are unable to form a construct of nursing factors. Nursing factors can significantly influence Islamic nursing care and patient

satisfaction. These results are in line with research which shows that nurse education can influence nurse skills (Tomotaki, Fukahori and Sakai, 2020). Nurse education can determine the skills and knowledge of nurses because nurse education is the basis for developing nurse competency, and through education, nurses can obtain the theoretical knowledge needed in clinical settings, and the knowledge gained can be applied to practice (Park, 2022). Clinics are needed to improve nurse competency and nurse attitudes, because in the nursing care process there is an integral relationship between patients and nurses and their respective emotions, and nursing education prepares students to handle their and the patient's emotions, so that when in clinical situations nurses can behave and control emotions in dealing with patients well (Dugué, Sirost and Dosseville, 2021).

Knowledge in this research was proven to be an indicator that forms nursing factors, and nursing factors are one of the elements that determine Islamic nursing care. This influence is in line with studies which found that knowledge was related to nurses' caring behavior. Knowledge can be related to Islamic nursing care; knowledge is the result of individual knowledge that individuals can obtain through learning or experience, so in behaving and acting in providing nursing care based on Islamic principles, nurses must know about Islamic nursing care which will later become the basis for behaving and providing nursing care to patients or clients (Kartini *et al.*, 2022).

The nursing factors in this study were also formed by indicators of nurses' attitudes. Nurses' attitudes can be related to Islamic nursing care because the attitudes and behaviors that nurses practice in relationships with patients and families greatly determine the success of nursing care. Nurses' attitudes depend on the nurse's spiritual intelligence which has a significant impact on

service hospital and consists of eight components, namely honesty, openness, humility, kindness, generosity, tolerance, resilience, and the desire to meet the needs of others. This causes people with high spiritual intelligence to have more competence and greater flexibility, which is effective in improving the quality of work, so that nurses view work as an opportunity to help others. This causes patients to be more satisfied with nurses with a high level of spiritual intelligence. Nurses who provide nursing care are a multidimensional concept because it involves a set of dimensions and conditions that describe attitudes and behavior related to showing interest and appreciation for the patient's psychological, social and spiritual values (Agostinho *et al.*, 2023). Therefore, attitude is the key to the quality of nursing care and patient satisfaction (Alasqah *et al.*, 2023).

The results of this research show that nurse competency is one of the factors forming nurses, and is related to Islamic nursing care and patient satisfaction. The results of this study are in line with study which shows that competency is related to nurse performance (Suprapto, Mulat and Lalla, 2021).

Competence is a dimension of task actions, where these actions are used by nurses to complete tasks and provide patient satisfaction. This happens because competency is also a fundamental thing that determines a nurse's performance (Byre, 2021); therefore, hospitals that want to increase patient satisfaction must make nursing competency, a key that should not be overlooked (Acharya *et al.*, 2019). The competency of nurses in this study shows that there are still categories that are less than optimal; therefore, to increase patient satisfaction through Islamic nursing care, hospitals need to increase the competency of nurses, to increase patient satisfaction.

This research also shows that nursing factors are formed by the nurse's personality, and are related to Islamic nursing care. Personality is a trait related to individual behavior, and is an individual's character in how they behave toward other people and the qualities that make them attractive. Personality consists of four important elements, namely emotional intelligence, emotional stability, self-integrity and optimism, which are the elements important in the personality structure of nurses (Kuntarti *et al.*, 2020). Personality is one of the factors that influences the work of nurses, such as providing holistic services; the performance of nurses who can meet patient needs as a whole can make patients feel satisfied with nursing services (İspir, Elibol and Sönmez, 2019).

Nursing services are actions that occur because of the reciprocal relationship between nurses and patients; a good nurse's personality is the basis for nurses to understand the patient's situation accurately (Lee & Seo, 2022). This basis can explain why, in this study, the nursing factors can shape Islamic nursing care; nurses with good personalities can have good interactions which will increase patient comfort so that the better the attitude of nurses in providing nursing care, the more happy patients and families will receive the service.

This statement is in line with this research which found that nursing factors can influence Islamic nursing care, this is because various nurse indicators can form nursing factors nurses education is an important indicator in determining nurse performance, apart from knowledge, attitude, competence and personality which also play a role. It is important in determining Islamic nursing care, and when carrying out nursing care, nurses who have good personalities will treat patients with caring, so that high levels of concern and affection are reflected in the words and body language of nurses and nurses who always try to understand and care about their needs (Chachula, 2021).

Another study that examined the provision of nursing care with patient satisfaction was conducted in China and showed that the nursing care provided had a relationship with patient satisfaction (Zhi *et al.*, 2021). Feeling satisfied with the services provided by health facilities or hospitals is an important right for every patient. Patient satisfaction is defined as a basic criterion that can provide information about the level of patient values and expectations and show the quality of patient care (Lotfi *et al.*, 2019). Islamic nursing care can increase patient satisfaction because positive behavior carried out by health workers indirectly has moral meaning for patients and families, because they feel comfortable, calm and cared for because they get nursing care from responsible health workers, who believe and behave well based on Islamic norms and ethical values, thus motivating patient recovery. Therefore, Islamic nursing care can affect the level of patient satisfaction.

Exploring the role of nurses on the spiritual side is a very important topic to discuss because considering the role of nurses cannot be separated from the spiritual side. This is because nurses view individuals or humans holistically or have a holistic response to health changes. Therefore, giving nursing care that is carried out as a whole has a significant benefit or impact on the recovery of the patient or client. This is because the physical health condition of the patient or client has a

relationship with the mental state and spiritual state. Therefore, nursing care cannot be separated from the spiritual side (Dewi, Nurrohmah and Fikri Rizki Fadlurrahman, 2020). This is the reason why patient satisfaction is influenced by Islamic nursing. Therefore, this study can show that Islamic nursing care modelling is a very important liaison mediator between the factors of nurses and patient satisfaction, so Islamic nursing care has a significant influence on patient satisfaction.

The strength of this research is that it has a significant positive impact because Islamic nursing care differs from conventional nursing care in its implementation. Furthermore, the interventions and implementations also differ significantly from ordinary nursing care, including practices such as murrotal al-Quran therapy, dhikr therapy, thaharah guidance, prayer guidance tailored to the patient's abilities. These distinctive features enable Islamic nursing care to fulfill all needs of patients and their families, ultimately leading to increased patient satisfaction. Therefore, this study has a positive impact on nurses, nursing students, and nursing practitioners, as it is closely related to the service system. Academic institutions can utilize this research to develop educational processes that teach students Islamic nursing care. Additionally, nursing managers and directors can benefit from this research by providing valuable information to nurses for designing training or workshop classes to improve the knowledge, attitudes, and competencies, as well as the personality of nurses in accordance with Islamic principles or values, which have implications for the quality of Islamic nursing care and patient satisfaction.

This increased knowledge enables nurses to deliver the best nursing services to patients, ultimately resulting in higher patient satisfaction. Moreover, this study positively impacts healthcare facilities by emphasizing the enhancement of nurse-related factors, which subsequently boost patient satisfaction. Ultimately, these benefits contribute to the improvement of society. This research, as has been stated, has many strengths, but in this quantitative research, it has a cross-sectional research design, so there is still a broader design, namely randomized controlled trials, systematic reviews, and meta-analysis to strengthen the findings in this research, so future researchers can carry out further research with this design to further strengthen evidence-based nursing.

Conclusion

Nurses with good knowledge, competence, who are supported by good attitude, and personality can form professional quality nurse work so that it is improving

Islamic nursing care; thus, the patient feels that all his needs are met, the patient feels comfortable, and has patient satisfaction with nursing services. Thus, this research also has a positive impact on health facilities. Improving these nurse factors will increase nursing care. As a result, when patients are satisfied with nursing care, their loyalty can increase, and in turn this makes the health services better. This research is a study that produces and describes a model that explains Islamic nursing care as a mediator of nurse factors and patient satisfaction, by dissecting four nurse factors indicators that show a role in determining Islamic nursing care, and Islamic nursing care determines satisfaction. It is expected that future researchers are able to use other designs such as randomized controlled trial or quasi experimental design in a hospital setting. Hospital and nursing managers should be aware that nurse factors have a positive impact on nursing care and that the interaction between nurse factors and nursing care can improve patient satisfaction. Thus, nursing care can be implemented in Islamic hospitals as a key to hospital expansion.

Conflict of interest

None declared

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