



Availability of Human Resources, Facilities, Communications and Missed Nursing Care

Kuswantoro Rusca Putra¹; Ani Budiati^{2*}; Fajar Mulia Dewi³; Asih Devi Rahmayanti⁴

^{1,2*),3,4} Master of Nursing Program, Faculty of Medicine, University of Brawijaya

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ABSTRACT

Missed Nursing Care (MNC) is a phenomenon that occurs in many hospitals globally and has an impact on the quality of nursing services. MNC describes the elements of nursing care that patients need but is missed or delayed in the implementation. MNC can be divided into 2 Acute Care Missed Nursing Care (AMNC) and Activity Daily Living (ADL) Omission. This study aims to determine the relationship of Human resources, Facilities and Communication with AMNC and ADL Omission. This study used a descriptive correlational design using a cross-sectional approach, a sample of 228 nurses, using the Misscare survey instrument and analyzed the data using Pearson Correlation. The results of this study indicate a relationship between human resources and AMNC ($p = .005$, $r = -.185$) and ADL Omissions ($p = .001$, $r = -.220$); facilities with AMNC ($p = .050$, $r = -.130$) and ADL Omissions ($p = .046$, $r = -.132$); communication with AMNC ($p = .017$, $r = -.158$) and ADL Omissions ($p = .002$, $r = -.201$). Human resources, facilities and communication are related to AMNC and ADL Omissions, so that effective nursing management is needed to improve the quality of nursing services.

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Ketersediaan Sumber Daya Manusia, Fasilitas, Komunikasi dan Asuhan Keperawatan yang Terlewatkan

ABSTRAK

Missed Nursing Care (MNC) merupakan fenomena yang banyak terjadi di rumah sakit di dunia dan berdampak pada mutu pelayanan keperawatan. MNC menggambarkan elemen asuhan keperawatan yang dibutuhkan pasien namun terlewatkan atau tertunda pelaksanaannya. MNC dibedakan menjadi 2 Acute Care Missed Nursing Care (AMNC) dan Activity Daily Living (ADL) Omission. Penelitian ini bertujuan mengetahui hubungan Sumber daya manusia (SDM), fasilitas dan komunikasi dengan AMNC dan ADL Omission. Penelitian ini merupakan penelitian deskriptif korelasional, menggunakan pendekatan *cross sectional*. Sampel sebanyak 228 perawat, menggunakan instrumen Misscare survey, analisis data menggunakan Pearson Correlation. Terdapat hubungan SDM dengan AMNC ($p = .005$, $r = -.185$) dan ADL Omissions ($p = .001$, $r = -.220$); fasilitas dengan AMNC ($p = .050$, $r = -.130$) dan ADL Omissions ($p = .046$, $r = -.132$); komunikasi dengan AMNC ($p = .017$, $r = -.158$) dan ADL Omissions ($p = .002$, $r = -.201$). Ketersediaan SDM, fasilitas dan komunikasi berdampak pada kejadian AMNC dan ADL Omissions sehingga diperlukan manajemen keperawatan yang efektif untuk dapat meningkatkan mutu pelayanan keperawatan.

Kata kunci:

Missed Nursing Care
Komunikasi
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*) corresponding author

Master of Nursing Program, Faculty of
Medicine, University of Brawijaya

Email: ani_741128@student.ub.ac.id

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INTRODUCTION

Nurses are the health workers who play an essential role in health services in the hospital. In addition to the most significant number, nurses accompany patients for 24 hours, so that the quality of nursing services also plays an important role in determining hospital services' quality (Cahyono, 2015). One of the factors that affect hospital services' quality is the presence of care needed by patients, but its implementation is delayed or eliminated. Missed Nursing Care (MNC) is an aspect of care that patients need, but it is delayed or missed either partially or entirely (B. J. Kalisch et al., 2009). Missed Nursing Care (MNC) is defined as patient care that is eliminated (partially or entirely) or is delayed due to negligence (Palese et al., 2015). The incident of MNC will have an impact on patients, nurses, and hospitals.

The effects of MNC on patients, among others, will cause the patient to fall, patient dissatisfaction, readmission within 30 days in patients with heart failure and acute myocardial infarction, phlebitis, nosocomial infections, medication errors, pressure ulcers, urinary tract infections, extended days of treatment and delayed discharge, increased pain and discomfort, physical disabilities and death (A. Palese et al., 2016; (Lake et al., 2017 ; Jane E. Ball et al., 2018 ; Rozensztrauch et al., 2021; Geller et al., 2010). Whereas the impact of MNC on nurses can result in dissatisfaction at work, the desire to resign, and a bad perception of the nursing services provided (Duffy et al., 2018; Gibbon & Crane, 2018) As for hospitals, MNC impacts cost overruns related to more extended stay periods or re-admissions (Jones et al., 2015). These negligence errors can lead to the patient's clinical deterioration, worsening nurse performance, and detrimental to the hospital.

MNC is a global problem that happens in many countries in the world. Several studies stated that 75% of nurses in Sweden who have missed nursing care at the end of their work shift, 86% in England, 51.6% in Italy, 81% in Korea, and 55% in Kuwait (Ball et al., 2017, Palese et al., 2015). While in Indonesia, it was found that 80% of nursing interventions were still below standard, so complete nursing documentation was one of the nursing processes that was often missed or delayed (Asmirajanti et al., 2018).

The most common MNC phenomena that occur in medical-surgical treatment wards are patients' ambulation, changing the patient's position every 2 hours, proper timing of medication administration, oral hygiene, serving food in warm conditions, wiping patients or skincare, and preparing food for patients who can eat alone (Palese, et al., 2015; Srulovici and Drach-Zahavy 2017; Winsett et al., 2016). The number of MNC incidents caused by several factors, including human resources, facilities, and communication facilities.

Several studies stated that MNC occurs due to inadequate medicines needed by the patient (51.1%), inadequate staff numbers (48.6%), the insufficient number of assistants and administrative personnel (50%), lack of support from the nurse work environment, low on patient safety culture, lack of human resources and facilities, less optimal management of nurse managers and lack of support from nurses (B. Kalisch, Tschannen, and Lee 2011; Kim, Yoo, and Seo 2018; Fitzgerald et al., 2020) Among the reasons that most often cause MNC incidents are human resources, facilities, and communication.

The contributing factors from human resources include an inadequate number of nursing staff and nursing assistants, physical and emotional fatigue of nurses, the large

number of other tasks outside nursing that must be done by nurses, inadequate leadership support, worsening of patients' condition, unexpected increase in patient numbers, unbalanced patient assignments (Blackman et al., 2014; Henderson et al., 2017; Kiekkas et al., 2021). Lack of human resources will cause tension among the nursing team members, high workload, and the opportunity to increase MNC, resulting in dissatisfaction at work and a desire to resign from the job.

MNC's contributing factors from the facility include medicines or equipment needed by patients are not available, and equipment is not functioning correctly (Alvisa Palese et al., 2015). The lack of required facilities in the service will cause tensions among team members, the work becomes inefficient and leads to nurses' low productivity and leads to patient dissatisfaction.

Another factor that causes MNC is communication. This ineffective communication includes communication between members of the nursing team, with the medical team, or with other support teams; incomplete patient handover processes from previous shifts or other work units (Blackman et al., 2014). This ineffective communication can lead to communication failures, impede nursing care, and hinder the patient's healing process. It requires nursing staff involvement and the development of a care action plan to minimize missed nursing care, which will lead to job satisfaction and impact performance.

In Indonesia, there are still few who do research on MNC. With the increase in the incidence of MNC in many countries in the world, it is necessary to investigate what factors cause MNC incidents, including in Indonesia. From this background, the researcher wants to know the relationship between human resources, facilities, and communication with the AMNC and ADL Omission incidents.

METHOD

Participants characteristics and research design

The characteristics of the participants in this study were the nurses who served in the medical surgery wards of 6 private hospitals in Malang. This study used a descriptive correlational design using a cross-sectional approach.

Sampling Procedures

Data collection was carried out using instruments filled online. The instrument link was sent to each hospital's nursing manager and then passed on to the executive nurse. At the beginning of the research instrument, the aims and objectives of the study are explained. After the respondent reads and is willing to participate in becoming a respondent, the respondent can immediately fill in the characteristics of the respondent and the research instrument. Sampling was carried out in the Medical Surgery Wards at 6 private hospitals in Malang in October - November 2020. This research has obtained ethical eligibility from the Health Research Ethics Committee of the Faculty of Medicine, Universitas Brawijaya No. 183 / EC / KEPK / 10/2020, and a research permit from 6 private hospital in Malang.

Sample size, power and precision

The study population was all nurses who worked in the medical-surgical unit. The sampling technique used consecutive sampling with a sample size of 228 nurses.

The research instrument used the MISSCARE survey instrument developed by Kalisch and Williams, 2009. It consists of two parts, namely the type of MNC and the causes of MNC. The type of MNC consists of two dimensions, namely fifteen questions of Acute Care MNC (AMNC) and six ADL Omissions questions. The causes of MNC consist of dimensions of human resources eight questions, facilities three questions, and communications eleven questions.

Questions about AMNC types include focused reassessment, assessment, bedside glucose, documentation, vital signs, assess the effectiveness of medications, skin/wound care, emotional support, intake and output, PRN Medications, hand washing, IV site care, patient teaching, toileting, scheduled medication administration. ADL Omissions questions include feeding, meal setup, turning, ambulation, mouth care, call light response.

Causes of the MNC dimension of labour resources include unexpected rise in patient volume and or acuity on the unit, inadequate staff, inadequate number of assistive and or clerical personnel, heavy admission and discharge activity, urgent patient situations, unbalanced patient assignments, medications were not available when needed. Dimensions of communication problems include tension or communication breakdowns within the nursing team, tension or communication breakdowns within the medical staff, tension or communication breakdowns with other support departments, lack of backup support from team members,

the inadequate handoff from the previous shift sending unit. The dimensions of facilities problems include material/equipment not functioning correctly when needed, material/equipment not available when needed.

Measures and covariates

The assessment method for the MNC type (AMNC and ADL Omissions) uses a 5-point Likert scale (1 = never missed, 2 = rarely missed, 3 = sometimes missed, 4 = often missed, and 5 = always missed). Whereas for the cause of MNC, the method of assessment uses a 4-point Likert scale (1 = not a causal factor, 2 = a causative factor but minimal, 3 = partial causal factor, 4 = the main causative factor) (Kalisch et al. 2009; Castner and Dean-Baar 2014; Dabney et al. 2019). The MISSCARE survey instrument was declared valid and reliable with $r = 0.68$ and a Cronbach Alpha value of 0.6.

Data analysis

Respondents' characteristics were analyzed using descriptive statistics. The differences between MNC and respondent characteristics were analyzed using the independent t-test. Pearson's correlation coefficient was used to analyze AMNC and ADL Omissions' relationship with MNC's causative factors. The level of significance for analysis was set at 0.05.

RESULTS AND DISCUSSION

Table 1
Characteristics Respondents

Variable	N	Percent (100%)
Gender		
Male	37	16.2
Female	191	83.3
Age range		
22 – 29 th	140	61.4
30 – 39 th	70	30.7
40 – 49 th	18	7.8
Education		
D3 Nursing	164	71.9
S1 (Ners)	64	28.1
Length of work		
0 – 9 th	173	76
10 – 19 th	46	9
20 – 27 th	9	2
Employment status		
Permanent	141	61.8
Contract	87	38.2

Based on the results of the analysis in table 1, it can be concluded that most respondents are female, with the most age range of 22-29 years. Most respondent education is D III

Nursing, length of work ranges from 0 - 9 years with the most employment status are permanent employee.

Table 2
Descriptive statistic variable AMNC, ADL Omissions, Labour resources, Material and communication

Variable	Mean ± SD	Min	Max	CI 95%
AMNC	67.16±5.9	48	75	66.39-67.94
ADL Omission	24.26±3.633	12	30	23.78-24.73
Human resources	21.61±5.996	8	32	7.91-8.61
Facilities	8.26±2.6881	3	12	7.91-8.61
Communication	23.92±7.341	11	44	22.96-24.88

In table 2 shows the mean value of MNC incidence. The mean score of the highest MNC incidence was on the ADL omission dimension 24.26 (SD = 3.3633), and the lowest score was on the AMNC dimension 67.16 (SD = 5.9). The mean value of

MNC causes from human resource factors is 21.61 (SD = 5.996). On the factors causing the facilities, the average value was 8.26 (SD = 2.6881). Whereas for the factors causing communication, the average value was 23.92 (SD = 7.341).

Table 3
Human Relationship Resources, Facilities and Communication with AMNC and ADL Omission (n = 228)

Causes of MNC	Missed Nursing Care			
	AMNC		ADL Omissions	
	r	p	r	p
Human resources	.185**	.005	-.220**	.001
Facilities	-.130*	.050	-.132*	.046
Communication	-.158*	.017	-.201**	.002

Based on the data analysis in table 3, the relationship between human resources and AMNC ($p = .005$, $r = -.185$) and ADL Omissions ($p = .001$, $r = -.220$) was obtained. There is a facility relationship with the incidence of AMNC ($p = .050$, $r = -.130$) and ADL Omissions ($p = .046$, $r = -.132$). Obtained communication relationship with AMNC ($p = .017$, $r = -.158$) and ADL Omissions ($p = .002$, $r = -.201$).

DISCUSSION

AMNC is a primary nursing task and advanced nursing required by patients but has been delayed or missed. In this study, it was found that the relationship between human resources and the incidence of AMNC and ADL Omissions was found. The result is in line with several studies which state that the inadequate number of nursing staff, the large number of nursing administrative tasks, and inadequate manager support are correlated with the incidence of AMNC and ADL Omissions (Kiekkas et al. 2021; Fitzgerald et al., 2020; K. J. Kim, Yoo, and Seo 2018; Verrall et al., 2015). The inadequate nursing staff impacts adverse patient service side effects such as falling patients, infection incidence due to hospitalization, medication errors, and death in the hospital (Haegdorens et al., 2019; Amiri, 2020; Bail et al., 2020). Insufficient nursing staff triggers nurses to delay taking actions that are not prioritized to complete other more priority nursing actions (Mantovan, 2020). The insufficient number of nursing staff can cause nursing care plans that have been prepared cannot be carried out entirely because the nurses prioritize doing urgent actions first. This incident triggers the MNC.

This study indicates a correlation between facilities that are not available when needed and AMNC and ADL Omissions incidence. This result is in line with other studies reporting that medicines being unavailable and facilities not available when needed correlate with AMNC and ADL Omissions (Winters and Neville 2012; Monsiváis et al., 2015; Kiekkas et al. 2021). Damage to the electrocardiography device in the ambulance when transferring patients to the hospital prevented nurses from identifying signs of acute myocardial infarction and the presence of a mechanical chest compression system (Lucas) damage, causing the nurses unable to perform optimal chest compressions in heart attack patients (Collén Benneck & Bremer, 2019). Unavailability of medicines, absence of equipment or equipment needed is damaged, causing nurses to delay taking nursing actions needed by patients or to continue taking actions with makeshift equipment so that the results are not optimal. This incident will have an impact on patient safety.

The results of this study state that there is a correlation between the incidence of AMNC and ADL Omissions. This statement is in line with several studies which stated that there was a communication problem among the nursing team, communication problems with the medical team, lack of support from members of the nursing team, an unbalanced division of nursing care tasks, and an incomplete process of consideration of the previous shift nurse correlated with the incidence AMNC and ADL Omissions (Tubbs-cooley et al. 2017; Fitzgerald et al. 2020a). Effective communication can improve the quality of care, health, and patient safety (Riedl and Schüssler, 2017). Effective communication is an essential element of nursing care (Claramita et al., 2016), whereas ineffective communication can lead to bad side effects, treatment delays, and medication errors (Shitu et al., 2018). The failure of verbal and non-verbal communication, miscommunication between staff, and miscommunication between work shifts resulting in unsuccessful nursing actions on the previous shift not being communicated in the next shift so that these patients' nursing actions are missed, and services are not well integrated. These incidents can worsen patient safety.

Limitation Of The Study

The limitation of this study is that the assessment of the respondent's experience is not an observation of the activities carried out by the respondent.

CONCLUSION AND SUGGESTIONS

There is a relationship between human resources, facilities and communications with AMNC and ADL Omissions. AMNC and ADL Omissions are elements of Missed Nursing Care that can lead to decreased patient safety and decreased quality of service.

An effective leadership role is needed to reduce MNC incidents such as nursing management, direct involvement of nursing managers to assist, support, guide nursing staff in nursing services, and routine MNC measurement. In addition, it is also necessary to provide and manage facilities such as medicines, medical equipment, and other facilities to reduce or prevent the incidence of Missed Nursing Care.

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Conflict of Interest Statement

The authors have no conflict of interests to declare

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