

Reasons of Missed Nursing Care From the Viewpoints of Nurses in Educational, Private, and Social Security Hospitals in Urmia-Iran in 2018

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Abstract

Background: Missed nursing care is defined as required care that has been delayed, partially completed, or not completed at all.

Objectives: This study aimed to investigate the causes of missed nursing care from the viewpoints of employees in public, private, and social security hospitals.

Methods: This descriptive-analytical study was conducted on 453 nurses working in five educational hospitals, four private hospitals, and a social security hospital in Urmia in 2018. Regarding data collection, the "missed care questionnaire" was distributed to nurses by convenience sampling method. The validity of the questionnaire was confirmed by the faculty members of Urmia Azad University, and the reliability of the questionnaire was assessed using Cronbach's alpha (0.9). The results were analyzed using descriptive statistics, one-way analysis of variance ($p < 0.05$), and SPSS software version 16.

Results: The most common reasons for missed nursing care in educational, private, and social security hospitals were the patients' emergency conditions (42.9%), the insufficient number of nursing assistants (38.7%), and an unexpected increase in the number of patients (18.5%). Moreover, the causes of missed nursing care in all three areas of communication, financial, and human resources were significantly different between educational, social security, and private hospitals ($p = 0.0001$).

Conclusion: Lack of nursing staff, patients' emergency conditions, and an unexpected increase in the number of patients are the main reasons for missed nursing care in educational, social security, and private hospitals. Therefore, it is recommended to apply appropriate policies to provide nursing staff, manage the admission, transfer, and distribution of patients to the hospital.

Keywords: reasons of missed care, missed care, nurses, Urmia- Iran

Introduction

Nursing care is the action that is needed by patients and is essential for the better and faster recovery of patients. In some cases, nursing care could be ignored intentionally or inadvertently by nursing staff, in which case they are referred to

missed nursing care [1,2]. This is the initial definition in a qualitative study of missed nursing care in the United States [3]. Missed nursing care is defined as the morbid care needed by patients which have been delayed or eliminated because of different patients' demand or lack of inadequate

resources [4]. There is international evidence of missed nursing care and its outcomes. The evaluation of 54 studies in 20 countries indicates that outbreaks of missed care are usual among nurses [2]. This issue has been considered as a worrying factor due to the long history of missed nursing care, enhancing the incidence, and negative impacts [5, 6]. According to studies, the workload of each nurse rises due to the increases of each patient, and consequently, the probability of missed care increases by 10%, which is also related to an enhanced rate of mortality [7,8]. Thus, the reduction of missed nursing care will lead to a decrease in the duration of hospitalization, nosocomial infections, and finally, the costs imposed [9,10].

The duration of hospitalization is one of the determinants of the cost imposed on patients and the health care system [11] that basic nursing care can decrease hospitalization and costs, improve the quality of nursing services, concentrate and better organization of nursing care. Conducting studies in different clinical situations is one of the essential ways in the development and evolution of nursing care. Extensive studies have been carried out in various countries to evaluate missed nursing care as well as its reasons. Based on the results, there was a relation between missed nursing care and the number of staff, lack of required drugs, medication errors, team relationship between nurses and physicians, and the number of patients' admissions [12-14]. In other researches, the stressful situations and lack of human resources, multiple beds per nurse, complicated patients, the high workload of nurses [15,16], the ambiguity of aims at work, inadequate experience, excessive and undefined duties, defective equipment, low salaries and benefits, low social status, and the gap between theory and clinic are some of the reasons of missed nursing care [13].

Regarding the researcher's review, limited studies were performed on nursing care and its reasons in Iran [17-19]. For instance, the study of Yaghoubi et al. (2019) indicated that one of the main causes of missed care is the lack of teamwork among nurses [20]. However, Chegini et al. (2020) reported that educational programming for patient discharge and emotional support for the patient or family was the most common issues which have been forgotten by nurses [21].

Investigating the reasons for nursing care separately in educational, social security, and private hospitals can be fundamental to improve patient satisfaction and reform the structures and policies of hospitals because each of these hospitals has a different structure, resources, and management. Therefore, the present study, which is part of a university dissertation, aimed to investigate the reasons for missed nursing care from the viewpoints of nurses in public, private, and educational hospitals in Urmia.

Methods

This study is a descriptive-analytical cross-sectional study that was conducted on nurses working in educational, social security, and private hospitals in Urmia in 2018. Ethical considerations included getting the license of the University Ethics Committee (IR.MAHABAD.REC.1397.002), presenting the letter of introduction from the Islamic Azad University of Urmia to the hospitals where the sampling took place, and obtaining oral consent from nurses. It took 3 months to collect data. The study environment contains all wards of the hospital except special and emergency wards in five educational hospitals, four private hospitals, and one social security hospital in Urmia.

The inclusion criteria were bachelor's degree or higher, clinical work with patients, and consent to participate in the study. Failure to complete the questions in the questionnaire was considered an exclusion criterion. The sample size was 453 using statistical software (Stata), based on a 95% confidence interval, considering the mean and standard deviation of missed nursing care [22] in private ($1.50 \pm .21$) and public ($1.57 \pm .15$) hospitals, and considering 5% as alpha and 80% as power. In order to prevent sample loss, 500 people were invited. However, 47 questionnaires were excluded due to imperfect completion by nurses, and sampling continued until a total of 453 people.

In the present study, samples were selected as a quota which was applied from all hospitals in Urmia by convenience sampling method. The quotas were allocated to nurses who have inclusion criteria and were calculated for 1 person per 3.5 people according to the law of proportional number table (proportionality of 11780 total populations to 500 samples). For

example, 35 per 100 nurses were invited to the study for each hospital. Finally, due to the drop in samples, 282 people from public hospitals, 77 people from the social security hospital, and 93 people from private hospitals participated in the study. The researcher visited the studied hospitals on different shifts and provided the psychometric missed care questionnaire to the nurses.

The missed care questionnaire was the instrument we used which was prepared by Kalish in 2006 and evaluated in 2009 by the same author [23]. The questionnaire includes three parts, the first part consists of 12 demographic questions, the second part contains 24 questions related to missed nursing care, and the third part included 17 questions related to the reasons for missed nursing care. The face validity and qualitative content of the questionnaire were verified by 10 members of the Urmia Faculty of Nursing. According to the present study, it was suggested to use the first and third parts of this questionnaire for the reasons of missed care.

The demographic part included gender, educational degree, job, type of shift, and work experience. The third part consisted of 17 questions in three areas of human, communication, and financial resources, and it was related to the reasons for missed care. Regarding the scoring of the third part, the Likert scale was used, which was given a score of 4 to the answer of "important reason", score 3 to the item of "relatively important reason", score 2 to an "insignificant reason", and score 1 to the item of "no reason for not caring". The questions are distributed into three areas; financial resources (questions 1 to 9 with a score range of 1 to 36), communication resources (questions 10 to 12 with a score range of 1 to 12), and human resources (questions 13 to 17 with a score range of 1 to 20).

The highest score was 68, and the lowest was 17 [23,24]. A higher score means the possibility of forgetting care. Regarding obtaining the validity of this questionnaire, content and face validity were used. The questionnaire was translated because it did not undergo a psychometric assessment in Iran. After obtaining permission from the questionnaire designer, the questionnaire was provided to the professors of Urmia Azad University and the faculty of Nursing and Midwifery of Urmia, and their opinions were taken into account. Then, the questionnaires were distributed to the nurses of the wards, except for the special and emergency wards to collect data. The reliability of the questionnaire was calculated using Cronbach's alpha (0.9).

SPSS software version 16 was used to analyze the data. Regarding ensuring the normal distribution of data about missed nursing care, the Kolmogorov-Smirnov (k-s) test was used. Based on the result, the distribution of data was normal. Descriptive statistics tests (mean, standard deviation, range of changes) were used to describe the descriptive characteristics of the nurses participating in the study. One-way analysis of variance and supplementary LSD tests were used to compare the mean of missed nursing care among educational, private, and social security hospitals. The levels less than 0.05 were considered significant ($P < 0.05$).

Results

Based on the results, most of the participants in the study were women (70.6%), with a bachelor's degree (88.1%), in the position of the clinical nurse (92.5%), with rotating shifts (85.9%), and the experience of working from 6 months to 5 years (82.2%) (Table 1).

Table 1: Demographic characteristics of nurses participating in the study

	variable	Frequency/percentage
gender	female	(70.6)320
	male	(29.4)133
education	Bachelor's degree	(88.1)399
	Master's degree	(11.9)54
Work experience	6 months to 5 years	(82.2)372
	5 to 10 years	(14.3)65
	More than 10 years	(3.5)16
shift	fixed	(14.1)64
	rotation	(85.9)389
job	nurse	(92.5)419
	supervisor	(6.2)28
	staff	(1.3)6

The results related to the reasons for missed nursing care by hospitals indicated that the major causes of missed nursing care in educational, private, and social security hospitals in the field of communication, financial, and human resources were the inadequate number of nursing assistants (38.7%), an unexpected increase in the number of

patients (18.5%), and the patients' emergency conditions (42.9%) (Table 2). The insufficient number of nurses, patients' emergency conditions, unexpected increase in the number of patients, and the emergence conditions in the ward were repetitive reasons in educational, private, and social security hospitals (Table 3).

Table 2: Frequency of reasons of missed nursing care by hospitals

field	reasons of missed nursing care	educational	private	Social security
		Frequency/percentage	Frequency/percentage	Frequency/percentage
communicational	1- Delivery of complicated patients	(28.5)81	(9.8)9	(28.6)22
	2- Delivery of the patient from previous shifts without sufficient explanations	(23.9)68	(12)11	(33.8)26
	3- Lack of cooperation of other departments to perform the required care, such as the lack of timely presence of physiotherapists in the ward	(33.1) 94	(8.7)8	(22.1)17
	4- Lack of support from colleagues and medical staff	(29.9)85	(9.8)9	(26)20
	5- Tension or disconnection with other parts and support centers	(32)91	(12)11	(29.9)23
	6- Tension or disconnection between the nursing team	(33.5)95	(12)11	(23.9)23
	7- Tension or disconnection between physicians	(31)88	(8.7)8	(24.7)19
	8- Lack of informing nursing assistants about unserved services and care, such as not changing the patient's position or emptying the catheter	(31.7)90	(9.8)9	(32.5)25
	9- Unavailability or absence of caregivers (services or nursing assistants) in the ward	(30.6)87	(5.4)5	(22.1)17
Financial resources	10- Lack of access to the required drugs	(30.6)87	(13)12	24(31.2)
	11- Lack of access to equipment when needed	(33.5)95	(7.6)7	(29.9)23
	12- Lack of proper function of equipment when needed	(34.9)99	(13)12	(29.9)23

Human resources	13- Inadequate number of nurses	(34.9)99	(13)12	(29.9)23
	14- Patients' emergency condition	(37.3)106	(12)11	(42.9)33
	15- Unexpected increase in the number of patients or the emergence conditions of the ward	(37)105	(18.5)17	(39)30
	16- Inadequate number of nursing assistants, services, or secretaries in the ward	(38.7)110	(12)11	(27.3)21
	17- High number of admissions and discharges	(33.1)94	(5.4)5	(28.6)22

Table 3: Most causes of missed nursing care by hospitals

hospital	reasons	Frequency / percentage
educational	1- Inadequate number of nursing assistants	(38.7)110
	2- patients' emergency condition	(37.3)106
	3- Unexpected increase in the number of patients and the emergence conditions in the ward	(37)105
	4- inadequate number of nurses	(34.9)99
	5- Lack of proper function of equipment when needed	(34.9)99
private	1- Unexpected increase in the number of patients and the emergence conditions in the ward	(18.58)17
	2- Lack of access to required drugs	(13)12
	3- patients' emergency condition	(12)11
	4- tension between the nursing team	(12)11
	5- Tensions between other parts and support centers	(12)11
Social security	1- patients' emergency condition	(42.9)33
	2- Unexpected increase in the number of patients and the emergence conditions in the ward	(39)30
	3- Delivery of patients from previous shifts without adequate explanation	(33.8)26
	4- Lack of informing the nurses about unserved service	(32.5)25
	5- Lack of access to required drugs	(31.2)24

One-way analysis of variance also demonstrated that the reasons for missed nursing care in all three areas of communication, financial, and human resources were significant between educational, social security, and private hospitals (Table 4). As the LSD test showed that the causes of missed care in private hospitals in three areas of communication (patients' emergency condition, tension between the nursing team and between other parts), financial (lack of access to medicine), and human resources (unexpected increase in the

number of patients) were significantly more than social security and educational hospitals ($p=0.0001$). Moreover, the reasons for missed care in social security hospital in three areas of communication (patients' emergency conditions, patient delivery from previous shifts without adequate explanation, lack of informing nursing assistants about unserved service), financial (lack of access to the drug), and human resources (unexpected increase in the number of patients) were more than educational hospitals ($p=0.0001$).

Table 4: Comparison of the reasons for missed nursing care based on educational, social security, and private hospitals

field	hospital	number	mean	Standard deviation	F	Sig
Communication resources	educational	252	20.78	5.98	34.60	0.0001
	Social security	77	20.80	5.61		
	private	92	26.63	6.60		
Financial resources	educational	252	6.68	2.41	21.22	0.0001
	Social security	77	6.57	2.47		
	private	92	8.64	2.44		
Human resources	educational	252	11.04	3.49	25.31	0.0001
	Social security	77	10.57	2.86		
	private	92	13.86	4.10		
Total score	educational	252	38.5	8.95	24.31	0.001
	Social security	77	37.94	9.42		
	private	92	49.13	12.65		

***one-way analysis of variance**

Discussion

Based on the results, one of the major reasons for missed nursing care is the insufficient number of nurses and nursing assistants in the wards. According to the study of Zeleníková (2019), which was conducted to evaluate the reasons for missed nursing care in educational, private, and social security hospitals, the lack of human resources is the main factor that causes the missed nursing care. [16]. The small number of nursing staff and nursing assistants is one of the important problems in the wards. Nowadays, due to the lack of financial resources for the employment of nurses and nursing assistants, as well as because of the costs imposed on the organization, the lack of nursing staff is strongly felt. The absence of specific standards for the number of patients to each nurse, over-admission to hospitals, lack of triage for patients, and sometimes complicated and critically ill patients can be involved in the occurrence of missed nursing care [13].

The study conducted by Cho et al. (2015) indicated the lack of human resources as an effective factor in the incidence of missed nursing care [4]. The studies by Hernandez-cruz et al. (2017) also reported the lack of human resources as well as less communication between colleagues as reasons for missed nursing care [25]. The unexpected increase in the number of patients and their emergence conditions were other factors associated with missed nursing care. One of the

most stressful situations in the wards was the life-threatening conditions of the patient, in which the most concentration is on the patient who has a problem, and the needs of other patients may not be prioritized. The Ball study demonstrated that for every increase in the number of patients, the workload of each nurse increases, and consequently, the probability of missed care will increase to 10%, which is also related to an enhance in mortality [8].

A recent study by Tubbs-Cooley in 2019, which evaluated the relationship between missed nursing care and the workload of nurses in the neonatal intensive care unit, found that there was a direct relationship between nursing workload and missed nursing care [26]. The cultural, social, and educational differences in each context can justify the differences between the results of the present study and the mentioned studies about the most common causes of missed care. The difference in context is so great that various reasons for missed care may be reported in Iran. In the study of Khajoui et al. (2019), the main reasons for missed care were related to not participating in interdisciplinary conferences, lack of supervision on eating, and going to a toilet of patients [19]. It seems that suitable planning and determination of supportive nursing staff when the number of patients enhances from a certain range, at the emergence condition of patients and an unexpected increase in the number of patients can

be effective in controlling and reducing missed nursing care. Though, this care will be continued after discharge and improve the patient's health [27].

Based on the results, the importance of the reasons of missed nursing care in private hospitals was different from social security and educational hospitals, so that the major causes of missed nursing care in private hospitals were the unexpected increase in patients, less accessibility to required drugs, patients' emergency conditions, and tension between the nursing team, respectively. However, the most common reasons for missed nursing care in the social security hospital include patients' emergency conditions, unexpected increase in the number of patients, patient delivery from previous shifts without adequate explanation, lack of informing nursing assistants about the unserved services, and less accessibility to the required drugs. This result is almost in line with the study of Kalisch et al. (2014). Regarding this result, since the standards in educational, private, and social security hospitals are not the same and the available equipment and nursing staff are different in these hospitals, so the difference in the causes of missed nursing care in the three hospitals can be justified. Although according to the results of the present study, the reasons for missed nursing care in educational, social security, and private hospitals were common in some cases. However, the missed nursing care in educational hospitals is less than in social security and private hospitals. Hospital managers should insist on the need to pay more attention to reducing the missed nursing care in private and social security hospitals. Since patient recovery is directly associated with the quality of nursing care, focus on missed nursing care should be considered more than before as a common factor in most hospitals.

One of the major limitations of the study is the limited time of nurses and the high workload to complete the questionnaire, which can lead to inaccuracy in completing the questionnaires. In addition, the level of motivation, environmental and psychological conditions, their tendency, and attention are the effective items in answering questions and extracting results. To reduce these limitations, we were constantly in the ward, and the questionnaires were distributed when the nurses had better situations. Since the samples

were gathered in the general wards of hospitals, except for the emergency ward and the intensive care unit, it could not be generalized to the special wards because of the difference in workload. Only a questionnaire was used to collect data, and qualitative methods and interviews can extract more valid results. The present study, similar to other studies, shows that missed nursing care is one of the common problems in all hospitals and requires more in-depth study. Training the colleagues, enhancing the number of nursing staff, allocating appropriate financial resources, leveling patients (triage), using support staff when necessary or the number of hospitalized patients increased, and determining the number of patients per nurse can decrease the incidence of missed nursing care. Although, with the reduction of missed nursing care, the improvement and discharge of patients will increase and the number of costs imposed on the patient's family and the organization will decrease as well.

Conclusion

The most important reasons for missed nursing care in educational, social security, and private hospitals in Urmia were the lack of nursing staff, patients' emergency conditions, and an unexpected increase in the number of patients. This similarity in the three hospitals shows the attention to appropriate policies to provide nursing staff, manage the admission, transfer, and distribution of patients in the hospital. Moreover, the comparison of the three hospitals represents that the private hospitals, compared to public and educational hospitals in this city, have more missed care in three fields of financial, communication, and human resources. The reason for these differences is due to the structure, human resources, and management of these hospitals. For instance, most of the employees in private centers are newly graduated or retired people from other centers, and this staff is usually working in two places. Therefore, according to the mentioned differences, there is a need for more attention in enhancing the financial resources of hospitals, improving communication barriers, and providing skilled staff and empowering them.

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Conflict of interest

The authors have no conflict of interest.

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