

Original Research Paper

Nurse workload and caring behavior in emergency department and intensive care unit

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Abstract

The intensive care unit or ICU (Intensive Care Unit) and the Emergency Department are units that provide relatively nursing services that require a high level of skill due to the patient's condition requiring quick and precise treatment. Objective: To determine the relationship between nurse workload and the caring behavior of nurses in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital. Method: This research uses quantitative research with a correlation method with a cross-sectional time approach. The sampling technique uses total sampling. The sample in this study was 43 respondents, namely nurses who served in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital. Results: The results of research using the Spearman-Rank test showed that there was a significant relationship between nurse workload and caring behavior of nurses in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital (p -value $0.022 < 0.05$). The closeness of the relationship with the significance value $\tau = -0.349$ (sufficient correlation). Conclusions and Suggestions: From the results of this study, it was found that there was a relationship between nurses' workload and the caring behavior of nurses in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital. Respondents should be able to use their rest time well so that it does not result in excessive fatigue.

Keywords: nurses' caring behavior; nurse workload

1. Introduction

The development of the world of health is increasingly rapid with the support of developments in science and technology, providing more insight into health and medical personnel. This causes an increase in public demand for quality, including health services. Nursing services requested by the public must be fast, precise and correct. This triggers nurses in providing nursing care to be vulnerable to stress due to the high workload every day. As a result, nurses feel tired, and this affects the level of care nurses provide. In carrying out their profession, nurses do not only have contact with patients but also with patient families, patient friends, and other medical personnel, as well as existing regulations in the workplace. Another thing that is a risk for a nurse is that sometimes the workload is considered not appropriate to their physical, mental and emotional conditions (Ma'mari et al., 2020).

Hospitals that have intensive care unit services or ICU (Intensive Care Unit) and Emergency Room (IGD) assign health workers such as nurses to provide nursing services to patients. Nurses who work in the intensive care unit or ICU (Intensive Care Unit) are required to have good skills and knowledge to analyze unstable hemodynamic conditions of patients, and quickly respond to the patient's condition at any time (Meltzer & Huckabay, 2004). Nurses who work in emergency installations (IGD) based on Decree of the Minister of Health of the Republic of Indonesia No. 983 of 1992 is required to provide emergency patient referrals, handle disaster victims, and prevent death and disability in emergency patients so that they can live and function again in society. Each unit in the ICU and ER relatively

provides nursing services that require a high level of skill, especially when very severe or emergency conditions occur. The high workload of nurses in these two units clearly describes the stressful conditions nurses face (Hammad et al., 2018). Moreover, nurses are required to work optimally, resulting in stress and fatigue among nurses in intensive care units and emergency units compared to other units (Hammad et al., 2018; Zahara et al., 2011).

ICU is a part of an independent hospital, with special staff and special equipment intended for the observation, care and therapy of patients suffering from diseases and injuries or life-threatening or potentially life-threatening complications with a dubious prognosis. Meanwhile, the emergency room (IGD) is the first point of contact for patients in an emergency. The emergency department (IGD) is a first-aid facility for patients with illnesses and injuries. The emergency department (ED) is a busy and stressful place where emergency room nurses face a variety of critical conditions for their patients. The emergency department (IGD) is also a place where patients need immediate medical assistance because it can have fatal consequences for the patient. Mandasari said, "The workload of an emergency nurse is very heavy because usually patients who enter the emergency room are emergency patients who need to receive medical services as quickly and accurately as possible" (Mandasari. 2014).

Research by Watania et al. (2018) shows that the majority of nurses in the ER experience fatigue in the moderate and severe categories, while some nurses who work in the ICU also experience fatigue in the mild category. to severe (Pratiwi & Setyawan, 2017). Another study also showed that the fatigue condition of nurses in the ICU and ER in research by Pratiwi & Setyawan (2017) was 63% with moderate fatigue, Magfiroh and Mifbakhuddin (2015) as many as 67.6% experienced mild fatigue, and Hammad et al. (2018) as many as 50% of nurses experienced moderate physical fatigue. A study from Cyprus, Greece also found mild fatigue in nurses working in the ICU (Raftopoulos et al., 2012).

RI Minister of Health Regulation No. 56 of 2014, the ratio of nurses to the number of patients is 1 nurse to 2 patients. If the number of tasks is not commensurate with physical abilities, skills, and time required to complete them, it will be a source of work stress. Nurses who are given excessive workloads can have an impact on reducing the level of health, work motivation, quality of nursing services and failure to take action to help patients. as well as allowing patient negligence or even death (Angelina et al., 2020)

The World Health Organization (WHO) in 2016 stated that in several Southeast Asian countries, including Indonesia, nurses working in hospitals experienced an increased workload due to a lack of nursing staff. Nationally, the ratio of nurses in Indonesia in 2016 was 113 nurses per 100,000 population, which is still far from the target. The ratio of nurses in Yogyakarta of 122.74 per 100,000 population is still far from the target of 158 per 100,000 population. This shows that the nursing staff is still not adequate which influences the quality of nursing care delivery. Minister of Health Decree No.647/2000 concerning Nursing Practice identified 4,444 nurses as one of the professions in Indonesia.

The results of a literature study conducted by Lanutama (2022) with the title "Literature study report on the workload of nurses in developed and developing countries" is that the workload of ICU nurses in the United States is 71.4%, which means it is high. The workload of ICU nurses in Iran is 70.21%, which means it is high. The workload of ICU and ER nurses in Indonesia ranges from 74% to 83%, which means high to very high. The results of previous research conducted by Malika (2013) with the title "Workload Analysis as a Basis for Determining the Number of Nursing Personnel Needs in the Inpatient Installation of RSUD South Tangerang City in 2013" the results of her research show that the workload in inpatient installations is Class II and Class III at RSUD Kota South Tangerang is classified as heavy because the productive workload is above 80% and from the calculation results it is found that there is a shortage of nursing staff in class II and class III inpatient installations of 9 people. Meanwhile, research conducted by Kristiningsih (2019) with the title "The relationship between nurse workload and

nurse work stress in the ICU, IMC, and ER at RSU PKU Muhammadiyah Bantul Yogyakarta" showed that the majority had a moderate workload with a total of 23 nurses (69, 7%).

The Ministry of Health sets patient satisfaction standards for health services at the national level. According to the minimum service standard regulations, patient satisfaction issued by the Ministry of Health of the Republic of Indonesia in 2016 is more than 95%. If patient satisfaction with health services is less than 95%, then the health services provided are considered substandard or of poor quality (Ministry of Health, 2016).

One thing that can be influenced by workload is nurses' caring behavior. Nurses' caring behavior is an important part of what is involved in providing nursing care, as well as the interpersonal processes that build trust and close relationships between patients and nurses. Improving patient health outcomes and healthcare delivery is critical and is seen as a fundamental key in providing healthcare facilities to patients. Nurses' caring behavior includes respect for patients, reassurance and minimization anxiety, positive and good communication, nurses show expertise and skills, and attention to patients (Abdullah et al., 2017).

Aiken's research (2012) shows that the percentage of nurses who have poor quality caring services is 11% in Ireland and 47% in Greece. International Association of Human Caring (International Association for Human Caring). Research conducted by Mailani and Fitri (2017) with the title "The Relationship between Nurses' Caring Behavior and BPJS Patient Satisfaction Levels at RSUD dr. Rasidin Padang" shows that of the 84 respondents, the majority, namely 39 (46.4%) respondents, said that nurses had bad caring behavior at RSUD dr. Rasidin Padang 2016. The results of Arfian's (2013) research on the caring behavior of nurses at PKU Muhammadiyah Hospital Yogyakarta showed that 46.9% of nurses behaved well and 53.1% of nurses behaved in a moderately caring manner.

Handling health problems for health workers so that every hospital can ensure that nurses remain in an optimally healthy and productive condition (Regional Minister of Health Regulation No. 56 of 2016). PKU Muhammadiyah Gamping Hospital is a development of PKU Muhammadiyah Hospital Yogyakarta, which is located on Jl. Ahmad Dahlan 20 Yogyakarta. PKU Muhammadiyah Gamping Hospital belongs to the Muhammadiyah Association which is managed by the Muhammadiyah Central Leadership. The preliminary study was carried out from 22 to 26 December 2022 at PKU Muhammadiyah Gamping Hospital. Based on the results of interviews with the head of the nursing manager, it was found that data on the number of patient visits to the emergency room in the last three years had increased quite significantly in 2018, 13,671 people, 2019 14,705 people, and 2020 15,697 people, apart from that, the average number of visits per day was 60 patients with the number of nurses is 18 nurses in the ER and 25 nurses in the ICU, including the head of room 1 and head of team 4 with 4-5 nurses per shift, this influences the level of nurses' workload

The emergency room service at PKU Muhammadiyah Hospital not only serves patients with emergencies but also serves poly patients (non-emergency patients). Meanwhile, in the ICU, nurses serve inpatients who need intensive care. The average number of hours nurses work per shift is 7 hours in the morning, 7 hours in the afternoon and 10 hours in the evening. Nurses at PKU Muhammadiyah Gamping Hospital, both ER and ICU nurses, have attended training that focuses on nursing competency based on their field. All PKU Muhammadiyah Gamping Hospital units always evaluate the average workload using regulations from the Indonesian Ministry of Health as an effort to handle the PKU Muhammadiyah Gamping Hospital if there are nurses who are unable to work due to illness using the oncall system. The achievement index is carried out every 3 months and is given to each unit.

From the results of interviews and observations by researchers, several nurses said that the workload was high when seen from the number of patient visits coming to PKU Muhammadiyah Gamping Hospital. Researchers also concluded that during five days of observation, nurses in the emergency room and intensive care unit at PKU Muhammadiyah Gamping Hospital only focused on nursing

actions and were less caring and at least provided information to patients and families about what actions the nurses would take.

Based on the description above, researchers are interested in conducting research on the relationship between nurse workload and caring behavior of nurses at PKU Muhammadiyah Gamping Hospital.

2. Research Methods

This research is quantitative research conducted in the emergency room and ICU at PKU Muhammadiyah Gamping Hospital from February 2023. This research has passed the ethical test with an ethical number 025/KEP-PKU/II/2023. The research design used was correlation analysis with a cross-sectional approach. The population in this study were nurses who worked in the emergency room and ICU at PKU Muhammadiyah Gamping Hospital, totaling 43 nurses. Sampling used total sampling technique. The data collection tool used was a questionnaire adopted from Pitaloka (2010) in the form of a workload instrument using a written questionnaire consisting of 18 questions, both favorable and unfavorable questions. Data analysis uses univariate analysis and bivariate analysis. Univariate analysis looks at the frequency and percentage distribution and presentation of the research variables. Bivariate analysis to determine the relationship between the two variables studied used the Spearman Rank test

3. Results and Discussion

From the research results, the following data was obtained:

Table 1. Frequency Distribution of Nursing Workload

Nursing Workload	Frequency (f)	Percentage (%)
Light	0	0
Medium	6	14.0
Heavy	37	86.0

Source: Primary Data, 2023

Based on table 1 regarding the frequency distribution of nurses regarding the workload of nurses in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital, it shows that the highest workload is in the heavy category, namely 37 people with a percentage of 86%, while in the light category it is 0 %, and the medium category is 6 people with a percentage of 14%.

Similar research conducted by Buanawati (2019) stated that the workload was heavy for 11 people (27.5%) where the task of nurses apart from providing care, nurses also had to carry out other collaborative actions. Nurses have a heavy workload (52.7%) due to their work demands such as closely observing clients during working hours, the large amount of work that must be done and facing high demands for the quality of services provided by patients and families which creates pressure for nurses. According to Van Den Oetelaar et al. (2021), the job demands felt by nurses in providing direct patient care and the additional administrative activities provided and nurses being required to work quickly so that all patients can be served make nurses feel the workload.

Table 2. Frequency Distribution of Nurses Caring Behavior

Caring Perawat	Frequency (f)	Percentage (%)
Less	0	0
Enough	42	97.2
Good	1	2.3

Source: Primary Data, 2023

Based on table 2 regarding the frequency distribution of nurses regarding Nurse Caring Behavior in the Emergency Room (IGD) and Intensive Care Unit (ICU) of PKU Muhammadiyah Gamping Hospital, it shows that 1 nurse (2.3%) was in the good category and the largest number of respondents stated that nurses carried out caring in the sufficient category, namely 42 people (97.2%) and in the good category, 1 person (2.3%).

Edgar (2020) RSU GMIM Pancaran Kasih Manado previously conducted research regarding caring with 90 respondents. The results obtained were 53 respondents in the caring category and 17 respondents in the less caring category.

According to Ariani & Aini (2018) caring is an action used by nurses to provide health services to their patients and caring is an attitude of caring, respect and respect for other people. Watson (2019) in the Theory of Human Care, revealed that caring is needed between the giver and recipient of nursing care to improve and protect the patient, which will later influence the patient's ability to recover. Caring nurses can improve patient recovery because patients feel their physical, emotional and spiritual needs are met, respect and respect for others. Watson (2019) in the Theory of Human Care, revealed that caring is needed between the giver and recipient of nursing care to improve and protect the patient, which will later influence the patient's ability to recover. Caring nurses can improve patient recovery because patients feel their physical, emotional and spiritual needs are met. Caring behavior is expressed as feelings that provide changes in behavior, safety, and work in accordance with standards (Purwaningsih, 2018). The results of this research are in line with what was stated in his research by (Firmansyah et al., 2019) that the caring behavior displayed by nurses is providing a sense of comfort, attention, affection, care, health care, encouragement, empathy, interest, love, trust, protect, be present, support, give touch and be ready to help and visit clients. Such behavior will encourage clients to change physical, psychological, spiritual and social aspects for the better.

Table 3. The relationship between nurse workload and caring behavior of nurses in the Emergency Room (IGD) and Intensive Care Unit (ICU)

Nursing Workload	Caring					
	Less		Enaough		Good	
	F	%	F	%	F	%
Light	0	0	0	0	0	0
Medium	0	0	6	14 %	0	0,0%
Heavy	0	0	36	83,7%	1	2,3%

Source: Primary Data, 2023

Based on table 3, from the 43 respondents studied, the results showed that heavy workload with sufficient caring behavior was 83.7% or 36 respondents, while moderate workload with good caring behavior was 14% or 6 respondents. From the data analysis test carried out, the result was that the p value <0.05, namely 0.023, which means that there is a relationship between the workload of nurses and the caring behavior of nurses in the emergency room and ICU at PKU Muhammadiyah Gamping Hospital.

The results of this research are similar to research conducted by Herman and Deli in 2021 which stated that there was a significant relationship between workload and caring behavior carried out at Bhayangkara Hospital, Makassar. The researcher's assumption is that workload is the number of actions or tasks carried out by nurses in hospitals, especially in the emergency room and ICU, which are very heavy. This is because this unit requires very high nursing skills, requires optimal accuracy and fast and precise actions. This greatly influences the caring behavior carried out by nurses. Nurses who have a

heavy workload may feel tired and emotional pressure while working. This situation will influence caring behavior when nurses provide care to patients.

The duties of a nurse in the emergency room and ICU are indeed heavy, but if it is balanced with a clear job description and an appropriate division of work, the nurse will not experience excessive workload. If this can be done well in all nursing units, then nurses' caring will still be maintained. Besides that, a nurse has self-awareness that in carrying out their duties as a nurse, caring is the most important thing that a nurse must do as part of the patient's healing process.

4. Conclusion

Nurses who work in the ER and ICU are required to be able to provide care to patients quickly and accurately, this is because the character of the patients in these units requires immediate treatment. The large number of patients and high work demands cause nurses' workload to increase. This situation greatly influences the caring behavior of nurses towards patients which becomes slightly reduced. Research conducted in the emergency room and ICU of PKU Muhammadiyah Gamping showed that 86% of nurses stated that their workload was heavy and 97.7% were in the sufficient caring category. And from the analysis of the data, there was a relationship between workload and caring for nurses with the p-value obtained. of 0.023.

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