City University eJournal of Academic Research (CUeJAR)
e-ISSN : 2682-910X
CUeJAR Homepage: https: //www.city.edu.my/CUJAR

OPEN ACCESS

Analysis of workload on Nurses's caring Behaviour at a hospital in Jember

Ni Putu Sri Budiani[1], Muhammad Sajidin[2], Lilik Ma'rifatul[3], Jeniffer Elia Anak Jon[4]

[1]*Master of nursing Students of Bina Sehat University PPNI Mojokerto, Indonesia.*

[2]*Head of Nursing Siloam Hospital Jember, East Java, Indonesia.*

[4]*Faculty of Nursing and Allied Health Sciences, City University Malaysia.*

Abstract

Introduction: *Nurses are a key component in hospitals, working 24/7, with all patient conditions. Nurses, in carrying out their duties and profession, are vulnerable to physical and mental fatigue, which will affect patient care. Increasing complaints about unsatisfactory nursing services have prompted research to identify factors that may contribute to this phenomenon. It is said that this is caused by staff shortages that result in adverse incidents, as well as nurse attitudes. One factor that influences caring behavior is the practice environment, such as workload. In calculating workforce requirements, workload is a very important component. Nurse workload refers to the total time invested in primary activities, supporting activities, and additional activities carried out by nurses during their working hours. The purpose of this study was to analyze the relationship between nurse workload and nurse caring behavior at Siloam Hospital Jember. This study has obtained ethical approval from the Ethics Committee of the Insan Cendekia Medika Institute of Science and Technology, Jombang, East Java, Indonesia. All respondents were given a complete explanation of the purpose, procedures, benefits, and potential risks of the study. Respondents also signed an informed consent form before participating in this study.*

Methodology: *This study uses correlational analytical research with a cross-sectional approach. The sample in this study amounted to 52 people. The sample was taken using a purposive sampling technique. The results of the study were tested using the Pearson statistical test with a significance of ÿ = <0.05 with the SPSS 23 program. The research instrument used a workload questionnaire and the Caring Assessment for the Direct Care Giver (CACG) questionnaire which had been tested for validity (r count 0.415 – 0.790 > r table 0.279) and reliability (Cronbach's Alpha = 0.91). This study was conducted at Siloam Hospital Jember for the period of February 2025.*

Results: *Shows that nurses with a light workload are 6 people (11.5%), moderate workload is 44 (84.6%) and 2 people (3.8%) are nurses with a high workload. The caring behavior of nurses is mostly high caring behavior as many as 36 people (69.2%) and moderate caring*

CUeJAR
Received: 13th February 2025
Revised: 17th December 2025
Accepted: 5th March 2026

behavior as many as 16 people (30.8%). The results of the Pearson correlation statistical test with an error level (ÿ) = 0.05, obtained a p value = 0.031. This means that there is a significant relationship between workload and caring behavior applied by nurses.
Conclusion: *Workload influences nurses' caring behavior. Therefore, efficient workload management leads to increased caring behavior in carrying out their duties. A lower workload allows nurses to demonstrate caring behavior in providing nursing care. Increased caring behavior will increase patient satisfaction and prevent patient safety incidents.*

Keywords: *nurse workload, nurse caring behavior.*

INTRODUCTION

Nursing care is a form of professional care provided to patients with a humanistic approach. This service is conducted holistically, based on nursing principles, and focuses on the patient's objective needs. Furthermore, this service also refers to professional nursing standards and prioritizes nursing ethics as the main foundation. Quality nursing care can be achieved by balancing the number of nurses and the workload faced in the hospital. Caring is a key foundation in nursing, demonstrating responsibility in the interaction between nurses and patients (Siswantoro et al., 2023). In this regard, nurses play a role in facilitating patient participation, imparting knowledge, and striving to improve overall health (Gilang Ramadan, Mahfud, 2016). A hospitalized individual craves attention and assistance from skilled nurses. This individual expects professional nurses to provide responsive and appropriate care and desires a speedy resolution of their suffering. Caring nurses involve not only practical skills but also empathy, attention, and respect for patients (Rusli et al., 2023).

The increase in complaints related to poor nursing care has prompted investigations to determine the possible causes of this phenomenon. It was stated that this phenomenon was caused by the minimal number of staff resulting in adverse incidents, as well as the attitudes of nurses (Madadzadeh et al., 2018). According to Swanson (1991), nursing care is carried out with value, upholding commitment and responsibility in its implementation. In another source, Swanson defines caring as a way of maintaining relationships by respecting others, accompanied by a sense of belonging and responsibility. Caring can be seen in the behavior of nurses. These behaviors include providing a sense of comfort, genuine attention, compassion, concern for health, positive encouragement, empathy, deep interest, genuine love, trust, protection, consistent presence, strong support, gentle touch, readiness to help, and visiting clients. Caring is described as the moral ideal of nursing and the heart of nursing. Caring behavior, as the core of nursing practice, is an important attribute of nurses that can influence patient outcomes and patient satisfaction (Chandra & Suhita, 2022). Nurses are responsible for controlling patients 24 hours a day and are naturally exposed to many stress factors. Nursing is a dynamic profession that follows ethical rules.

Caring behavior, for patients, is a work-related activity expected of nurses, and thus is an important indicator of work performance (Madadzadeh et al., 2018; Shalaby et al., 2018). Excessive workload is a major source of stress; in 37% of subjects, high workloads from stressful jobs lead to job dissatisfaction, depression, and psychosomatic symptoms, and in 30-50 percent of subjects working in a sluggish work environment, it is a source of stress. The quality of care is influenced by the imbalance between the number of nurses and the workload of nurses in hospitals. High workloads can cause stress and a decrease in the quality of nursing care (Madadzadeh et al., 2018). Workload is not limited to the physical tasks of nurses; cognitive tasks of nurses can also be a complex part of the overall workload. The physical workload of nurses includes ambulation, assisting with daily living, providing medical equipment, cleaning and tidying patient beds. The psychological workload of nurses includes shifts or work schedules, the need for mental support for patients and families, especially in critical conditions, caring for patients, and interpersonal communication with patients and other healthcare professionals. When the number of tasks is much greater than the physical abilities, skills, and time available, it tends to be a stressor for nurses (Sisy Rizkia, 2020); (Rizkianti & Haryani, 2020).

Workload and work-related stress affect an individual's safety, health, and well-being; and have a direct relationship to people's performance. Over the past few years, workload and its impact on organizations have received increasing attention. It has gained considerable traction in discussions related to organizational behavior. Workload has been reported to negatively impact employee health; long-term illnesses can result from stress, as well as monotony, mental dullness, and workplace fatigue (Herman & Deli, 2021). Furthermore, excessive workload ranks first among the causes of employee burnout, a topic frequently researched in recent years (Madadzadeh et al., 2018) and (Kang & Hur, 2021). From research conducted by Eva Supriatin (2015) on Nurses' Caring Behavior Based on Individual and Organizational Factors at Bandung City Hospital, the results showed that most nurses behaved in the less good caring category, as many as 25 respondents (58.1%) and as many as 18 respondents (49.1%) behaved in the good caring category (Supriatin, 2015).

Meanwhile, according to Demur, DRDN, Mahmud, R., & Yeni, F. (2019) in their study entitled Workload and Motivation with Nurses' Caring Behavior, the results showed that nurses who behaved less caring were (53.8%). The workload was more than the optimum productive time standard (80%), especially in the morning shift (99.03%), followed by the afternoon shift (97.37%) and the night shift (78.73%). Nurses who had high motivation to apply caring behavior were (57.5%). The study concluded that workload has a significant relationship with caring behavior and motivation has a significant relationship with caring behavior (Demur et al., 2019). Other studies state that there is a significant relationship between workload and caring behavior applied by nurses. Where the lower the workload, the more likely it is for nurses to show caring behavior in providing nursing care (Herman & Deli, 2021). Research by (Hellín Gil et al., 2022) (de Magalhães et al., 2017) states that high workload is an extrinsic factor that influences job satisfaction which will have a negative impact on caring behavior.

In accordance with the research results above, the caring behavior of nurses still needs to be improved, which is relevant to the phenomenon that occurred at Siloam Hospital Jember. That is, not all nurses carry out caring behavior in providing nursing care services to patients, as evidenced by the fact that there are still several complaints from patients regarding nurse behavior, both directly and indirectly, through sending WhatsApp chats to the hospital complaint number and through Google reviews. Some of the complaints include poor nurse communication, high intonation in communication, not smiling, lack of care, lack of attention, and not explaining completely so that patients feel dissatisfied. Based on a preliminary study conducted at Siloam Hospital Jember on around 30 inpatient nurses, the results showed that not all the 30 nurses had good caring behavior , only 50% (15 people). Meanwhile, those who had moderate caring behavior were 10 people (33.3%), and there were still 5 people who had poor caring behavior (16.7%).

Based on Gibson's (2000) performance theory, several factors influence performance, including organizational factors, including resources, leadership, structure, rewards, and workload. Of these factors, workload is closely related to all action nurses take in caring behavior. When there are too many patients to care for, nurses often feel stressed and rushed in serving them (Supatmini et al., 2024).This statement is supported by Herman & Del,i 2021 that the lower the workload, the more caring behavior will increase, so that the solutions and strategies that can be implemented are that hospitals can determine clear and firm job descriptions for each officer in the hospital, calculate staff needs, staff placement according to competency, have effective communication between employees and management, teach task prioritization: Focus on urgent and important tasks and determine the right nursing workforce model can help provide high-quality patient care efficiently and cost-effectively (Demur et al., 2019). Based on the description in the background, the researcher wants to know whether there is a relationship between nurses' workload and nurses' caring behavior based on Swanson's theory at the Java Siloam Hospital, Jember.

LITERATURE REVIEW

Workload is the difference between a worker's capacity and the demands of the job they must face (Cucolo & Perroca, 2019). Workload is defined as a work situation tailored to the primary tasks and roles a nurse must perform (Pundati et al., 2018). Workload in nursing refers to the total time and attention a nurse can devote, both directly and indirectly, to patients, the work environment, and professional career development (Alghamdi, 2016). The total number of nurses' responsibilities while serving in a hospital or other healthcare facility is known as the nurse's workload. Workload is the activities performed in each job within a specific time. Workload consists of subjective and objective aspects. Excessive workloads or physical limitations can lead to health care workers suffering from occupational disorders or illnesses, ultimately leading to employee resignation. High workloads also increase the risk of patient safety incidents (Carlesi et al., 2017).

Workload Theory has been developed in various studies, but more specifically refers to the approach proposed by several experts in the fields of industrial psychology and human resource management. Workload in an organization consists of two main types, namely physical and psychological workload:

i) Physical workload refers to the physical demands employees must meet in carrying out their duties, such as lifting heavy loads, standing or walking for long periods, and other activities that require physical strength. This workload can lead to physical fatigue, injury, or health problems if not managed properly.

ii) Psychological workload focuses more on the mental and emotional pressures faced, such as the demands of meeting targets, deadlines, or dealing with problems that require difficult decisions. Excessive psychological workload can lead to stress, anxiety, or burnout. These two types of workloads are interrelated and can influence each other, where heavy physical workloads can cause mental fatigue, and psychological stress can affect physical conditions. Therefore, it is important for organizations to balance physical and psychological workloads to ensure employee productivity and maintain their physical and mental well-being.skills are a crucial component of planning competency. Nurses must be able to analyze health data to identify trends, emerging problems, and urgent needs. Through thorough analysis, they can develop evidence-based plans that are appropriate and responsive to the conditions at hand. The military nursing planning process typically involves several key steps.

There are two ways to assess workload: subjectively and objectively.

i) Subjective Workload: the nurse's opinion about her workload is her subjective workload. Workload, emotions of being overwhelmed, stress, and job satisfaction can all be evaluated using a tool called "subjective workload" (Setiawan and Wulandari, 2016). Subjective workload includes physical workload consists of the person's evaluation of the number and complexity of tasks they must do, the length of their shift, and the adequacy of their staffing levels, social workload is the estimated amount of time and effort they must devote to caring for their patients. Other people at work, Mental Workload is their estimate of the emotional and cognitive strain they experience at work.

ii) Objective Workload is the original or actual condition in the field which is measured by the amount of time spent doing work or the number of tasks completed (Pundati et al., 2018) Objective workload is a measurement of the workload in an area expressed in the form of a comparison of the use of working time (Pundati et al., 2018).

Workload analysis, or the systematic calculation of workload, is a management approach used to provide insight into workforce efficiency within a specific organizational unit or service. When determining nurse workload, the following factors should be considered (Nursalam, 2015):

i) Total number of patients treated every day/month/year in that department
ii) The patient's condition or level of dependency
iii) Average duration of treatment
iv) Measurement in direct care, indirect care, and health teaching
v) Frequency of treatment required by the patient
vi) Average duration of direct, indirect, and teaching care health.

Calculating the workload of nurses in a health service unit can be done in 3 ways (Nursalam, 2015), including:

i) *Work Sampling:* This method was established in the industry to better understand the demands placed on individual workers within a company. The work sampling approach allows the following observations to be made regarding work: what activities are being carried out by staff during working hours, whether staff activities are relevant to their roles and responsibilities during working hours, the percentage of working time spent on useful or unuseful activities, how the staff workload is distributed in relation to the duration and schedule of working hours. The work sampling method involves collecting thousands of observations of activities from various employees. A normal distribution of the sample of observations of research activities can be expected from the large number of available observations. To perform adequate analysis and determine the number of observations, the data must be sufficiently large and distributed.

ii) *Time and Motion Study:* With this method, we closely monitor the actions of the people we monitor. With this method, we can increase productivity without increasing the size of the staff. The procedure for carrying out this method is to select members to be observed as samples using purposive sampling techniques, prepare a form to record the activities carried out by each member, the list of activities is then grouped based on how many members carry out the activities well and regularly during the observation period, group the activities that have been carried out into categories of medical, nursing, and administrative activities and calculate the time required by members when carrying out these activities.

iii) *Daily Log:* Simple work sampling can be conducted using a daily log, or recording of a person's actions, where the recording is done by a person being observed. The activities performed and the time spent doing them are recorded. The integrity and involvement of the staff being observed are essential for this method. This method is less complex and expensive than others. Typically, the researcher will develop instructions and fill out a form that respondents can use to conduct the research themselves. Research volunteers are briefed on the purpose of the study and the procedure for completing the form before recording. Although study participants will be identified, their personal information, including names and contact details, will be kept confidential and will not be published in the final report.The key to effective observation.

Caring is at the heart of nursing and is a dynamic approach that aids the patient's healing process. Caring is a fundamental aspect of nursing practice. nursing, but this becomes even more significant amidst the current turmoil in the healthcare sector. According to Swanson, caring is nursing care delivered with values that uphold commitment and responsibility in its implementation. It is how nurses maintain valuable relationships with patients, or patients who share and embrace the same values of commitment and responsibility. The structure that produces this theory consists of five parts. The outcome of this theory is a patient in the best condition and care provided in accordance with the desired goals. Caring behaviour is an attitude of concern, respect, and appreciation for others.

Swanson's caring theory is based on the Middle Theory of Caring from the nursing theory book, which outlines five caring processes. These five caring processes are: Maintaining belief, knowing, being with, doing for, and enabling. Maintaining belief: Maintaining the trust of others is key to care. Nurses could determine what is needed and when. In this phase, nurses must approach patients with the principle that the patient is the most important person in all things. In providing nursing care, nurses must pay attention to the aspect of maintaining trust. To maintain trust, nurses need to pay attention to several things. The factor of Maintaining Faith has sub-factors of believing/maintaining faith, maintaining a hopeful attitude, and providing realistic beliefs (according to the conditions).

Knowing: Nurses who know find out about things that affect the lives of others. Knowledge transforms idealism, which is a collection of beliefs, into the reality of the human condition (Siswantoro et al., 2023). Nurses responsible for nursing care must understand the patient's condition. Knowing means understanding the meaning of life events, avoiding assumptions, focusing on the client, seeking clues, making careful judgments, and drawing appropriate conclusions. The “knowing” component of care has sub-phases of avoiding assumptions, focusing on serving one person, evaluating holistically, seeking guidance and involvement, or both.

Being with is: Nurses who introduce themselves with compassion to others, especially patients. Sharing meaning, feelings, and life experiences with kindness is known as emotional presence. Together, reassure patients that they are truly valued and that nurses are available and willing to be close to patients for the sake of patients. Nurses must feel their presence with patients, demonstrate their abilities by providing nursing care, share emotions by being able to understand emotional states. Doing for is: In providing nursing care, nurses can contribute to a person's health or recovery, where they will participate fully with all the skills and knowledge they have. The "do for" dimension has several subdimensions, namely comfort, predictability, demonstration of skills, protection, and trust.

Enabling: Providing others with the means to navigate life transitions and unfamiliar events is called enabling. Enabling makes it easier for someone to navigate life's habits or unpredictable events. Each care process has a definition and subcomponents that form the basis of the nursing interventions performed.

According to Gibson (2000), caring behavior is influenced not only by individual and psychological factors, but also by organizational factors, including workload. Gibson's theory discusses how workload can influence caring behavior in the context of nursing or other occupations. According to this theory, a high workload can negatively impact caring behavior because workers experience physical and mental fatigue. High workloads increase stress levels, which can reduce an individual's capacity to demonstrate caring behavior. Overworked workers often experience burnout, which results in a lack of empathy and attention to patients or clients (Lasa et al., 2019).

RESEARCH METHOD

Research Design

The design of this research is correlational analytical research with a cross-sectional approach.

Research Variables

The independent variable in this study is the workload of nurses at Siloam Hospital Jember.
The dependent variable in this study is caring behaviour of nurses at Siloam Hospital Jember.

Population, Sample and Sampling

The population in this study was all 80 nurses at Siloam Hospital Jember. The sample in this study was 52 nurses at Siloam Hospital Jember who met the inclusion criteria. This study used a non-probability sampling technique with a purposive sampling technique. The respondents met the minimum requirements for Pearson correlation calculations, namely 30 subjects. In addition, the population of nurses at Siloam Hospital Jember amounted to 80 people so that sampling of 65% of the population was considered representative for the analysis of the relationship between the two variables. Meanwhile, the inclusion criteria in this study were 1) Willing to be respondents in this study, 2) Minimum education of D III Nursing / S1 Nursing Ners, 3) Nurses in the Emergency Unit, Inpatient Unit, Outpatient Unit. The exclusion criteria in this study were: 1) Nurses in the Operating Room Unit, 2) Head of the Room.

Time and Place of Research

The research period was February 2025. The research location was in the Inpatient Unit, Emergency Unit, and Outpatient Unit of Siloam Hospital Jember.

Data Collection and Collection Procedures

The instruments used in this study were questionnaires. The questionnaire was about nurses' workload and the Caring Assessment for the Direct Care Giver (CACG) questionnaire. The Giver (CACG) instrument has been tested for validity (r count 0.415 – 0.790 > r table 0.279) and reliability (Cronbach's Alpha = 0.91).

Assessment uses a Likert scale of 1–4, with the final categories divided into:

a) 1.00 – 1.99 = low
b) 2.00 – 2.99 = moderate
c) 3.00 – 4.00 = high.

Data Analysis

Data analysis using SPSS with Univariate Statistical Test using frequency distribution analysis, Bivariate Statistical Test using Pearson Correlation Bivariate Statistical Test Results with p value <0.05).

The use of the Pearson Test was chosen for several reasons, namely:

1) Workload and caring behavior variables were measured using a total numerical score.
2) Data are normally distributed based on the Kolmogorov–Smirnov test ($p > 0.05$).
3) Pearson is suitable for testing the linear relationship between two quantitative variables.

Thus, the use of Pearson is methodologically correct.

RESULTS

General Data

Table 1 Frequency Distribution of Characteristic Data Based on Age, Gender, Education, Length of Service, and Marital Status at Siloam Hospital Jember. (n: 52)

Variable	Frequency	Percentage
Age		
20-30 years	23	44.2%
30-40 years	28	53.8%
>40 years	1	1.9%
Gender		
Male	16	30.8%
Female	36	69.2%
Education		
Diploma in Nursing (D3)	16	30.8%
Bachelor + Ners	36	69.2%
Work Duration		
<1 year	8	15.4%
1-3 years	18	34.6%
4-5 years	9	17.3%
>5 years	17	32.7%
Marital Status		
Married	33	63.5%
Unmarried	19	36.5%

Source: Primary Data (2025)

Based on table 1 above, many respondents are aged 30 – 40 years old as many as 28 people (53.8%) and a small number of people aged > 40 years as many as 1 person (1.9%), aged 20-30 years as many as 23 people (44.2%). For the gender of respondents, most were women as many as 36 people (69.2%) and a small number were men as many as 16 people (30.8%), and in terms of education, most of the respondents were S1 Nursing as many as 36 people (69.2%) and a small number were D3 Nursing as many as 16 people (30.8%). Meanwhile, the length of service of the respondents was mostly 1-3 years, as many as 18 people (34.6%), 4-5 years as many as 9 people (17.3%), >5 years as many as 17 people (32.7%) and a small portion was <1 year as many as 8 people (15.4%). Lastly, the marital status of the respondents was mostly married, as many as 33 people (63.5%), those who were not married were 19 people (36.5%).

Special Data

Table 2 Frequency Distribution of Independent Variable Data: Nurse Workload and Caring Behavior Nurses at Siloam Hospital Jember (n=52).

Variable	Frequency	Percentage
Workload		
Light	6	11.5%
Moderate	44	84.6%
Heavy	2	3.8%
Caring Behavior		
Low	0	0%
Moderate	16	30.8%
High	36	69.2%

Source: Primary Data (2025)

Based on table 2 above, most respondents' workloads are moderate workloads of 44 people (84.6%), light workloads of 6 people (11.5%) and a small portion of heavy workloads of 2 people (3.8%). For caring behavior, many respondents are highly caring behaviors of 36 people (69.2%) and a small portion are moderate caring behaviors of 16 people (30.8%).

Table 3 Results of Cross-tabulation of Data on the Relationship between Nurses' Workload and Nurses' Caring Behavior at Siloam Hospital Jember (n=52).

		Caring Behavior						*Total*
		Low		Moderate		High		
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	
Workload	Low	0	0	0	0%	2	4%	2
	Moderate	0	0	12	22%	32	62%	44
	High	0	0	4	8%	2	4%	6

Source: Primary Data (2025)

Based on table 3 above, it shows that many respondents, namely 32 people (62%), behaved with high caring behavior even though their workload was in the category moderate, and 4 people (8%) with high caring behavior got 2 respondents (4%) even though the workload was heavy.

Table 4. Results of the Bivariate Pearson Correlation Statistical Test of the Workload Relationship Variables and Caring Behavior of Nurses at Siloam Hospitals Jember (n=52).

Based on table 4 above, it shows that there is a relationship between nurses' workload and nurses' caring behavior at Siloam Hospital Jember (p-value = 0.031 < ÿ = 0.05).

DISCUSSION

Nurse Workload

Based on Table 2 above, most respondents' workloads are high, and a small portion have moderate workloads. Furthermore, based on Table 4 above, it shows that there is a relationship between nurses' workload and their caring behaviour at Siloam Hospital Jember (p-value = 0.031 <ÿ = 0.05). This finding is in line with Swanson's theory which emphasizes that caring behaviours requires emotional, mental, and physical readiness of nurses. As the workload increases, the nurses' capacity for 'being with', 'doing for', and 'enabling' patients decreases. This result is consistent with Gibson (2000) who stated that workload is an organizational factor that influences performance and caring behaviour. The integration of these findings provides managerial implications that adjusting the nurse-patient ratio, shift arrangements, psychosocial support, and caring training need to be hospital priorities.

In addition, several theories state that one of the factors influencing caring behaviour is the presence of a high or excessive workload, which will affect the implementation of nurses' caring behaviour when providing care to patients. The more patients a nurse must care for, the greater her workload. Ideally, the nurse-to-patient ratio should be balanced to maintain the quality of care provided. Patients with critical conditions or chronic illnesses require more intensive attention, which increases the nurse's workload. Nurses often work long shifts, including night shifts, which can cause physical and mental fatigue. Irregular shift changes can also disrupt nurses' biological rhythms. In addition to caring for patients, nurses must also complete administrative tasks such as medical records and daily reports. This increases their workload and reduces the time they can spend on direct patient care. Shortages of medical equipment, medications, and additional personnel can increase nurses' workload. They must work harder to overcome these limitations, which can ultimately impact the quality of care (Alikari et al., 2021). On the other hand, caring behaviour is a fundamental aspect in nursing that emphasizes empathy, care, and attention to patients.

Research conducted by Gilang Ramadan found that most respondents with high workloads applied caring behaviour in the sufficient category of 19 respondents (29.2%), while respondents with very high workloads applied caring behaviour in the less category of 9 respondents (13.8%). Based on Kendall's tau analysis, the results obtained were p = 0.000 (p <0.05) and r = -0.618, meaning there is a relationship between workload and caring behaviour of nurses in the internal medicine and surgery wards of Dr. Tjitrowardojo Purworejo Regional Hospital with a strong relationship strength and a negative relationship direction, meaning the higher the workload, the less caring behaviour (Gilang Ramadan, Mahfud, 2016). Research by Demur et al concluded that workload has a significant relationship with caring behaviour (p = 0.002) and workload is the most influential factor on caring behaviour (Demur et al., 2019). Further research was conducted by (Herman & Deli, 2021), the study was conducted on 73 nursing staff using the Pearson correlation test results with an error level (ÿ) = 0.05, obtained a p value = 0.011. It was concluded that there is a significant relationship between workload

and caring behaviour applied by nurses, the lower the workload, the greater the opportunity for nurses to implement caring behaviour.

The next research by, with bivariate analysis of workload and caring behaviour, workload with caring behaviour obtained a correlation value of 0.692 and a p value of 0.00 which means a strong correlation, multivariate analysis of logistic regression obtained the results of the variable that most influenced caring behaviour was workload with OR (Exp(B)) of 2.827 with a constant of -0.560. It was concluded that workload was the most influential factor influencing nurses' caring behaviour. The higher the workload, the more difficult it is to behave caringly. Further research (Alghamdi, 2016) concluded that workload causes job stress, which in turn affects productivity.

From the results of research that has been conducted at Siloam Hospital Jember, the results obtained are appropriate and relevant to previous research related to workload that Most nurses stated that their workload is moderate, and a small portion stated that their workload is high. But even though their workload is in the moderate category, nurses can implement high caring behaviour and there are 4% of nurses with heavy workloads are also able to provide high caring behaviour.

There are several main reasons why nurses are able to provide high caring to patients, including: because of the calling of the profession and nursing ethics where nurses have a moral responsibility to provide the best service to patients, the existence of a nursing code of ethics that emphasizes the importance of empathy, caring and professionalism, in addition to that with a sense of empathy and caring makes nurses continue to try to give their best, even though they are tired, the satisfaction of seeing patients recover or improve is a motivation for nurses, a positive work environment can maintain motivation to continue providing attentive service, Good coping mechanisms, where staff are able to manage stress that arises while working. And finally, because of the training provided, nurses are trained to cope with work pressure while maintaining quality service. Nevertheless, it is important for healthcare institutions to continue to pay attention to the well-being of nurses so they can continue to provide caring services, regardless of their physical and mental health. Optimal, one example is identifying staffing level requirements to meet various patient needs (Griffiths et al., 2020; Fan et al., 2023)

Caring Behaviour

Based on Table 2 above, most of the respondents' caring behaviour is high caring behaviour (36 respondents (69.2%), moderate behaviour (16 respondents (30.8%), and 0% with the low behaviour category. Based on Swanson's caring theory focuses on the concept of nursing that emphasizes the relationship between nurses and patients. This theory describes caring as a process consisting of five main interrelated components: the first component is maintenance belief, which is maintaining confidence that patients have the capacity to face the situations they experience, providing hope and encouragement so that patients remain enthusiastic in the healing process. The second component is knowing, where nurses are expected to try to understand the unique experiences experienced by patients, listening with empathy and

recognizing physical, emotional, and social needs patient's psychological well-being. The third component is Being With, where the nurse is physically present. The fourth phase is Doing For, where nurses act with professional expertise and treat patients with respect and compassion. The final phase is Enabling, which involves providing education, guidance, and support so patients and their families can manage their health effectively.

Swanson's Caring Theory emphasizes that caring is not just a physical act but also involves emotional and psychological attention to the patient. By understanding and applying this theory, nurses can provide more holistic and meaningful care to patients.

A nurse can carry out caring behaviour; there are many factors that influence the caring behaviour of the nurse. Performance theory by Gibson (2000) where one of the factors that influences caring behaviour is the factor organization, and in these organizational factors there are elements of workload that have an influence on the caring behaviour of nurses. According to research conducted by (Lasa et al., 2019) found that despite moderate workloads, nurses were able to provide optimal patient care. Spearman's research showed a relationship between workload and behavioural care (P-value 0.018). Another study by Suryani et al., 2024, used the Chi-Square test at a significance level of 0.05. Shows a p value = 0.013 < a = 0.05 with an Odds Ratio = 4.736, which means there is a relationship between the perception of workload and nurse caring.

The results of a study conducted at Siloam Hospital Jember were consistent and relevant to previous studies analysing the relationship between nurses' workload and caring behaviour. At Siloam Hospital Jember, caring behaviour is a top priority in improving service quality. Siloam Hospital has consistently committed to providing quality and affordable healthcare to all its patients. Siloam Hospital's vision is to be the best hospital in Indonesia in providing comprehensive and quality healthcare, and its mission is to provide holistic and integrated healthcare services, oriented towards patient satisfaction. One way to improve caring behavior is by improving nurse education (Fikre et al., 2022).

CONCLUSION

Most nurses at Siloam Hospital Jember exhibit a high level of caring behavior, despite their moderate workload. This is due to their professional calling and the nursing ethics they uphold, along with a sense of empathy and humanity, as they understand that patients are vulnerable and requires attention, nurses are committed to patient recovery, support from colleagues and the medical team helps nurses manage work stress, the existence of a shift work system helps reduce excessive fatigue, nursing education and training instill the value of caring from the beginning and a calling in the Health Profession. Nevertheless, attention to the welfare of nurses remains a priority. This is crucial for healthcare institutions, so that they can continue to provide compassionate services with optimal physical and mental conditions.

REFERENCES

Alghamdi, M. G. (2016). Nursing workload: A concept analysis. *Journal of Nursing Management*, 24(4), 449–457. https://doi.org/10.1111/jonm.12354

Alikari, V., Fradelos, E.C., Giannakopoulou, N., Gerogianni, G., Efstathiou, F., Lavdaniti, M., & Zyga, S. (2021). Translation, Cultural Adaptation, Validation and Internal Consistency of the Factors of Nurses Caring Behavior. *Materia Socio-Medica*, 33(1), 34–40. https://doi.org/10.5455/msm.2021.33.34-40

Carlesi, K.C., Padilha, K.G., Toffoletto, M.C., Henriquez-Roldán, C., & Juan, MAC (2017). Patient safety incidents and nursing workload. *Revista Latino-Americana de Enfermagem*, 25. https://doi.org/ 10.1590/1518-8345.1280.2841

Chandra, NP, & Suhita, BM (2022). The Influence of Nurses' Caring in Caring for Cancer Patients Undergoing Chemotherapy. JIIP - *Scientific Journal of Educational Sciences*, 5(7), 2230–2241. https://doi.org/ 10.54371/jiip.v5i7.704

Cucolo, D.F., & Perroca, M.G. (2019). The qualitative dimensions of nursing workload: A measurement proposal. *Revista Latino-Americana de Enfermagem*, 27. https://doi.org/10.1590/1518-8345.3274.3238

de Magalhães, AMM, da Costa, D.G., Riboldi, C. de O., Mergen, T., Barbosa, A. da S., & de Moura, GMSS (2017). Association between workload of the nursing staff and patient safety outcomes. *Revista Da Escola de Enfermagem*, 51, 1–7. https://doi.org/10.1590/S1980220X2016021203255

Demur, DRDN, Mahmud, R., & Yeni, F. (2019). Workload and Motivation with Behavior Caring Nurses. *Perintis's Health Journal*, 6(2), 164–176. https://doi.org/10.33653/jkp.v6i2.303

Fikre, A., Egata, G., Abdisa, L., Yadeta, E., Eyeberu, A., & Dheresa, M. (2022). Perception of Caring Behaviors and Associated Factors Among Nurses Working in Harar Hospitals, Eastern Ethiopia. *SAGE Open Nursing*, 8. https://doi.org/10.1177/23779608221143909

Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (2000). *Organizations: Behavior, structure, processes* (10th ed.). McGraw-Hill.

Gilang Ramadan, Mahfud, Z. (2016). The Relationship Between Workload and Caring Behavior of Nurses in the Internal Medicine and Surgery Wards of Dr. Tjitrowardojo Purworejo Regional Hospital. Alma Ata University, Yogyakarta. http://eprints.ums.ac.id/id/eprint/46672

Griffiths, P., Saville, C., Ball, J., Jones, J., Pattison, N., & Monks, T. (2020). Nursing workload, nurse staffing methodologies and tools: A systematic scoping review and discussion. *International Journal of Nursing Studies*, 103, 103487. https://doi.org/10.1016/j.ijnurstu.2019.103487

Hellín Gil, MF, Ruiz Hernández, JA, Ibáñez-López, FJ, Seva Llor, AM, Roldán Valcárcel, M.D., Mikla, M., & López Montesinos, M.J. (2022). Relationship between Job Satisfaction and Workload of Nurses in Adult Inpatient Units. *International Journal of Environmental Research and Public Health*, 19(18). https://doi.org/10.3390/ijerph191811701

Herman, H., & Deli, P. (2021). The Relationship Between Workload and Nurses' Caring Behavior. *Journal of Contemporary Nursing Research*, 1(1), 16–23. https://doi.org/10.59894/jpkk.v1i1.192

Kang, Y., & Hur, Y. (2021). Nurses' experience of nursing workload-related issues during caring for patients with dementia: A qualitative meta-synthesis. *International Journal of Environment Research and Public Health,* 18(19). https://doi.org/10.3390/ijerph181910448

Lasa, AA, Susanti, IH, & Wirakhmi, IN (2019). The Relationship between Workload and Burnout On the Caring Behavior of Nurses at Hidayah Hospital, Purwokerto. *Concept and Communication*, 10(7), 301–316.

Madadzadeh, M., Barati, H., & Ahmadi Asour, A. (2018). The association between workload and job stress among nurses in Vasei hospital, Sabzevar city, Iran, in 2016. *Journal of Occupational Health and Epidemiology*, 7(2), 83–89. https://doi.org/10.29252/johe.7.2.83

Pundati, TM, Tamtomo, D., & Sulaeman, ES (2018). Motivation, Competence, Workload, and Their Association with Nurse Performance in Dr. Arif Zaenudin Hospital, Surakarta. *Journal of Health Policy and Management*, 3(2), 63–70. https://doi.org/ 10.26911/thejhpm.2018.03.02.01

Rizkianti, I., & Haryani, A. (2020). The Relationship Between Workload and Work Stress With Caring Behavior of Nurses in Inpatient Rooms. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, 5(2), 159–166. https://doi.org/10.30604/jika.v5i2.338

Rusli, R., Pratiwi, A., Putri, SZ, Mulat, TC, & Andani, N. (2023). Factors related to caring Behavior of nurses in the internal care room. *Journal of Health Scientific Education*, 1(3), 114–120. https:// doi.org/10.61099/junedik.v1i3.26

Shalaby, SA, Janbi, NF, Mohammed, KK, & Al-harthi, KM (2018). Assessing the caring behaviors of critical care nurses. *Journal of Nursing Education and Practice*, 8(10), 77. https://doi.org/10.5430/ jnep.v8n10p77

Siswantoro, E., Ns, SK, Kep, M., & Dwipayanti, PI (2023). Development of an Emotional Intelligence- Based Caring Behavior Model to Improve Nursing Student Competence. In Repos.Dianhusada.Ac.Id.

Sisy Rizkia, P. (2020). Journal of Professional Nurse Research on Tetanus Prevention. *British Medical Journal Journal*, 2(5474), 1333–1336.

Supriatin, E. (2015). Nurses' caring behavior based on individual and group factors Organization Introduction Results Methods. 18(3), 192–198.

Suryani, E., Rahmah, NM, & Astuti, P. (2024). The Relationship between Perceived Workload and Caring Nurses at Hospital X in Bekasi Regency. 12(1), 29–38.