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Determinants of Nurses' Safety Attitudes in a Hospital Setting

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Abstract

Hospital patient safety socialization is a routine part of nursing care. Although nurses' knowledge of patient safety affects nurses' safety attitudes, such knowledge may not be optimal. This study explored potential factors determining nurses' safety attitudes in a hospital setting. This was a quantitative study with a cross-sectional design. The study population comprised 376 nurses who were recruited using the purposive sampling method. The instruments were valid and reliable. The test results were as follows: job satisfaction: 0.356 – 0.575 (Cronbach's alpha: 0.724); workload: 0.338 – 0.613 (Cronbach alpha: 0.736), job stress: 0.542 – 0.719 (Cronbach's alpha: 0.756); head nurse's management function: 0.401 – 0.822 (Cronbach's alpha: 0.760); working conditions: 0.488 – 0.670 (Cronbach's alpha: 0.767); and nurses' safety attitudes: 0.300–0.827 (Cronbach's alpha: 0.771). The data were analyzed by bivariate and multivariate analyses, using structural equation modeling (SEM). The results revealed a relationship between the following variables and nurses' safety attitudes: age (p = 0.001), work experience (p = 0.001), job satisfaction (p = 0.001), gender (p = 0.025), clinical nurses' career path (p = 0.001), patient safety training (p = 0.032), workload (p = 0.001), work stress (p = 0.009), head nurse's management function (p = 0.001), and working conditions (p = 0.001). Workload was the most influential factor affecting nurses' safety attitudes (original sample = -0.776). To improve nurses' safety attitudes, hospitals need to pay attention to nurses' job satisfaction, workload, work stress, and working conditions and optimize the head nurse's management function to improve nurses' safety attitudes.

Keyword: determinant, nurses, safety attitudes, workload

Abstrak

Determinan Sikap Keselamatan Perawat di Rumah Sakit. *Sosialisasi keselamatan pasien rumah sakit telah rutin dilakukan, tetapi pengetahuan perawat tentang keselamatan pasien yang akan memengaruhi sikap keselamatan perawat masih belum optimal. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang memengaruhi (determinan) sikap keselamatan perawat di rumah sakit. Penelitian kuantitatif dengan desain cross sectional ini dilakukan pada 376 perawat yang diambil dengan metode purposive sampling. Instrumen tersebut valid dan reliabel dengan hasil uji kepuasan kerja adalah 0,356 – 0,575 (*Cronbach alpha's *0,724), beban kerja adalah 0,338 – 0,613 (*Cronbach alpha's *0,736), stres kerja adalah 0,542 – 0,719 (*Cronbach alpha's *0,756), fungsi manajemen kepala ruangan adalah 0,401 – 0,822 (*Cronbach alpha's *0,760), kondisi kerja adalah 0,488 – 0,670 (*Cronbach alpha's *0,767), sikap keselamatan adalah 0,300 – 0,827 (*Cronbach alpha's *0,771). Data dianalisis secara bivariat dan multivariat dengan menggunakan* Structural Equation Model. *Ada hubungan antara umur (p = 0,001), pengalaman kerja (p = 0,001), kepuasan kerja (p = 0,001), jenis kelamin (p = 0,025), jenjang karir perawat klinik (p = 0,001), pelatihan keselamatan pasien (p = 0,032), beban kerja (p = 0,001), stres kerja (p = 0,009), fungsi manajemen kepala perawat (p = 0,001), dan kondisi kerja (p = 0,001) dengan sikap keselamatan perawat. Faktor yang paling berpengaruh terhadap sikap keselamatan perawat adalah beban kerja (*Original sample = *-0,776). Rumah sakit perlu memperhatikan kepuasan kerja perawat, beban kerja, stres kerja, kondisi kerja, dan optimalisasi fungsi manajemen kepala perawat untuk meningkatkan sikap keselamatan perawat.*

Kata Kunci: *beban kerja, determinan, perawat, sikap keselamatan*

Introduction

A nurse's safety attitude is one of the most important factors affecting patient safety. According to the literature, nurses' attitudes affect the implementation of patient safety guidelines (El-

Azzab & Abd El-Aziz, 2018). Avia and Hariyati (2019) found that nurses' safety attitudes increased patient safety by 54 – 54% in an accredited hospital. Other research found that nurses' safety attitudes affected patient safety implementtation 13,940 times positively (Nihayati et al., 2019). A number of studies reported that good safety attitudes reduced the number of errors, increased patient safety, increased the number of safe behaviors, and reduced work-related accidents in hospitals (Alanazi et al., 2022; Bottcher et al., 2019; Lillykutty et al., 2018; Saberi et al., 2017). Thus, nurses' safety attitudes have a significant impact on the safety of patients in hospitals.

Nurses' attitudes toward patient safety in hospitals are not good. In a study of nurses (N = 424) in four Palestinian Gaza Strip hospitals, Bottcher et al. (2019) found that only 41.9% of the nurses had positive attitudes toward patient safety. Nihayati et al. (2019) found that only 52.2% of nurses in Tehran Hospital, Iran had positive patient safety attitudes. Research on 185 nurses in a government hospital and 120 nurses in a private hospital in Jambi found that only 45.48% and 56.22%, respectively, of nurses had positive attitudes towards patient safety (Bukhari, 2019). In a research hospital in Jakarta, Indonesia, Suganda et al. (2021) reported that 50.91% of nurses had poor safety attitudes. Unsafe patient safety attitudes among nurses can lead to errors and incidents in hospitals (Niknejad et al., 2019).

The results of an observational study on the implementation of patient safety procedures in a government hospital in Jakarta, Indonesia between September and December 2019 revealed good implementation of procedures among the nurses. However, the results of a questionnaire survey of 176 nurses found that 100 (56.8%) nurses had poor knowledge about patient safety. As reported previously, the greater the level of nurses' knowledge about patient safety, the more positive their safety attitudes (Lillykutty et al., 2018). The results of an interview with a nurse at the hospital in December 2019 found that some patients were treated for falls during 2019. Safety attitudes are influenced by nurses' compliance with applicable policies and standards (Kwon et al., 2019). Standard Operating Procedures stimulate that nurses must reassess patients with a low, moderate, and high risk of falls in each shift. As the patients did not have a high fall risk, it could be assumed that nurses' compliance with Standard Operating Procedures was poor.

The phenomenon found in this hospital indicates that nurses' attitudes toward patient safety are not optimal, possibly due to various reasons. The factors influencing nurses' safety attitudes need to be identified because they affect patient safety and can prevent patient incidents (Lee et al., 2016; Tetuan et al., 2017). There has been no research on the determinants of nurses' safety attitudes. Based on the background description, the researcher is interested in identifying the factors influencing nurses' safety attitudes in the hospital.

Methods

This quantitative study used a cross-sectional design and included 376 nurses of 668 nurses who worked in a government hospital in Jakarta, Indonesia. The participants were selected using the purposive sampling method. The inclusion criteria were as follows: who had worked for at least 1 year, nurses who worked in inpatient services (practitioners), nurses who were not on leave, and nurses who were willing to anger questions after receiving an explanation about the research.

This study adhered to the following ethical principles: (1) minimizing harm to the respondents by considering their comfort during the study and allowing them to fill out the questionnaire according to a specified time, (2) respecting human dignity by allowing the respondents to make their own decisions as regards participation in the research, (3) ensuring fair treatment of the respondents in the selection process by providing the same questionnaire

and the same information about the study, and (4) maintaining the confidentiality of the respondents' identities. This research was conducted after receiving the approval of the Faculty of Nursing Ethics Committee (number: SK-130/UN2.F12.D1.2.1/ETIK2020) and the hospital ethics review committee (number: LB.02.01/VII/442/KEP.037/2020). A research permit was also obtained from the hospital (number: LB.01.02/XX.2/1652/2020).

Data were collected using questionnaires that were developed and modified using various standardized instruments. The research questionnaires contained questions on the characteristics of the respondents, job satisfaction, workload, work stress, head nurse's management function, working conditions, and nurses' safety attitudes. The validity and reliability of the questionnaires were tested. The results were as follows; job satisfaction: 0.356 – 0.575 (Cronbach's alpha: 0.724), workload: 0.338 – 0.613 (Cronbach's alpha: 0.736), work stress: 0.542 – 0.719 (Cronbach's alpha: 0.756), head nurse's management function: 0.401 – 0.822 (Cronbach's alpha: 0.760), working conditions: 0.488 – 0.670 (Cronbach's alpha: 0.767), and nurses' safety attitudes: 0.300 – 0.827 (Cronbach's alpha: 0.771). Thus, the questionnaires were considered valid and reliable. Data were analyzed by bivariate and multivariate analyses. Structural equation modeling (SEM) was performed using the SMART PLS application.

Results

The first part of the survey was composed of seven items seeking demographic information about the participants, such as nurses' age, gender, clinical career path, educational background, work unit, patient safety training, and work experience in the hospital. Tables 1 and 2 present

Table 1. Demographic Data on the Respondents Based on Gender, Clinical Nurses' Career Path, Training, Education, and Work Unit

Variables	*N*	%
Gender		
Male	89	23.67
Female	287	76.33
Clinical Nurse's Career Path		
Clinical Nurses I	104	27.66
Clinical Nurses II	132	35.11
Clinical Nurses III	15	3.99
Clinical Nurses IV	121	32.18
Clinical Nurses V	4	1.06
Nurses' Education		
DIII	169	44.95
S1	35	9.31
Ners	165	43.88
S2	4	1.06
S2 specialist	3	0.80
Work Unit		
Outpatient	19	5.05
IGD	20	5.32
ICU	103	27.39
Surgery	59	15.69
Child care	47	12.50
Surgical treatment	38	10.11
Adult care	90	23.94
Patient Safety Training		
Never	155	41.22
Ever	221	58.78

Table 2. Demographic Data on the Respondents Based on Age and Work Experience

Variables	Median ± SD	CI 95%
Age	37 ± 8.295	[37.33, 39.01]
Work experience	12 ± 8.973	[13.31, 15.13]

Note: CI = confidence interval

Table 3. Overview of Job Satisfaction, Workload, Work Stress, Working Hours, Working Conditions, Head Nurse's Management Function, and Nurses' Safety Attitudes

Variables	Mean ± SD	% Max Value	CI 95%
Job satisfaction	26.30 ± 2.753	75.14	[26.02, 26.58]
Workload	48.59 ± 5.726	69.41	[48.01, 49.17]
Work stress	51.00 ± 13.620	57.30	[49.91, 52.68]
Working hours	40.00 ± 3.460	76.92	[41.68, 42.38]
Working conditions	19.00 ± 2.394	76.00	[18.85, 19.33]
Head Nurse's Management Function	105.00 ± 15.189	84.00	[103.56, 106.64]
Planning	26.00 ± 4.018	86.67	[24.98, 25.79]
Organizing	17.00 ± 2.901	85.00	[16.66, 17.25]
Staffing	22.00 ± 3.090	88.00	[21.38, 22.00]
Actuating	21.00 ± 3.154	84.00	[20.37, 21.01]
Controlling	20.00 ± 3.618	80.00	[20.01, 20.74]
Nurses' safety attitudes	140.00 ± 12 851	80.46	[142.51, 145.11]

Note: CI = confidence interval

demographic data on the nurses who participated in this study. Tables 3 and 4 presents the results of an analysis of the relationship between the nurses' demographics and their safety attitudes.

The characteristics of the respondents are shown in Tables 1 and 2. The majority of the respondents (n = 287, 76.33%) were females. In the study group, 169 (44.95%) nurses had a DIII nursing education, 103 (27.39%) nurses worked in the intensive care unit (ICU), 132 (35.11%) nurses had career paths as a clinical nurse level II, and 221 (58.78%) nurses had attended patient safety training. The median age of the respondents was 37 years, with an average between 37.33 and 39.01 years. The median length of work experience was 12 years, with an average between 13.31 and 15.13 years.

Table 3 shows the potential variables that influenced the nurses' safety attitudes. The table shows that the respondents reported average job satisfaction (26.30), a workload of 48.59, work stress of 51, 40 hours of work, good working conditions of 19, head nurses have performed 105 of its management functions and nurses' safety attitudes of 140.

Table 4 shows the results of the analysis of the relationship between internal factors and nurses' safety attitudes. As shown in the table, there was a significant relationship between nurses' safety attitudes and gender, clinical nurse career path, and patient safety training ($p < 0.005$) but not with education and work unit.

Table 5 shows the results of the analysis of relationship between external factors and nurses' safety attitudes. As shown in the table, that was a significant relationship between age, work experience, job satisfaction workload, work stress, working conditions, and head nurses management functions ($p < 0.005$) but no relationship between working hours and nurses' safety attitudes.

The factors that most influenced the nurses' sa-

fety attitudes were identified by a multivariate analysis using SEM. Figure 1 shows the relationship between nurses' safety attitudes and job satisfaction, workload, work stress, head nurse's management function, and working conditions after the validity and reliability tests.

Table 4. Analysis of the Relationship Between the Characteristics of the Respondents and Their Safety Attitudes

Variables	Nurses' Safety Attitudes	
	Mean ± SD	Significance Value (p)
Gender		
Male	211.10 ±12.494	0.025
Female	181.49 ±12.501	
Clinical Nurses' Career Path		
Clinical Nurses I	146.83 ±12.484	
Clinical Nurses II	188.89 ±12.502	0.001
Clinical Nurses III	227.47 ±12.488	
Clinical Nurses IV	216.49 ±12.489	
Clinical Nurses V	266.38 ±12.000	
Patient Safety Training		
Never	174.15 ±12.494	0.032
Ever	198.57 ±12.498	
Nurses' Education		
DIII	142.17 ± 12.832	
S1	145.17 ± 13.184	0.067
Ners	144.81 ± 12.626	
S2	156.75 ± 12.816	
S2 specialist	141.33 ± 11.846	
Work Unit		
Outpatient	142.26 ± 11.661	
IGD	142.80 ± 13.748	
ICU	144.02 ± 14.323	0.657
Surgery	144.95 ± 11.621	
Child care	140.96 ± 11.333	
Surgical treatment	143.26 ± 13.693	
Adult care	145.09 ± 12.363	

Table 5. Analysis of the Relationship between Age, Work Experience, Job Satisfaction, Workload, Work Stress, Working Hours, Working Conditions, and Head Nurse's' Management Function with Nurses' Safety Attitudes

Variables	Nurses' Safety Attitudes	
	r	Significance Value (p)
Age	0.247	0.001
Work experience	0.239	0.001
Job satisfaction	0.328	0.001
Workload	-0.338	0.000
Work stress	-0.135	0.009
Working hours	0.069	0.181
Working conditions	0.395	0.001
Head Nurse's Management Function	0.342	0.001
Planning	0.253	0.001
Organizing	0.307	0.001
Staffing	0.331	0.001
Actuating	0.352	0.001
Controlling	0.334	0.001

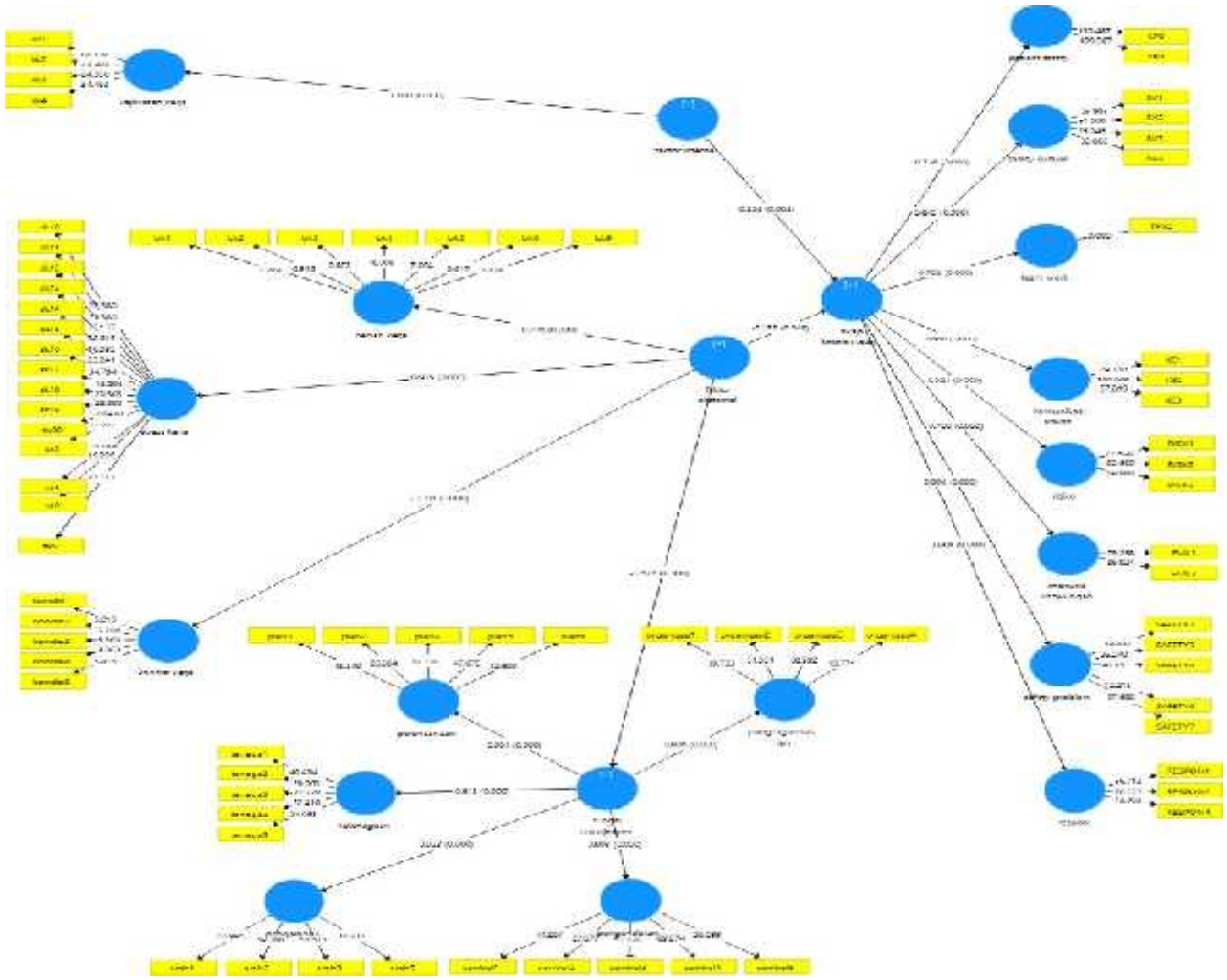

Figure 1. Inner model in Structural Equation Modeling (SEM) PLS

Table 6. Inner Model T Statistic Values in Structural Equation Modeling (SEM) PLS

Variables	Original Sample	Mean ± SD	Significance Value (p)
Job satisfaction	1.000	1.000 ± 0.000	0.001
Workload	-0.776	-0.767 ± 0.0854	0.001
Working stress	-0.634	-0.632 ± 0.080	0.001
Head nurse's management function	0,576	0.574 ± 0.061	0.001
Working conditions	0.701	0.690 ± 0.1007	0.001

As presented in Table 6, job satisfaction, workload, work stress, head nurse's management function, and working conditions were significantly associated with nurses' safety attitudes ($p < 0.05$). The relationship is shown by the following recession equation:

Equation 1.
Safety attitudes = 1,000 job satisfaction

Equation 2.
Safety attitude = 0.701 working conditions - 0.776 workload + 0.576 head nurse's management function - 0.634 work stress

Discussion

In this study, nurses' safety attitudes in a hospital setting were investigated. The results revealed a value of 140.00 (80.46% of the maximum value), with a minimum value of 105 and a maximum value of 174. Thus, the results of this analysis showed that nurses' attitudes were already in a good range. Based on our results, the factors determining nurses' safety attitudes in this hospital setting included age, work experience, gender, clinical nurse career path, patient safety training, job satisfaction, workload, work stress, working conditions, and head nurse management function.

Previous research found that older age was associated with better patient safety attitudes among nurses. Ünver and Seren (2018) reported that age was the main variable that influenced nurses' safety attitudes. In a study by Abu-El-Noor et al. (2019), nurses who were older than 35 years obtained higher nursing attitude scores. Liao et al. (2022) reported that safety attitudes were higher, on average, among older nurses in a study that focused on 16 tertiary hospitals in Sichuan Province, China, finding that nurses older than 36 years had better safety attitudes than those aged 20–35 years. Similar findings were found in a study by Zhang et al. (2018) on nurses older than 45 years. Older nurses can be expected to show greater responsibility and know their job better, which is reflected in a more positive attitude toward safety than younger nurses (Brasaite et al., 2016). With increasing age, nurses' work experience also increases, resulting in better safety attitudes.

Along with the increase in nurses' work experience, they will have a better safety attitude. This is relevant to Kong et al. (2019), Lillykutty et al. (2018), and Salih et al. (2021) who stated that the nurses' work experience affects good nurses' attitudes toward patient safety. In a previous study, the safety attitudes of nurses with 10 to 20 years of work experience were 4.56 times better than those of nurses with less than 10 years of experience (Lillykutty et al., 2018). Increasing clinical nurses' career paths based on nursing practical work experience also affects nurses' safety attitudes. Hariyati et al. (2018) found that more highly qualified nurses had a smaller chance of making medical errors than less qualified nurses. Suganda et al. (2021) reported similar findings, finding that highly qualified nurses were very unlikely to make making medical errors that threatened patient safety. Patient safety knowledge that nurses acquire based on their experience can be expected to make them more careful, leading to fewer mistakes at work.

Nurses' knowledge about patient safety affects their attitudes toward patient safety. Nurses must continue to be trained to increase their knowledge of patient safety procedures when providing nursing care to patients (Ünver & Seren, 2018). Abu-El-Noor et al. (2019) found that patient safety training improved nurses' safety attitudes, on average, by 44%. Patient safety training also increased job satisfaction and positively affected nurses' attitudes toward patient safety (Ünver & Seren, 2018).

Job satisfaction affects nurses' safety attitudes (Tondo & Guirardello, 2017; Ünver & Seren, 2018). Nurses who feel dissatisfied at work show reduced commitment to patient safety, decreased participation in patient safety activities, and patient neglect, failing to provide proper nursing care, thereby increasing patient safety incidents (Elsous et al., 2017; Sillero-Sillero & Zabalegui, 2019). Conversely, nurses who are satisfied at work show positive attitudes toward the implementation of patient safety measures (Sillero-Sillero & Zabalegui, 2019).

According to equation 1, there is a significant relationship between job satisfaction and nurses' safety attitudes ($p = 0.001$). Based on equation 2, the relationship between working conditions, workload, head nurse's management function, and work stress independently and simultaneously influence nurses' safety attitudes ($p = 0.001$). As shown by the prediction models based on equations 1 and 2, the factor determi-

ning nurses' safety attitudes was workload with -0.776 original sample value (O). According to these models, with each increase in nurse workload, the nurse's safety attitude decreases as much as 0.776 times after controlling for working conditions, head nurse's management function, and work stress. Thus, increasing nurses' workloads can be expected to negatively affect nurses' safety attitudes. Both Brasaite et al. (2016) and Lillykutty et al. (2018) found that a heavy nurse workload negatively affected patient safety. An increase in nurses' workloads also led to lower quality patient care and reduced patient safety (Carlesi et al., 2017; Delgado et al., 2017). According to studies by Nihayati et al. (2019) and Pérez-Francisco et al. (2020), an increase of 74% in nurses' workloads led to a decrease in the quality of patient care, increased mortality, and errors in patient care services. To address this issue, the decrease in safety attitudes in primary care nursing should be addressed.

According to the results of the present study, workload was the most influential determinant of nurses' safety attitudes. This finding suggests that with an increase in workload, nurses' safety attitudes can be expected to decrease. Workload and work-related pressures limit the time that nurses can dedicate to patient care (Pérez-Francisco et al., 2020. Under such conditions, nurses' attitudes toward patient safety may be more relaxed (Pérez-Francisco et al., 2020). In the present study, patient care was the responsibility of the nurse in charge of the patient, not all nurses in the work unit. Based on our results, this increased the workloads of many nurses. This should be a concern for hospital management. Hospitals have different goals at the same time, namely excellent service to patients, optimal quality of care, and operational excellence, using human resources as optimally as possible. Hospitals need a good balance between patient needs and nursing staff workload (Oetelaar et al., 2016).

As reported previously, a high workload is associated with a high level of work stress (Kokoroko & Sanda, 2019). Due to the specific nature of the nursing profession, which requires highly skilled teams working in stressful situations, providing 24-hour care and great emotional baggage. Keykaleh et al. (2018) found that workload was one of the most important stressors affecting patient safety attitudes besides patient mortality, uncertainty about treatment, conflict with coworkers, lack of well-being, and lack of support. In this study, the causes of work stress cited by the nurses were a lack of support from their superiors and a shortage of staff to meet the needs of the unit. Keykaleh et al. (2018) found that important sources of job stress among nurses were the number of nurses in the work environment, lack of support from superiors, unstable working hours, unsuitable physical conditions, inappropriate physical conditions, and high patient numbers. Tondo and Guirardello (2017) reported that prolonged stress affects nurses' safety attitudes and leads to clinical errors. Other studies reported similar findings (Elsous et al., 2017; Keykaleh et al., 2018). According to these studies, although work stress shows a weak relationship with nurses' safety attitudes, continual stress can lead to emotional exhaustion and reduce the quality of patient care, potentially resulting in clinical errors.

The workload will decrease if head nurses can control working conditions to prevent increased nurses' work stress, which will then affect nurses' safety attitudes. The attitude of hospital management toward patient safety is important. By implementing and supporting all dimensions of a positive safety culture, including nurses' attitudes (Barwari, 2021). According to Moghaddam et al. (2019), the main priorities of the head nurse are to improve the work environment and job satisfaction and reduce nurses' stress, thereby building a safe climate in the hospital. Winning et al. (2017) reported that good working conditions are necessary to avoid medical errors.

Thus, nurses need support from their head nurses to improve patient safety attitudes. Alzahrani

et al. (2018) asserted that the head nurse is at the center of nursing staff's safety attitudes. Others found that the head nurse plays a role in nurses' attitudes toward prioritizing patient safety by providing guidance, influencing nurses' beliefs and values, and monitoring and managing the quality of safety of nursing services (Bento et al., 2017; Smits et al., 2017; Yoo & Kim, 2017). Transparently informing staff of good and bad care is a way to communicate the impact of nurses' safety attitudes on improving patient safety or increasing medical errors (Echevarria & Thoman, 2017).

Conclusion

Nurses' attitudes toward patient safety influence the quality of the care services that they provide to patients. The present study revealed a significant relationship between a number of factors (age, gender, work experience, clinical nurses' career path, job satisfaction, workload, patient safety training, work stress, and working conditions) and the safety attitudes of the nurses in the hospital ($p < 0.05$).

Of these factors, workload was the most influential factor affecting nurses' safety attitudes, as identified by a multivariate analysis and SEM. Specifically, in this study, nurses with a high workload were 0.776 times more likely to have poorer safety attitudes. The hospital needs to pay attention to these factors because negative nurses' safety attitudes will have an impact on the quality of nursing services and patient safety.

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Factors Related to Father's Behavior in Preventing Childhood Stunting Based on Health Belief Model

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Abstract

Childhood stunting is still a significant public health burden in Indonesia. Fathers' engagement in childcare could improve a child's health and help to prevent stunting. This study aimed to analyse factors related to the father's behaviour in preventing childhood stunting based on Health Belief Model. This study was used a correlational study design with a cross-sectional approach. This study involved 199 fathers who had children under five years old, recorded at Puskesmas (Public Health Center) Maronggela, East Nusa Tenggara, Indonesia. Samples were taken using the cluster random sampling technique. The independent variables were the father's perceived susceptibility, perceived severity, perceived benefit, perceived barrier, cues to action, and self-efficacy regarding childhood stunting and its prevention. The dependent variable was the father's behaviour in preventing childhood stunting. The questionnaire was used to collect the data. Data were then analysed using the Spearman Rho Test with a level significance of 95% ($\alpha < 0.05$). The statistical analysis

showed that perceived susceptibility (p = 0.023; r = 0.161) and cues to action (p = 0.004; r = 0.204) correlated with the father's behaviour in preventing childhood stunting, while perceived severity, perceived benefits, perceived barriers, and self-efficacy did not correlate. The current study suggests that fathers' behaviour to prevent stunting among children under five years was related to their perception of an illness and the cues that can trigger their decision-making process. These findings can be used to arrange health promotion programs to improve fathers' behaviour and engagement in childcare to prevent childhood stunting.

Keywords: childhood stunting, early life nutrition, father, health belief model, preventive behaviour

Abstrak

***Faktor-faktor yang Berhubungan dengan Perilaku Ayah dalam Mencegah* Stunting *Pada Balita Berdasarkan* Health Belief Model.** Stunting *pada balita masih menjadi beban kesehatan masyarakat yang signifikan di Indonesia. Keterlibatan ayah dalam pengasuhan balita dapat meningkatkan kesehatan balita dan membantu mencegah* stunting. *Penelitian ini menganalisis faktor-faktor yang berhubungan dengan perilaku ayah dalam mencegah* stunting *pada balita berdasarkan* Health Belief Model. *Penelitian ini menggunakan desain penelitian korelasional dengan pendekatan cross sectional. Penelitian ini melibatkan 199 ayah yang memiliki balita, yang tercatat di Puskesmas Maronggela, Nusa Tenggara Timur, Indonesia. Variabel independen adalah kerentanan yang dirasakan ayah, keparahan yang dirasakan, manfaat yang dirasakan, hambatan yang dirasakan, isyarat untuk bertindak, dan* self-efficacy *berkaitan dengan perilaku pencegahan* stunting *pada balita. Variabel terikat adalah perilaku ayah dalam mencegah* stunting *pada balita. Kuesioner digunakan untuk mengumpulkan data. Uji Statistik dilakukan menggunakan* Spearman Rho *dengan signifikansi 95% (α < 0,05). Analisis statistik menunjukkan bahwa persepsi kerentanan (p = 0,023; r = 0,161) dan isyarat untuk bertindak (p = 0,004; r = 0,204) berkorelasi dengan perilaku ayah dalam mencegah* stunting *pada masa kanak-kanak, sedangkan persepsi keparahan, manfaat yang dirasakan, hambatan yang dirasakan, dan efikasi diri tidak berkorelasi. Studi saat ini menunjukkan bahwa perilaku ayah untuk mencegah* stunting *pada balita terkait dengan persepsi mereka tentang suatu penyakit dan isyarat yang dapat memicu proses pengambilan keputusan mereka. Temuan ini dapat digunakan untuk menyusun program promosi kesehatan untuk meningkatkan perilaku dan keterlibatan ayah dalam pengasuhan balita untuk mencegah pengerdilan anak.*

Kata Kunci: *ayah, balita* stunting, early life nutrition, health belief model, *perilaku pencegahan*

Introduction

Stunting is a significant public health problem, as it is still affecting a large number of children globally (World Health Organization [WHO], 2018). Stunting or being too short for a child's age is defined as a length/height below -2 SD (Standard Deviation) from the World Health Organization (WHO) child growth standards median for the same sex and age (WHO, 2015). It is estimated that 149.2 million (22%) children under five years old in the world were experienced stunting in 2021. More than half were lived in Asia (UNICEF et al., 2021). Indonesia has a very high percentage of children under five affected by stunting (Titaley et al., 2019). Almost 30.8% of children under 5 in Indonesia were stunted and severely stunted by 2018 (Ministry of Health Republic of Indonesia, 2018). Although this percentage was found to decrease by 27.7% in 2019 and 24.4% in 2021, the average of yearly cases declined too slowly (only 2.13%) (Statistics Indonesia, 2019; Ministry of Health Republic of Indonesia, 2021). It is not suited to achieve The National Medium-Term Development Plan for 2020-2024, which targeted the average yearly cases decline to 2.5% (PEPRES No. 18 Tahun 2020). The highest prevalence of stunting was recorded in East Nusa Tenggara, 42.6% by 2018, slightly increased to 43.8% by 2019, and declined to 37.8% by 2021. The prevalence of stunting in this province is even higher than in Indonesia (Ministry of Health Republic of Indonesia, 2018; Statistics Indonesia, 2019; Ministry of Health Republic of Indonesia, 2021).

Acceleration was needed to meet the World Health Assembly (WHA) global targets to reduce stunting prevalence to 40% by 2025 and the second Sustainable Development Goal to end all forms of nutrition by 2030 (WHO, 2014). It is also essential to obtain Indonesian government targets, to reduce the prevalence of stunting to less than 14% of the total number of children under five in 2024 (PEPRES No. 18 Tahun 2020). Stunting in early childhood must be prevented (Prendergast & Humphrey, 2014), as it has an irreversible effect, leading to an intergenerational cycle of poor growth and development and increasing child morbidity and mortality (Argaw et al., 2019; Onis & Branca, 2016). The long-run effects of childhood stunting also lessen their future economic opportunities (McGovern et al., 2017).

Stunting is linear growth retardation and cumulative growth deficits. The critical period of linear growth retardation often begins in utero and continues for at least the first two years of child's life (Onis & Branca, 2016). Appropriate child care during the first 1000 days between conception to 24 months is important as it increase the opportunity of children to grow and develop optimally, and prevent childhood stunting (Georgiadis & Penny, 2017). Early childhood care can be difficult for caregivers (in most family were mother) due to limited resources, time, and family support (Compaoré et al., 2021). Father were key family influencer who have impact on child health (Thuita et al., 2015). Global guidance start to involve father as social support for mother in counseling and activities regarding to child care (UNICEF, 2020).

Family members played various roles in child care to prevent childhood stunting (Kavle et al., 2019). In most Indonesian families, a father dominates household decision-making, including child care (Phillips, 2021). The father's engagement in child care was described as fathers taking an active role in protecting and promoting their children's health. A shared responsibility between father and mother could improve child's health and reduce stunting among children under five (Bukit et al., 2021). The odds of stunting is low among family whose father has gender-equitable attitudes (Sharma & Subramanyam, 2021). Fathers contributes to creating an ideal environment to maintain a child's health. Father's participation in health education and healthcare access positively affect mother and child's nutrition and reduce the risk of child stunting (Comrie-Thomson et al., 2015; Januarti & Hidayathillah, 2020). Father's engagement in parenting increased appropriate complementary feeding practice (Martin et al.,

2021; Stewart et al., 2013). Father also provides instrumental and emotional support for mother and their children, such as giving advice, providing money, buying healthy food, and giving emotional support (Compaoré et al., 2021; Kansiime et al., 2017; Krisnana et al., 2020).

The prevention of childhood stunting with the family approach consists of three strategies: appropriate feeding, parenting, and hygiene-sanitation practice (Kementerian PPN/BAPPENAS RI, 2018). As like mothers, fathers should be viewed as potential agents to implement positive child care practices within the family (Mallan et al., 2014). A health promotion program should be developed to improve fathers' engagement in child care to prevent childhood stunting. So that, factors related to father's behaviour in childhood stunting prevention need to be evaluated. Research regarding this issue is lacking. Most studies were primarily focused on mothers (Catholic Relief Services, 2016; Davison et al., 2020).

This research used The Health Belief Model (HBM) approach to analyse fathers' behaviour in childhood stunting prevention. HBM is one of the health behaviour models developed by Hochbaum and Rosenstock in 1952. It is widely used as a theory to explain one's health-related behaviours based on attitudes and personal beliefs or perceptions about a disease/health condition. It was designed to encourage people to take positive health actions. HBM believed that one's motivation to undertake a health behaviour is influenced by perceptions, modifying factors, and the likelihood of action. Combining these factors causes a response that often manifests into the likelihood of that behaviour occurring (Rosenstock, 1974). HBM consists of six constructs, including perceived susceptibility, severity, benefit, barrier, self-efficacy, and cues to action, explaining why people prevent such conditions (Diddana et al., 2018). This study aimed to analyse factors that correlated with the father's behaviour in preventing childhood stunting based on the health belief model. This study hypothesized that father's perceived susceptibility, severity, benefit, barrier, self-efficacy, and cues to action were related to their behavior in preventing childhood stunting.

Methods

This study was used a correlation study design with a cross-sectional approach. The population were father who have under five years old children, as recorded by Pusat Kesehatan Masyarakat/Puskesmas (Public Health Center) Maronggela, East Nusa Tenggara Province, Indonesia. The samples were taken by using the cluster random sampling technique. The sampling unit used was *Desa* (village). From 9 (nine) villages, 199 respondents were involved.

The independent variables in this study were the father's perceived susceptibility, severity, benefit, barrier, cues to action, and self-efficacy regarding childhood stunting and its prevention. The data were collected by using a Likert scale questionnaire. The instruments were adopted from the previous studies (Hupunau et al., 2019; Sholecha, 2018). The validity and reliability of each questionnaire were already tested. The instrument was as follows: 1) Perceived susceptibility refers to the father's perception of the risk of acquiring childhood stunting (6 items); 2) Perceived severity refers to the father's opinion of the negative consequences of childhood stunting (7 items); 3) Perceived benefit refers to the father's belief about the benefit of performing childhood stunting preventive behaviour (4 items); 4) Perceived barrier refers to father's feelings on the obstacles to performing childhood stunting preventive behaviour (9 items); 5) Cues to action refers to the internal or external stimulus which needed to trigger father's decision-making process to accept childhood stunting preventive behaviour (6 items), and 6) Self-efficacy refers to father's level of confidence in his ability to perform childhood stunting prevention (5 items). Each item was scored 4 (strongly agree), 3 (agree), 2 (disagree), and 1 (strongly disagree) for favourable questions. For unfavourable questions, the score was in reverse. Each variable was categorized as high

(if father's score was 76 – 100% of total score), moderate (if father's score was 60 – 75% of total score), and low (if father's score was < 60% of total score).

The dependent variable was the father's behaviour in childhood stunting prevention. It refers to the father's action regarding providing appropriate feeding, parenting, and hygiene-sanitation practice to their children. The questionnaire consisted of 6 items were adopted from the previous study (Hupunau et al., 2019). The validity and reliability of the questionnaire were already tested. Each item was scored 1 (yes) and 0 (no). Each variable was categorized as positive (if the total score is higher than or the same as the data mean) and low (lower than the data mean).

The researcher collected data for two months, door to door at respondents' houses, accompanied by the local health volunteer in each village. The author also notices the health protocol of the Coronavirus disease (COVID-19) pandemic to ensure no disease transmission, including using a mask, washing hands or using hand sanitiser, and physical distancing at least 1 (one) meter. Participation in this study was voluntary. The information regarding this study was provided, and all respondents sought written informed consent before participation. The Health Research Ethics Committee of Faculty of Nursing, Universitas Airlangga, granted ethics approval for this study (2157-KEPK).

Descriptive statistics using frequency distribution and percentages were used to summarize the characteristics of respondents as univariate analysis. Then, the bivariate analysis was performed using the Spearman Rho Test with the level of significance 95% ($\alpha < 0.05$) to analyse the correlation between independent and dependent variables.

Results

Many respondents in this study were 26 – 35 years old (49.3%). Mostly came from nuclear family type (61.8%). Half of them only finished elementary school (54.3%). Almost all respondents (91%) have monthly income less than regional minimum wage (IDR 1.600.000) as most of them work as a farmer (82.9%). The majority of respondents (60.8%) have 1 – 2 children. The details of respondents' characteristics can be seen in Table 1.

Table 1. The Characteristics of Respondents (n = 199)

Respondent's characteristics	Category	n	%
Father's age	17 – 25 years old	9	4.5
	26 – 35 years old	98	49.3
	36 – 45 years old	92	46.2
Family's type	Nuclear	123	61.8
	Extended	76	38.2
Father's level of education	Elementary school	108	54.3
	Junior high school	24	12.1
	Senior high school	42	21.1
	Higher education	25	12.6
Monthly income	< Regional Minimum Wage	181	91.0
	≥ Regional Minimum Wage	18	9.0
Occupation	Private worker	19	9.5
	Farmer	165	82.9
	Civil servant	4	2.0
	Self-employed	11	5.5
Number of children	1 – 2	121	60.8
	>2	78	39.2

Table 2. Factors Correlate with Father's Behavior in Preventing Childhood Stunting (n = 199)

Categories	Father's behaviour in preventing childhood stunting				Total		p	r
	Negative		Positive		Σ	%		
	n	%	n	%				
Perceived Susceptibility								
Low	8	4.0	43	21.6	51	25.6	0.023	0.161
Moderate	9	4.5	97	48.7	106	53.3		
High	5	2.5	37	18.6	42	21.1		
Total	22	11.1	177	88.9	199	100.0		
Perceived Severity								
Low	8	4.0	39	19.6	47	23.6	0.050	0.139
Moderate	9	4.5	96	48.2	105	53.8		
High	5	2.5	42	21.1	47	23.6		
Total	22	11.1	177	88.9	199	100.0		
Perceived Benefit								
Low	6	3.0	58	29.1	64	32.2	0.198	0.092
Moderate	16	8.0	115	57.8	131	65.8		
High	0	0	4	2.0	4	2.0		
Total	22	11.1	177	88.9	199	100.0		
Perceived Barrier								
Low	0	0	2	1.0	2	1.0	0.112	0.113
Moderate	14	7.0	104	52.3	118	59.3		
High	8	4.0	71	35.7	79	39.7		
Total	22	11.1	177	88.9	199	100.0		
Cues to Action								
Low	2	1.0	4	2.0	6	3.0	0.004	0.204
Moderate	15	7.5	110	55.3	125	62.8		
High	5	2.5	63	31.7	68	34.2		
Total	22	11.1	177	88.9	199	100.0		
Self-efficacy								
Low	4	2.0	9	4.5	13	6.5	0.883	0.010
Moderate	14	7.0	143	71.9	157	78.9		
High	4	2.0	25	12.6	29	14.6		
Total	22	11.1	177	88.9	199	100.0		

Table 2 shows that most of the respondents have a moderate level of perceived susceptibility (48.7%), perceived severity (48.2%), perceived benefit (57.8%), perceived barrier (52.3%), cues to action (55.3%), self-efficacy (71.9%) and positive behaviour in preventing childhood stunting.

Statistical analysis using Spearman Rho Test found that fathers' perceived susceptibility ($p = 0.023$; $r = 0.161$) and cues to action ($p = 0.004$; $r = 0.204$) positively correlate with their behaviour in preventing childhood stunting. As their perception increases, their behaviour will be more optimistic about preventing childhood stunting. While the other variables are not significantly correlated with the father's behaviour in preventing childhood stunting.

Discussion

The present study showed that perceived susceptibility and cues to action were significantly correlated with the father's behaviour in preventing childhood stunting. It also revealed that perceived severity, benefits, barriers, and self-efficacy did not correlate with the father's behaviour in preventing childhood stunting.

The HBM attempts to predict health-related behaviour in terms of specific belief patterns (Rosenstock, 1974, 1990). One's motivation to engage in health-related behaviour depends on his specific health beliefs about vulnerability to a particular health threat and the consequences, the likelihood of reducing the threat by engaging in the health behaviour and the cost associated with engaging in the behaviour. If one's perceives a threat to their health, is consecutively cued to action, and their perceived benefits outweigh the perceived barriers, they are likely to undertake the recommended preventive health action (Jones et al., 2015).

Perceived susceptibility is one of the primary constructs of HBM, which is defined as one's subjective perception of risk to acquire a disease or enter a dire state due to a particular behaviour. In this research, its refers to childhood stunting (Hall, et al., 2018; Rosenstock, 1990). Perceived susceptibility is a more substantial contributor to the understanding of preventive health behaviour (Sukeri et al., 2020). One's may act to prevent disease if they believe that they are susceptible to a condition that they also believe is serious (Green et al., 2020; Jones et al., 2019). Children under 5 were susceptible to stunting if they could not meet appropriate feeding practices as WHO recommended or were frequently infected by the diseases. The household factors such as poor care practices, food insecurity, inadequate sanitation and water supply, low caregiver education, and lowest wealth index were associated with childhood stunting (Beal et al., 2018; Onis & Branca, 2016). Culturally fathers were considered as a provider of food and resources to provide food for the family (Kansiime et al., 2017). Most respondents have moderate to high levels of perceived susceptibility regarding children's opportunity to be stunted were due to their inability to provide healthy food. Many respondents were low educated and less wealthy fathers as they were only farmers with low monthly incomes.

This study also revealed that fathers' cues to action were positively correlated with their behaviour regarding childhood stunting prevention. Previous studies found cues to action as a significant variable to predict intention to do a preventive behaviour (Ares et al., 2020; Puspita et al., 2017). The HBM believes that one's motivation process is set in motion by cues to action. Cues to action include a diverse range of triggers for individuals to take action and are often divided into internal (e.g., physical symptoms) and external (e.g., educational resources, mass media, various activities imposed by the government, and information from close contacts or health care provider) factors (Kim & Kim, 2020). Health campaigns can increase knowledge and resolve misconceptions about stunting, and serve as cues to demonstrate good nutrition, sanitation, and hygiene practices (Hallet al., 2018). Most respondents have moderate to high cues to action and positive behaviour to prevent childhood stunting. As stunting has become one of the major projects in the Medium-Term National Development Plan (RPJMN) 2020 – 2024, a campaign was frequently conducted by the health care provider or the government through media portrayal (Holschneider et al., 2021). These cues can influence the father's decision-making regarding optimally used household resources to prevent childhood stunting.

According to HBM, parents are most likely to adopt preventive behaviour if they believe that those problems will negatively impact their children (Salari & Filus, 2017). In this study, there was no significant correlation between perceived severity and the father's behaviour to prevent childhood stunting. It is similar to the previous research, which found that mothers' perceived severity did not correlate with their behaviour in fulfilling their child's nutrition (Hupunau et al., 2019). It may be because fathers usually consider whether their child is susceptible to a health problem before considering its severity (Nenobais & Katmini, 2021). If they do not have experience with childhood stunting, they find it difficult to imagine its seriousness (Glanz et al., 2015). Most respondents with negative behaviour to prevent childhood stunting were junior high school or lower graduates and

had monthly salaries less than the regional minimum wage. Fathers' level of education also influences their understanding of the seriousness of a disease and its consequences. Besides, low social-economic status hinders families' ability to provide resources to support behaviour in preventing childhood stunting.

The other constructs of HBM that are believed to impact one's health behaviour change are perceived benefits and perceived barriers. Perceived benefits refer to what positive effects can be expected from a specific health action. Perceived barriers refer to the tangible and psychological costs of changing or modifying an existing behaviour (Glanz et al., 2015; Rosenstock, 1990). Accuracy in perceiving both perceptions of health behaviour change requires a good knowledge about a specific health condition, its causal factors, and health outcomes (Hall, et al., 2018). The present study revealed no significant correlation between fathers' perceived benefits and barriers to their behaviour in preventing childhood stunting. In this study, fathers with high and low perceived benefits had positive stunting prevention behaviours, likewise to the perceived barrier. These findings are similar to the previous studies (Hupunau et al., 2019; Nenobais & Katmini, 2021; Sholecha, 2018). Most fathers perceive behaviour to prevent childhood stunting as beneficial. They agree that this is crucial to maintaining their children's health and ensuring their children have a normal weight and height according to their age. However, most of them still perceived that stunting is undeniable due to heredity. Lack of knowledge about adequate nutrition, living too far from the local market, and low monthly income are the most significant barriers reported by fathers to maintain their behaviour in preventing childhood stunting.

This study stated that perceived self-efficacy did not significantly correlate with fathers' behaviour in preventing childhood stunting. Perceived self-efficacy in HBM refers to the level of a person's confidence in his or her ability to perform a behaviour successfully (Jones et al., 2015). Self-efficacy is a strong predictor of many health-related behaviours, mainly when the target behaviour is more challenging to perform, such as fulfilling recommended child nutrition and preventing childhood stunting. Most fathers in this research have low to moderate self-efficacy and positive behaviour in preventing childhood stunting. These findings are similar to the previous study by Hupunau et al., (2019). Most fathers perceived they could not provide nutritious food as recommended to prevent childhood stunting, as they have a low monthly income. In fact, nutritious food can be locally grown food which is more accessible and affordable. The understanding of this information should be increased.

The present study has several strengths as follows: 1) this study provides evidence about the father's perception and behaviour regarding childhood stunting preventing, which is rarely explored; 2) the door-to-door assessment data collection allowed the researcher to meet the respondents directly and observe their household environmental condition; and 3) the location of this study was strategic as it is a priority region for childhood stunting prevention in Indonesia. Despite the strength, this study had several limitations. The sample number used was too small to generalize the results. The cross-sectional study design also limited the ability to explore causation.

Conclusion

In conclusion, the present study found that perceived susceptibility to childhood stunting and cues to action that can trigger the decision-making process regarding childhood stunting prevention was related to the father's behaviour in preventing it. Community health nurses or policymakers can use these findings to design health promotion programs that involve fathers to improve their engagement in childcare and childhood stunting prevention, especially for those with fewer advantages in sociodemographic conditions.

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Mental Health Problems Among Adolescent Students

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Abstract

Concern for adolescents usually focuses on physical problems, such as reproductive health and nutrition, including anemia and obesity. Nowadays, adolescent mental health has been recognized as essential, particularly in low- and middle-income countries. Mental health problems that often occur in adolescents include anxiety, depression, and the risk of suicide. This study aimed to determine the prevalence of mental health problems and the risk of suicide among adolescent students in Bali Province, Indonesia. The sample consisted of 435 students from four junior high schools (Grades 7, 8, and 9) aged 12–15 years who were selected with a multistage sampling technique. This descriptive study applied the Indonesian version of the Pediatrics Symptom Checklist-Youth (PSC-Y) report. The results showed that 14.5% of adolescent students experienced mental health problems, and 6.7% had a risk of suicide. Screening for adolescent mental health, especially in school, is important to ensure normal development and detect mental health problems as early as possible.

Keywords: adolescent mental health, junior high school student, suicide risk

Abstrak

Masalah Kesehatan Jiwa pada Siswa Remaja. *Dewasa ini, masalah fisik kerap menjadi perhatian pada remaja, seperti kesehatan reproduksi dan nutrisi (anemia dan obesitas), dan masih sangat sedikit orang yang memerhatikan masalah kesehatan jiwa. Padahal, kesehatan jiwa memiliki peran penting dalam tahap kehidupan remaja kedepannya. Belakangan ini, masalah kesehatan jiwa yang banyak ditemui pada remaja adalah ansietas, depresi, dan risiko bunuh diri. Kasus-kasus kejiwaan tersebut belum terdokumentasi dengan baik karena tidak ada deteksi dini terhadap masalah kesehatan jiwa di Bali. Penelitian ini bertujuan untuk mengetahui prevalensi masalah kesehatan jiwa dan risiko bunuh diri pada siswa remaja di Bali, Indonesia. Sampel dalam penelitian adalah 435 siswa remaja dari empat SMP di Kota Denpasar (Kelas 7, 8, dan 9) berusia 12 – 15 tahun yang dipilih berdasarkan teknik* multistage simple random sampling*. Penelitian ini menggunakan pendekatan studi deskriptif kuantitatif dan instrumen yang digunakan adalah kuesioner* Pediatrics Symptom Checklist-Youth (PSC-Y) Report*, yang diolah menggunakan* SPSS *dengan interval kepercayaan 95%. Hasil penelitian menunjukkan ada 14,5% siswa remaja mengalami masalah kesehatan jiwa dan 6,7% memiliki risiko bunuh diri. Skrining kesehatan mental remaja sangat penting, terutama dilakukan oleh sekolah, untuk menjaga tumbuh kembang remaja dengan jiwa yang sehat dengan mendeteksi sedini mungkin masalah kesehatan mental tersebut.*

Kata Kunci*: masalah kesehatan jiwa, remaja, risiko bunuh diri, sekolah menengah pertama*

Introduction

Mental health problems and depression cases in Bali Province have experienced a surge in numbers (Ashrita & Ariani, 2019). Based on data from Baseline Health Research (2018), mental and emotional disturbances occurring in those aged 15 years and older have doubled from 4.4% to 8.4%, and depression cases were at 5.1% (the Ministry of Health Republic of Indonesia, 2019). Many factors have contributed to this increase. Some information from the mass media has stated that the mental health of Balinese people requires special attention (Mustofa, 2019). Mental disorders do not have a fast onset, and may include predisposing factors or causes since childhood or events that occur within the two years prior. The World Health Organization (WHO) notes that most mental disorders begin at the age of 14 (WHO, 2019).

The term ‘adolescents’ refers to those between

12 and 21 years of age, which is a period of transition from childhood to adulthood (WHO, 2017). In adolescence, individuals experience rapid physical changes and socioemotional development (Batubara, 2016). These changes require adolescents to fulfill developmental tasks. Developmental tasks in adolescence include the search for self-identity and avoiding identity confusion which leads to some negative identities such as split self-image and the inability to build close relationships with others (Erikson, 2010). Adolescence is categorized by its characteristics according to three stages of the development process. The first stage is early adolescence (12 – 15 years), when adolescents are still confused about the physical and psychological changes that occur and the impulses that accompany this change. Cognitive development causes new thoughts, having a desire to engage in romantic and sexual relationships, and erotic arousal (Allen & Waterman, 2019). Teenagers are sensitive and find it difficult to control their strong emotions which often continue to drive their decisions impulsively. They often get into problems and are difficult for adults to understand.

Intermediate adolescents (15 – 18 years) are very close to peers who have the same characteristics as themselves. At this stage, adolescents are in a state of confusion because they have to make choices between being busy or alone, and being optimistic or pessimistic (Fatmawaty, 2017). The most prominent changes are experienced by male adolescents at this time because they begin to detach themselves from the Oedipus complex (feelings of the loving mother) and switch to liking friends of the opposite sex. Female adolescents still have an attachment to their fathers and try to find friends of the opposite sex who have similar characters as their fathers (Wulandari, 2014).

In late youth (18 – 21 years), adolescents are nearing adulthood but still under the supervision of their parents, yet they can live economically independently. This is marked by the achievement of interest in intellectual functions. The ego looks for opportunities to join others and have new experiences. The self and sexual identity that cannot change is formed, and youths start to think of others more than themselves (Fatmawaty, 2017; Flisher & Gerein, 2016).

The census results showed that the population of Indonesian adolescents in 2025 will reach 65.7 million (Statistics Indonesia et al., 2020). A large population requires special attention because adolescents are an asset of the nation and determine the development of a country, and adolescent mental health is particularly important. The impact of mental health problems that can often be seen in adolescents include the emergence of risky behaviors, such as consumption of alcohol, drug abuse, and free sexual activity (Papalia et al., 2015; Rimbawan, 2013). The Bali Provincial Health Office noted that during 2017, there was an increase in pregnancy rates in adolescents under 20 years of age, as well as STIs, HIV, smoking, and alcohol use. Wiguna et al., (2020) added that 14.2% of 113 adolescents in the study were at risk for difficulties in general; 38.1% were at risk for peer relationships, 28.3% for pro-social behavior issues, and 15% for conduct issues. Furthermore, research conducted by Patinus et al. (2013) and Sumara et al. (2017) showed that juvenile delinquency included being absent from school, getting involved in cases of theft, scribbling on public facilities, and leaving the house without permission. These problems can occur in teenagers who have mental health problems or mental-emotional disorders, and may lead to problems at a future stage in adulthood (Malfasari et al., 2020; Sriasih, 2015).

As many as 9.8% of adolescents in Bali experience emotional disturbances, and Buleleng is the highest district at 12.1% (Mustofa, 2019). It is possible that adolescents who live in urban areas, such as Denpasar City, also have a high risk of mental health problems. Adolescents are prone to mental health problems due to rapid physical and psychological changes. Mental health problems are divided into two groups:

mental-emotional disorders, such as anxiety and depression, and serious mental disorders, such as schizophrenia (the Ministry of Health Republik of Indonesia, 2019; Sari et al., 2019). Negative mental conditions that occur during adolescence in the face of various stressors include anxiety, depression, psychotic disorders, and substance or alcohol abuse (Sasmita, 2018). Depression is a common problem that can occur in adolescence (Stuart, 2013).

Severe mental health issues, such as depression, bipolar disorder, and schizophrenia, are linked to youth suicide (Febrianti & Husniawati, 2021; Kusumayanti et al., 2020). The higher the severity of depression, the greater the danger of committing suicide. Suicide is a deliberate act of self-harm that results in the loss of life. Suicide fatalities surpass 800,000 per year around the world, or once every 40 seconds (the Ministry of Health of Republic of Indonesia, 2017). According to basic Health Research conducted nationally by the Ministry of Health, Republic of Indonesia (2013), 722,329 respondents aged 15 and older had suicidal ideations, including 0.8% of men and 0.6% of women (the Ministry of Health Republic of Indonesia, 2013). Two districts in Bali Province, Bangli and Klungkung, have significant suicide rates (Suara Dewata, 2018). Every year, 18 people die by suicide in the Bangli region, and 2 – 5 people die by suicide in the Klungkung region. Every year, the number of people who commit suicide rises.

Suicide statistics include suicidal ideation, threats of suicide, suicide attempts, and suicide. Individuals with suicidal thoughts have present plans and suicidal aspirations but have not attempted suicide in the recent past (Pratiwi & Undarwati, 2014). Adolescents who were identified as being at risk of suicide had a six-fold higher likelihood of suicidal ideation than peers who were not identified as being at risk. Suicidal thoughts are a common precursor to suicide. Suicide is linked to psychiatric problems, psychosocial stressors, cognitive difficulties, and biological variables in children and adolescents (Zulaikha & Febriyana, 2018). Although several studies on mental health problems have been conducted in Indonesia, Bali has received little to no attention in this matter. Since mental health problems in Bali lack detection and treatment, they can lead to more serious problems, such as suicide among adolescents.

Methods

This quantitative descriptive study was intended to describe and analyze a study outcome but will not be utilized to draw any general conclusions (Sugiyono, 2017). The population was junior high school adolescents in the city of Denpasar, who totaled 12,215 people from 61 schools. The sample in this study was 435 junior high school adolescents in the city. The inclusion criteria were ages 12 – 16 years without chronic metabolic disease.

The sampling technique used in this study was multistage random sampling involving three stages of grouping. The selection process was simple random selection by lottery. In the first stage, two sub-districts in Denpasar City were chosen: West Denpasar and South Denpasar. Then, in the second stage, two public junior high schools and two private junior high schools were selected in each sub-district. To avoid biased data, the locations of the four selected schools were not located near each other. The third stage was to select two classes from each level of junior high school from the selected public and private schools. Then, the students from the selected classes and levels were selected as the sample.

The instruments included demographic data, such as age, gender, grade of school, number of family members, and residence status. For mental health, the Pediatric Symptom Checklist for Youth (PSC-Y) instrument was used. The PSC-Y is a mental illness and suicide risk screening tool for identifying cognitive, emotional, and behavioral issues in children. This form consists of 31 statements focusing on problems of internalization, externalization, and attention, and an additional six statements related to sui-

cidal thought and suicide attempts. The researchers used a rating scale with values of 0 for never, 1 for sometimes, and 2 for frequently. In this study, a mental health problem was defined as a score of 30 on the PSC-Y out of a possible score of 74. Suicide risk can be determined by previous suicide attempts and suicidal ideation in the last three months (questions 36 and 37). The validity results were as follows: 0.683 above the r-count value (0.334), with an error level (α) of 5% and DB = n-2. The reliability test result was 0.926 for Cronbach's alpha; thus, consistent with the study of Eisingerich and Rubera (2010), it surpassed the minimum value of 0.70 (Polit & Beck, 2014). According to this result, the PSC-Y instrument was deemed valid and reliable. The results were categorized into positive and negative, with positive meaning that the respondent experienced mental health problems. The collected data were analyzed to obtain the distribution of frequencies of univariate data.

Data collection was carried out for one month. The research was conducted during a time of restrictions on community activities in Bali due to the COVID-19 pandemic, so data collection was done online through Google Forms. The objectivity of the researcher and the research subjects during the data collection process was guaranteed with a blind approach. We followed the research methodology for adolescent respondents by having the teacher as the instructor complete the questionnaires through the established WhatsApp group chat. This study was approved by the Research Ethics Commission of the Faculty of Medicine, Udayana University/Sanglah Central General Hospital Denpasar with the number 1981/UN14.2.2.VII.14/LT/2020.

Results

Respondent characteristics. The characteristics of the respondents were based on class, level,

Table 1. Demographic Data of Junior High School Adolescents in Denpasar City

Characteristics	Result		
	Mean ± SD (Min-Max)	Frequency (n)	Percentage (%)
Class Level			
7		130	29.9
8		105	24.1
9		200	46.0
Age	13.34±0.931 (11 – 15)		
12 years		95	21.8
13 years		118	27.1
14 years		191	43.9
15 years		31	7.1
Gender			
Male		159	36.6
Female		276	63.4
Birth Order			
1		185	42.5
2		175	40.2
3		53	12.2
4		15	3.4
5		6	1.4
6		1	0.2
Residence status of respondents			
Parents		431	99.1
Grandparents		2	0.5
Other family		1	0.2
Alone (dormitory)		1	0.2

Table 2. Prevalence of Mental Health Problems Among Adolescent Students

Mental Health Problems	Frequency (n)	Percentage (%)
Positive (experiencing mental health problems)	64	14.7
Negative (not experiencing mental health problems)	371	85.3

Table 3. Prevalence of Suicide Risk Among Adolescent Students

Risk of Suicide	Frequency (n)	Percentage (%)
No risk	406	93.3
Risky	29	6.7
Total	435	100

gender, age, birth order, and residence status. Table 1 shows that the respondents were mostly in the 9th grade (45.5%), and the largest number of respondents was in the 14-year-old category, with a total of 191 students from 435 respondents (43.3%). A total of 278 respondents were female (63.2%). Most of the respondents were first children, for a total of 188 (42.7%), and almost all respondents were living with their parents (99.1%).

Prevalence of mental health problems and suicide risk. Table 2 shows that the majority of respondents (85.3%) did not have significant mental health problems and there were 64 (14.7%) respondents who experienced problems of mental health. This research indicates the likelihood that an adolescent is at risk for a significant mental health problem or suicide. Its results are not a diagnosis or a substitute for clinical evaluation. Adolescent mental health problems in schools include behavioral, emotional, educational, and relationship problems with teachers and peers. To determine a diagnosis, examination of the problem is needed.

It shows that junior high school adolescents in Denpasar City have a suicide risk of 6.7% or a total of 29 students (table 3). This study applied some parts of PSC-Y to detect the risk of suicide. In this instrument, six conditions were shown to indicate suicide risk: history of suicidal ideation, previous suicide attempts, wanting to be with parents more than before, taking unnecessary risks, being hurt frequently, and being childish.

Discussion

The results of this study showed that many adolescents had mental health problems (14.7%). The magnitude of the incidence rate could be considered small, but it must be given attention because the future of Indonesia will be affected. Some predisposing factors or causes had occurred within the last two years, as well as factors of precipitation, which refer to a specific event triggering to the onset of the current problem, or mental disorders (Racine et al., 2016). This is in line with research conducted by Azizah et al. (2018) in the Kali Code area of Yogyakarta City, which is similar to Bali in terms of tourism, which shows that around 11.6% of adolescents in the Kali Code area of Yogyakarta City experience psychosocial problems. Yogyakarta is a tourism city. This figure is still low when compared to research conducted in several cities with similar instruments, such as those in Nepal and India. The incidence of adolescent psychosocial problems in Nepal is 20%, and 31.2% of Indian adolescent students (Bista et al., 2016). In a study by Bista et al. (2016), the mental health problems experienced by adolescents in Nepal and India were divided into three problems: problems of internalization, externalization, and attention. These categories were similar to the mental health problems examined in this study.

Most of the respondents were 14 years old and in the early adolescent stage (12 – 15 years), a time at which adolescents experience very rapid physical change and psychological and social development. Adolescents' psychosocial development refers to their ability to achieve their own identity; stimulation of this ability improves their achievement of self-identity (Agung, 2014). If they cannot achieve this, adolescents experience role confusion, which results in behavioral deviations. During the early adolescence period (12 – 15 years), the transition from childhood to young adulthood, adolescents' cognitive development is not matured enough to overcome the problems that occur, and they also do not have sufficient experience for coping (Lynne-Landsman et al., 2011; Wang et al., 2016). Thus, adolescents are very vulnerable to mental health problems. Mental health problems commonly experienced by adolescents include depression and anxiety.

The results of this study are also supported by research conducted by Wiguna et al. (2016), who reported that, according to parents accompanying their children to the mental health polyclinic of Cipto Mangunkusumo Hospital, 42.3% of teenagers experience emotional problems. Research conducted by the Association of Indonesia Family Planning (AIFP) of Bali Province found that 50.8% of 1,752 adolescents had experienced anxiety disturbance, 37% felt unhappiness that led to sleep pattern disturbances, and 33% felt sadness (Nissa & Anggraeni, 2019)

Many factors contribute to mental health problems in adolescents, such as the use of drugs and addictive substances, school environment, family, social factors, and factors related to AIDS (Pinto et al., 2014). Social factors contribute to influencing the lives of adolescents. A person spends a lot of time with the community and peers during adolescence, rather than with their family. According to Azizah et al. (2018), the education factor (school environment) makes a large contribution to creating psychosocial problems in adolescents. The manifestations of adolescent behavior with psychosocial problems include truancy, quarrels, smoking, drinking alcohol, gambling, playing cards, fighting, and brawls (Prihantini, 2013). Another source mentioned that the problems that occurred in adolescent students were learning difficulties and building relationships with friends (Husaini et al., 2019). Learning difficulties are characterized by decreased learning achievement, difficulty concentrating, and frustration (Papalia et al., 2015). If problems go unnoticed, they could lead to more serious problems, such as the risk of suicide in adolescents.

This study also found that 6.7% of respondents had a risk of committing suicide, as shown in Table 3, which means that 6–7 out of 100 adolescent students are at risk of ending their lives. As the respondents mentioned in the questionnaire, this is characterized by a desire to be with parents more than ever, risky actions, being childlike, being frequently hurt, having suicidal thoughts, and having attempted suicide previously. The AIFP of Bali Province also found that as many as 25% of Bali adolescents had thoughts of self-harm (Nissa & Anggraeni, 2019). Similar results were also found in the research of Pratiwi and Undarwati (2014) in Semarang City, where one-third of 442 adolescents had had the idea of committing suicide. This figure might appear small, but the issue still requires attention because suicide is usually vague and the data that actually occurs in the community is more than reported. Suicide was the number two cause of death in adolescents aged 15–19 in a study in United States by Klonsky et al. (2016). Individuals did not open up and hide their suicidal thoughts. The research was conducted in the form of screening for the early detection of mental health problems, especially the risk of suicide, so that it would serve as a means of preventing suicide attempts. Another study suggested that talking about suicide could reduce suicidal ideation and could lead to improved mental health in a population seeking treatment (Dazzi et al., 2014).

Various data from the Child Protection Commis-

sion recorded that the youngest age to attempt suicide was 13. The youngling did not have any close friends, which can be an additional indicator of suicide attempt. There are many factors behind the incidence of suicide in adolescents, such as psychological problems, family problems, school problems, friends problems, self-concept, and biological factors (Holland et al., 2017; Miranda & Shaffer, 2013; Wasserman et al., 2012). Other studies have confirmed factors associated with attempted suicide, including poor socioeconomic status (the incidence of suicide attempts was common in low-income countries), a history of bullying, loneliness and anxiety, smoking and alcohol, and family and social relationship problems (Liu et al., 2018). The most dominant psychosocial factors that cause adolescents to commit suicide are depression, hopelessness, and mental health problems (Klonsky et al., 2016). Adolescents who are lonely and receive less attention from family and the environment have a high risk of suicidal ideation (Dewi & Hamidah, 2013).

The absence of research on teenage mental health problems in junior high school indicates the contribution of our study. This study is part of a larger study on teenage mental health that is being conducted in Bali. This study's findings can provide schools with data and input. The limitation of this research was that the impact of teenagers' life experiences was not observed, because the past experiences allow teens to have the ability to assess the forthcoming problems. Adolescents have a deep impression on their psychological emotional responses, thus affecting their stress levels (Perwitasari et al., 2016). Another limitation of this research was that it was conducted during the COVID-19 pandemic; thus, the questionnaire was disseminated indirectly to the respondents using Google Forms, it is impossible to determine whether the respondents' responses really reflect their actual experiences.

Conclusion

The state is responsible for maintaining the lives of the nation; therefore, the maintenance of adolescent health is vital. Mental health is important, and problems often occur during adolescence. Based on these research findings, it could be concluded that most of the adolescents did not experience mental health problems or experienced only a few mental health problems, and a small number of respondents were at risk of suicide. This research was a pilot study and could serve as a part of future research, including a more extensive study of adolescents' mental health problems. Mental health problems in adolescents need to be detected early and receive proper treatment.

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Reduction of Hopelessness Through Spiritual Emotional Freedom Techniques Therapy in Chronic Kidney Disease Patients Undergoing Hemodialysis

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Abstract

Hopelessness has been identified as a major psychological problem that exacerbates the clinical outcomes of chronic

kidney disease (CKD) patients undergoing hemodialysis (HD). Hopelessness is mostly reduced by cognitive therapy, but the results are delayed, so a spiritual element is needed. Spiritual emotional freedom technique (SEFT) therapy can reduce hopelessness because it not only focuses on cognition, but also involves spiritual, psychological, and physical elements. This study aimed to determine the effects of SEFT therapy on the hopelessness of CKD patients undergoing HD. This research was quasi-experimental with pre- and post-test control group designs. The sample size was 64 respondents, who were divided into two groups, each consisting of 32 respondents who were selected by purposive sampling. SEFT therapy was conducted four times. Hopelessness was measured using the Beck Hopelessness Scale (BHS). The data were analyzed by paired t-test and independent samples t-test. Before receiving SEFT, the two groups did not indicate differences in hopelessness (p = 0.141). However, after receiving SEFT, the respondents' hopelessness in the experimental group was reduced significantly (p = 0.000). Hopelessness in the experimental and control groups also differed significantly after the intervention (p = 0.000). This study revealed that SEFT reduced the hopelessness of CKD patients undergoing HD. SEFT therapy can be implemented in clinical practice areas of nursing to support patient care.

Keywords: chronic kidney disease, hemodialysis, hopelessness, spiritual emotional freedom technique

Abstrak

Mengurangi Keputusasaan Melalui Terapi* Spiritual Emotional Freedom Techniques *Pada Pasien Penyakit Ginjal Kronik yang Menjalani Hemodialisis*. Keputusasaan telah diidentifikasi sebagai salah satu masalah psikologis utama yang memperburuk hasil klinis pasien penyakit ginjal kronik (PGK) yang menjalani hemodialisis (HD). Keputusasaan sebagian besar dikurangi dengan melibatkan unsur kognitif, akan tetapi hasilnya mengalami keterlambatan sehingga dibutuhkan unsur spiritual. Terapi* spiritual emotional freedom technique *(SEFT) dapat mengurangi keputusasaan karena tidak hanya berfokus pada kognitif tetapi juga melibatkan unsur spiritual, psikis, dan fisik. Penelitian ini bertujuan untuk mengetahui pengaruh terapi SEFT terhadap keputusasaan pasien PGK yang menjalani HD. Penelitian ini merupakan* quasi-experiment *dengan rancangan* pretest *dan* posttest control group*. Besar sampel sebanyak 64 responden yang dibagi menjadi dua kelompok, dan masing-masing kelompok terdiri dari 32 responden dipilih secara* purposive sampling*.Terapi SEFT dilakukan sebanyak empat kali. Keputusasaan diukur menggunakan* Beck Hopelessness Scale *(BHS). Data dianalisis dengan uji paired t-test dan uji* independent samples t-test*. Sebelum menerima SEFT kedua kelompok tidak menunjukkan perbedaan keputusasaan (p = 0,141). Namun, setelah menerima SEFT, keputusasaan responden di kelompok eksperimen berkurang secara signifikan (p = 0,000). Keputusasaan pada kelompok eksperimen dan kontrol juga berbeda secara signifikan setelah intervensi dilakukan (p = 0,000). Studi ini mengungkapkan bahwa SEFT mengurangi keputusasaan pasien PGK yang menjalani HD. Terapi SEFT dapat diimplementasikan dibidang praktik klinis keperawatan untuk mendukung perawatan pasien.*

Kata Kunci*: hemodialisis, keputusasaan, penyakit ginjal kronik,* spiritual emotional freedom technique

Introduction

Non-communicable diseases, such as chronic kidney disease (CKD), are one of the biggest causes of death in developed and developing countries, and they increase every year. Appro-

ximately 11 – 13% of the world's population suffers from CKD. The global burden of disease (GBD) reported that CKD was the 11th leading cause of death in 2016 for 1.2 million people (Cockwell & Fisher, 2020). The prevalence of CKD in America is reported at 30 million people, while the prevalence of CKD in Asia is 10 – 18% (Khan et al., 2018). The highest prevalence's of CKD in Asia are in Japan (28.8%) and Bangladesh (20.8%) (Khan et al., 2018). The Basic Health Research Report disclosed that the prevalence of CKD in Indonesia was 2% in 2013 and increased by 3.8% in 2018. In East Nusa Tenggara, the prevalence of CKD increased and became the third-highest disease in 2018 (Trihono et al., 2018).

Hemodialysis (HD) is the main treatment procedure for end-stage renal disease (ESRD) patients, but HD treatment has an impact on the physical and psychological aspects. The physical side effects of HD are blood pressure disorders, fatigue, nausea, vomiting, anorexia, muscle cramps, pruritus, headaches, and cold sweats. Meanwhile, the psychological side effects of HD include experiencing stress, feeling depressed, embarrassment about appearance changes, feelings of worthlessness, anxiety, having disturbed thought processes, and facing decreased concentration. These changes require adaptation; thus, when patients cannot adapt to the changes, they will experience hopelessness (Alshraifeen et al., 2020).

According to Ercan and Demir (2018) hopelessness is more commonly found and frequently occurs in HD patients than other psychological disorders such as anxiety. Kusumawardani (2018) found that more than 90% of patients undergoing HD experienced hopelessness. Hopelessness is a condition that causes stress, sociopathy, sleep disorders, decreased immunity, and psychological disorders that disable sufferers from thinking about their future. Heidari et al. (2019) explained that the most destructive impact of hopelessness is patients' intention to end their lives.

Currently, many studies have identified the impact of hopelessness on worsening the clinical outcomes of CKD patients (Jamaludin et al., 2022; Ok & Kutlu, 2019). However, there is limited research investigating interventions for hopelessness reduction (Hernandez & Overholser, 2021). Previous research has focused more on psychological disorders, such as anxiety and depression, but the focus of interventions to reduce hopelessness is still very rarely done, even though hopelessness is a predictor and subscale of depression as well as a cause of suicide (Heidari et al., 2019). The intervention that was introduced earlier is an intervention centered on somatic and cognitive aspects. These interventions have a delaying effect and change over time, so additional elements are needed (Chatwin et al., 2016). The aspect that needs to be added is spirituality. Empirically, spirituality has a close relationship with physical, cognitive, and psychological (Al-Ghabeesh et al., 2018). The combination of physical, cognitive, and spiritual aspects is seen in the spiritual emotional freedom techniques (SEFT) therapy; this therapy complements the previous therapy (Zainuddin, 2012).

SEFT therapy combines spiritual elements and fingertip tapping on key points in the body's energy meridians to reduce psychological and physical problems due to emotional and psychosomatic disorders. Spirituality and tapping in SEFT are believed to be determinants of health, creating physical and psychological well-being (Zainuddin, 2012). Spirituality is a unique force that harmonizes the physical, psychological, and social dimensions and is needed to overcome the psychological effects of illness and improve quality of life. When spiritual health is threatened, individuals easily experience hopelessness. Spirituality has been identified as the most important contributor to achieving health balance, coping mechanisms, and accelerating the recovery process (Heidari et al., 2019). Also, tapping in SEFT can neutralize negative emotions so that hopelessness can be reduced (Zainuddin, 2012).

Previous studies have revealed that SEFT therapy can reduce depression and anxiety in HD patients, but the effect of SEFT on hopelessness is still not clearly explained. In fact, to reduce anxiety and depression, what needs to be done is to modify and overcome hopelessness (Mac Giollabhui et al., 2018). The application of SEFT to hopelessness is based on the results of a systematic review from Hernandez and Overholser (2021) which states the need for therapy that includes physical, cognitive, and spiritual aspects to reduce hopelessness. SEFT, may have a higher effect on hopelessness compared to cognitive therapy. Also, there are limited studies regarding SEFT therapy on the hopelessness of HD patients. However, the hopelessness of HD patients deserves attention. In Indonesia, more than 90% of CKD patients undergoing HD experience hopelessness (Kusumawardani, 2018). This research can be considered in nursing services as a nursing intervention to reduce hopelessness. To the best of our knowledge, studies related to SEFT and hopelessness in HD patients are very limited; therefore, it is considered important to investigate the effect of SEFT on the hopelessness of CKD patients undergoing HD.

Methods

This research employed a quasi-experiment method with two-group, pre- and post-test control group designs. The respondents were selected using a purposive sampling technique. The sample size was calculated by the Lemeshow et al.'s (1991) formula, we used the Sample Size 2.0 application with standard deviation = 6.82, power = 80%, and $\alpha = 0.05$. To avoid dropout, the number of respondents was increased by 10%; in total, this study involved 64 respondents. The respondents were divided into experimental and control groups (each group consisted of 32 respondents). The patients with morning HD schedules were in the experimental group, while the patients with afternoon HD schedules were in the control group.

The inclusion criteria of respondents were CKD patients undergoing HD with full consciousness (compos mentis), the ability to communicate well, read, write, and cooperate, willingness to voluntarily participate in the research, patients with national health insurance, and CKD patients undergoing regular HD for less than one year. The exclusion criteria were patients who suddenly experienced deterioration, and patients who did not follow the complete research process.

The research employed the Beck Hopelessness Scale (BHS) instrument compiled by Beck et al. (1974) to measure hopelessness. The instrument consisted of 20 items, with 11 negative statements and nine positive statements. If the respondent answers a positive statement with a "true," then gets a score of 0 is recorded and a "false" answer gets a score of 1. A negative statement with a "true" answer gets a score of 1, and a "false" answer gets a score of 0. The total score ranges are 0 – 20. The Indonesian version of the BHS instrument was translated using the back-translation method. Validity and reliability obtained a coefficient alpha = 0.766 (Sarfika, 2019). In this study, the results of the validity test obtained r count > r table (0.3610). The results of the reliability test obtained Cronbach's alpha = 0.76.

This study received ethical approval from the Health Research Ethics Commission of the Faculty of Medicine, University of Nusa Cendana, East Nusa Tenggara, with the number: 32/UN15.16/KEPK/ 2020. The objectives, benefits, and procedures of this study were explained to the respondents. They voluntarily participated in this research by signing informed consent forms, and their confidentiality was maintained. Since this study was conducted during the pandemic, the health protocols of COVID-19 were applied. The data collection was completed in August 2020 at the regional hospital in East Nusa Tenggara, Indonesia.

The intervention was given four times within two weeks. SEFT therapy was given for 15 – 25 minutes. Before starting therapy, we ensured a

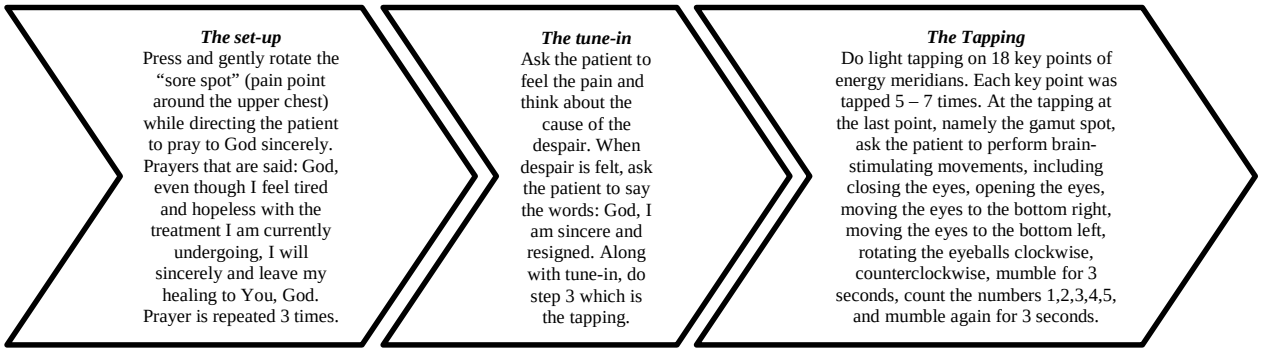

Figure 1. SEFT Steps

quiet environment and maintained patient privacy. The patient was arranged in a lying position, and then guided to perform SEFT, which consisted of three steps (as described in Figure 1).

After conducting the three steps, the patients took a deep breath and exhaled while expressing gratitude. After completion of therapy, we filled out the observation sheet indicating that the patient had undergone therapy. At the end of the fourth therapy, a measurement of hopelessness was carried out. The control group only received standard care, but did not receive SEFT therapy. Standard care for HD patients includes cardiovascular risk reduction, treatment of albuminuria, avoidance of potential nephrontoxins, adjustments to drug dosing, and monitoring for complications of CKD (Chen et al., 2019)

Quantitative data were analyzed using the Statistical Package SPSS 18. The normality of the data was tested with the Shapiro-Wilk test ($p < 0.05$), and the data was found to be normally distributed. Data on the characteristics of respondents between groups were analyzed using the Levene test and Chi-Square. A paired t-test was used to test for differences in hopelessness before and after the intervention. Moreover, this study employed an independent sample t-test to determine the groups' differences in hopelessness.

Results

The participants were predominantly males, had a primary education level, were occupied as farmers, and suffered from hypertension as a comorbid disease. The average age of the participants was 56 years. All aspects of the characteristics obtained a p-value > 0.05, which means the two groups were not different in terms of each characteristic. Table 2 shows that those who received SEFT therapy had a greater reduction in hopelessness than those who did not receive SEFT therapy. Based on the paired t-test, there was a significant difference in hopelessness in the experimental group ($p = 0.000$). Table 3 shows that the two groups had not shown differences in hopelessness before receiving SEFT therapy ($p = 0.141$). However, after receiving SEFT therapy, the two groups showed differences in hopelessness ($p = 0.000$).

Discussion

The results showed that SEFT therapy affected the hopelessness of CKD patients undergoing HD. This finding is similar to that of previous studies, which revealed that SEFT therapy could reduce the hopelessness of CKD patients undergoing HD (Farina, 2014). The effectiveness of SEFT in dealing with psychological disorders is not only present in CKD patients undergoing HD but also in other chronic diseases such as hypertension, and HIV/AIDS (Ardan et al., 2020).

One main reason that SEFT therapy is effective in reducing the hopelessness of HD patients is the spiritual aspect. The values of spiritual beliefs effectively and efficiently increase activity,

Table 1. Characteristics of Participants

Characteristics	Experimental Group (n = 32)		Control Group (n = 32)		p
	f	%	f	%	
Sex					
Male	23	71.9	21	65.6	0.365**
Female	9	28.1	11	34.4	
Education					
Primary school	10	31.2	12	37.5	
Junior high school	6	18.8	6	18.8	
Senior high school	8	25.0	7	21.9	0.143**
Diploma	2	6.2	1	3.1	
Bachelor degree	6	18.8	6	18.8	
Occupation					
Housewife	7	21.9	9	28.1	
Farmer	10	31.2	13	40.6	
Retired	4	12.5	2	6.2	0.053**
Entrepreneur	7	21.9	3	9.4	
Religious leader	1	3.1	0	0	
Civil servants	3	9.4	5	15.6	
Comorbidities					
Hypertension	17	53.1	18	56.2	
Diabetes mellitus	8	25.0	3	9.4	
Hypertension and diabetes mellitus	4	12.5	6	18.8	0.079**
Gastritis	2	6.2	2	6.2	
Heart disease	1	3.1	3	9.4	

Noted: * Levene test, ** Chi-Square

Table 2. The Effect of SEFT on the Hopelessness of CKD Patients Undergoing HD within Groups

Hopelessness	Experimental Group (n = 32)		Control Group (n = 32)	
	Mean ± SD	p	Mean ± SD	p
Pre	12.03 ± 1.90	0.000	11.37 ± 1.60	0.118
Post	8.40 ± 1.75		11.03 ± 2.11	

Table 3. Difference in Hopelessness Before and After Intervention Between Experimental and Control Group

Hopelessness	Experimental Group (n = 32)	Control Group (n = 32)	Mean Difference	p
	Mean±SD	Mean±SD		
Before	12.03±1.90	11.37±1.60	0.65	0.141
After	8.40±1.75	11.03±2.11	-2.62	0.000

improve physical and psychological functions, and counteract the effects of tension in life (Al-Ghabeesh et al., 2018). A study conducted by Heidari et al. (2019) found that spirituality can improve mental health so that hopelessness can be reduced. Likewise, spirituality practiced by HD patients can improve coping mechanisms and reduce psychological stress, which has an impact on reducing hopelessness (Al-Ghabeesh et al., 2018). Also, spirituality not only reduces hopelessness but can also increase self-efficacy and medication adherence (Ok & Kutlu, 2019). These findings are inconsistent with those reported by Al-shraifeen et al. (2020) who claim-

ed that spirituality does not affect the psychological problems of HD patients. This difference was caused by the characteristics of the respondents and their low spirituality.

Spirituality by offering prayer has been proven to help those with chronic diseases, such as CKD and diabetes mellitus, achieve life goals in the context of adapting to changes in disease (Firdaus et al., 2020). The results showed that before being given SEFT, the average score of hopelessness was 12.03 ± 1.90, and after being given SEFT, it was 8.40 ± 1.75, while in the control group, hopelessness tended to persist (11.37 ± 1.60 vs. 11.03 ± 2.11). Similar to results of research by Ercan and Demir (2018) the hopelessness of HD patients is 9.63±5.56. However, it is different from the study by Ok and Kutlu (2019) which reported the hopelessness of HD patients was 7.61 ± 4.6. This difference lies in the aspect of spiritual perception. The decrease in hopelessness in this study is believed to be due to the influence of spiritual elements on SEFT. This opinion is reinforced by Alshraifeen et al. (2020) who reported that spirituality prevents hopelessness.

SEFT therapy is an intervention that not only focuses on the spiritual aspects, but also combines other aspects, such as cognitive, psychic, and physical aspects, that enable patients to be more adaptable and improve their psychological, physical, and social well-being. The combination of these aspects is very effective in reducing hopelessness by tapping on 18 nerve points (energy meridians). SEFT therapy changes the negative thoughts of HD patients into positive thoughts by neutralizing them through prayer, surrender, and tapping (Zainuddin, 2012). Research conducted by Sulistianingsih et al. (2012) on 52 HD patients found that the difference in the hopelessness score between the intervention group and the control group was -0.115. In contrast to this study, it was found that the difference in the decision score was -2.62 ($p = 0.000$). According to Zainuddin (2012), the power of prayer, sincerity, surrender, and continued tapping can strengthen the effect of SEFT in reducing hopelessness.

From a physiological point of view, tapping on 18 points along 12 energy meridians can stimulate the gland pituitary to release endorphins and serotonin hormones, where these hormones can have the effect of reducing pain, calming, and causing feelings of happiness (Zainuddin, 2012). Previous research found that tapping was proven to improve mood and calm by 1.94 ± 3.03 ($p < 0.05$), and that tapping reduced tension (Al-Ghabeesh et al., 2018). Research by Suwito et al. (2019) found differences in serotonin levels in the group receiving tapping and affirmation-tapping using prayers, with the serotonin levels in the affirmation-tapping group being higher (0.69 ± 0.13 vs. 0.37 ± 0.06). This opinion is reinforced by Kusnanto et al. (2018) who mention praying by focusing attention and thoughts on God followed by tapping as in SEFT therapy will decrease cortisol and increase serotonin. As a result, the hopelessness of the respondents could be reduced.

Physiologically, hopelessness indicates an energy imbalance in the body and the endocrine system. Changes in the endocrine system can be evaluated by monitoring cortisol. SEFT intervention in the body's energy system can change neurotransmitter and cortisol levels (Kusnanto et al., 2018). Research by Pössel et al. (2015) showed that patients who experience hopelessness have an increase in cortisol, but spiritually can reduce this so that the hopelessness of respondents can be reduced. In line with Chatwin et al. (2016), their reported the effect of tapping to increase improvements across the spectrum of the body's physiological systems, which ultimately reduced psychological disorders, such as hopelessness.

The results of this study highlight the positive benefits of SEFT in reducing hopelessness in HD patients. The implementation of SEFT is easy, fast, has no side effects, and involves patients in maintaining health, and alleviating the burden of disease. SEFT makes a significant contribution to reducing hopelessness. Through

SEFT therapy, patients pray, sincere and express their feelings so that they can adapt to changes in disease, take treatment, and face the effects of HD with a positive attitude (Zainuddin, 2012). However, a limitation of this study is that there was no follow-up to measure hopelessness due to hospital restrictions after the data collection procedure was completed.

Conclusion

This study revealed that SEFT therapy reduced the hopelessness of CKD patients undergoing HD. SEFT therapy can be implemented in clinical practice areas of nursing to support the patient care of CKD patients undergoing HD.

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Relationship of Nursing Management Functions with Missed Nursing Care: A Cross-Sectional Study

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Abstract

A crucial role of the nurse is to provide safe nursing care without missing anything. Unsafe care is a key contributor to morbidity and mortality in the world. This study aimed to identify the relationship between management functions and nursing care that were missed at three inpatient installations at regional general hospitals. The research used a quantitative approach with an analytic research and cross-sectional design. The sample consisted of 238 nursing staff comprising team

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leaders and implementing nurses who worked at Regional Hospitals A, B, and C. The management function (p = 0.001) and all its components of planning, organizing, staffing, direction, and control (p = 0.001; p = 0.001 p = 0.001; p = 0.001; p = 0.001) were significantly related. The management function and all its components are thus related to missed nursing care. The recommendation is to improve the quality of the implementation of the nursing management function.

Keywords: management function, missed nursing care

Abstrak

***Hubungan Fungsi Manajemen Keperawatan dengan Asuhan Keperawatan yang Terlewatkan: Studi* Cross Sectional**. *Peranan penting seorang perawat salah satunya adalah pemberian asuhan keperawatan yang aman tanpa ada yang terlewatkan. Hal ini dikarenakan perawatan yang tidak aman adalah salah satu sumber morbiditas dan mortalitas terpenting di dunia. Penelitian ini adalah untuk mengidentifikasi hubungan antara fungsi manajemen dengan asuhan keperawatan yang terlewatkan di 3 (tiga) Instalasi Rawat Inap Rumah Sakit Umum Daerah. Penelitian ini menggunakan pendekatan kuantitatif dengan desain penelitian analitik dan rancangan* cross-sectional. *Sampel berjumlah 238 staf pelaksana keperawatan yang terdiri dari ketua tim dan perawat pelaksana yang bekerja di Rumah Sakit Umum Daerah A, B, dan C. Fungsi manajemen (p = 0,001) dengan seluruh komponennya perencanaan, pengorganisasian, ketenagaan, pengarahan dan pengendalian (p = 0,001; p = 0,001 p=0,001; p = 0,001; p= 0,001) berhubungan secara signifikan. Fungsi manajemen dan seluruh komponennya berhubungan dengan asuhan keperawatan yang terlewatkan. Rekomendasi yaitu meningkatkan kualitas pelaksanaan fungsi manajemen keperawatan.*

Kata Kunci: *asuhan keperawatan yang terlewatkan, fungsi manajemen*

Introduction

In her nursing theory, Virginia Henderson stated that there are 14 components of human basic needs. These include the need to breathe normally, drink and eat adequately, eliminate bodily waste, move, dress and undress, maintain body temperature, keep the body clean, avoid environmental hazards, communicate with others, work, play, learn new things, worship, and achieve adequate sleep and rest (Potter et al., 2020). The fulfillment of these 14 basic human needs is arranged into one unit within the nursing care process composed of nursing assessment, nursing diagnosis, nursing planning, nursing implementation, evaluation, and nursing documentation (Toney-Butler & Thayer, 2019). It is mandatory to ensure that the basic human needs are met when someone is hospitalized. The nurse therefore plays an important role in ensuring these needs are fulfilled.

In reality, however, problems arise because nurses often skip the fulfillment of these basic

needs. Lake et al. (2020) stated that 80% of nurses reported that they often skipped nursing care during a work shift. Activities found to have been frequently overlooked included teaching patients and families (15%), talking to patients (12%), helping and advising breastfeeding mothers (11%), and preparing patients and families to go home (9%). Further, dos Reis Dutra, et al. (2019), in their study, stated that around 74.1% of nurses reported at least one nursing activity that was missed during a work shift. The frequently overlooked activities in their study included bathing the patient (91.38%), performing wound care (93.11%), washing hands (98.28%), and assessing patients' vital signs (89.65%).

Nilasari et al. (2020) reported similar findings, notably that nurses did not fully complete various activities. They found that nurses completed only 26% of oral hygiene tasks, 24% of duties involving the provision nutrition, and 23% of tasks related to ensuring patients were placed in a suitable position to maintain the airway.

Missed nursing care has a huge impact not only on patients but also on nurses. The results may include decreased patient satisfaction, a rise in patient safety-related incidents, and increased patient mortality (Ball et al., 2018). Missed care results also have a significant impact on nurses, namely a decrease in the quality of care, increased turnover, decreased job performance, and an increase in the intention to leave (Jones, et al., 2015; Lake et al., 2018). Janatolmakan and Khatony (2022) stated that nurses believed that the main consequence of missed nursing care was a reduction in the quality of nursing care provided to the patients. They cited consequences such as endangered patient safety, prolonged hospital stay, and even death.

Nilasari et al. (2020) stated that one of the reasons for missed nursing care was that the head nurse lacked direction and control of the care process, Standard Operating Procedure (SOP) regarding the implementation of care and monitoring. SPO regarding the implementation of care that is not yet owned and monitoring. dos Reis Dutra et al. (2019) contended that nursing care was overlooked because the head nurse, as a leader, must be able to simultaneously supervise, engage in teamwork, and support sustainable education (Global Centre for Nursing Executives, 2015). Patarru et al. (2019) stated that team performance was impacted by the assignment of a management function to the head nurse. The greater the proportion of the planning function carried out by the head of the room, the better the performance of a team. As such, to reduce the amount of missed nursing care, it would be very useful to identify the relationship between the nursing management function and nursing care that has been over-looked.

In a preliminary study at Regional General Hospital A, three out of four nurses stated that actions were missed, such as providing nutritional needs. Meanwhile, at Regional General Hospital B, four out of five people often overlooked measures such as patient personal hygiene. Meanwhile, in Regional General Hospital C, Muthmainnah et al. (2017), in their research, stated that nurses in inpatient rooms carried out more medical tasks compared to providing nursing care to their patients. This study therefore aims to identify the relationship between nursing management functions and missed nursing care.

Methods

This study used a quantitative approach with an analytic research and cross-sectional design to analyze management function factors as the independent variables related to overlooked nursing care as the dependent variable. The population was located in Regional General Hospitals A, B, and C; the samples comprised 238 nurses who worked in a regional general hospital. The sample population was determined using a simple random sampling technique, namely by selecting members from the population at random without paying attention to the existing strata in the population. Precisely, the proportional sampling formula was used to determine the number of samples to take in each room; that is, the

population in each room was multiplied by the number of samples divided by the total population.

This research obtained a certificate of ethical review from the Ethics and Research Committee of the Faculty of Nursing, Universitas Indonesia with the number SK-53/UN2/F12/D1.1.1/ETIK.FIK.2020 and obtained permission from the Director of each Regional General Hospital (RSUD). The ethical test was passed at RSUD A with number 003/KEPK/RSUDT/2020 and from RSUD C with number 19/KEPK/06.03/2020. The data collection was carried out simultaneously from April to May 2020 using the Google Forms application. The validity and reliability of the questionnaire for the nursing management function were tested on the team leader and implementing nurses, namely a total of 30 nurses at the Cibinong Hospital Inpatient Installation, on 4 – 5 March 2020. The regional general hospital was chosen due to the similarity in characteristics, namely type B. In the questionnaire, the management function comprised seven statements with an r table total of < 0.361. A supervisor consultation was then carried out. In the planning sub-variable, statements 1 (r 0.330), 4 (r 0.325), and 5 (r 0.140) were omitted. In the organizing sub-variable, the sentence structure of core statements 7 (r 0.059) and 8 (r 0.219) was improved. For sub-direction, statement 16 (0.132) was omitted while statement 19 (0.137) was omitted from the control sub-variable. A total of 17 statements were omitted or their sentence structure was amended.

Results

The results of the univariate analysis displayed in Table 1 reveal an average score of 53.11 (78.10% of the maximum value) across the three regional general hospitals, with Regional General Hospital B on 55.27 (81.27% of the maximum value) and RSUD C on 53.23 (78.27% of the maximum value). The average score across the majority of management functions was 79.55%; by component, this included an average for planning of 81.41%, organizing on 72.5%, staffing 84.75%, actuating 72.62%, and controlling 72.58%.

The results of the bivariate analysis in Table 2 indicate a significant relationship between the nursing management function and missed nursing care (p = 0.001). This is supported by each component in the nursing management function that has a significant relationship with planning, organizing, managing, directing, and controlling (p = 0.001).

Table 1. Overview of Nursing Management Functions

Variables Management function	Regional General Hospital A			Regional General Hospital B			Regional General Hospital C			Three Regional General Hospitals		
	$\bar{x}/\sigma$	% of max	95% CI	$\bar{x}/\sigma$	% of max	95% CI	$\bar{x}/\sigma$	% of max	95% CI	$\bar{x}/\sigma$	% of max	95% CI
Variables	53.1/ 6.5	78.1	51.8 – 54.4	55.27/ 5.57	81.27	54.20 – 56.20	53.23 / 9.23	78.27	49.75 – 56.71	54.10/ 6.60	79.55	53.25 – 54.94
Planning	9.8/ 1.5	82	9.5 – 10.1	10.06/ 1.27	83.83	9.82 – 10.31	9.50/ 2.17	79.16	8.68 – 10.31	9.89/ 1.54	82.41	9.70 – 10.09
Organizing	10.8/ 2.0	67.5	10.4 – 11.2	13.41/ 2.01	83.81	13.05 – 13.79	12.56 / 2.45	78.5	11.64 – 13.48	11.60/ 2.11	72.5	11.33 – 11.87
Staffing	9.9/ 1.8	82.9	9.5 – 10.3	10.44/ 1.51	87	10.19 – 10.77	9.80/ 2.42	81.66	8.89 – 10.70	10.17/ 1.79	84.75	9.94 – 10.40
Actuating	11.8/ 1.7	74.1	11.5 – 12.2	12.55/ 1.57	78.43	12.24 – 12.54	12.60 / 1.81	78.75	11.92 – 13.27	12.26/ 1.74	76.62	12.05 – 12.48
Controlling	8.6/ 1.1	72	8.4 – 8.8	8.75/ 0.96	72.91	8.51 – 8.94	8.76/ 1.95	73	8.03 – 9.49	8.71/ 1.20	72.58	8.55 – 8.86

Table 2. Relationship between Management Functions and Overlooked Nursing Care

Variables Management function	Regional General Hospital A		Regional General Hospital B		Regional General Hospital C		Three Regional General Hospitals	
	Missed nursing care		Missed nursing care		Missed nursing care		Missed nursing care	
	r	p	r	p	r	p	r	p
Variables	0.383	0.000*	0.416	0.000*	0.585	0.001*	0.397	0.001*
Planning	0.289	0.003*	0.365	0.000*	0.547	0.002*	0.374	0.001*
Organizing	0.006	0.952	0.327	0.001*	0.212	0.260	0.274	0.001*
Staffing	0.407	0.000*	0.442	0.000*	0.712	0.000*	0.479	0.001*
Actuating	0.316	0.001*	0.181	0.062	0.477	0.008	0.271	0.001*
Controlling	0.168	0.094	0.246	0.011	0.586	0.001*	0.297	0.001*

Discussion

The implementation of management functions at the three regional general hospitals was found to stand at more than 70%. The head nurse is a professional nurse who is responsible for managing one room in the hospital where nursing care is provided and is the liaison between the middle and upper management levels and the nursing staff (Hadi-Moghaddam et al., 2021). Their management functions include planning, organizing, staffing, actuating, and controlling; these are essential to ensuring that the desired results are achieved and nurses' performance is improved (Kendall, 2018).

In terms of individual management functions, RSUD B has the highest value in the implementation of planning, organizing, and staffing. Planning can be formal or informal, tactical, strategic, or operational. Some planning practices are very pertinent for the effective and efficient administration of the unit. The nurse manager in this position is the head nurse and they must conduct an environmental analysis to evaluate the current situation of the unit. This enables them to formulate goals and objectives, and to come up with alternative actions for cost-effective analysis. In terms of day-to-day operations, the head nurse must plan the nursing care, explain the nursing care as guided by the Standard Operating Procedures (SOPs), and plan a supervision schedule. Ofei et al. (2019) and Allah et al. (2020) identified planning for the supervision, training, and development of colleagues, the mode of organizing nursing care, staff attitudes, and resource acquisition as the basic functions of the nurse manager that make the role implicit to the achievement of organizational goals. Meanwhile, effective communication essentially advocates the dissemination of pertinent information about work in the unit. Good planning helps to increase staff satisfaction.

The head nurse organizes the distribution of nurses based on the needs/level of patient dependence, assigning tasks according to the patients' abilities. They draw up official schedules and coordinate training activities within inpatients in collaboration with other health workers. Nurse managers also coordinate activities in the unit with other professionals and cadres to ensure client satisfaction and create a positive workplace environment that fosters staff satisfaction while ensuring the achievement of healthcare organizational goals (Ofei & Paarima, 2021).

In terms of staffing, the role of the head nurse is to allocate nursing tasks in inpatient rooms, orientate new nurses, and set assignment methods. Parreira et al. (2021) noted that staffing, associated with the level of competencies in the

budgetary/financial dimension, should be considered. However, it should also be noted that the adoption of task-oriented methods (low-quality methods that are being put aside) as opposed to person-centered methods impacts the patient, the professional, and the organization. While the former methods may appear to create an economy because they require only low staffing levels, this advantage is quickly negated by the tremendous impact of poor-quality care, often leading to high rates of avoidable errors and accidents due to related adverse events.

In actuating, the head nurse coaches new nurses, provides opportunities for staff to partake in seminars or activities, and performs supervising and motivating duties. Fukada (2018) stated that coaching is a training method aimed at developing novice nurses' qualifications to enable them to work effectively in the provision of high-quality care and services. Through their head nurses' coaching skills, novice nurses can receive sound mentoring and feedback on the technical aspects of their responsibilities. Head nurses should also be held accountable for helping novice nurses to practice their new roles through the use of interactive listening and clarifying coaching skills. As such, the present study's education program is very important not only in terms of improving head nurses' coaching skills but also in reducing role ambiguity for novice nurses and helping them to become accountable for the efficient practice of their new role.

The role of the head nurse in controlling includes evaluating nursing documentation, assessing nursing actions, and providing feedback on nurses' work. As a manager, the head nurse will positively impact the correct fulfillment of the documentation requirements as carried out by implementing nurses, while a good relationship will ensure assistance and support is available to assist in the provision of effective nursing services (Nopriyanto et al., 2020).

The bivariate method reveals that the planning process is associated with missed nursing care; the correlation shows that the better the planning of the head nurse, the better the fulfillment of nursing care. This finding is in line with Babaeipour-Divshali et al. (2016), who stated that careful planning is required to enable the proper direction of nurses' performance. Nilasari et al. (2020) highlighted the importance of the head nurse determining the direction and purpose of the room and planning according to the hierarchy. Ofei et al. (2020) also contended that nurse managers must know and use the planning process, while the standards set out in the organization planning can be informal or formal. Informal plans involve nothing in writing and no shared goals. They are general in nature and lack continuity as they are usually created by individuals who have not shared information with staff. Formal planning, on the other hand, encompasses and sets specific goals that cover a defined period, which can be years or months. Goals are written and shared with staff to avoid ambiguity, and they create a shared understanding of what needs to be done.

The organizing process is also known to be associated with missed nursing care. Here, the correlation shows that the better the organization of the head of the room, the better the fulfillment of nursing care. This is in line with Smeulers et al. (2019), who found that the head of the room is responsible for organizing the existing nursing staff and the nursing service activities to be carried out according to the needs of the patient so that nothing is overlooked. The organizing function also involves establishing a formal structure that ensures the best coordination or use of resources to achieve goals (Marquis & Huston, 2017). Organizing is a management function that involves the development of an organizational structure and the allocation of human resources to ensure that no nursing care is missed (Patarru et al., 2019).

In terms of the association of the workforce process with missed nursing care, the correlation shows that the better the head of the nursing room's workforce, the better the fulfillment

of nursing care. This reflects Cho et al. (2016), who stated that energy adequacy is a predictor of missed nursing care. Diab and Ebrahim (2019) also stated that there is a significant relationship between inadequate staff numbers and missed nursing care. Low levels of nursing staff are associated with adverse hospital outcomes, especially mortality (Griffiths et al., 2018). Therefore, the head nurse must ensure that they have sufficient numbers of competent nursing staff every day.

The correlation between the actuating process and missed nursing care shows that the better the direction of the head nurse, the better the fulfillment of nursing care. This aligns with Amri and Ardenny (2015), who identified a significant relationship between the actuating function and the motivation of nurses in providing nursing services ($p = 0.002$). Gunawan et al. (2021), meanwhile, noted that the role of the head nurse in providing direction has a major influence on the implementation of nursing care. Noer'aini et al. (2016) also found a significant relationship between actuating and the implementation of nursing care ($p = 0.00$). The role of the nursing manager can however be overlooked in nursing care. In this context, they provide the requisite direction and motivation to ensure that staff can always provide the planned care according to the patients' basic needs.

In terms of the relationship between the controlling process and missed nursing care, the correlation shows that the better the control of the head of the nursing room, the better the fulfillment of nursing care. Noer'aini et al. (2016) found a significant relationship between controlling and the implementation of nursing care ($p = 0.00$) In their study, it was found that standardized supervision would affect patient management. Moghaddam et al. (2019) highlighted that controlling functions include planning, directing, guiding, teaching, observing, encouraging improvement, trusting, monitoring, and evaluating, continuously, for every nurse, patiently, justly, and wisely. The aim is thus for every nurse to provide nursing care properly and skillfully, while maintaining security and safety, promptly and thoroughly, according to competence.

Ultimately, the head nurse is an internal stakeholder who plays an important role in carrying out management functions to achieve organizational goals by working together through people and other organizational resources (Kallio et al., 2018). As a first-line manager, the head nurse plays an important role and brings knowledge and skills to improve care (Babaeipour-Divshali, et al., 2016). They must be able to perform their function to ensure that no nursing care is missed.

Conclusion

The head nurse plays a key role in carrying out management functions, which are important in achieving organizational goals. The management functions range from planning based on the hierarchy to coordinating the organizational structure and managing resources. They must also ensure there are sufficient numbers of competent personnel available at the same time as providing motivation, guidance, and direction. Ongoing monitoring and evaluation are crucial to ensure the fulfillment of nursing care.

The head nurse can improve the implementation of management functions to improve the quality of nursing care and can be a driving force in ensuring that the proper level of nursing care is provided. For this reason, as a nursing manager, the head nurse must be aware that their management function is highly influential in terms of the fulfillment of nursing care. This demonstrates the importance of the head nurse performing a manager's function in an effort to optimize the fulfillment of nursing care. The nursing manager can optimize care by executing and strengthening the planning function, namely planning care with the team leader and explaining care activities according to SOPs. They must also coordinate the division of tasks and service activities in the nursing room. As

people managers, they are responsible for implementing and strengthening the workforce function to ensure the competence of staff in carrying out nursing care. This includes supporting staff to continue their studies, distributing tasks evenly, orienting new nurses, and determining methods of care provision. They will also implement and strengthen the directive function by holding meetings with minimal staff, providing staff with opportunities to participate in seminars/other scientific activities, and motivating staff. Finally, their role in implementing and strengthening the control function involves evaluating the implementation of nursing care and providing feedback. Nursing managers must also pay attention to the course of leadership in the nursing room by creating a comfortable atmosphere for workers and efforts to fulfill management elements (HR, methods, finance, and equipment). In the management element, managers should learn that the division of tasks is inappropriate when faced with a shortage of staff. Monitoring and managing communication problems between staff, along with issues around inadequate equipment, can thus be central to remaining abreast of nursing care that is decreasly unfulfilled.

Investigating nursing care that is missed also enriches knowledge as it highlights the specific activities that are often missed and the factors that contribute to this. The results of this study can therefore be used to enrich nursing knowledge, so that fulfilment of the 14 basic needs does not become a concern. This research may be used as the basis for further studies, either qualitative research or studies involving other factors such as individual norms and organizational culture, as well as research into the impact of missed nursing care.

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