Patient Safety & Quality Improvement Journal
http://psj.mums.ac.ir
PSQI

Examining Forgotten Nursing Care and Its Related Elements from the Standpoint of Nurses Working in 4 Teaching Hospitals of Kurdistan University of Medical Sciences Since the Coronavirus Epidemic

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ARTICLEINFO

Article type:
Original Article

***Article History*:**
Received: 29 Oct 2023
Accepted: 16 dec 2023

Key words:
Covid-19, Missed care, Nursing

ABSTRACT

Introduction:
Due to the effect of COVID-19 on nursing care, the methods of communication with patients have changed and ultimately caused nursing care to be postponed or even removed. According to the decrease in COVID-19 patients, the effect of the pandemic has remained in the hospitals, which expressed the necessity of doing this study.

Materials and Methods:
350 nurses from four teaching hospitals of the Medical Sciences University of Kurdistan participated in this cross-sectional (descriptive) study using random sampling. Two questionnaires were used: one for missed nursing care and the other for factors associated with missed nursing care. The independent t-test, one-way analysis, and chi-square test were employed in the data analysis using SPSS software version 16.

Results:
For missed nursing care in general, the study's score was 40.60. The patient's cooperation and supervision when using the restroom within the first 15 minutes of the request received a score of 2.39, whereas the patient's blood sugar management using a glucometer received a score of 1.24. Additionally, "lack of nursing staff" (score of 3.84) is the most significant instance in examining factors connected with missing nursing care from the perspective of the nurses.

Conclusion:
Given that the primary cause linked to nursing service gaps is a shortage of nurses, addressing this issue by providing human resources can help.

▶ ***Please cite this paper as:***
Naseri S. Examining Forgotten Nursing Care and Its Related Elements from the Standpoint of Nurses Working in 4 Teaching Hospitals of Kurdistan University of Medical Sciences Since the Coronavirus Epidemic. Journal of Patient Safety and Quality Improvement. 2023; 11(4):207-214. Doi: 10.22038/PSJ.2023.75902.1415

Introduction

Nurses are the largest group in the healthcare field and play a vital role in maintaining hospital patient safety and quality of care (1). Ensuring that their needs are taken seriously and receiving complete and safe care from the healthcare system is one of the rights of hospitalized patients (2).

According to the study by Sharma et al. (2021), of 2701 hospital accidents that occurred in different parts of the United States, 51 accidents resulted in death, 159 accidents resulted in severe injuries, 1180 accidents resulted in moderate injuries, 926 accidents resulted in minor injuries, and 384 accidents resulted in no injuries is (3). In a qualitative study entitled "Missed Nursing Care", Kalish (2006) first described the concept of missed nursing care, which is defined as any component of patient care that is neglected (totally or partially) or is defined after the fact is complete (4). Missed nursing care is one of the conditions in which the patient's safety rights are violated (6) and is considered a threat to the standard of care and patient safety (5).

According to the findings of a study, most of the nurses (86%) stated that in their last work shift, they faced a lack of time to perform one or more care, and as a result, they were forced not to perform it (7). Also, a study on missing care showed that the grade of missing care by nurses working in the special care department for newborns is average (8). When nurses are overworked, they might be unable to complete all required care tasks and provide "implicit care" (9). Implicit rationed care means a planned and continuous state which, although based on providing care services for the patient, deprives patients of nursing care and gives the opposite results in a series of conditions and situations (10). The major types of errors in the form of performed actions include actions that are performed but in the wrong way, such as incorrect eye marking for surgery, and omitted actions, including actions that are not performed at all and are eliminated, such as not changing the patient's position (11). The patient's positioning, feeding schedule delays or forgetfulness, education, emotional support, proper documentation of events, cleanliness, and actions critical to the patient's survival are among the nursing care components that are frequently overlooked (4). The nursing staff provided seven reasons for not providing this care, and these themes were outlined as follows: insufficient staff, inefficient use of available staff resources, length of time needed for the nursing intervention, inadequate teamwork, ineffective delegation, habit, and denial (6).

Globally, between 55 and 98% of nurses could not provide at least one basic nursing care (12). Developing or revising nursing care plans (42%), talking to patients and their families (41%), and providing emotional support or support (53%), according to the findings of a major cross-sectional study including 33,659 nurses in 488 hospitals across 12 European countries, were the most frequently overlooked nursing care (1).

There is a shortage of nurses, personal protective equipment, and preparedness for epidemics, which has reportedly put healthcare systems and society at risk (13,14). Severe respiratory failure and early mortality are possible outcomes of the highly contagious Covid-19 illness (15).

This disease has caused the healthcare systems to be under incomparable pressure, so within a few weeks, doctors and nurses in new teams moved to new departments with new tasks (16). For example, nurses in outpatient or administrative departments were transferred to inpatient units or from other departments, such as child care to cardiology (17). Nurses reported that they could not provide patient and family-oriented nursing care due to changes in patient management techniques brought about by using protective devices and limited patient interaction to stop the disease from spreading (18).

Certain aspects of nursing care may be compromised because nurses avoid direct contact with patients out of fear of getting the virus (19). The current nursing staff crisis is making matters worse, as reports indicate that a concerning number of nurses plan to quit their existing jobs because of the rising risk of the virus and unfavorable working circumstances (20). In general, it can be said that during the coronavirus pandemic, nursing care quality was negatively impacted, and nursing care was lost as a result of patients being hospitalized in departments

unrelated to and unspecialized in their problems, which did not have the facilities or equipment necessary to provide services to them. Additionally, staff members' lack of knowledge was caused by frequent department transfers, inadequate facilities, patient transfers between departments, and the need to maintain social distance and use personal protective equipment (5). Thus, this study aimed to ascertain, from the perspective of the nurses employed at the teaching hospitals of Kurdistan University of Medical Sciences since the coronavirus pandemic, the nursing care that was not provided and the associated variables.

Sources and Procedures

The current study, which is descriptive (cross-sectional), was conducted in 1401 among the nursing staff of teaching hospitals of Kurdistan University of Medical Sciences, Sanandaj. The purpose of this research was to determine the missing nursing care and related issues from the point of view of the nurses working in the teaching hospitals of the Kurdistan University of Medical Sciences after the Corona epidemic. In order to calculate the proportion of samples in each hospital, sampling was done at random once the total number of samples was determined. The number of samples was determined using the following algorithm.

$$n = \frac{z^2_{1-\alpha/2} \times \sigma^2}{\delta^2}$$

Of the 300 nurses, 122 were picked as samples from Kausar Hospital, 101 were picked from Tawheed Hospital, 61 were picked from Bethat Hospital, and 16 were picked from Quds Hospital. Clinical experience during the COVID-19 pandemic in several hospital departments, a minimum of six months of job experience, and a willingness to participate in the ongoing research were requirements for enrollment in this study. Unwillingness to comply and incomplete questionnaire completion were requirements for withdrawing from the study. Based on this, 50 questionnaires were removed from the analysis process. Participants were informed of the study's goals at every turn and were given the option to withdraw from the study at any time. The questionnaires had to be completed in person during the morning, evening, and night shifts. The data collection tool was a three-part questionnaire as follows.

The first section included eight questions on demographics, including age, gender, marital status, employment status, education level, and work experience, including shift work and work during the coronavirus pandemic. The second part was the missed nursing care questionnaire [1]. Kalis (2009) assembled this questionnaire to gauge the nursing care that was not provided. Khajovi et al. (2019) verified it in Iran to quantify the amount of missing nursing care (2).

The content validity approach was used to determine the instrument's validity, while the Cronbach's alpha method yielded a reliability coefficient of 0.743 was used to determine the instrument's reliability. There are 24 questions in this form, covering topics like medication prescription, discharge planning, patient mobility, rotation, assessment, and education. Four Likert-type options have been created for each of these items: We seldom forget (score 1), we occasionally forget (score 2), we always forget (score 3), and we always forget (score 4). A greater number suggests a larger likelihood of missing care (1); the greatest score is 96, and the lowest is 24.

A factor- related care- missing questionnaire is included in the third section. In order to examine the parameters associated with missed nursing care, Blackman et al. in Australia (2015) created and assembled this questionnaire (21). Khajovi et al. (2019) have validated its use in Iran to measure variables associated with nursing care missing (2). An estimate of the validity of the lost care factor questionnaire was 0.98, and to perform reliability, 30 samples were used, and Cronbach's alpha coefficient was 0.91 (2). Three subscales on communication, material resources, and human resources are included in this 17-question survey (2). A total of 20 items were reviewed using the Likert scale, which

[1] MISSCARE questionnaire

classified the items as unimportant (Score 1), low importance (Score 2), medium importance (Score 3), and high importance (Score 4) (2). Three items were added to the questionnaire during the data validity analysis based on the differences in Iran's nursing system (2). For research variables, numerical indices of the minimum, maximum, average, and standard deviation were employed, while abundance distribution tables were utilized for qualitative variables. SPSS software version 16 was used for data analysis. The chi-square test was utilized to compare the qualitative factors, and the independent t-test was employed to examine the quantitative data between the two groups. In more than two situations, the one-way analysis of variance was employed to examine the variation between the mean of the quantitative and qualitative variables. In this investigation, $P<0.05$ was used as the significance level.

Results

After removing the data that did not qualify for inclusion in the study, a community of 300 people was analyzed. The study found that 51.3 percent of the nurses who took part were in their 20s.

There were 187 female participants. The study's sample of married nurses was 59.7%. The majority of nurses in the study held a BSN. Forty-three percent of nurses had an official job status. The nurses in the study had between six months (10%) and 25 years (1%) of work experience.

Rotating shifts were experienced by 243 nurses, a significant proportion of the total number of nurses involved in the study. The majority of the nurses who took part in this study (44%) had work experience ranging from one month to eleven months, and all of them had experience working during the coronavirus outbreak (Table 1).

Table 1: Demographic data

Demographic data	Divisions	Score	Percentage
Age	20 - 30	154	51.3
	30 - 40	123	41.0
	40 - 50	23	7.6
Gender	Male	113	37.7
	Female	187	63.2
Status of marriage	Individual	121	40.3
	Married	179	59.7
Degree of education	BSN	239	79.9
	MSN	60	20.0
	PHD	1	0.3
Employment status	Project nurse	91	30.3
	Temporary nurse	11	3.7
	Contract nurse	62	20.7
	Official nurse	136	45.3
Work experience	Six months to one year	99	33.0
	Between one and five years	104	34.6
	Five to ten years	46	15.3
	Ten to fifteen years	29	9.6
	Fifteen to twenty years	14	4.6
	20–25 years old	8	2.6
Work shift	Morning	57	19.0
	Rotary	243	81.0
Work experience during the coronavirus pandemic	Less than a year	132	44.0
	Between one and two years	72	24.0
	Three to two years	48	16
	Three to four years	48	16

The missed nursing care and related variables monitoring questionnaire data were also reviewed in this study, which looked at the issue from the perspective of the target hospitals' nurses. In this study, the missed nursing care score was 40.60. Table 2 shows that nurses rarely forget the following tasks: "Cooperation and supervision in the

patient going to the toilet in the first 15 minutes of the request" (2.39),

"Monitoring the feeding of the patient before the food gets cold" (2.35) and "Blood sugar control with a glucometer" (1.24). Furthermore, in analyzing the contributing elements to neglected nursing care from the perspective of nurses, "Lack of nursing staff" ranked highest (with a score of 3.84), while "Unusual orders of the doctor for the patient" came in lowest (with a score of 3.27) (Table 3).

Table 2: Scores related to dimensions of missing nursing care from the perspective of nurses

	Min	Max	Mean	Sd
Total missed nursing care	24	85	40.60	11.3
Participation in interdisciplinary conferences on patient care	1.00	4.00	1.81	0.9
Overseeing the meal preparation for a self-sufficient patient	1.00	4.00	2.24	1.0
Cooperation and oversight when it comes to the patient using the restroom within 15 minutes after the request	1.00	4.00	2.39	1.0
Monitoring the feeding of the patient before the food gets cold	1.00	4.00	2.35	1.9
Performing oral care	1.00	4.00	2.23	0.9
Performing or monitoring the patient's bath and skin care	1.00	4.00	2.22	1.0
Moving the patient every 2 hours	1.00	4.00	1.94	0.9
Emotional assistance for the patient's relatives	1.00	4.00	1.85	0.8
Evaluating the effect of drugs	1.00	4.00	1.51	0.7
Educating the patient on illnesses, examinations, and diagnostic procedures and so on	1.00	4.00	1.58	0.7
Concentrating on reassessing the patient in light of their conditions	1.00	4.00	1.68	0.7
Washing hands before performing care	1.00	4.00	1.56	0.7
Relocating the patient three times a day or as directed by the physician	1.00	4.00	1.54	0.8
Bedsore care	1.00	4.00	1.35	0.6
Patient education during discharge	1.00	4.00	1.46	0.7
Response to the patient " nurse call "within 5 minutes at most	1.00	4.00	1.64	0.7
Providing PRN medication within 15 minutes of the patient's request	1.00	4.00	1.58	0.7
Overall assessment of the patient in each work shift	1.00	4.00	1.50	0.8
Evaluation and care of peripheral and central venous lines of the patient	1.00	4.00	1.44	0.7
Prescription medication written no more than 30 minutes before or after the appointed time	1.00	4.00	1.45	0.6
Control of fluid absorption and excretion	1.00	4.00	1.34	0.6
Measurement of vital signs based on doctor's order	1.00	4.00	1.31	0.6
Complete registration of essential patient information	1.00	4.00	1.31	0.6
Blood sugar control with a glucometer	1.00	4.00	1.24	0.5

Table 3: The obtained score of dimensions of related factors nurses' perspective on neglected nursing care

	Min	Max	Mean	Sd
Lack of nursing staff	1.00	4.00	3.84	0.4
Emergencies situations involving patients (e.g., decline in the patient's health)	1.00	4.00	3.68	0.5
Unexpected rise in patient volume or overcrowding in the wards	1.00	4.00	3.66	0.5
Lack of assistants or secretaries (for example, nursing assistants, ward staff, and service staff)	1.00	4.00	3.60	0.6
Unusual orders of the doctor for the patient	1.00	4.00	3.27	0.7
Non-availability of medicines when necessary	1.00	4.00	3.61	0.6
Transition and ineffective shift job transformation during shift work transfer or patient transfer	1.00	4.00	3.57	0.6
Failing to provide other departments with the necessary care (the physiotherapy team, for instance, would not move the patient).	1.00	4.00	3.53	0.6
Lack of instruments and equipment when needed	1.00	4.00	3.62	0.6
Equipment and equipment not working properly when necessary	1.00	4.00	3.61	0.6
Lack of support from treatment team members	1.00	4.00	3.48	0.7
Stress or inadequate communication with other help and support centers	1.00	4.00	3.42	0.7
Tension or weak communication in the nursing team	1.00	4.00	3.48	0.7
Tension or a breakdown in the medical staff's communication	1.00	4.00	3.50	0.7
Failure to explain the reasons for not providing care by the nursing assistant	1.00	4.00	3.37	0.7
The nurse who is in charge of the patient's care is absent or not available	1.00	4.00	3.39	0.7
A significant amount of tasks associated with patient admission and discharge	1.00	4.00	3.68	0.7

Discussion

The study's final nursing care missing score was 40.60, lower than the average score 54.00. It suggests that fewer nursing cares are missed in the target hospitals even after the coronavirus epidemic has ended. Similar to this study, the central Philippines' mean missed nursing care score was low (20), suggesting that fewer frontline nurses in the region missed nursing care during the pandemic. The study examined factors associated with missed nursing care and the quality of nursing care during the COVID-19 epidemic. In this study, "Cooperation and oversight when it comes to the patient using the restroom within 15 minutes after the request" and "Monitoring the feeding of the patient before the food gets cold" have the highest score, which means it is mostly missed by nurses and "Controlling blood sugar using a glucometer" has the lowest score in this means that nurses rarely miss it.

In 2015, nurses at the Kerman University of Medical Sciences examined missed nursing care and the factors associated with it. Their observations aligned better with the findings of this study, with the highest average related to missed nursing care being "Participation in interdisciplinary conferences on patient care" at 1.81 (0.84), " Overseeing the meal preparation for a patient who is self-sufficient " at 1.71 (0.94), and " Cooperation and oversight when it comes to the patient using the restroom within 15 minutes after the request" at 1.69 (0.86) (2).

The lowest average score is "Measurement of vital signs according to the doctor's order," with an average of 1.1 (0.34), "Complete registration of essential patient information," with an average of 1.1 (0.37), and "Controlling blood sugar using a glucometer" was assigned with an average of 1.11 (0.32) (2). According to the nurses who participated in this study, "Lack of nursing staff" is the most significant cause (scoring 3.84) associated with missing nursing care, while "Unusual orders of the doctor for the patient" is the least significant one (score 3.27). However, from the perspective of the nurses working in the emergency rooms of the hospitals under study at Tehran University of Medical Science, the main causes of care gaps, as measured by an average of 3.04 (1), were a lack of nursing staff, an unanticipated rise in the number of patients, or overcrowded wards.

Conclusion

In the current survey, four teaching hospitals connected to the Kurdistan University of Medical Sciences in Sanandaj City received an overall score of 40.60 for missing nurse care. "Cooperation and oversight when it comes to the patient using the restroom within 15 minutes after the request," with a score of 2.39, and "Monitoring the patient's nutrition before the food is cooled," with a score of 2.35, received the highest score. It is mostly forgotten by nurses, and "blood glucose control with a glucometer" received the lowest rating of all, 1.24, which indicates that nurses seldom forget it. It is also true when looking into the causes of nursing care that is not received. "Nursing staff shortage" was the factor that affected nurses the most, scoring 3.84, while "unusual doctor's orders for the patient" was the least important factor, scoring 3.27.

There was no specific limitation in this study; the only limitation of the research was the concern of several nurses about the managerial levels being informed about the care provided, for fear that some of them will consider these cases intentional and, as a result, not report it, which was resolved with the necessary explanations and mentioning that there is no need to specify personal details. Given that the lack of nurses is a global problem and has always existed everywhere, and it has been concluded again in this research, the following points can be presented as solutions (it should be noted that some of these solutions have been implemented and it just needs to be emphasized more and some are in the early stages for implementation): the proposal to increase the number of nursing schools and increase the capacity of education with sufficient students in this field. Emphasizing that the minimum acceptable educational qualification to enter the nursing profession is a bachelor's degree (currently in effect), it is suggested to motivate nurses as a favorable environment for work, flexibility in recruitment methods, and human resources supply. Setting the work schedule according to the workload in different

special and general departments and proposing the training and hiring of nursing assistants and the detailed formulation of the duties of each one to prevent burnout of nursing personnel (22). Considering that much of nurses' work time is devoted to documentation, with the progress of science and technology day by day, implementing electronic documents and using artificial intelligence can make nurses provide more patient-centered care (23).

Acknowledgment

Finally, we would like to thank the esteemed directors of affiliated hospitals and the esteemed vice president of research and technology of Kurdistan University of Medical Sciences for their assistance in this study effort. The study's ethics identification number is IR.MUK.REC.1401.280.

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