The Effect of Electronic Nursing Documentation (END) Implementation on Nursing Services Toward Patients' Satisfaction

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ABSTRACT

Services in nursing are developing nowadays, one of which is the documentation of nurses' performance by means of computers. Documentation of nursing services is carried out 24 hours for inpatients. The complex and continuous workload of nurses in service requires tools that support their work to create professional service documentation. This study aims to examine the design of the nursing care documentation model using a computer including assessment, nursing diagnosis, planning, implementation and evaluation. The variables tested in this study were patients' satisfaction, nurses' performance, syar'i ethics and the Electronic Nursing Documentation (END) program. A quantitative designed were used with a cross-sectional approach. The samples were 420 patients. Respondent was obtained through multistage sampling. The independent variable was the surgical patient with criteria aged 17-50 years, postoperative day 2-3, no complications, the patient was conscious, could read and write and was willing to be a respondent. The dependent variable was nurses' performance and patients' satisfaction. Data collection was performed using a questionnaire and was analyzed with SEM version 22. The results of this study indicated that nurses can provide comprehensive nursing care for patients by using digital documentation (Electronic Nursing Documentation application). The use of Electronic Nursing Documentation (END) can increase patients' satisfaction through syar'i ethics and good nurses' performance. Of all the variables tested in model development, syar'i ethics affect improved patients' satisfaction. SEM test results obtained GFI (Goodness of Fit Index) values which should be within the expected *Cut of Value* range (p-Value $\leq$ 0.05). The use of END in nursing services and supported by syar'i ethics and proper nurses' performance can increase patients' satisfaction post-surgery.

ABSTRAK

Pelayanan keperawatan telah berkembang saat ini, salah satunya adalah pendokumentasian kinerja perawat melalui komputer. Pendokumentasian pelayanan keperawatan dilakukan 24 jam untuk pasien rawat inap. Beban kerja perawat yang kompleks dan berkesinambungan dalam pelayanan membutuhkan alat yang mendukung pekerjaannya untuk membuat dokumentasi pelayanan yang profesional. Penelitian ini bertujuan untuk mengkaji rancangan model dokumentasi asuhan keperawatan dengan menggunakan komputer meliputi pengkajian, diagnosa keperawatan, perencanaan, implementasi dan evaluasi. Variabel yang diuji dalam penelitian ini adalah kepuasan pasien, kinerja perawat, etika syar'i dan program Electronic Nursing Documentation (END). Rancangan penelitian

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yang digunakan adalah kuantitatif dengan pendekatan cross-sectional. Sampel sebanyak 420 pasien. Responden diperoleh melalui multistage sampling. Variabel bebas adalah pasien bedah dengan kriteria usia 17-50 tahun, hari ke 2-3 pasca operasi, tidak ada komplikasi, pasien sadar, dapat membaca dan menulis dan bersedia menjadi responden. Variabel terikat adalah kinerja perawat dan kepuasan pasien. Pengumpulan data dilakukan dengan menggunakan kuesioner dan dianalisis dengan SEM versi 22. Hasil penelitian ini menunjukkan bahwa perawat dapat memberikan asuhan keperawatan yang komprehensif kepada pasien dengan menggunakan dokumentasi digital (aplikasi Electronic Nursing Documentation). Penggunaan Electronic Nursing Documentation (END) dapat meningkatkan kepuasan pasien melalui etika syar'i dan kinerja perawat yang baik. Dari semua variabel yang diuji dalam pengembangan model, etika syar'i berpengaruh terhadap peningkatan kepuasan pasien. Hasil uji SEM diperoleh nilai GFI (Goodness of Fit Index) berada dalam rentang Cut of Value yang diharapkan (p Value 0,05). Penggunaan END dalam pelayanan keperawatan dan didukung dengan etika syar'i dan kinerja perawat yang baik dapat meningkatkan kepuasan pasien pasca operasi.

INTRODUCTION

The implementation of nursing documentation technology with electronic media or computers is a major requirement in service. To support that, the development of nursing services with computers has become the latest trend, because its application can support services and increase patients' satisfaction (Świątek, et al 2012). Patients who are treated not only have the hope of being able to recover physically but also expect healing/spiritual well-being (Zweifel, et al 2009).

Nursing services using computers have been implemented in hospitals in the United States. Almost 2/3 of these services (62.7%) are performed through real time telemedicine with a useful point of view in terms of clinical trials, economics and patient satisfaction (AlDossary, et al 2017). Aceh is part of the province of Indonesia which is well-known with religious beliefs, and the community needs services that match their beliefs. The application of syar'i ethics for nurses and the combination of using computer facilities is implemented in an integrated manner to improve service quality and patients' satisfaction. Patients' satisfaction can not only be carried out by nursing personnel who perform well (Harris, et al 2013) but need to be supported by facilities in good service documentation using computers (Lakanmaa et al., 2015). This is because health services are not only done to patients but require an information management system (Healthcare Information Management and Systems that makes it easier for nurses to work) and improve the performance of nurses in providing nursing care (Underwood, 2013), (Levac Joseph, 2013), and (Lakanmaa, et al 2015).

The use of the internet in health and care information systems has been used by 74% to 85% by developed countries all over the world. This is the main factor that motivated the development of END for service needs at Aceh Government General Hospital. In addition, it is estimated that 80% of the people who use services in hospitals currently no longer come to the hospital directly, but they seek information about services, bed capacity, quality of inpatient rooms, costs, human resources who provide services (doctors, nurses, other medical team) via the internet or certain hospital accounts. These has become issues and trends before determining and deciding the hospital of choice for treating their illness (Hoffman, et al 2013).

The condition of Government General Hospital is still not optimal in providing services and information with computer/internet technology. It still requires the development and improvement of service quality in using a professional information system. The development of END with several variables that influence each other on postoperative patients' satisfaction is an issue as well that can be scientifically proven in this study. The application of information technology and syar'i-based nursing services at the Aceh Government General Hospital is supported by a syar'i-based service policy. This policy strongly supports patient care services based on syar'i ethics at Aceh Government General Hospital. However, this program requires an application that is easy to use by nurses in documenting their performance which called END.

The implementation of syar'i services at Aceh Government General Hospital has been showed since the beginning of treating patients by greeting (saying salam), starting the action by reading Basmallah and praying with patients after taking nursing actions and guiding tayammum before praying, but not all Government hospitals in Aceh are supported by documentation using electronic or evidence-based practice. Other Aceh Hoverment Hospitals have implementd nursing actions on patients and performed nursing services with syar'i ethical principles, but there is no available professional or standardized service documentation, so all actions with syar'i nuances are not recorded properly. Based on that condition, an application is required that can be used by nurses in documenting their performance with a syar'i ethical approach in nursing services and to increase patients' satisfaction.

Currently, based on the information delivered by respondents (post-surgical patients) about the quality of services in hospitals, the development of nursing service documentation (END) tools have motivated nurses to work better to record their performance every shift. Performance that is undertaken in a controlled and systematic manner can increase patients' comfort and satisfaction during hospitalization

Because of global changes in values and global competition, hospitals in Indonesia need to take part in this modern era. It requires hospital managers to change the paradigm of ethics based on syar'i services in hospitals. Currently, hospitals are not only seen as social institutions,

but also as socio-economic institutions (Lachman, 2007) and (Arief, et al 2017). This new paradigm approach makes the quality of service begin to be taken into account as an important factor in creating patients' and family's satisfaction during the hospital visit (Sharon, 2008).

Nurse ethics is an important aspect in creating patients' satisfaction to support the management of syar'i-based services in hospitals,. Recently, ethics has received serious attention from hospital managers. On the basis of the reality of increasing the community's need for professional nursing services, it is very necessary to develop services using computers and the internet in carrying out professional, multinational and global services (Zailania, et al 2016).

In this study, researchers designed a model for developing nursing care services using a computer program called electronic nursing documentation (END) which includes assessment, nursing diagnosis, planning, implementation and evaluation. Nurses who perform actions and services are motivated to do their resposibilities with syar'i ethics that are applied in hospitals. Based on the description above, a research is conducted entitled The Effect of Electronic Nursing Documentation (END) Implementation on Nursing Services at the Aceh Government General Hospital toward Patients' Satisfaction.

METHOD

Study Design

The research design used in this study was a survey with the use of cross-sectional approach to analyzed variables concurrently.

Population and Sample

The population for this study involved the whole post-operation patients from four goverment general hospitals located Aceh Province, Indonesia. The sample in this study was determined by applying SEM provisions of > 100 people and less than 1000 people. The result of data processing becomes bias when the participants are less than 100 people or more than 1000 people (Hair, et al 2006).

The respondents involved in this study was consisted 420 post-operation patients. Multi-stage sampling technique was used with the criteria namely: age range 17-50, post-operative day 2-3, no complications, conscious, could read and write and willing to be a respondent. The data collection technique was questionnaire that has been tested for validity and reliability. Data was analyzed by using structural equation modeling (SEM), with the help of AMOS 22 program (Ferdinand, 2006). The independent variables, intervening variables and dependent variables in this study are presented in table 1.

Measurements

The validity and reability of the questionnaire used in this study has been tested on 30 respondents, post-surgery patients, at General Hospital Dr. Zainoel Abidin Banda Aceh and these respondents were not included in the group of respondents studied. The validity and reliability of the questionnaire were measured by using the Pearson product-moment correlation. Several references were used to develop the questionnaire based on each of variables. The END Health

facility variable (X1) was developed from sources related to information technology; (Tannan & Lolas, 2012), and (Cho, et al 2016). The syar'i ethics variable (X2) was developed from references; (Brandão et al 2013), (Lasmuddin, 2002), (Laeheem, 2018), and (Lachman, 2016). The nurses' performance variable (Y) used references from (ANA, 2015) and (PPNI, 2005). Furthermore, the patients' satisfaction variable (Z) used several related references from (Ziethaml, 2010). Data collection was collected from 4 (four) Aceh government hospitals in Langsa, Sigli, and 2 Government hospitals in Banda Aceh.

Table 1
Effect of Electronic Nursing Documentation (END) Implementation on Nursing Services Research variable

Variable	Information	Dimension
X_1	Health Facility END	1. Accesibility of the Program 2. Efficiency 3. Standarization
X_2	Syar'i Ethics	1. Patients' Safety 2. Competence 3. Caring habit
Y	Nurse's Performance	1. Nursing Assesment 2. Nursing diagnosis 3. Intervention/ implementataion 4. Evaluation
Z	Patient's Satisfaction	1. Real 2. Reliability 3. Responsiveness

Procedure

This research was carried out between February to August toward post-surgical patients at several Aceh Government hospitals in 4 districts of Aceh, Indonesia in 2018. Firstly, the researchers introduced themselves then described about the benefits, objectives, and approval procedures regarding to the informed consent form for the respondents. Furthermore, researchers distributed the questionnaires to respondents related to those variables: END Health Facilities (X1), syar'i ethics (X2), nurse performance (Y) and patients' satisfaction (Z).

Analysis

Data analysis was examined by structural equation modeling (SEM) along with a software named AMOS 22. This model was applied for this study because it is a set of statistical techniques that can test a series of moderately complex relationships concurrently (Ferdinand, 2006).

Ethical consideration

This research was carried out using an ethics test conducted at the Poltekkes Aceh. The research approval was obtained from the hospital director. The purpose of the study has been explained to adolescent who were selected as respondents who agreed on the informed concent.

RESULT AND DISCUSSION

Table 2 Demographic Characteristic (n=420)

Description	Frequency	Percentage
Age:		
17 - 19 years old	48	11,4
20 - 29 years old	112	26,7
30 - 39 years old	103	24,5
40 - 49 years old	101	24,0
> 50 years old	56	13,3
Marriage Status		
Single	110	26,2
Married	271	64,5
Widow/Widower	39	9,3
Latest Education		
Diploma	165	39,3
Bachelor Degree	205	48,8
Master Degree	50	11,9
Income		
< Rp. 1.350.000,-	198	47,1
Rp. 1.350.000 - 2.999.999,-	173	41,2
Rp. 3.000.000 - 3.999.999,-	36	8,6
Rp. 4.000.000 - 4.999.999,-	6	1,4
Rp. 5.000.000 - 5.999.999,-	7	1,7
Total	**420**	**100,0**

From table 2, it is showed that the highest age group of respondents at the age level of 20-29 years old was 26,7 % of the total respondents. Then, the respondents with marital status married are the largest group of respondents; which is 64.5 %. From the lastest education of the respondents, the largest proportion is bachelor that shares 48.8%. Last criterion is family income with the category of income <Rp. 1,350,000, shares 47.1%.

Confirmatory Factor Analysis

The eksogeneous variables from the object of this study consist of Health Facility (END), Syar'i ethic. Meanwhile, the endogeneous variables are nurse performance and patient satisfaction. Concerning to dimensions observed on latent exogen and endogen variables are amounted to 24 dimensions (Figure 1).

Based on Figure 1, It can be understood that the influence of each variables, called Health Fasility (END), Syar'i ethic and Nurses' Performance can affect indirectly on patient satisfaction The test of the full feasibility of the SEM model was examined using Chi square, GFI (Goodness Of Fit Indeks), AGFI (Adjusted Goodness Fit Of Index), CFI (Comparative Fit Index), TLI (Tucker Lewis Index), CMIN/DF and RMSEA (Root Mean Square Error of Approximation) within the expected value range as shown in table 3.

The indicators that are tested for the relationship in the development of this model which related to the variables mentioned before can be seen in the table 3.
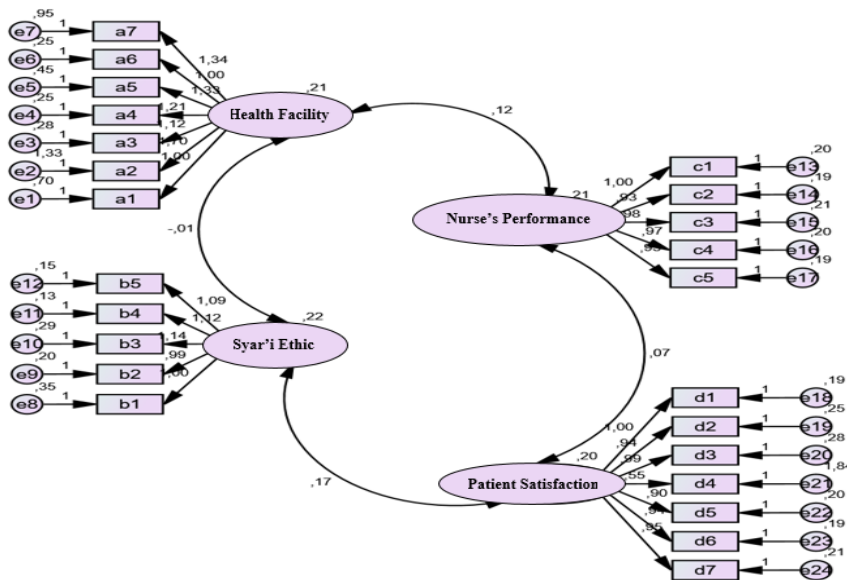

Fig.1 Confirmatory Factor Analysis

Table 3.
Variables and indicators

No	Variables		Indicators
1	*Health Facility (END)*	a1	Formats/nursing programs according to the cases handled can be accessed by nurses. Nurses document actions on a computer or mobile phone.
		a2	The tools used in the maintenance action are in accordance with the contents standard of the documentation.Tingkat keakuratan isi dokumentasi telah sesuai Standar isi (efisien)
		a3	The reliability level of E-Nursing Documentation can be accessed in the room easily by nurses.
		a4	The ability level of nurses to document nursing care is good.
		a5	Before doing the action/Nursing care, the nurse explains the purpose.

2	Syar'i Ethic	b1	The nurse provides services according to the patient's primary needs.
		b2	Nursing actions uphold respect for patients.
		b3	When entering and leaving the patient's room always say Salam (greeting)
		b4	Nurses implement actions with ethical principles on a daily basis.
		b5	Nurses and team provide counseling with courtesy to patients.
3	Nurse's Performance	c1	The nurse is able to conduct a nursing assessment before taking nursing action.
		c2	The nurse's diagnostic ability is correct.
		c3	Nursing planning carried out by nurses is in accordance with the patient's case.
		c4	The nurse is able to implement every action as planned. The nurse is evaluating.
		c5	The nurse always evaluates/reassesses every treatment action that has been carried out.
4	Patient Satisfaction	d1	The nurse is able to perform a good physical examination.
		d2	Nurses act properly and systematically.
		d3	The nurse conveys the results of the patient's condition after the procedure.
		d4	The nurse performs actions and writes on a computer or mobile phone appropriately.
		d5	The nurse performs the action with the sterile principle.
		d6	Nurses work with full care for patients.
		d7	The nurse informs the patient if it is necessary to carry out further treatment.

Confirmatory factor analysis of research variable construct (SEM)

Structural Equation Modeling (SEM) is used to analyze the data of the study by firstly testing its dimensions with Confirmatory Factor Analysis. This model consisted of 24 dimensions or indicators where the causality relationship between the hypothesized variables was tested.

The result reveals that this model used can be accepted with the level of significance 0.072. In another words, it has a good structural equation. The measuring index of GFI, CFI, CMIN/DF and RMSEA are also in the expected range.

These results indicate that the model used can be accepted with a significance level of 0.000 indicating a good structural equation model. The measurement indexes of Goodness of Fit Index (GFI), Comparative Fit Index (CFI), The Minimum Sample Discrepancy Function (CMIN/DF) and The Root Mean Square Error of Approximation (RMSEA) are in the range of expected values.

Table 4. Goodness of Fit Index

| Goodness-of-Fit Index	Cut off Value	Result of analysis	Evaluation Model
Degree of Freedom (DF)	Positive (+)	Positive (+)	Good
x^2 (Chi-Square)	Small probability	368,455	Good
Significant Probability	$\geq 0,05$	0,052	Good
CMIN/DF	$\leq 2,00$	1,904	Good
GFI	$\geq 0,90$	0,931	Good
AGFI	$\geq 0,90$	0,994	Good
PGFI	$\geq 0,90$	0,981	Good
NFI	$\geq 0,90$	0,912	Good
TLI	$\geq 0,90$	0,934	Good
CFI	$\geq 0,90$	0,952	Good
PNFI	$0,60 – 0,90$	0,724	Good
RMSEA	$0,05 – 0,08$	0,084	Good
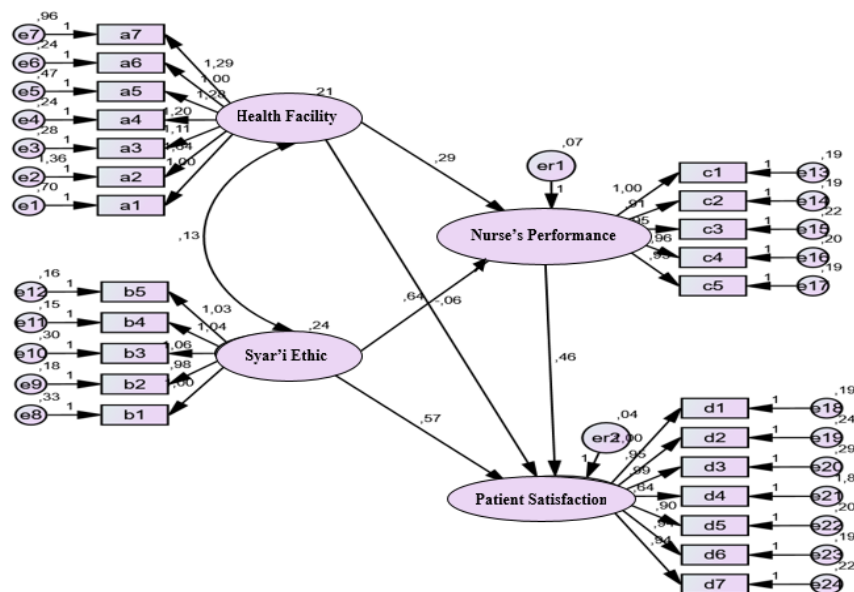
Fig 2 Confirmatory Full Model

DISCUSSION

1. The Effect of END Facilities on Nurses' Performance

The appraisal parameter for examining the effect of health facilities on nurses' performance reveals a probability value of 0.000. Nurses who operate END facilities in working/performing nursing services to patients according to patient expectations, then the nurse's performance can be increased by 17.6%. Health facilities that are in accordance with SOPs and services provided can affect the good performance of nurses such as preparing tools before work, checking tool functions and using tools correctly. The tools referred to in health facilities are tools that support the performance of nurses in carrying out nursing documentation for post-surgical patients.

The results of related research showed that the implementation of clinical and administrative data with electronic documentation can be a beneficial source of information in judging nurses'performance. This study explains that electronic databases can be operated to compute performance indicators by using the Local Community Services Centre. Treatment taken by nurses for primary care by using electronic based data are very beneficial for some reason, those are: It is accessible; easy to use and produce information on large number of patients; and it also can be carried out to compute nursing indicators, especially those who are related to nursing care (Dufour, et al 2018).

Research on the use of technology in nursing such as the use of the Internet of Things (IoT) which links the objects to the internet and its network is still less admistered in hospital services. The use of this application in nursing aims to improve data obtained from patients so nurses can provide better. This technology can be beneficial in promoting care in the hospital environment, improving the quality of care services and and also serving patients' safety (Mieronkoski, et al 2017).

The use of technology in nursing still needs improvement at every level of service. Digital Documentation technology is one way to improve the quality of nurse performance and increase patients' satisfaction as service recipients. Services that are recorded on a computer system are easy to measure and to evaluate. It can also be used for coaching nurses who work in a hospital. The data stored on the application can be accessed and reused if needed for administrative, legal and patient needs when re-entering the hospital.

2. The Influence of Syar'i Ethics on Nurses' Performance

The measurement parameter for testing the effect of syar'i ethics toward the performance of nurses is on probability value of 0.000. The magnitude of the effect of syar'i ethics toward the performance of nurses is 0.627 or 62.7%. Thus it can be explained that syar'i ethics will affect the performance of nurses.

The results from previous survey studies on 33 on syar'i articles published in Pubmed Journal since 1990 related to issues the safety of patients, ethics, auditing and quality of care, present some factors affect on the quality of care services.The matters which are linked to ethics include personal profile, administrative structure and teamwork services. The results of the survey in the article found that problems that affect teamwork in nurses include self-awareness, work environment, leadership, ethics, cooperation, communication, and competition. The results of this study explain that the manager's responsibility is the main factor in creating and maintaining a working atmosphere in the form of a team. Team work is confirmed can improve outcomes in health care, both in clinics, and in management organizations (Kossaify, et al 2017).

Nursing service is one of the group services for patients (teamwork method) so it is necessary to organize the workload for each nurse. The workload is influenced by the ability and process of managing the risk of nursing services, especially for critically ill patients. Control for patient safety is the main policy that nurses routinely carry out, besides additional administrative duties. Nurses implement strategies to manage patient safety-oriented procedures and processes for service security. Safety issues can burden nurses every day because this work (treatment) is invisible, but the cases are increasing every day, especially post-surgery patients with critical conditions (Ross, et al 2019).

The survey results of (Coffey, et al 2015) compared the completeness of paper documentation with electronic documentation in trauma resuscitation patients in the Emergency Unit. This study identified the presence or absence of documentation of 11 data elements in each trauma resuscitation patient. The results of the study explained that electronic documentation more often records 5 data elements, which are: team activation time (100% vs 85%, P b.00), primary assessment (94% vs 88%, P b .036), visiting doctor time (98% vs. 93.5%, Pb .026), emergency department intravenous fluid volume (94% vs. 88%, Pb .036), and disposition (100% vs. 89.5%, Pb .00). In general, the electronic documentation obtained in record form is more superior compared to written documentation because electronic medical records improve patient safety and these results are adopted as the standard method of documentation for all trauma resuscitation.

Nursing services based on syar'i ethics teach the principles of Moslem belief in helping the sick which are taught in the Qur'an and Sunnah. The actions taken by nurses in providing services to patients prioritize the needs of patients in an Islamic way like respecting patients, speaking politely, greeting, saying bismillah before the action, leading patients to pray and helping ablution and praying in bed (Halimatussakdiah, et al 2020) . Actions are recorded on the END application along with other main actions such as changing bandages, giving medicine and helping other daily activities. The activities carried out by nurses in providing services provide evidence that nurses work more professionally and comprehensively.

3. The influence of syar'i ethics facilities on patients' satisfaction

The estimation parameter for testing the influence of syar'i ethics on patients' satisfaction shows a probability of 0.000. In this study, the magnitude of the influence of syar'i ethics on patient satisfaction was 0.567 or 56.7%. Thus it can be explained that syar'i ethics affect patient satisfaction. Sharia ethics implies that if good syar'i ethics are carried out in providing services, it can increase patients' satisfaction by 56.7%.

Globally, there is a consensus on ethics or shari'i ethics of nurses and it is necessary to get support to manage ethics in daily practice. One type of service and support for clinical ethics is Moral Case Deliberation (MCD) which is carried out by the Hospital Ethics Commission. MCD, aims to discuss ethics in difficult situations found in daily patient care. The goals of MCD are to support care and health professionals in the management of discovered cases to improve the quality of nursing services and to increase patients' satisfaction (Dauwerse, et al 2014) and (Heidenreich, et al 2018).

The results of another study found that the implementation of nursing care and work intensification for nurses could cause emotional exhaustion and emotional dissonance, where nurses experienced emotional disturbances and physical exhaustion. Although the ethical setting is in the hands of nurses, it requires attention from the hospital management team because ethical issues may create dilemmas in service. Ethical regulation in nursing is an important issue, because it has an impact on the development of the nursing profession, quality of care and patients' satisfaction (Suhonen, et al 2018)

Some of the work may not be carried out comprehensively since the service activities are full. In this situation, nurses must be able to adapt in dealing with different patients, different problems and different needs, so the selection with a syar'i ethical approach is the best solution according to the beliefs of the local community. This allows nurses to prioritize according to the patient's condition and what is recommended in SOPs and Islamic belief.

In the nurse's code of ethics, nurses are always expected to do good to patients, not to do anything dangerous, not to discriminate between patient status, nurses speak and act professionally, to be responsible, to respect cultural values and beliefs. However, this condition cannot be fully implemented because nurses experience fatigue caused by work intensification. This condition will be at risk of causing ethical dilemmas in nursing services. The use of syar'i ethics is the best way with personal and interpersonal approaches according to Muslim belief so everyone feels satisfied.

4. The Effect of Nurses' Performance on Patients' Satisfaction

The magnitude of the effect of job satisfaction on patient satisfaction is 0.388 or 38.8%. The test results show that patient satisfaction through the influence of nurse performance is 38.8% or if the nurses who work with good performance can provide satisfaction to patients with that percentage

Similar studies were conducted in the Emergency Units of other teaching hospitals to determine the level of patients' satisfaction with nursing care. The result found that most of the respondents (62%) were women, and most of their education was high school (42.3%). The average satisfaction score was 32.60 (± 7.11%). Patients reported that they were very satisfied with the care in the Emergency Unit and found that there was a relationship between patient education, health status and empathy with nursing care satisfaction with p = 0.05 (Buchanan, et al 2015).

Another study has been conducted to assess the literacy of patients in hospitals. Patients' satisfaction and patient literacy data were collected from a sample of inpatients in each hospital (n = 491 in teaching hospitals, 482 for government hospitals and 486 for private hospitals). The results of this study showed that the level of health literacy and satisfaction of inpatients in teaching hospitals was more significant (P < 0.001) than other hospitals. A high level of literacy is related to the level of patients' satisfaction (Hayran & Özer, 2018)

A person's satisfaction is something that is difficult to measure and fulfill, because there are so many factors that influence. Factors that affect patient satisfaction in hospitals are education, socioeconomic, experience and age. There are many factors that prevent a patient from being satisfied with nursing services. When it is carried out with standard operating procedures (SOPs) and syar'i ethical approaches that is recommended in the Qur'an and Sunnah of the Prophet Muhammad sallahu Wa'alaihi Wasallam, patient

dissatisfaction can be minimized because nurses use the maximum guidance that is from the creator of the universe, Allahu Subhana wata'ala.

CONCLUSION AND RECOMMENDATIONS

Based on the description above, patients' satisfaction is necessary to obain the quality of services, health facilities using electronic documentation (END) and good syar'i ethics through the performance of nurses. The results of this study indicate that the influence of these variables directly or indirectly (nurses' performance) affects patient' satisfaction. Post-surgical patients' satisfaction who is treated in an inpatient room requires better service quality according to the above variables, which include each dimension and indicator.

The biggest influence is syar'i ethics; that patient who were treated in the postoperative room perceive that syar'i ethics were the main points in service. Patients in a weak and helpless condition required nurses to prioritize ethics as a care giver in fulfilling all needs for postoperative physical recovery. Needs that can help patients in these conditions include physical care needs, psychological and socio-spiritual needs. Full and immediate service must be considered by nurses because of the threatening risk of the patients' life. Nurses are aware that syar'i ethics and appropriate actions during the service create patients' satisfaction. To make this happen, nurses should provide and record carefully on the computer through the END application. In addition, nurses can not be separated from the knowledge, attitudes and skills to meet all the needs of patients by using the nursing process.

Patients' satisfaction is assessed during the service and at the end of the procedure. Documentation of services carried out and recorded in the application showed that nurses take actions according to the needs and problems of patients with a syar'i ethical approach. The main core of service related syar'i ethics are in the form of eating and drinking assistance, perform ablution, du'a, and pray (sholat) in sick condition. The nurse's performance can be proven by documentation and the patient's response after completing the action or leaving the hospital.

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