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Original Research

The Relationship between Knowledge and Medication Compliance Behavior among Patients with Tuberculosis

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Article Info	Abstract
	Tuberculosis (TB) remains the highest priority among infectious diseases in the world today with increasing morbidity and mortality every year. Adherence to treatment plays an important role in the success of therapy among TB patients. This study aims to explore the relationship between demographic characteristics, knowledge, and medication compliance behavior among patients with tuberculosis in Indonesia. This study was descriptive correlational and cross-sectional design with the total sample was 150 tuberculosis confirmed in Medan Pulmonary Hospital, Indonesia. In this study found that there is a significant relationship between ethnicity and medication adherence (continues variable) with $p = 0.01$. Meanwhile when medication compliance behavior was treated as categorical variables, a significant relationship was found between medication compliance behavior and medical history ($p = 0.03$), smoking ($p = 0.005$), and alcohol ($p = 0.03$) among tuberculosis patients in Indonesia. In the multivariate analysis, multiple linear regression was performed which surprisingly shows that education was significantly associated with knowledge of TB ($p = 0,02$), and ethnicity (0.04).

INTRODUCTION

The World Health Organization (WHO) ranks tuberculosis as the top priority among infectious diseases in the world today. According to WHO data, in 2018, tuberculosis was among the top 15 death by cause with over one million patients.[28] Globally, in 2016, the estimated incidence of tuberculosis was 10.4 million cases, equivalent to 120 per 100,000 persons. In recent decades, the countries with the highest incidence of tuberculosis are India, China, Indonesia, Nigeria, and Pakistan, in that order. Nationally, in Indonesia, the number of new cases of tuberculosis reached 420,994 in 2018, with a prevalence rate of 297/100,000 and an incidence rate of 403/100,000 people. In 2017 there were more than 1,000 reported deaths from tuberculosis in Indonesia, which means 189 deaths per 100,000 persons. There were 3 cases among men for every 1 woman newly diagnosed with the disease.[6]

Several studies show that knowledge about the disease is a significant factor in its spread and distribution. In Indonesia, one factor that causes the high incidence of tuberculosis is the public's lack of knowledge about the causes, signs, symptoms, transmission, and treatments of

tuberculosis infection.[6] A study in Tanzania showed that many TB patients there believe tuberculosis is caused by heredity, punishment from God, and spread by white people.[19] However, a study in the United State revealed that sufficient knowledge can lead to good attitudes and behaviour for managing the disease and helping to control its spread in the community. Furthermore, worldwide, studies have shown that providing patients with adequate knowledge about tuberculosis can significantly improve their treatment adherence, as found by a study done in Ethiopia and studies elsewhere.[14, 17, 18] Similarly, a study in Malawi found that TB patients' treatment-seeking behaviour is influenced by their level of knowledge about the disease.[19] Likewise, a study in Indonesia concluded that knowledge about tuberculosis and risk perception about the disease affects health-care-seeking behavior.[20]

Adherence to treatment plays an important role in the success of therapy. Webb and her colleagues state that compliance as personal actions to promote wellness, recovery, and rehabilitation recommended by a health professional.[27] Compliance behaviour can also be interpreted as the extent to which the patient acts according to advice from a health care provider. Compliance behaviour is a major factor in the successful treatment of tuberculosis patients in particular. Many studies have shown that patients in various countries stop TB treatment for various reasons. One study in India revealed that most non-compliant behaviours were caused by lack of knowledge and awareness of the disease, as well as low motivation during therapy.[23] Similarly, a study in Nepal also concluded that patients' treatment adherence is associated with their knowledge and perceptions of tuberculosis and its treatment.[15]

The number of tuberculosis patients is still high in Indonesia and the prevalence rate stands as the third-highest in the world.

There are many patients already suffering and dying from the complications of the disease. Some important factors are believed to control the spread of infection. For instance, promoting knowledge through health education can increase adherence to tuberculosis treatment. With adequate knowledge, many patients with tuberculosis will become more compliant and complete treatment. Previously, some studies in Indonesia have investigated knowledge and compliance behaviour in tuberculosis patients. Unfortunately, most of the studies only focused on rehabilitation of adult patients and adolescents and prevention training for health workers and medical students. However, studies emphasizing awareness about tuberculosis and adherence to treatment are still needed. This study will contribute significantly to describing the state of knowledge about the disease and compliance behaviour among tuberculosis patients in Indonesia.

METHODS

This study was a descriptive correlational and cross-sectional design to identify significant variables and to examine the relationship between them, including demographic data, knowledge of tuberculosis, and medication compliance behaviour.

This study used a convenient sampling technique to collect data. A total of 150 participants diagnosed with tuberculosis from chest outpatient clinic, Medan pulmonary hospital. The Data was collected by using a questionnaire from The Tuberculosis Knowledge Questionnaire Developed by Dr Lock (2011) consisting of 14 question items. As for medication adherence, using the Medication Adherence Scale consisting of 8 question items developed by Hayati (2011).

The inclusion criteria in this study were male or female aged ≥ 18 years old, diagnosed with tuberculosis (Acid-Fast Bacilli or Thorax Rontgen) by a specialist

physician, received TB drug therapy at least one month, and agreed to participate by signing an informed consent form. Exclusion criteria are patients who have met the inclusion criteria but those who have failed in first TB treatment, and those who were foreigners.

The data collection was performed from July to August 2019. After IRB was approved and get permission, the data collection began with patients with positive tuberculosis diagnoses who were visiting for routine checkups. If agreed to participate the researcher has to be explaining the procedures, purpose, and give informed consent. After participants went through these steps, the data collection started using the questionnaire by performing face-to-face interviews.

The analysis was done descriptively by describing the patient's characteristics. In the univariate analysis, the researcher used the Pearson correlation, one-way ANOVA, t-test, and chi-square to find the relationship between the variables. The medication compliance behaviour variables were performed two times with different model (categorical and continues). In the multivariate analysis, the researcher used multiple linear regression to find which factors were the most associated with medication compliance behaviour and tuberculosis knowledge.

Data were collected after obtaining approval from IRB NTUNHS, department of health North Sumatera, Indonesia, and the University of North Sumatera with the approval number was 1826/VII/SP/2019.

RESULTS

Descriptive Statistic of the population, Tuberculosis Knowledge and Medication Compliance Behavior

The result showed that the age of participants in this study ranged from 18-78 years old with the mean age score was 40.03 (SD = 16.21). The majority of participants were men (n = 87, 58%), married (n = 75, 50%) and lived in the rural area (n = 94, 62.7%). A large number of participants graduated from senior high school (n= 67, 44.7%), and belongs to the Batak ethnic (n = 57, 38.0%). Over three-quarters of participants stated that they had heard about tuberculosis before (n = 115, 76.7%). Almost two-thirds of the participants revealed that they had a family history of tuberculosis (n = 96, 64.0%), and over one-third said they did not (n = 54, 36%). The great majority of participants stated that they received support from family for carrying out self-care (n = 138, 92.0%), with a smaller number saying they received such support from friends (n = 6, 4.0%), and health workers (n = 5, 3.3%). Regarding living arrangements, a large majority lived with family (n = 138, 92.0%), and a much smaller number lived alone (n = 9, 6.0%), with the rest residing in geriatric homes (n = 3, 2.0%). As for participants' occupations, 2.7% were farmers, 2% were fishermen, 24% were entrepreneurs, 5.3% were civil servants, 37.3% were unemployed, 2% of the participants were retired, and 27% had a mix of other occupations. Interestingly, well over half of the participants stated that they did not have a medical history of long-term disease such as diabetes or tuberculosis (n = 91, 60.7%), and ironically, 33% of them were still smoking while taking medication, and 16.7% were still drinking alcohol while on medication.

The descriptive statistics were shown in table 1 for the tuberculosis knowledge scale and medical compliance behaviour among patients with tuberculosis. On the tuberculosis questionnaire, possible scores ranged from 0 (minimum) to 14 (maximum). The mean score on tuberculosis knowledge was 8.67 (SD = 2.10), ranging from 1 to 13. Among participants, the mean score on medication compliance behaviour was 6.91 (SD = 1.09) ranging from 4 to 8. On this questionnaire, a score of eight is considered compliant; whereas a score less than eight is

considered noncompliant. In this questionnaire score, 8 is considered compliance; whereas scoring <8 is considered incompliance.

Table 1
Descriptive statistic of the scale

Scale	M	SD	Min	Max
Tuberculosis Knowledge	8.67	2.10	1.00	13.00
The Medication Adherence	6.91	1.09	4.00	8.00

The relationship between demographic characteristics to medication compliance behaviour (Continues variable).

The following table revealed how demographic characteristic associated with medication compliance behaviour (continues variables) among TB patients in Indonesia. The result showed that ethnicity had a significant relationship with medication adherence ($F = 2.54$, $p = 0.01$). A Tukey post hoc test found that the Javanese (1) and the Batak (2) had better adherence than others (9). Meanwhile, another variable including age, gender, and education had no significant relationship with medication adherence among TB patients in Indonesia.

Table 2
Characteristics of the participants

Variables	n	M ± SD	t/F/r	p
Age		40.03 ± 16.21	-0.05[c]	.57
Gender			-1.45[b]	.15
Male	87	6.80 ± 1.12		
Female	63	7.06 ± 1.03		
Education			0.24[a]	.96
Never	1	6.00 ± 0.00		
Elementary	22	6.82 ± 1.30		
Junior Secondary School	34	6.97 ± 1.11		
Senior Secondary School	67	6.90 ± 1.12		
Collage	4	7.00 ± 0.82		
University	19	6.95 ± 0.85		
Master	3	7.33 ± 0.58		
Ethnicity			2.54[a]	.01*
(1) Java	50	7.06 ± 1.00	1>9[d]	
(2) Batak	57	6.93 ± 1.10	2>9[d]	
(3) Chinese	2	8.00 ± 0.00		
(4) Mandailing	10	6.60 ± 0.97		
(5) Minangkabau	4	7.50 ± 0.58		
(6) Melayu	8	6.63 ± 0.92		
(7) Karo	9	7.00 ± 1.00		
(8) Aceh	2	8.00 ± 0.00		
(9) Others	8	5.63 ± 1.41		
(10) Geriatric home	3	7.00 ± 1.00		

The relationship between demographic characteristics to medication compliance behaviour (Categorical variable).

Another variable that showed significant relationship were medical history ($x^2 = 4.63$,

$p = 0.03$). The result showed that patients with the previous medical history of chronic disease that require long term medication had better adherence in treatment compared to new patients. Similarly, there was a significant association between

smoking and treatment adherence among TB patients in Indonesia ($x^2 = 7.72$, $p = 0.005$). Likewise, alcohol showed significant relationship with adherence patients in medication ($x^2 = 4.91$, $p = 0.03$).

Table 3
The relationship between demographic characteristics to medication compliance behaviour

Variables	Medication compliance behaviour		t/x^2	p
	Incompliance n (%)	Compliance n (%)		
Medical history			4.63[b]	.03*
Yes	32 (32.99)	27 (50.94)		
No	65 (67.01)	26 (49.06)		
Smoking			7.72[b]	.005**
Yes	40 (41.24)	10 (18.87)		
No	57 (58.76)	43 (81.13)		
Alcohol			4.91[b]	.03*
Yes	21 (21.65)	4 (7.55)		
No	76 (78.35)	49 (92.45)		

Factors predictors of tuberculosis knowledge and medication compliance behaviour

Multiple linear regression was conducted to determine the most linear combination of sub-variables in demographic characteristics both knowledge of TB and treatment adherence. Two predictors variables including education and ethnicity had a significant result with $p = 0.02$, and $p = 0.04$.

DISCUSSION

Descriptive Statistics of the Study Population, tuberculosis knowledge, and medication compliance behaviour

The age of participants ranged from 18 to 78 years old with a mean age of 40.03 (SD = 16.21), which means that the participants, on average, were still young and productive. This is similar to subjects in a study by Dotulong et al. (2015) which observed that patients from 15 to 55 years old had high mobility and outdoor activity, so their potential exposure to pulmonary Mycobacterium tuberculosis was also high. Subjects in another study done in Indonesia also had similar characteristics, with the mean age of TB patients 40 years old.[2] Likewise, a majority of TB patients in a study done in Nepal were between 35 and 54 years old.[15] The similarity of those study characteristics might be contributed by the socioeconomic factors and study design.

The gender breakdown of participants in this study—87 males (58%) and 63 females (42%)—was similar to that of a study conducted by Ratnasari and Nurtanty (2018) in her research about TB in Indonesia which found that men with tuberculosis were more numerous than women, probably due to heavier workloads, insufficient rest, and unhealthy habits, such as smoking and drinking.[22] In Ethiopia, TB patients were more common among men than women.[1]

As for the education background of participants in the current study, most participants (44.7%) graduated from senior high school, 22.7% graduated from junior high school, 14.7% only finish in elementary, 12.7% reached until university, 2.7% finish in college, and only 0.7% do not have formal education. This characteristic is similar to participants in a study conducted in another part in Nigeria.[25] The fact that most TB participants graduated from senior high school among those countries is probably because of the socioeconomic status where not all people can afford to continue to study at the university level.

In this study, most participants' ethnicity was Batak (n = 57, 38%). Half of the participants in this study were married (n = 75) and 62.7% (n = 94) lived in rural areas. Just over three-quarters of participants also stated that they had heard of tuberculosis before being diagnosed (76.7%, n = 115),

and 64% had no family history of tuberculosis (n = 96).

The relationship between demographic characteristics to medication compliance behaviour (Continues variable).

The study found that ethnicity had a significant relation (p = 0.01 or less than 0.05) with treatment adherence among tuberculosis patients in Indonesia. The posthoc test result showed that both the Javanese and the Batak ethnicity were more compliant compared to the category of others. Others here refers to ethnic groups with only one or two members represented in the data collected, such as the Ambonese, the Buginese (people from the South-Sulawesi tribe), or the Sundanese (people from West Java). The different levels of treatment adherence among ethnicities in Indonesia might be attributed to unequal access to health information across the country or to differences in cultural beliefs that affect individual points of viewpoint regarding Western-style medication.

This finding is similar to findings of studies in other countries that found differences in medication adherence between ethnic groups. For example, in the United States, numerous studies have demonstrated differences in medication adherence between ethnic groups as well as identifying a range of reasons for them. Some studies conducted in the U.S. that explored race and ethnicity with adherence to prescription medication among seniors revealed that Blacks and Hispanics were less likely to adhere to treatment compared to whites. This is one of the reasons why Blacks are more likely to die from heart disease than any other U.S ethnic group and Hispanic Americans have twice the mortality from diabetes compared to whites.[9, 10] Likewise, one literature review which explored medication adherence to oral hypoglycemic agents among diabetes patients in different ethnic groups reported that Filipinos had poorer medication adherence, while blacks were less adherent to medication

treatment, compared to whites.[21] Although little research had done on differences between ethnicities in Indonesia due to the political sensitivity of the topic, it seems likely that there are economic and educational differences between groups. Moreover, access to medical care may be affected by geographic factors as medical professionals tend to be concentrated in urban areas, but some ethnicities live primarily in rural areas.

The relationship between demographic characteristics to medication compliance behaviour (Categorical variable).

This section will show another study finding form different model of medication compliance behaviour. In the previous section, the medication compliance variable was treated as a continuous variable. However, in this part, the variable will be treated as categorical.

This study found that the medical history of chronic illness was significantly associated with medication adherence of tuberculosis patients in Indonesia. The study result showed that TB patients with a history of long-term disease with long-term treatment tend to be more compliant compared to TB patients without a medical history. The experience of long-term medication train patients to be more discipline in medication timing, dosage, and duration. This result is similar to studies from some countries. A study by Urata and colleagues about the impact of diabetes perception on medication adherence among diabetes patients in Japan found that patients with long-term medication history were consistently had greater adherence than patients without medication history, had a higher percentage of recovery and had low percentage of failing in treatment.[26] Similarly, a study by Choi found that having experience of TB treatment was associated with good medication adherence among TB patients in Korea.[4]

A similar result also showed that smoking was significantly associated with medical compliance behaviour. The study result from the bivariate analysis shows that the *p*-value was 0.005 which means that participants who were smoking will be more likely to have poor adherence. This finding is similar to a study from the U.S identifying factor predictors of medication adherence and smoking cessation among smokers found that active smoking was significantly associated with poor adherence among tuberculosis patients.[5]

This study found that alcohol use had a significant relationship with medication compliance behaviour among tuberculosis patients in Indonesia. The finding of the study shows the small number of alcohol use among participants (*n* = 25, 16.7%). The *p*-value was 0.03 indicating that patients with no alcohol consumption tend to be more compliant. Some studies around the world have similar results. For example, a study in Nigeria found that alcoholic use among TB patients had poor treatment adherence such as forget medication timing, hospital appointment, and which lead to interruption and non-adherence behaviour.[13] Similarly, a study in Uzbekistan investigating the factor that makes patients default in tuberculosis treatment and poor adherence found that the high percentage of defaulter was patients with alcohol use.[11]

Factor Predictor of Medication Compliance Behavior

As illustrated in the result found that education was statistically significant and indicating the most powerful factor in tuberculosis knowledge of patients. The standardized coefficients showed $\beta = 0.22$ and the *p*-value was $p = 0.02$. The unstandardized coefficient of the variable of education was $\beta = 0.36$ indicating that patients who have a high level of education were more likely to have a high of tuberculosis knowledge score. The higher education levels the better tuberculosis knowledge, and the lower education level of the patients the lower knowledge of tuberculosis patients. Likewise, the result found that ethnicity had statistically significant results compared to other variables and indicating that ethnicity was recognized as predictive factors, as shown in the table, the standardized coefficient was ($\beta = -0.18$, $p = 0.04$). Moreover, the unstandardized coefficient for the ethnicity was ($\beta = -0.08$) indicating that people from ethnic Java and Batak are more likely to compliance compared to other groups ethnic in Indonesia.

CONCLUSION

Tuberculosis remains the highest priority among infectious diseases in the world today with increasing morbidity and mortality every year (WHO). The purpose of this study was to explore the relationship between knowledge and medication adherence among patients with tuberculosis in Indonesia. This study found that ethnicity had a significant relationship with medication adherence (as a continuous variable). Moreover, a significant was found between medication compliance behaviour and the categorical variables, including the medical history of chronic illness, smoking, and alcohol use. In the univariate analysis, education was significantly associated with tuberculosis knowledge and ethnicity was consistently associated with medication adherence.

ACKNOWLEDGMENTS

CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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Original Research

Effectiveness of Slow Deep Breathing Exercise on Decreasing Stress Levels for Patients with Diabetes Mellitus

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Article Info	Abstract
	The prevalence of diabetes mellitus patients increases in Semarang province every year. Whereas, it reached 120 numbers of patients in Kedungmundu public health center by 2020. One of the psychological problems encountered by patients with diabetes is a high risk of stress levels. The condition of stress, anxiety, and fear influence the production of adrenaline hormones which aggravate the capability of patients to perform daily living activities. Slow deep breathing exercise is a nonpharmacologic method to reduce stress levels on diabetes mellitus patients. This study aimed to investigate the effect of slow deep breathing exercises on decreasing stress levels for patients with diabetes mellitus. This study used a quasi-experiment pretest-posttest with a control group design was conducted at Kedungmundu public health center, Semarang. All of 32 samples were recruited in this study. Wilcoxon test analysis calculated a value of p=0.000 < α 0,005. The statistical analysis found significantly different results between the pretest and posttest in the experimental group. Slow deep breathing exercise is effective to decrease the stress levels for patients with diabetes mellitus. Slow deep breathing exercise is strongly suggested for patients with diabetes mellitus as self-intervention to reduce stress levels.

INTRODUCTION

Diabetes mellitus (DM) is a disease of metabolic disorder that occurs when the pancreas can not produce insulin with a marked presence of impaired metabolism of carbohydrates, proteins, and fats caused due to the increase in insulin levels in relative terms. Damage to the pancreas is due right of the swelling in the pancreas which is usually caused by digestive enzymes become active inside the pancreas, so that attack and destroy pancreatic tissue and causes diarrhea and even weight loss.[1,2]

The level of prevalence globally patient DM in the year 2016 amounted to 11.3% of the total population of the world and experiencing an increase in the year 2017 into 677 million cases. Indonesia is a country that occupies the order of the 6th with patients DM number of 12.5 million people after China, India, United States, Brazil, Russia, and Mexico. Prevalence of DM by the data results in [3] showed the prevalence of the disease is not contagious experience hike when compared with Riskesdas (2013) among others DM occurs an increase of 6.9% in the year 2013

increased into 8.5% in the year 2018 with the number of cases reaching 46,174.

Stress is the body's reaction that occurs when a person is faced with a threat, pressure, or a change. Stress is also caused by environmental, economic, and unhealthy living factors, which are one of the triggers for diabetes mellitus. In times of stress, the pituitary gland in the brain decreases the production of the hormone serotonin. Serotonin is a mood-regulating hormone that affects the pancreas gland to secrete insulin. When stressed, the production of the hormone serotonin is produced in small amounts, insulin automatically decreases and can reduce its ability to neutralize blood sugar. because blood lacks insulin production, blood glucose will remain in the bloodstream without being able to enter the cell wall, so there is an increase in blood sugar. [4,5]

Treatment diabetes or diabetes mellitus in general only be given treatment in the form of drug pharmacological such as metformin, and insulin therapy while non-pharmacological administration was not considered in nursing when one nurse handling to note that non-pharmacological therapy. Nonpharmacological therapy has not been widely applied by nurses in a hospital such as therapy in handling stress on diabetes mellitus. The method of slow deep breathing is one of the nursing actions that can reduce the stress that occurs a decrease in anxiety and automatically can lower blood sugar levels. Relaxation can influence the hypothalamus to regulate and decrease sympathetic nervous system activity. Stress can not only increase blood sugar levels physiologically. Patients in a state of stress can also change their good habit patterns, especially in terms of eating, exercise, and medication. [6]

The research entitled SDB (slow deep breathing) on anxiety levels and blood sugar levels in people with diabetes mellitus. Slow deep breathing research 2 times a week for 4 weeks, the results of the level of anxiety obtained by the p-value of the intervention group were (0.000) <0.005 and the results of the control group test obtained the p-value (0.0830> 0.05, while on examination Blood glucose obtained by the p-value of the intervention group was decreased and the results of the control group test showed that the p-value was increased but not significant.[7]

Another research showed that the reduction in blood sugar levels was very significant in the intervention group after relaxing for seven days, and doing it twice a day. The highest decrease was on the seventh day (p = 0.000). Different sexes did not differ the mean reduction in KGD in the two groups (p = 0.730). And it can be concluded that relaxation can reduce blood sugar levels in type 2 DM patients.[6]

From patient data for the last 3 months, January-March 2019, it was found that there were 120 people with diabetes mellitus, both male and female, where respondents were still taking drugs such as metformin. Researchers aim to provide non-pharmacological therapy, namely slow deep breathing (SDB) therapy.

METHODS

This study used a quasi-experimental research design. The study design using pre-post-test control group design by using the instrument Hamilton Anxiety Rating Scale (HARS), which is done by providing a pre-test before treatment is given and do the re-measurement (post-test) after the treatment given to the intervention group while the control group did not give any therapy. Therapy or intervention is carried out after 7 hours to avoid the effect of the work of the drug that is consumed by the respondent. The sampling in this study by using a sampling probability technique random sampling with criteria inclusion of patients with diabetes mellitus for ± 1 year, a patient who experiences anxiety with a score of 95-141 moderate stress, p ria and women ages 30-50 35-55 years, suffering

can communicate well and b willing to be a respondent. The population in the study were all people with diabetes mellitus at Kedungmundu Public Health Center Semarang, and data were obtained for the last 3 months from January to March 2019 with a total population of 120 people with diabetes mellitus at Kedungmundu Public Health Center Semarang area. The sample used in this study was 32 respondents consisting of an experimental group of 16 respondents and a control group without treatment of 16 respondents, this study was conducted on 22 September - 6 October 2019. Univariate and bivariate analysis data using the Wilcoxon test.

RESULTS

Characteristics and general description of respondents age, gender, last education of respondents, occupation of respondents, and stress level of respondents, which are presented in the central tendency in the form of frequency values. The number of respondents was 32 people (n = 32).

The results of the study have shown that the mean age of the respondents is in the late adulthood category. The mean age of the respondents was 43.19 years, with the youngest being 30 years old and the oldest being 55 years old.

Based on the Levene's statistics test, it is known that the stress experienced by respondents before the intervention has the same baseline (p = 0.104).

The effectiveness of the Slow Deep Breathing Exercise is known by comparing the stress values before and after the action.

The results of the study have shown that there is a significant difference between the average stress values before and after the intervention. whereas in the control group there were no similar results. So it can be concluded that slow deep breathing exercise intervention can reduce stress in diabetes mellitus patients.

Table 1
Characteristic
of respondents at Kedungmundu Public Health
Center, Semarang (n=32)

Indicators	f	(%)
Gender		
Male	15	46.9
Women	17	53.1
Occupation		
Does not work	15	46.9
PNS / POLRI / TNI	6	18.8
Entrepreneur	11	34.4
Education		
Elementary school	8	25.0
Junior High	9	28.1
High school	10	31.1
Bachelor	5	15.6
Level of stress		
Mild stress	9	28.1
Moderate stress	2 3	71.9

Table 2
Differences in stress before and after the intervention

Indicators	Intervention group	Control group
Stress score before intervention	71.88 (±7,182)	126.69 (±3,772)
Stress score before intervention	69.06 (±7,280)	129.50 (±4,719)
	0,0001*	0,425*

* Wilcoxon test

DISCUSSION

In the adult age range related to behavior and lifestyle, a person tends to not pay attention to their food intake so that it can affect blood sugar levels and stress levels because the food content is not following diabetes mellitus suffered.[8–10]

Women have a higher risk of suffering neuropathic complications related to parity and pregnancy, large body mass index, and menstrual cycle syndrome as well as during menopause which results in inhibition of the transport of gnocchi into cells, leading to diabetes mellitus.[11]

The level of education is very influential in changes in attitudes and behavior in healthy living. Patients who have a low level of education will find it difficult to accept and understand the health messages conveyed

so that it affects the patient's ability to respond to a problem he faces. Conversely, sufferers who have higher education will have broader knowledge also allow the patient to control himself in overcoming the problems at hand, have high self-confidence, experience, and have the right estimate, how to deal with events, and easily understand what recommended by health workers in providing therapy.[12]

The level of employment of respondents as the motherhouse ladder includes sweeping, washing dishes, cooking including the activity of the physical light that has a risk of 4.36 times is great for people with diabetes mellitus in comparison with those that have activity moderate and severe.[13,14]

Levels of stress experienced by the response can be controlled by the treatment of slow deep breathing for therapy that is one of the independent nursing interventions that can be used to overcome the psychological symptoms of patients. It is important to teach patients to remember the conditions they face are uncertain, for example experiencing psychological symptoms. This relaxation can be useful for improving health conditions and inhibiting stress and anxiety. Because of the very strong connection between the body and the mind, it not only has a calming effect on the body but is also beneficial in giving calm to the mind. Until now, deep breathing relaxation is still one of the most widely used therapies because it is easy and does not require tools when performed. It only requires full concentration, a comfortable position, and can use imagination.[6,15,16]

The results of these data indicate that the provision of slow deep breathing therapy reduces stress levels so that this study is proven.

CONCLUSION

Slow deep breathing exercise intervention can reduce the stress of diabetes mellitus patients. nurses can use this therapy to reduce stress in diabetes mellitus patients, to reduce the impact caused by stress.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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Original Research

Tepid sponge and sponge bath to change body temperature children with dengue fever

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Article Info	Abstract
	Dengue Haemorrhagic Fever (DHF) is a viral infection transmitted by mosquitoes causing potentially deadly complications. The typical sign of this case is getting high fever until 3-7 days then it drops quickly. To make a lower body temperature, compress the body with warm water by using tepid sponge and sponge bath techniques. The objective of this study to determine the effect of compresses with tepid sponge and sponge bath techniques on changes in children's body temperature with DHF. This study used quantitative research with quasi-experiment design two group pre-test post-test design approach. The population of 30 children with fever, with purposive sampling technique using the Lemeshow formula. The analysis used was paired T-test, Wilcoxon, and Mann Whitney at a significance level of 0.05. Wilcoxon statistical test results show there is a tepid sponge effect on children body temperature with DHF with a p-value of 0.001. The dependent t-test shows there is an influence of sponge bath in children body temperature with DHF p-value of 0,000. The Mann witney test shows that Sponge bath is more effective than a tepid sponge in reducing fever with a p-value of 0,000. The conclusion of this study can be used as a guide for treating children with fever with the issuance of a standard SPO. Application of this method needs to involve parents to maintain the comfort of children, so it needs to make socialization to parents.

INTRODUCTION

Fever was one of the body's defences against natural infections bacteria and viruses that cannot live at a higher temperature.[1] The incidence of Dengue Fever was 433 (84,24 %) in 2017. Case Fatality Rate (CFR) in Indonesia was 0,72% and Central Java Province was 0,54%.[2] Dengue fever disease is still a problem in the Province of Central Java, 35 cities have been proven to have contracted Dengue Fever.

The Incidence Rate (IR) of Dengue Fever in the Province of Central Java in 2017 was 21,68 per 100,000 population. Semarang regency obtained data 23,65% of the incidence of Dengue Fever in Central Java Province.[3] The under-five mortality rate in the last 3 years in Semarang Regency shows a decrease from year to year. With infant mortality, this is still caused by infectious diseases. The mortality rate due to dengue fever in Semarang Regency is 0.8% of the death rate in Central Java Province.[2]

Non-pharmacological treatment that can be done independently by the room nurse to reduce the body temperature of children with fever is by hydrotherapy. Hydrotherapy is a water use therapy to cure & relieve fever.[4] One of the usual hydrotherapy nurses do is compress. Compresses themselves have various types, one of which is warm water compresses, warm water compressors with tepid sponge technique, warm water compresses with sponge bath techniques.[5]

The results of other study showed that patients with toddler fever given tepid sponge experienced a decrease in temperature.[6] Whereas the study of Lim, et al (2018) did not make a significant difference between pediatric patients who were given warm massages with antipyretics.[7]

Data obtained for 6 months from August 2018 to January 2019, dengue fever patients treated at Ken Saras Hospital there were 121 children. In dengue FEVER children always found problems with increasing body temperature, handling for temperatures above 37.5 Celsius is by compressing warm water on the folds of the armpits. The results found that there were 80 children (66.1%) out of 121 children (100%), had warm water compresses done and no complaints. However, there were 41 children (33.9%) out of 121 children (100%) who felt cold and shivering because the compress was taken too long..

METHODS

This research is a quantitative study with a quasi-experiment design with a two-group pretest-posttest design approach to determine the effect of tepid sponge and sponge bath treatment on changes in body temperature of children with fever. The sampling technique used is purposive sampling. The technique of dividing sample groups is by drawing with sequence numbers. Patients undergoing hospitalization in October-December 2019 who have been diagnosed with Dengue Fever. Starting with the first patient who came in labelled number one, the odd sequence was group 1 tepid sponge respondent. Then the second respondent with an even number becomes the sponge bath group 2 respondent until all respondents are met. With a total sample of 15 children in each group. The instruments used in this study were thermometers and compresses. The analysis used was paired T Test, Wilcoxon and Mann Whitney

RESULTS

The results showed that the child's body temperature before the tepid sponge technique had the lowest temperature of 37.8 Celsius and the highest temperature of 39 degrees Celsius. Meanwhile, the child's body temperature after the tepid sponge technique had the lowest temperature of 37.5 degrees Celsius and the highest temperature of 38.7 degrees Celsius. The results of the analysis have shown that there is a significant difference between the child's body temperature before and after the "tepid sponge technique" ($p < 0.05$). It can be concluded that the "tepid sponge technique" is able to reduce the child's body temperature by 0.2 degrees Celsius.

The results showed that the child's body temperature before the sponge bath technique had the lowest temperature of 37.9 Celsius and the highest temperature of 40 degrees Celsius. Meanwhile, the child's body temperature after the sponge bath technique had the lowest temperature of 37 degrees Celsius and the highest temperature of 39.5 degrees Celsius. The results of the analysis showed that there was a significant difference between the child's body temperature before and after the sponge bath technique ($p < 0.05$). It can be concluded that the "sponge bath technique" is able to reduce the child's body temperature by 0.09 degrees Celsius.

Therapy effectiveness analysis has been carried out by analyzing the difference

between the reduction in body temperature of children in the two interventions that have been carried out. The analysis results have shown that the sponge bath technique is more effective at lowering the child's body temperature than the tepid sponge technique.

Child's body temperature before and after the compress is presented in the following table 1.

Table 1
Body temperature before and after treatment
(n=15)

Indicators	Tepid sponge technique	Sponge bath technique	p
Body temperature before treatment	38 (±0,47)	38,9 (±0,65)	0,0001***
Body temperature after treatment	37,8 (±0,43)	38,08 (±0,71)	
p	0,001*	0,0001**	

* Paired t-test
** Wilcoxon test
*** Mann-Whitney test

DISCUSSION

The results of the research that have been done show that the results of the Tepid Sponge treatment obtained a median value before the child's body temperature test of 380 C fell to 37.80 C. The statistical test results showed a p-value of 0.001 so that it can be concluded that Tepid Sponge affects reducing the body temperature of children with a fever at Ken Saras Hospital. The tepid sponge is more effective in lowering the body temperature of children with fever compared to warm compresses because it will accelerate vasodilation of peripheral blood vessels throughout the body so that heat evaporation from the surrounding skin environment will be faster than the results given by warm compresses which only rely on hypothalamic stimulation.[8]

The results of the research that have been done show that the results of the Sponge Bath treatment obtained an average value before the child's body temperature test of 38.9º C dropped to 38.08º C. The statistical test results showed a p-value of 0,000 so it can be concluded that Sponge Bath affects reducing the child's body temperature with fever at Ken Saras Hospital. This is also following Hockenberry's theory that the benefits of a sponge bath can provide comfort and lower body temperature in handling cases of clients who have a fever. The skin is an effective heat radiator for balancing body temperature, so rinsing the entire body/skin causes the skin to release heat by sweating, and by sweating the body temperature initially rises to a decrease even to normal temperatures.[9]

The results of the study showed that the mean rank difference in the decrease in body temperature of children with fever treated by Tepid Sponge was 8.47 while in the Sponge Bath group it was 22.5. Statistical test results show that the p-value is 0,000 so that it can be concluded that Sponge Bath is more effective in reducing the body temperature of children with a fever at Ken Saras Hospital.

Sponge Bath is more effective in lowering a child's body temperature. Sponge Bath technique by wiping the entire body of a child with a warm washcloth is effective hydrotherapy by means of heat evaporation in the body. Besides minimizing the body's contact with cold water.[10]

Observation results in this study found that sponge baths are more effective than warm water compresses because on average sponge baths are given faster sweating because the entire surface of the body and skin is rinsed using warm water.

CONCLUSION

There is an effect of temperature changes in children with dengue fever given compresses of tepid sponge and sponge

bath techniques with p values of 0.001 and 0,000. A sponge bath is more effective than a tepid sponge in reducing body temperature in children with DHF p-value of 0,000. With a mean rank of Tepid Sponge treatment results of 8.47 while in the Sponge Bath group of 22.53.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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Original Research

The Relationship Between Nurses' Job Stress and The Implementation of Patient Safety in The Hospital

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Article Info	Abstract
	Nurses' job stress is considered as a human resource management's issue in the hospital. Study literature reviewed 13.6% of ICU nurses encounter the potential threat related to the patient safety occurrences. This study was designed to investigate the correlation between nurses' job stress and the implementation of patient safety in the hospital in-patient room. This study used a quantitative-analytical method with a cross-sectional approach. A total of 30 respondents were recruited by using proportionate random sampling. A self-reported questionnaire was utilized to collect the data. The normality data was tested by using Kolmogorov Smirnov analysis (p<0.05). Spearman Rank test was applied to analyze the overall data. The study findings revealed there was no significant relationship between nurses' job stress and the patient safety on the target 1 (implementation of patient identification), target 3 (drug safety improvement), target 4 (definitive location and procedure of surgery patient), target 5 (post-health-services infection risk) and target 6 (risk-falls reduction). However, the analysis was found to be statistically significant between nurses' job stress and effective-communication enhancement (target 2 of patient safety). The study findings concluded that stress could positively impact to improve nurses' awareness to maintain the 6 targets of patient safety

INTRODUCTION

Stress is a serious issue faced by nurses working in a hospital setting. A survey conducted in the United States described that 46% of nurses experienced job stress and 34% of them have the intention to leave their job. From the survey, 31.2% of nurses were categorized at the high-stress level and 43.8% moderate stress level. Several factors contribute to moderate stress levels such as fatigue (degrades physical strength and immunity system), workload (the high burden to provide standard care to the patients) and work characteristics (consistently be prepared for all shifts). Americans' stress levels in 2017 are consistent with those in 2016, with an average stress level of 4.8 (on a scale of 1 to 10) across both years. Of the symptoms reported, around one-third of adults reported experiencing feeling nervous or anxious (36 percent), irritability or anger (35 percent), and fatigue (34 percent) due to their stress (American Psychological Association, 2017).[1]

A previous study described that 13.6% of ICU nurses encountered the potential threat related to patient safety such as fall occurrences (48.8%), and un-documented fall incidents by nurses (88%). Hence, nurses' awareness and knowledge about patient safety are crucial and need to be frequently updated through discussion or training.[2]

In addition, Mulyani (2016) explained that 61.4% of nurses faced job stress and 77.8% of them implemented unsatisfactory patient safety. The high workload and the commitment to accomplish the 6 targets of patient safety in maintaining the quality of care could be a stressor for the nursing staff. Therefore, the targets of patient safety could stimulate a particular improvement in patient safety.[3]

METHODS

This study used a quantitative-analytical method with a cross-sectional approach. A self-reported questionnaire consisted of job stress statements and patient safety target indicators (target 1=implementation of patient identification; target 2= effective-communication enhancement; target 3=drug safety improvement; target 4=definitive location and procedure of surgery patient; target 5=post-health-services infection risk; target 6=risk-falls reduction) was utilized to collect the data. The study was conducted in February 2020 at an inpatient ward of Ariyo Wirawan Salatiga hospital. *Proportionate random sampling* was applied to select 60 participants. The normality data was tested by using Kolmogorov Smirnov analysis (p<0.05). Spearman Rank test was applied to analyze the overall data.

RESULTS

Table 1 describes the nurses' job stress level is categorized at moderate level. This study also provides non-normal distribution of the nurses' job stress data which ranged from 28 to 59.

Table 1
Nurses' job stress at Ario Wirawan Salatiga
Hospital, February 2020

Indicator	Means	SD
Nurses' job stress	46.50	6.354

The data of the 6 targets of patients safety shows non normally distributed with the range score for every target such as: target 1 (lower=4; higher=6), target 2 (lower=2; higher=7), target 3 (lower=0; higher=6), target 4 (lower=0; higher=4), target 5 (lower=6; higher=18), and target 6 (lower=2; higher=4).

Table 2
The implementation of 6 targets of patient safety at
Ario Wirawan Salatiga Hospital, February 2020
(n = 60)

Indicator(s)	Means	SD
Target 1 implementation of patient identification	6.00	0.399
Target 2 effective-communication enhancement	7.00	0.792
Target 3 drug safety improvement	3.00	1.357
Target 4 definitive location and procedure of surgery patient	4.00	1.110
Target 5 post-health-services infection risk	15.00	2.109
Target 6 risk-falls reduction	4.00	0.646

The results show there was no significant relationship between nurses' job stress and the patient safety on the target 1 (implementation of patient identification), target 3 (drug safety improvement), target 4 (definitive location and procedure of surgery patient), target 5 (post-health-services infection risk) and target 6 (risk-falls reduction). However, the analysis was found to be statistically significant between nurses' job stress and effective-communication enhancement (target 2 of patient safety) (Table 3).

Table 3
The relationship between nurses' job stress and implementation of 6 targets of patient safety at Ario Wirawan Salatiga Hospital, February 2020 (n = 60)

Indicator(s)	Coefficient Correlation	p
Target 1 implementation of patient identification	0,023	0,859
Target 2 effective-communication enhancement	0,329	0,010
Target 3 drug safety improvement	-0,016	0,901
Target 4 definitive location and procedure of surgery patient	0,154	0,239
Target 5 post-health-services infection risk	-0,026	0,842
Target 6 risk-falls reduction	0,164	0,210

Independent variable: nurses' job stress

DISCUSSION

Nurses' job stress at Ario Wirawan Salatiga Hospital

Our study shows that nurses' job stress is classified in the moderate stress level. In line with the previous study conducted by Natsir (2015) most of the study samples were categorized as moderate level (64%).[4] Amin (2020) also outlined that nurses' job stress was indicated at a moderate level (39%) and mild low level (41%).[5] Several stressors contribute to job stress such as workload, nurses' care experience with pain and death patients, conflict of interactions, and ambiguity roles. Moreover, job welfare, seniority interaction, staff's personal characteristics and the relationship could also arise the job stress condition.

Job stress is a condition that arises as a result of the interaction between individuals and their jobs, where there are mismatches of characteristics and unclear changes that occur in a company. In certain situations, the condition of the workplace can be another potential source of job stress. Nurse, an important element in a hospital is required to provide satisfactory nursing care to the patient and family. Comparing to the nurses who work outside of the hospital, stress experienced by nurses working in the hospital is relatively higher.[5] However, there are several conditions which cause work burden among nurses such as perceive responsible for the lives of others, substantial workload situation, the condition need to deal with the dying or dead people, and the image of consequences

if shortcomings were made in the critical ward such as intensive care unit or emergency room.

In addition, in line with a study examined by Anggitasari (2020) explained that stress levels classified based on respondent distribution showed a high-stress level among nurses (86.3%). That study suggested stress is not a reduce nurses' work performance. Nurses can control their stress felling with an exercise, and set a period of time for rest and do relaxation.[6] The most significant factors affecting nurses' job stress are workload.[7]

The implementation of 6 targets of patient safety in Ario Wirawan Hospital Salatiga

The current study findings of 6 targets of patients safety implementation show that nurses were identified in a good category. Equivalent to a study conducted by Putri (2018) described that 55.9% of nurses implemented patient safety adequately.[8] In accordance to Indonesian Ministry of Health policy, nurses need to implement nursing care to the patient by applying patient safety principals which includes risk assessment, identification and management related to patient's risk, incidents' analysis and report, follow up of the incidents, implement the solution to minimize risks and injuries caused of work errors. Besides, 6 targets of patient safety are suggested to be implemented which includes target 1 implementation of patient identification, target 2 effective-communication enhancement, target 3 drug safety

improvement, target 4 definitive location and procedure of surgery patient, target 5 post-health-services infection risk, and target 6 risk-falls reduction.[9]

However, the statistical data reported non normally distributed with the range score for every target such as: target 1 (lower=4; higher=6), target 2 (lower=2; higher=7), target 3 (lower=0; higher=6), target 4 (lower=0; higher=4), target 5 (lower=6; higher=18), and target 6 (lower=2; higher=4). Those result defines that nurses in this study implement all of 6 targets of patient safety effectively.

As the results reported, a prior study conducted by Fatimah (2018) mentioned that 71.9% of nurses completely performed patient identification before delivering nursing care. Nurses do a lot of things during the work period and also deal with many patients. The risk of error could happen. Patient identification is crucial to minimize the error[10].

Previous studies performed by Ulva (2017) also supported the current study findings of the second target of patient safety implementation which described that communication in the hospitals was effectively implemented by using verbal and telephone. It is rational because those two hospitals integrated patient safety training to the nurses. Another concern when applying effective communication is a record. Record is required when implementing verbal and telephone communication between nurses and other professionals or nurses and patients. It can be beneficial to minimize the occurrence of miscommunication which arises error.[11]

Furthermore, nurses in this study were also administering drug safety improvement through *double-checking and high-alert* drug recognizing as the third target of patient safety indicator. In line with a study conducted by Aprisila (2018), the majority of nurses (58.5%) in Rasyidin and Bayangkara Hospital Padang implemented

high awareness about drug safety preserved to the patients[12].

Moreover, the fourth target of patient safety implementation in this study is also categorized as a good result. It is because the study setting was administering hospital policies and standard operating procedures related to the definitive location and procedure of surgery patients. Consistent with the prior study reported by Alfiyah (2016), 83.8% of nurses were obeyed and applied procedures affiliated with the correct location, procedure and patient.

Besides, the fifth and sixth target of patient safety in this study is reported as a good classification. It is consistent with the study result that mentioned majority nurses in Ario Wirawan Hospital practicing handwashing by applying 6 steps of WHO standard to minimize infection risk and assessing the risk of falls for all of the patients to reduce fall incidents. Similar to a study reported by Alfiyah (2016), 89.7% of nurses performed 6 steps method of handwashing based on WHO recommendation which the easiest and most important method to decrease micro-organisms transmission and prevent infection. While Catur (2018) and Oktaviana (2019) supported the current study result that 95% of nurses at Panti Waluya hospital carried out fall-risk prevention properly based on the standard operating procedures.[13,14]

The relationship between nurses' job stress and implementation of patient safety in Ario Wirawan Salatiga hospital

The study findings decline a previous study examined by Mulyati,et.al (2016) which reported data among 61.4% of nurses who experienced job stress were comprising poor patient safety culture (77.8%). Meanwhile, 38.8% of nurses whom unexperienced job stress were encountering a good job safety culture (52.9%). Nurses are a large number of

health workers in the hospital who are required to always implement the six targets of patient safety in the nursing care process.[3] The nurses' conviction in supporting the 6 targets of patient safety implementation is essential to ensure patient safety outcomes. Nursing care plays an important role in preventing adverse events that occur in patients and the nursing environment. Compared to the other health workers, nurses' assistance is needed for 24 hours since nurses have the most interaction time with patients. Unsurprisingly, it also contributes to the pressure on nurses is averagely higher.

Stress condition experienced by an individual is determined by the balance between the demands (e.g. workload) and the individual resources to overcome these demands (e.g. experience, skills). When the received demands exceed the individual capabilities, it will cause unpleasant conditions such as anxiety or unwell feeling, lack of concentration or high temper. Several factors are defined as stressors such as workload, seniority conflict, and patient's characteristics. Stressor reactions related to the job situation depend on the nurse's personality, health status, and coping mechanisms. Job stress related to patient safety, job stress or emotional exhaustion affect patient safety. Emotional exhaustion negatively affects patient safety, Job stress resulted in nurse turnover intention.[15–17] When nurses carry out patient safety can minimize missed nursing care.[18]

The study findings declare a significant relationship between nurses' job stress and the target 2 of patient safety (effective-communication enhancement). The result strongly reported that heavier nurses' job stress increased the implementation of effective communication. Stress can generate positive and negative impacts, the positive impact will motivate and develop new discoveries and awareness. Conversely, negative stress fosters feelings of distress, rejection, depression and generates physical and mental problems.

Effective communication enhancement by using SBAR method has been implemented in Ario Wirawan Hospital to maintain patient safety.

CONCLUSION

This study indicates a correlation result between nurses' job stress and the implementation of patient safety in the hospital setting. From the 6 targets of patient safety, the effective communication enhancement of patient safety targets presents a significant correlation with job stress status. It is concluded that heavier nurses' job stress increases the implementation of effective communication. Several stressors contribute to nurses' stress which positively impacted to enhance nurses' awareness and maintain 6 targets of patient safety.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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The Influence of Parenting Patterns on the Personal Social Development of Preschool Children

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Article Info	Abstract
	The child's personal social development is greatly influenced by the environment and interactions between the child and the parents or other adults around them. The type of parenting style of parents towards their children will affect the attainment of the level of education, social skills and overall development of the child. The purpose of this study was to determine the effect of parenting style on the personal social development of preschool children. The method used in this research is descriptive correlation method and cross-sectional approach. The respondents of this study were 39 parents who have preschool children aged 3-5 years in Dukhan Qatar. Sampling was taken by total sampling. The results showed that the parenting style of preschoolers affected the personal social development of preschoolers (p = 0.028). It is recommended that parents of preschool-age children provide more encouragement to their children in terms of independence and socializing with the environment.

INTRODUCTION

Childhood is a very important period because during this period a person's personality and attitudes are being formed. During this period the child shows the ability to move more activities, develop curiosity, and explore the surrounding environment.[1,2] The ability for wider social interaction and self-concept has also begun during this period.[3] Optimal growth and development can be achieved if there is the interaction between children, parents and the surrounding environment where children interact socially.[4,5] Children's social development is the stage of a child's ability to behave following environmental expectations.[2] One of the parameters of child development is social personality (social personality) which is related to the ability to be independent, socialize and interact with the environment.[6]

Parenting style is a combination of several elements that create a climate or emotional atmosphere in which parents communicate their attitudes towards their children.[7] At preschool age, parenting patterns have more influence on children's ability to carry out activities and understanding of lessons.[8] The results also state that the type of parenting style of parents towards their children will affect the attainment of education level, social skills and overall development of children.[9] Parenting styles are classified into three types, namely:

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Authoritarian, authoritative and permissive.[10]

Qatar society is very heterogeneous from various ethnic groups. Each of them has its own rules and culture. Therefore they will influence the adaptation process and social development of children.[11] Based on the results of the preliminary study, it is known that in the Dukhan area 10 children aged 3–4 years 4 are less independent in terms of socializing with their surroundings. Like they still have to be watched by their parents to play with their playmates. The results of an interview with a teacher at Dukhan English School showed that some of the children in the Nursery did not want to play together with classmates of different ethnicities. This may be due to a lack of encouragement or parenting styles from parents in terms of socializing with new environments.

The purpose of this study was to determine the effect of parenting style on the personal social development of preschool children.

METHODS

This research has used a descriptive quantitative design. This study describes the parenting style and personal-social development of pre-school children. The approach that has been taken is a cross-sectional approach. Measurement of children's upbringing and social personal development is measured at the same time.

The respondents of this research are parents who have pre-school age children. The inclusion criteria for research respondents included: residents of Dukhan and having children aged 3–5 years. Research respondents totalled 39 people. The sampling technique that has been used is a total sampling.

This research was conducted in the city of Dukhan, Qatar for one month starting from January 20, 2020, to February 20, 2020. The

research was conducted by visiting the homes of each of the research respondents.

The instrument that has been used for data collection is a questionnaire. The questionnaire on indicators of parenting style has been adapted from instruments developed by Robinson, Mandleco, Olsen, and Hart. The instrument to determine children's development is the Denver Development Screening Test version II (DDST II).

Researchers have provided explanations to the research respondents before collecting data. The explanation contains the objectives, benefits, and consequences that must be carried out during the research. The involvement of research respondents was voluntary and without coercion from the researcher. After the respondent agreed, he was asked to sign an informed consent sheet. Researchers have given rewards to respondents in the form of souvenirs. Researchers maintain the confidentiality of research subjects by not including the respondent's name on the research report.

The data from the research results were analyzed using the Chi-Square test and Fisher's exact test to determine the influence of parenting styles on children's social development.

RESULTS

The results showed that the mean age of the respondents was 37.44 years with a standard deviation of 4.42. The youngest was 26 years old, while the oldest was 48 years old. The education level of the most respondents is diploma level as many as 15 people (38.5%), the remaining 14 respondents have a bachelor degree (35.9%) and at least 10 people have high school education (25.6%). The average length of a marriage of respondents' parents with pre-school children in Dukhan Qatar is 10.03 years with a standard deviation of

4.094. The longest marriage is 20 years, while the fastest is 4 years.

The results of research on the type of parenting style of Indonesian preschool-aged parents in Dukhan Qatar, it is known that most of the respondents have Authoritative parenting types, namely 37 respondents (94.9%). The study also showed that only 2 respondents had the permissive parenting type (5.1%) and there were no respondents who had the Authoritarian parenting type.

The results of the study on children's personal social development showed that there were 32 children (82.1%) whose social personal development was normal, and only 7 children (17.9%) had less social personal development.

The results of the bivariate analysis in this study showed that as many as 2 parents (4.4%), with the permissive parenting type, had children with less social personal development. As 32 parents (82.1%) with authoritative parenting type had children with normal social personal development.

Table 1
The relationship between parenting style and children's personal social development

Indicators	Children's personal social development				Coefficient (95% CI)	p
	Less		Pass			
	f	%	f	%		
Parenting Patterns					0.135 (0.060-0.305)	0.028
Permissive	2	4.4	0	0		
Authoritative	5	13.5	32	82.1		

DISCUSSION

The results showed that there was a significant effect of parenting styles on the personal social development of pre-school children. The results of this study are supported by the results of other studies that the type of parenting style of parents towards their children will affect the attainment of education level, social skills and overall development of children. This study also shows that few parents with the permissive parenting type have children with less social personal development. And more parents with the authoritative parenting type have children with normal social personal development. This result is different from previous research which explains that authoritative parenting style is not related to pre-school prosocial behavior.[12]

This shows that authoritative parenting is good parenting. This type of parenting, parents try to direct their children rationally and appreciate communication that gives and takes each other and directs the child to be independent so that it will help the child's personal social development in a positive direction. Meanwhile, permissive parenting parents tend to allow children to regulate their own activities, do not control and are not trained to be responsible, even though preschoolers should be introduced to good and bad norms so that if parents allow children too much it will affect personal social development in a negative direction.[10] Parents who use authoritative parenting have higher emotional regulation than parents who use permissive parenting.[13] The results of other studies have shown that parenting styles for tau people can affect children's mental health and self-esteem.[14]

The results of other studies show that authoritative parenting is able to enhance one's personal growth initiatives.[15] Another study suggests that the most beneficial parents (with authoritative parenting) are people high in extraversion, openness to experience, and awareness, and low in neuroticism.[16] Good parenting can affect a child's ability to communicate with others.[17]

CONCLUSION

Parents' parenting influences the personal social development of pre-school children in Dukhan Qatar. Authoritative parenting styles are better at stimulating pre-school children's personal social development. Researchers suggest especially for the Indonesian people in Qatar dukhan to be able to use proper parenting in caring for children, one of which is by implementing autoritative parenting to optimize children's social development. In addition, it is hoped that parents will give more encouragement to preschool children in terms of independence and socializing with a multinationality environment by participating in community activities that involve the entire community of Dukhan residents.

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CONFLICTS OF INTEREST

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Original Research

The Effectiveness Of Murottal Al-Qur'an Therapy And Virtual Reality To Reduce Pain Intensity In Post Operating Patients

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Article Info	Abstract
	Pain management in postoperative patients so far in the Shofa Room of PKU Muhammadiyah Hospital in Temanggung is still limited to pharmacotherapy in the form of 1000 mg injection metamizole or 30mg ketorolac injection and the provision of deep breath therapy. Giving this therapy is not optimal in dealing with patient pain. Therefore other therapies need to be given for example non-pharmacology, one of them is a combination of murottal Al-Qur'an therapy and virtual reality when the pharmacotherapy reaction is finished and the complementary therapy has never been done in the room. The purpose of this study was to determine the effect of a combination of Murottal Al-Qur'an therapy and virtual reality on pain intensity in postoperative patients. The research design used in this study was quasi-experimental with a pre-posttest with a control group design approach. The subjects of this study were 32 post-operative patients at PKU Muhammadiyah Temanggung Hospital. The sampling technique used was purposive sampling. The instrument used in obtaining data is the Numeric Rating Scale. The results showed that: 1) there were differences in the average pretest and posttest intensity of postoperative pain in the intervention group with a p-value of 0,000; 2) there is a difference in the average pretest and posttest intensity of postoperative pain in the control group with a p-value of 0.003; and 3) there is a significant difference in the decrease in intensity of postoperative pain in the intervention group and the control group with a p-value of 0.009 where the experimental group showed a decrease in intensity more effectively than the control group. The results of this study indicate that the combination of Murottal Al-Qur'an therapy and virtual reality is effective in reducing pain intensity in postoperative patients.

INTRODUCTION

Perioperative nursing is all treatment that uses an invasive way by opening or displaying the part of the body to be operated on by making incisions starting from pre-operative, intra-operative, and post-operative stages (Potter & Perry, 2010). Perioperative nursing aims to establish the diagnosis (biopsy, exploratory laparotomy), for healing (mass excision). Each perioperative phase begins and ends in a specific time with a sequence of events that make up the surgical experience, and

each includes a wide range of nursing behaviours and activities performed by nurses using nursing processes and nursing standards.[1]

Some disease conditions require perioperative or surgical measures. Data from the World Health Organization (WHO) is estimated that every year there are 230 million surgeries performed worldwide. Research in 56 countries from 192 countries is estimated that 234.2 million surgical procedures are performed every year and have the potential to cause complications and death (WHO, 2013), while in Indonesia surgical cases reached 1.2 million people in 2013 and is estimated to increase every year.[2] Perioperative action is very risky if it is not handled properly and properly according to the procedure and can cause various complications at every stage.

The results of a preliminary study in the Shofa Room of PKU Muhammadiyah Temanggung Hospital showed that the prevalence of postoperative patients during the last three months from September to November 2019 has increased quite significantly, in September 112 patients, October 126 patients, and November 136 patients. A preliminary study conducted on 5 patients at 5 hours since the administration of postoperative analgesic therapy at H + 1, 5 of these patients still complained of moderate to severe pain (scale 4 - 7). These data are proven by a study conducted by other study that the half-life of intravenous administration of ketorolac injection is five hours in adult patients. After five hours post-injection, the drug concentration in the blood decreases, as a result of which the analgesic effect of the drug decreases. [3, 4] Pain that arises as a result of tissue damage is subjective and causes discomfort.[5] Pain is a physiological mechanism that aims to protect yourself and as a warning sign that tissue damage is occurring, therefore, assessment of pain by nurses in postoperative patients is very important.[6] After the pain assessment is carried out, it is necessary to collaborate to provide analgesic therapy with the right dose.[7] The problems that arise when the use of analgesic therapy for a long enough time can cause adverse side effects, one of which is increased gastric acid secretion.[8] Therefore, it is also important to provide non-pharmacological therapy to reduce postoperative pain, one of which is by using murottal Al-Quran therapy.[9]

Pain management in postoperative patients so far in the Shofa Room of PKU Muhammadiyah Temanggung Hospital is still limited to providing pharmacotherapy in the form of 1 gram of metamizole injection and 30mg of ketorolac injection (based on standard operational procedures of PKU Muhammadiyah Temanggung Hospital) and providing deep breath therapy. The administration of this therapy is deemed not optimal in dealing with patient pain because based on a study conducted by researchers on 5 patients, all of them still complained of pain. Therefore, other therapies need to be given, for example non-pharmacological, one of which is a combination of murottal Al-Quran therapy and virtual reality when the pharmacotherapy reactions have run out and the complementary therapy has never been done in that room. This combination of therapy is expected to have a more effective impact in reducing the pain intensity of the patient because, with this combination of therapy, 2 nerves are simultaneously activated, namely the visual and auditory nerves.

Murottal Al-Quran is a recording of the reading of a letter in the Al-Quran chanted by a qori '(Al-Quran reader) in the form of sound.[10] Murottal Al-Quran is claimed to be one of the effective non-pharmacological pain management in postoperative patients. This is evidenced by a study that states that listening to the murottal Al-Quran can provide benefits in the healing process because it can reduce pain and can make you feel relaxed, this is due to a decrease in adrenal corticotropin hormone (ACTH)

which is claimed to be stress hormone. Besides, other research states that listening to the murottal Al-Quran for a few minutes can reduce pain intensity and can have a positive effect on the listener.[11] Besides, non-pharmacological therapy that can contribute to reducing pain by distracting attention is to use a virtual reality tool, because this tool can provide multimodal stimuli (visual, auditory, tactile, and olfactory).[12] Virtual Reality is a sophisticated technology that can make users interact with an environment that is simulated by a computer (computer-simulated-environment). This virtual reality uses a system that follows the user's head movements and gives the illusion of being surrounded by a virtual world.[13]

Murottal Al-Quran therapy and the use of virtual reality have the same function, which is to activate the hearing and visual nerves. In the chanting of the sound of the Al-Quran physically containing human elements, the human voice is an amazing healing instrument and the most accessible tool. Sound can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and divert attention from fear, anxiety and tension, improve the body's chemical system so that it lowers blood pressure and slows down breathing, heart rate, pulse, and brain wave activity. The rate of breathing that is deeper or slower is very good for causing calm, emotional control, deeper thinking and better metabolism.[14]

Murottal Al-Qur'an therapy in the form of a sound recording containing surah Al-Rahman is more familiar and has 78 verses and all the verses have a short character and 31 verses are repeated so that they are comfortable to listen to and can cause a relaxing effect for even lay listeners.[15] Murottal Ar-Rahman when combined with virtual reality using glasses / virtual box containing videos given to patients for 15 minutes can have a positive psychological effect. This is because when the combination of this therapy is played and

shown then reaches the brain, this therapy will be translated by the brain.[16] Based on this phenomenon, the researcher was interested in conducting a study on the combination of murottal Al-Quran therapy and Virtual Reality on pain intensity in postoperative patients at PKU Muhammadiyah Hospital, Temanggung.

METHODS

The research design used in this study was quasi-experimental with a pre-posttest approach with a control group design, where the respondents were divided into two groups, namely the intervention group and the control group. The intervention group received routine actions in the room, namely intravenous analgesic therapy and deep breathing relaxation nursing actions, coupled with a combination of murottal Al-Quran therapy and virtual reality. The control group received standard room therapy, namely intravenous analgesic therapy and deep breathing relaxation nursing measures.

Research subjects The subjects of this study were 32 post-operative patients at PKU Muhammadiyah Hospital, Temanggung. The sampling technique used is population sampling. The instrument used in obtaining data was the Numeric Rating Scale (NRS). The data analysis technique used in this study was the Shapiro Wilk to find the normality of the data, then followed by the Wilcoxon test to look for differences in the average pretest and posttest in each group and the Mann Whitney test to look for differences in the average pain intensity in the intervention group. and the control group.

RESULTS

The research subjects in this study were 32 postoperative patients at PKU Muhammadiyah Temanggung Hospital from February 2 to March 2, 2020. The results of the characteristics of respondents in this study were used to determine the

general description of respondents based on age and gender, type of surgery, and level of anxiety. An overview of the characteristics of the respondents is presented in the following table:

Result of this study shows the distribution of research subjects. In the experimental group for the age category, the most were elderly as many as 7 people (43.8%) and at least 1 person for late adolescence (6.3%), the distribution of respondents for the most types of surgery was appendectomy as many as 7 people (43.7%) and the least was debridement and prostatectomy of 1 person (6.3%), while the distribution of respondents for the category of the highest level of anxiety was on the moderate anxiety scale, namely 9 people (56.3%), while for the control group the age category was the most elderly. as many as 7 people (43.7%) and at least 1 person for late adolescence (6.3%), the distribution of respondents for the most types of surgery was appendectomy as many as 8 people (50.0%) and the least amount of debridement and prostatectomy was 1 person (6, 3%), while the distribution of respondents for the category of the highest level of anxiety on the medium anxiety scale was 7 people (43.7%).

Based on the data normality test, it can be seen that the overall data is not normal, so the next hypothesis test uses a non-parametric test, namely the Wilcoxon test and the Mann Whitney test.

Based on table 1, shows that in the intervention group the average pain intensity of respondents before being given treatment was 5.56 and after being given the treatment it became 3.44 with a mean difference of 2.12, the pain intensity value at the time of the pre-test got a minimum value of 4 and a maximum of 7 whereas in the post-test the minimum score is 2 and the maximum is 5. The p-value in the intervention group is 0,000. In the control group, the average pain intensity of respondents before being given treatment

was 4.88 and after being given the treatment it became 4.31 with a mean difference of 0.57, the value of pain intensity at the pre-test got a minimum value of 3 and a maximum of 6 while in the post-test the minimum value is 3 and the maximum is 6. The p-value in the control group is 0.003. The results of the data analysis showed that there was a difference in the average pain intensity before and after the intervention was given, meaning that there was a significant decrease in postoperative pain intensity in both the intervention group and the control group.

Table 1 shows that the average (mean) of the intervention group on the post-test data was lower (3.44) than the average (mean) of the control group (4.31). This means that the pain intensity in the intervention group was lower after receiving treatment compared to the control group. The results of the data analysis showed that the p-value was 0.009, meaning that there was a significant difference in the reduction in pain intensity in the intervention group and the control group.

Table 1
The mean differences of Post-operative Pain Intensity

Indicators	Intervention group	Control group	p
Pain intensity before intervention	5.56 (±0.814)	4.88 (±0.885)	0.230
Pain intensity after intervention	3.44 (±0.814)	4.31 (±0.875)	0.009
p	0.0001	0.003	

DISCUSSION

Based on the results of the study showed that most of the respondents underwent appendectomy surgery as many as 16 people (66.6%). Appendectomy surgery is a surgical procedure to remove the infected appendix or appendix (appendicitis). The results also showed that the age group of respondents were elderly as many as 14 respondents (29.2%) and the least for the late adolescence was 2 people (4.2%). Age can be a factor affecting pain. Elderly

reported lower levels of pain than younger ages, especially children. This is because children have the highest level of distress and anxiety compared to adults or the elderly.[9]

The results of research conducted on all-male respondents. The results of this study indicate that before the combination of murottal Al-Qur'an therapy and virtual reality (pretest) in the intervention group the average pain intensity was 5.56 (moderate) and after the intervention (posttest) was 3.44 (mild) with the difference figure obtained p-value 0.000. In the control group, the pretest measurement results were 4.88 (moderate), and the posttest measurement results were 4.31 with a difference value obtained p-value 0.003, meaning that the two groups showed a difference in pain intensity before and after the intervention was given.

The results of this study reinforce the previous study entitled the effect of visual distraction therapy with virtual reality media on the pain intensity of post-laparotomy patients. The average pain intensity before visual distraction therapy with virtual reality media was 5.18 with a standard deviation of 0.751. Meanwhile, the pain intensity after therapy was 3.55 with a standard deviation of 1.036. The statistical test results obtained a p-value of 0.002 (p-value 0.002 $< \alpha$ 0.05), it is concluded that there is an effect of visual distraction therapy with virtual reality media on pain intensity in post-laparotomy patients.

Post-surgery patients will experience different pain depending on the patient's condition at that time. The pain is caused by an incision wound in the area that was operated on (Potter & Perry, 2010). The pain can stimulate the sympathetic nervous system, increase heart rate and blood pressure which can interfere with the patient's hemodynamics. The action that must be taken is to provide maximum comfort, eliminate factors that increase pain perception. Postoperative analgesic therapy

in the form of intravenous injection of metamizole and/or ketorolac 1 ampoule and 500 mg tablet of mefenamic acid which is given three times a day. The pain will appear again after the reaction from the drug wears off, so the patient has to wait for the next drug administration hour according to the predetermined hour.[3, 4]

In this study, it showed that the decrease in the average pain intensity of the intervention group was higher than the control group with a difference in the mean reduction of 1.55 with a p-value of 0.009 (p-value <0.05), this means that there is a difference in the decrease in intensity. pain relief after being given a combination of murottal Al-Quran therapy and virtual reality in the intervention group than in the control group in postoperative patients. In this study, it can be concluded that the combination therapy of murottal Al Qur'an and virtual reality is effective in reducing the intensity of postoperative pain. The results of this study are in line with the research of other research in her study that found that murottal therapy affected reducing pain in mothers who were treated with curettage. The results of this study are also in line with other research which states that murottal therapy has a major effect on reducing pain responses in post hernia surgery patients in Cilacap. Through the provision of Al Qur'an murottal therapy, there will be changes in the electric current in the muscles, changes in blood circulation, changes in heart rate and blood levels in the skin.

Murottal Al Qur'an therapy is proven to activate body cells by converting sound vibrations into waves that are captured by the body, reducing the stimulation of pain receptors so that the brain releases endogenous natural opioids because these opioids are permanent to block pain nociceptors. Meanwhile, the use of virtual reality is for distraction or away from attention to something that is being faced, for example, pain (pain).

The results showed that after a combination of murottal Al-Quran therapy and virtual reality (post-test) the average pain intensity value in the intervention group 3 (mild), with the lowest pain intensity 2 (mild) and the highest 5 (moderate). . These results indicate that there is a difference in the lowest pain intensity, previously on a scale of 4 after being given a combination of murottal Al-Quran therapy and virtual reality to the lowest on a scale of 2.Pain management in postoperative patients in the Shofa Room of PKU Muhammadiyah Hospital Temanggung is still limited by providing pharmacotherapy in the form of intravenous injection of metamizole and/or ketorolac 1 ampoule and mefenamic acid 500 mg. Administration of this therapy has begun to disappear drug reactions at 5 to 6 hours after administration. The combination of murottal Al-Quran therapy and virtual reality was given after the analgesic reaction disappeared, which was six hours after giving the analgesic while waiting for the analgesic therapy program the next hour to enter.

After the bivariate test using the Mann Whitney test, it can be seen that there are differences in pain intensity in postoperative patients before and after being given a combination of murottal Al-Qur'an therapy and virtual reality with p-value = 0.009 (<α = 0.05), so that It can be concluded that there is an effect of a combination of murottal Al-Quran therapy and virtual reality on pain intensity in postoperative patients in the Shofa Room of PKU Muhammadiyah Hospital, Temangung.

The distraction technique in the form of listening to the murottal Al-Qur'an can relieve and calm the patient's feelings of pain, it was found that there was a decrease in pain in postoperative patients.[10] Sound therapy can regulate stress-related hormones, including ACTH, prolactin and growth hormone and can increase endorphin levels, thereby reducing pain.[9] Endorphins are neuroregulatory types of neuromodulators involved in the analgesic system, found in the hypothalamus and areas of the analgesia system (limbic system and spinal cord). These analgesic properties make endorphins an endogenous opioid. Endorphins are thought to cause presynaptic and postsynaptic inhibition of pain fibres (nociceptors) that are syncing on the dorsal horn. These fibres are thought to achieve inhibition through inhibition of pain neurotransmitters.[17] Therapy in the form of music or sound must be listened to at least 15 minutes to provide a therapeutic effect [5], while according to Yuanitasari (2008) the duration of music or sound therapy for 10-15 minutes can have a relaxing effect. The low sound intensity between 50- 60 decibels is comfortable and painless and has a positive impact on the listener. Al-Quran reading therapy has been shown to activate body cells by converting sound vibrations into waves captured by the body, reducing pain receptor stimuli and the brain is stimulated to release endogenous natural opioid analgesics to block pain nociceptors.[18]

Another distraction technique is visual distraction using virtual reality. Visual distraction or vision is a distraction directed into visual actions. The purpose of using this visual distraction technique is to obey or divert attention to something that is being faced, for example, pain.[19, 20] Distraction using virtual reality can stimulate the release of endorphins, the mechanism is to reduce pain according to the Gate Control theory.[21] When getting normal stimulation (somatosensory), the cell projection gate signals, so that it does not cause pain perception. If pain stimulation is received, the stimulation signal will pass through the large and small nerve fibres causing the inhibitor cells to become inactive, so that the projection gate of the cells opens and causes the perception of pain in the brain.

It can be concluded that the combination of murottal Al-Quran therapy and virtual reality is proven to reduce pain intensity in postoperative patients. This is because listening and seeing are some of the

distraction techniques that can be done, the technique focuses on diverting the patient to something other than pain. Distraction can stimulate the descending control system, thereby releasing endogenous opiates in the form of endorphins, dynorphins and reduced pain.

CONCLUSION

There is a significant difference in the average pain intensity in the intervention group and the control group with a p-value of 0.009. The average pain intensity in the intervention group was 3.44, while in the control group it was 4.31, which means that the application of a combination of murottal Al-Quran therapy and virtual reality was proven to be effective in reducing pain intensity in postoperative patients.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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Case Study

Analysis of Nursing Documentation Implementation In Outpatient Room

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Article Info	Abstract
	The quality of nursing care is a key element of service quality in hospitals. To realize good quality nursing service and quality in the Outpatient Institution, qualified human resources are also needed and good nursing management skills are needed from a manager or head of the service unit. For the implementation of nursing care documentation in outpatient installations to be carried out optimally, it is necessary to carry out management activities in the form of supervision by carrying out nursing support activities in stages. The purpose of this analysis is to determine the implementation of outpatient nursing medical record documentation. The use of action methods in this analysis aims to develop new skills or new approaches and be applied directly and reviewed the results. From the results of the assessment found several nursing management problems and the priority is the completeness of outpatient nursing medical record documentation which is still low. The action taken is by providing refresher activities or material refreshing on nursing documentation, initial assessment of outpatients, simulations of filling out initial outpatient assessment documentation, making and disseminating supervision forms and techniques for tiered supervision using the supervision form. The activity was attended by 23 participants consisting of the head of the room, the team leader and the nurse executing from the polyclinic or outpatient installation. Evaluation after carrying out activities on the completeness of outpatient nursing medical record documentation was 70% (14 of 20 samples).

INTRODUCTION

A hospital is a form of a health service organization that provides comprehensive health services covering promotional, preventive, curative, and rehabilitative aspects for all levels of society. To maintain and improve the quality of service, one aspect that needs attention is the quality of nursing services. Nursing as a form of professional service is an integral part that cannot be separated from the overall health service effort. Nursing is the backbone in a health facility because the proportion of nurses is the majority compared to other health workers and it determines the picture of the quality of health services. This is supported by seeing the proportion of nursing personnel, the time nurses interact fully for 24 hours with patients, and will be one of the determining factors for the good and bad quality and image of the hospital.[1]

Good nursing care management is needed in providing nursing care to clients in a systematic and organized manner. Nursing care management is a resource arrangement in carrying out nursing activities by using the nursing process method to meet client needs or solve client problems.[2]

Nursing care management is indispensable in providing nursing services to patients. The management of care carried out by a nursing manager has the strongest influence on the sustainability of nursing in health services [3]. The management process starts with planning, organizing, personnel, directing, and controlling human resource factors, finance, materials, methods, and facilities.[3] Manager nursing will affect the performance of nursing staff, create a conducive work environment, and will have an impact on patient safety, organizational sustainability, and quality. nursing care.[1] Nurses in carrying out their services use the nursing care approach which aims to improve the health status of patients and families and provide professional care.

Nursing care is a process or series of activities in nursing practice that is directly provided to clients in various health service settings, to fulfil Human Basic Needs (KDM), by using the nursing process methodology and guided by nursing standards, based on the code of ethics and nursing ethics, within the scope of authority and responsibility of nursing.[4]

In providing nursing care, nurses use a nursing process with five stages because by using the nursing process, care becomes comprehensive. The nursing process is a systematic method for assessing, diagnosing, planning, implementing and evaluating the condition of the patient in a healthy or sick condition so that it becomes the basis for scientific breakdown, and becomes the basis for nursing practice.[5]

The nursing process is a systematic problem-solving approach in providing nursing care. The nursing process is a guide for providing professional nursing care, for individuals, groups, families and communities.[6]

Nursing documentation is a record that contains all the data needed to determine nursing diagnoses, nursing planning, nursing actions, and nursing assessments that are systematically compiled, valid, and can be accounted for morally and legally.[7]

Nursing documentation is very important for nurses, documentation is part of the nurse's overall responsibility for patient care. Clinical records facilitate the generosity of services provided to patients and help coordinate the treatment and evaluation of patients.[7]

Nursing documentation must meet the requirements: fact-based, accurate, concise, complete, organized, timeliness, and easy to read. The benefits of completing nursing documentation for nurses and clients include communication tools, accountability mechanisms, data collection methods, nursing service facilities, evaluation facilities, means of enhancing cooperation between health teams, continuing education facilities and used as audits of nursing services.[8]

Roemani Muhammadiyah Hospital is a private hospital that was founded in 1975. Roemani Muhammadiyah Hospital seeks to improve service quality by following the Snars 1.0 accreditation standard Roemani Muhammadiyah Hospital seeks to improve service quality following the hospital's vision and mission by optimizing existing facilities for good care inpatient and outpatient. Outpatient services at Roemani Muhammadiyah Hospital are services provided to patients with cases that can still be handled without requiring inpatient care and post-treatment patient services as a control of the progress of healing for the disease suffered by these patients.

Outpatient care is a part of hospital services with short service delivery, which is about 15 minutes per patient on average. The average outpatient visits at Roemani Muhammadiyah Hospital are 600 patients per day with various specialist medical services as well as subspecialists. To provide quality nursing services, Roemani Muhammadiyah Hospital is in the form of carrying out service processes following predetermined standards, one of which is the implementation of nursing care documentation on outpatients. The results of the initial assessment showed that the completeness of outpatient nursing medical record documentation was still low, namely 45%, the tiered nursing supervision activities on the implementation of nursing documentation were not optimal, were still situational and there was also no documentation of the results of supervision.

The purpose of this analysis is to determine the implementation of outpatient nursing medical record documentation.

METHODS

The method used is the action method, which is a method that aims to develop new skills or new approaches and is applied directly and the results are reviewed. Where this analysis is prepared based on the assessment of 8 nursing management functions, namely the function of organizing, personnel, directing, monitoring, care management, logistics management, quality assurance programs and patient safety. The results of the assessment in an outpatient installation based on the 8 nursing management functions found 3 problems, namely: completeness of record documentation medical outpatient care which is still low, the implementation of tiered nursing supervision is not optimal, the implementation of patient or family education is not optimal. Of the 3 problems above, a priority order of problems was carried out according to the HANLON theory and agreement with the head of the

outpatient polyclinic room, namely the problem of completing outpatient nursing medical record documentation is still low. From this problem then the action is taken by holding activities to provide refresher or refreshing of material on nursing documentation, initial assessment of outpatients, simulations of filling out initial outpatient assessment documentation, making and disseminating supervision forms and techniques for conducting tiered supervision using the supervision form organized. on December 10, 2020. The activity was attended by 23 participants consisting of the head of the room, the team leader and implementing nurses from the polyclinic or outpatient installation. After the activity was evaluated on December 18, 2020, of the implementation of outpatient nursing medical record documentation and the results obtained from 20 samples of outpatient medical records, there were 14 (70%) medical records whose documentation was filled.

RESULTS

The results of the assessment in the Outpatient Installation based on the 8 nursing management functions found 3 problems, namely: first is the completeness of outpatient nursing medical record documentation which is still low (45%), second is the implementation of tiered nursing supervision is not optimal and the third is the implementation of education. patient or family is not optimal (43%). Of the 3 problems above, a priority order of problems was carried out according to the HANLON theory and agreement with the head of the outpatient polyclinic room, namely the problem of completing outpatient nursing medical record documentation is still low. From this problem then action is taken by holding activities to provide refresher or refreshing of material on nursing documentation, initial assessment of outpatients, simulations of filling out initial outpatient assessment documentation, making and disseminating supervision forms and

techniques for conducting tiered supervision using the supervision form organized. on December 10, 2020. The activity was attended by 23 participants consisting of the head of the room, the team leader and implementing nurses from the polyclinic or outpatient installation. After the activity was carried out an evaluation on December 18, 2020 of the implementation of outpatient nursing medical record documentation and the results obtained from 20 samples of outpatient medical records, there were 14 (70%) medical records whose documentation was completely filled. Thus the documentation of outpatient nursing medical records experienced a significant increase after being given a refresher on the material related to nursing documentation, patient assessment and monitoring through nursing supervision activities.

DISCUSSION

Nursing documentation is a record that contains all the data needed to determine nursing diagnoses, nursing planning, nursing actions, and nursing assessments that are systematically compiled, valid, and can be accounted for morally and legally[7].

Nursing documentation is a series of activities carried out by nurses starting from the assessment process, nursing diagnosis, action plans, nursing actions, and evaluations which are recorded either electronically or manually and can be accounted for by the nurse.

The results of observations made by students who practice application during the implementation stage, during the initial assessment of outpatients at the outpatient clinic of the Roemani Muhammadiyah hospital, obtained data that the implementing nurse had done complete documentation during the initial assessment of the patient. outpatient care, the executive nurse records the coverage of the amount of documentation that has been

done into the document supervision implementation form.

The results of observations made also obtained data that the orphans were able to carry out the task of supervising the nurse executing on the initial assessment documentation of outpatients, the orphans were able to validate the completeness of the initial outpatient assessment documentation through e'RM and the orphans were able to record or document the validation results into the form / instrument to supervise the completeness of outpatient initial assessment documents.

The data from the next observation is that the head of the room is able to carry out supervisory duties to the staff / supervisor and also the head of the room is able to validate results of supervision activities from orphans / supervisors. Based on the results of the evaluation on 18 December 2020 the completeness of outpatient nursing medical record documentation after implementation was 70% (14 out of 20 samples).

The results of Mursida[9] research conducted at the H. Hanafie Muara Bungo Regional Hospital, showed that most of the nurses (60%) stated that the leadership was not effective and the nurses (40%) stated that the leadership was effective. Some of the nurses (50.1%) stated that supervision was ineffective and as much as (42.9%) indicated that supervision was effective. Some of the nurse administrators (54%) had poor performance in documenting nursing care and as many (45.7%) had a good performance in documenting nursing care. The results of bivariate analysis were obtained (p value <0.05), thus it can be concluded that there is a significant relationship between leadership and supervision with the performance of nurses in documenting nursing care.

Andriani[10] research results showed the results of a survey on 20 March 2016 in the internal, surgical, and child inpatient room

at RSI Ibnu Sina Bukittinggi for 10 documenting physical examinations only filled with 3 documentation, the diagnoses written from the time the patient entered until returned only used 1 diagnosis. And filling out the intervention was only filled in 2 documentation. The results of the analysis showed that more than half (53.3%) of the head of the room carried out the supervision and documentation which was done completely and incompletely, the same amount (50%) was carried out by the executive nurse. The results of bivariate analysis with chi-square were obtained (p = 0.021), it can be concluded that there is a relationship between the supervision of the head of the room and the documentation of nursing care in the inpatient room of RSI Ibnu Sina Bukittinggi.

The implementation of medical record documentation during the initial outpatient assessment at the polyclinic / outpatient installation of the Roemani Muhammadiyah hospital was carried out according to standards. Nurses already understand the importance of completing medical record documents after being given refresher material about nursing documentation, initial assessment of outpatients, simulating filling out initial outpatient assessments through e'RM and techniques for supplying completeness of medical record documentation. The head of the room and the team leader understand and are able to conduct supervision in stages after being given technical material perform tiered supervision of the completeness of medical record documentation.

CONCLUSION

The results of the evaluation of the implementation of the provision of material refreshes on nursing documentation, the initial assessment of outpatients, simulations of filling out the initial assessment of outpatients, the implementation of tiered supervision using the supervision form gave positive effects and results in the implementation of

outpatient nursing medical record documentation.

The results of the evaluation obtained data from 20 samples of outpatient initial assessment medical records, 14 medical records (70%) were completely filled in. When compared before the intervention, the completeness of outpatient nursing medical records was only 45%, so this result has a significant increase.

Completeness of documenting medical records requires support from all Caregiving Professionals (PPA) in hospitals including nurses. Good management is needed in an effort to get professional and quality patient care, including through complete and quality medical record documentation.

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CONFLICTS OF INTEREST

Neither of the authors has any conflicts of interest that would bias the findings presented here.

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