Missed Nursing Care in Public Hospitals

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Abstract

Background: Missed nursing care is defined as delaying, postponing, or omitting the required patient care partially or as a whole.

Aims and Objectives: The purpose of this descriptive study was to determine the missed nursing care by the nurses in three province hospitals and reasons for missed care.

Methods: The study was conducted with 550 nurses working in care units in hospitals in the three province. To collect the data, the participant information form consisting of 7 questions prepared by the researcher and "MISSCARE Survey Turkish" was used. Numbers, percentages, mean, t-test, and oneway ANOVA were used for data analysis.

Results: In the study, the overall mean score for Elements of Missed Nursing Care was found 1.63±0.35, and the overall mean score for Elements of Missed Nursing Care was 3.22±0.65. The most missed nursing care was "Ambulation three times per day or as ordered", and the most significant reason for missed nursing care was "Inadequate number of staff".

Conclusions: It was concluded that nursing care was missed by the nurses working in the hospitals in the three province. The study reveals that the care given to patients in hospitals cannot be done for some reason. Hospitals are aware of this issue and should make new arrangements.

Keywords: Missed nursing care; nurse; care; patient; hospital

Introduction

Missed Nursing Care (MNC) is defined as delaying, postponing, or omitting the patient care required partially or as a whole (Kalisch, 2006; Kalisch et al., 2009a; Kalisch et al., 2012a; Villamin et al., 2018;). The concept of MNC was first used by Kalisch in a 2006 study. In this study, recurrent, repeated, emergency, and non-crisis omissions were categorized as MNC (Kalisch, 2006). Missed Nursing Care Model (MNCM) is based on a three-dimensional framework consisting of structure, process, and outcomes, formed by Donebedian as Quality of Care Model. Structure in MNCM is ascribed to the hospital, characteristics of the patient care unit, and individual nursing characteristics. Process refers to missed nursing care. Outcome refers to both patient outcomes (e.g. patient falls, pressure ulcers, nosocomial infections, etc.) and staff outcomes (e.g. job dissatisfaction, turnover, etc.) (Kalisch et al., 2009a; Kalisch et al., 2011a; Kalisch et al., 2012b; Burston et al., 2013;

Moreno-Monsivais et al., 2015). The attitudes of nurses towards the current situation regarding MNC have been investigated. In the studies conducted on this matter, most of the nurses, being assured of the confidentiality of their statements, acknowledged the existence of missed nursing care. Kalisch stated that nurses sometimes felt anger, sadness, frustration, and anxiety about MNC, and rarely indicated an emotional reaction as "who cares" (Kalisch et al., 2009a). Studies show that nurses are sometimes aware of MNC and can easily identify it; however, when asked, they do not openly accept the situation or discuss it, and they keep it a secret (Kalisch and Aebersold, 2006). Studies adopting the Missed Nursing Care Survey, which was developed to measure the amount and type of missed care, classify the causes of MNC under three categories as labor resources, material resources, and communication (Kalisch and Williams, 2009; Kalisch et al., 2009b; Kalisch and Lee, 2010). The greatest factor constituting labor resources is nurse staffing. An inadequate number of nurses is the main reason for the lack of care. Having a large number of patients cared for and having an inadequate number of nurses increases the workload of nurses (Kalisch et al., 2011b; Kalisch et al., 2012b; Blackman et al., 2014; Willis et al., 2017). Among the most important reasons for MNC are increasing workload, work shift conditions, and an increase in working intensity due to working overtime. Also, unexpected situations (e.g. urgency in patient's condition, unexpected changes in patient's condition, the high volume of patient admissions and discharges), and the large number of patients requiring more care may increase workload (Rauhala et al, 2007; Duffield et al., 2011; Kalisch et al., 2011c; Piscotty and Kalisch 2014; Cho et al., 2016). Lack of supplies/equipment is another cause of MNC. Lacking or not having available medications and supplies when needed, medical equipment not available or not functioning properly is among the most important causes of MNC (Hessels et al., 2015). Communication is also an important reason for MNC. Communication breakdown and tension within the nurse or other team members are among the factors that cause MNC (Kalisch and Lee 2010; Kalisch and Lee 2012a). MNC harms both patients and nurses.

MNC leads to seriously negative patient outcomes, deteriorating patient care quality on the whole, such as nosocomial infections, pressure ulcers, inadequate ambulation, patient falls, pneumonia, upper gastrointestinal bleeding, medication errors, cardiac arrest, and mortality (Kalisch and Williams, 2009; Kalisch et al., 2011a; Duffield et al., 2011; Jones et al., 2016; Simpson and Lyndon 2017). MNC has negative effects on the staff as well as the patients. It is observed that nurses working in units with less MNC have better positions and a higher level of job satisfaction. Therefore, MNC increases the job dissatisfaction of nurses and decreases job satisfaction (Duffield et al., 2011; Piscotty and Kalisch 2014; Kalisch et al., 2011c; Cho et al., 2016; Hessels et al., 2015; Kalisch and Lee 2012a; Jones et al., 2016; Simpson and Lyndon 2017; Kalisch et al., 2011d).

Aims: The purpose of this study was to determine nursing care missed by the nurses working in public and university hospitals in the three province in Turkey and reasons for missed care.

Method

Purpose: The purpose of this study was to determine nursing care missed by the nurses working in public and university hospitals in the three province and reasons for missed care.

Sample and Population: The study was conducted with nurses working in 10 hospitals, public (central and district), and university hospitals, in three cities in Turkey. The study was conducted in care units. In the selected units of the relevant hospitals, there are 977 nurses in total. It was determined that at least 389 participants had to be reached at a 5% acceptable margin of error and a 99% confidence level. 505 participants in three cities were reached by using a stratified sampling method.

Data Collection Tools: In this study, 'Participant Information Form' and 'MISSCARE Survey Turkish' were used as data collection tools. Participant Information Form prepared by the researcher consists of 7 questions investigating the sociodemographic characteristics of the nurses (age, gender, marital status, educational status) and job characteristics (years of experience, unit, working hours). MISSCARE Survey was developed by Kalisch and Williams in 2009 and made it more

useful to collect information from various types of hospitals in many US regions. The validity and reliability study of the Turkish version was conducted by Kalisch, Terzioğlu, and Duygulu in 2012. The relevant survey consists of 37 items and two parts. Part A (Elements of Missed Nursing Care) consists of 21 items while part B (Reasons for Missed Nursing Care) consists of 16 items and 3 subscales (labor resources, communication, and material resources). Part A is a 5-point Likert-type scale (always missed, frequently missed, occasionally missed, rarely missed, not available). The score range for Part A is between 1 and 4 (always missed = 4, frequently missed = 3, occasionally missed = 2, rarely missed = 1). "Not Available" is not scored. In this section, as the score obtained from the survey increases, missed care increases. Part B of the survey is a 4-point Likert scale (significant reason, moderate reason, a minor reason, not a reason). The score range of Part B is also between 1 and 4 (significant reason = 4, moderate reason = 3, minor reason = 2, not a reason = 1). As the score obtained in this section increases, the reason given is important for MNC. In the study of Kalisch, Terzioglu, and Duygulu (2012), Cronbach's alpha values for the MISSCARE Survey were 0.911 for communication, 0.688 for material resources, 0.765 for labor resources (Kalisch et al., 2012a).

Data Analysis: Data were analyzed by SPSS (version 20. SPSS Inc.). Numbers, percentages, and mean were used for descriptive statistics of the data. The comparison between Missed Nursing Care Survey item means scores and the first three care needs item mean scores about sociodemographic and job characteristics of nurses were completed by using a t-test for two independent groups, one-way ANOVA for more than two independent groups (for further analysis Tukey HSD). The significance level was adopted as $p < 0.05$.

Ethical Considerations: In the study, permission was obtained by e-mail from Beatrice J. Kalisch, who is the copyright owner of the scale, in order to use the MISSCARE Survey. Ethical approval from the university's ethics committee (TÜTF-BAEK 2017/123) and necessary official permissions from the hospitals where the study was conducted (13.11.2017-79056779-600, 08.08. 2017-26559790/605.01) were obtained. The purpose of the study and what they should do were explained to the individuals participating in the study, and the responses were based on voluntarism, paying attention to the willingness of the nurses to be included in the study, and their written consent was obtained, and their written consent was obtained.

Results

The overall mean score for Elements of Missed Nursing Care was 1.63±0.35, and the overall mean score for the Reasons for Missed Nursing Care was 3.22±0.65. Reasons for Missed Nursing Care subscale mean scores were as follows: 3.67±0.49 for labor resources, 2.99±0.81 for communication, and 3.31±0.82 for material resources. Nursing care missed the most was "Ambulation three times per day or as ordered" (Table 1). The most important reason for missed nursing care was "Inadequate number of staff" (Table 2). When the mean scores for the missed nursing care regarding the unit variable were examined, it was found that there was a great difference in missed nursing care needs mean scores between the units (p <0.001), and there was a significant difference between the overall mean score for the reasons for missed care, mean score for labor resources and communication. (p<0.05). In further analysis to determine between which units there was a difference, it was found that;

- The overall mean score for the missed nursing care needs and reasons for missed nursing care of the internal medicine unit nurses and labor resources subscale mean score were significantly higher than the relevant scores of the intensive care and surgical unit nurses (p<0.05),

- The mean score of the communication subscale of the reasons for missed nursing care of internal medicine unit nurses was significantly higher than the mean score of nurses working in intensive care units (p<0.05).

In our study, concerning the job characteristics of nurses, there was a difference between the mean score of the three most missed nursing care items and the type of hospital and unit. When the item scores for the most missed nursing care first in line about the type of hospital, "Ambulation three times per day or as ordered", was examined, it was found

that there was a significant difference between the groups (p<0.05, Table 3). In the further analysis, the mean score of the nurses working at the center (2.60±1.36) and district (2.56±1.35) state hospitals for the item *"Ambulation three times per day or as ordered"* was significantly higher than the nurses working at university hospitals (2.23±1.20) (p <0.05). In the comparison for units in which nurses work, there was a high level of significant difference between the groups (p<0.001, Table 3). In further analysis, it was found that the differences between all two-group comparisons were significant (p <0.05). The mean score of the item for "Ambulation three times per day or as ordered" for the intensive care unit nurses (3.19±1.20) was significantly higher than the internal medicine (2.66±1.27) and the surgical unit (1.57±0.92) nurses (p<0.05).

Also, the mean score of nurses working in the internal medicine unit was found significantly higher than those working in the surgical unit (p <0.05). When the item scores for the most missed nursing care second in line about the unit variable,

"Turning patient every 2 hours", was examined, it was found that there was a high level of significant difference between the groups (p<0.001, Table 3In the further analysis, the mean score of the item for "Turning patient every 2 hours" for the surgical unit (2.76±1.23) and internal medicine (2.92±1.25) nurses was significantly higher than the intensive care unit (1.43±0.80) nurses (p<0.05), and there was no significant difference between surgical and internal medicine units (p>0.05).

When the item scores for the most missed nursing care third in line concerning the unit variable, *"Patient bathing/skincare"*, was examined, it was found that there was a high level of significant difference between the groups (p<0.001, Table 3). In the further analysis, the mean score of the item for "Patient bathing/skincare" for the surgical unit (2.62±1.13) and internal medicine (2.76±1.10) nurses was significantly higher than the intensive care unit (1.45±0.83) nurses (p<0.05), and there was no significant difference between surgical and internal medicine units (p>0.05).

Table 1: Avarage point of missed nursing care items (Level of missing care is from maximum to the minimum) (n:505)

Elements of Missed Nursing Care	$\overline{\mathbf{x}} \pm \mathbf{SD}$*
Ambulation three times per day or as ordered	2.50±1.33
Turning patient every 2 hours	2.35±1.29
Patient bathing/skin care	2.25±1.18
Response to call light is initiated within 5 minutes	2.22±1.34
Mouth care	2.07±1.19
Assist with toileting needs within 5 minutes of request	2.04±1.22
Feeding patient when the food is still warm	1.84±1.16
Emotional support to patient and/or family	1.78±0.87
Teach patient about plans for his or her care after discharge and when to call after discharge	1.68±1.03
Patient teaching about procedures, tests, and other diagnostic studies	1.64±0.93
Setting up meals for patients who feed themselves	1.61±1.11
PRN medication requests acted on within 15 minutes	1.43±0.75
Assess effectiveness of medications	1.36±0.65
Medications administered within 30 minutes before or after scheduled time	1.34±0.78
Monitoring intake/output	1.33±0.73
Patient assessments performed each shift	1.19±0.63
IV/central line site care and assessments according to hospital policy	1.16±0.53
Bedside glucose monitoring as ordered	1.16±0.57

Full documentation of all necessary data	1.13±0.46
Vital signs assessed as ordered	1.13±0.49
Handwashing	1.08±0.35

*Score range 1-4.

Table 2:Avarage point of missed nursing care services items (Reasons for missing care are from maximum to minimum) (n:505)

Reasons for Missed Nursing Care	$\bar{\mathbf{x}}\pm\mathbf{SD}$
(Level of staffing) Inadequate number of staff	3.81±0.54
Inadequate number of assistive personnel (e.g., nursing assistants, techs, unit secretaries, etc.)	3.65±0.61
Unexpected rise in patient volume and/or acuity on the unit	3.61±0.72
Urgent patient situations (e.g., a patient's condition worsening)	3.60±0.76
Supplies/equipment not functioning properly when needed	3.38±0.90
Supplies/equipment not available when needed	3.30±0.91
Medications not available when needed	3.24±0.99
Tension or communication breakdowns with the medical staff	3.11±0.99
Lack of backup support from team members	3.06±0.99
(The method of making patient assignments) Unbalanced patient assignments	3.04±0.99
Tension or communication breakdowns with other ancillary/support departments	3.01±1.00
Inadequate handoff from previous shift or sending unit	2.99±1.02
Tension or communication breakdowns within the nursing team	2.96±1.06
Excess numbers ofinexperienced personel in unit	2.96±0.95

Caregiver off unit or unavailable	2.90±1.11
Other departments did not provide the care needed (e.g., physical therapy did not ambulate)	2.85±1.10

* Score range 1-4.

Table 3. Comparison of item point avarages that belongs to top three of the most missed care necessities, according to nurses's working features (n: 505)

Properties	n	Top three of the most missed care necessities		
		Ambulation three times per day or as ordered $\overline{x}$±SD	Turning patient every 2 hours $\overline{x}$±SD	Patient bathing/skin care $\overline{x}$±SD
Educational status				
High school [a]	31	2.19±1.30	2.61±1.33	2.48±1.23
Associate degree[b]	96	2.58±1.37	2.32±1.33	2.21±1.16
Bechelor's degree [c]	349	2.51±1.31	2.34±1.29	2.25±1.17
Post gradute/phd[d]	29	2.38±1.40	2.28±1.28	2.21±1.29
F (df:3/501/504)		*0.758*	*0.484*	*0.456*
p		*0.518*	*0.693*	*0.713*
Hospital type				
University Hospital [a]	115	2.23±1.20	2.18±1.21	2.13±1.04
Urban Hospital [b]	143	2.60±1.36	2.25±1.28	2.15±1.22
Rural Hospital [c]	247	2.56±1.35	2.48±1.33	2.37±1.21
F (df: 2/502/504)		*3.136*	*2.591*	*2.480*
P		***0.044***	*0.076*	*0.085*
Difference		***a<b,c***		
Working unit				
Intensive care unit [a]	177	3.19±1.20	1.43±0.80	1.45±0.83
Surgical [b]	164	1.57±0.92	2.76±1.23	2.62±1.13
Medical[c]	164	2.66±1.27	2.92±1.25	2.76±1.10
F (df:2/502/504)		*8.019*	*94.696*	*84.485*
p		***0.000***	***0.000***	***0.000***

Discussion

In this study, the mean score for missed nursing care needs was found 1.63±0.35, and the mean score for reasons for missed nursing care was 3.22±0.65. Reasons for missed nursing care subscale mean scores were found as 3.67±0.49 for the labor resources subscale, 2.99±0.81 for the communication subscale, and 3.31±0.82 for the material resources subscale. In the study conducted by Kalisch et al., the overall mean score for missed nursing care needs was 1.40±0.41 for Turkey while it was 1.77±0.39 for the USA. In the same study, the overall mean score for reasons for missed nursing care was 3.14±0.71 for Turkey while it was 2.66±0.49 for the USA (Kalisch et al., 2012a). According to the results, there was more MNC in this study than the previous study in Turkey, and less MNC than in the USA. In our study, more reasons were reported for MNC than the previous study in Turkey and the USA. Although the nurses in Turkey claimed that there was little missed care in their hospitals, due to the reporting of more reasons for missed care, it can be interpreted that nurses in Turkey tend to hide MNC more, and they also fear more to report the error of omission than the nurses in the USA. In Kalisch and Lee's study, the mean score for missed nursing care was 1.55±0.41. The mean scores for reasons for missed nursing care subscales were 2.29±0.58 for labor resources, 3.04±0.65 for communication, 2.57±0.70 for material resources (Survey score range was between 1 and 4) (Kalisch and Lee, 2012a).

In our study, the most missed nursing care was identified as "Ambulation three times per day or as ordered". Similarly, when the previous studies are examined, the most missed nursing care has often been "Ambulation three times per day or as ordered" (Kalisch et al., 2009b; Kalisch and Williams, 2009; Kalisch, 2009; Kalisch et al., 2011a; Kalisch et al., 2012a; Kalisch and Lee, 2012b; Kalisch et al., 2012c; Kalisch and Doumit, 2013; Orique et al., 2016; Bragadottir and Kalisch, 2018).

In this study, "Inadequate number of staff" was reported to be the most prevalent reason for missed nursing care. In Kalisch, Tschannen, Lee and Friesen's study, in Kalisch's study on nurse assistants, and Kalisch, Terzioğlu and Duygulu's study on nurses in Turkey, the reason for missed nursing care was also "Inadequate number of staff" (Kalisch, 2009; Kalisch et al., 2011a; Kalisch et al., 2012a).

Regarding the unit variable, nurses working in internal medicine units were found to have a significantly higher mean score for missed nursing care, reasons for missed nursing care, and labor resources subscale than the ones working in the surgical unit and intensive care unit. In the study of Kalisch and Williams, it was found that nurses working in the nephrology clinic, which is also an internal medicine unit, had more missed nursing care than the nurses in surgical units and intensive care units. The mean score for the communication subscale, which was one of the reasons for missed nursing care in the nephrology clinic, was significantly higher in the intensive care unit (Kalisch et al., 2009b). In the study of Bragadottir, Kalisch, and Trygguadottir, it was found that the required nursing care omitted was significantly higher for the nurses working in the internal medicine and surgical units than the ones in intensive care units (Bragadottir et al., 2016).

In our study, about the job characteristics of nurses, there was a difference between the mean score of three items of missed nursing care and the type of hospital and unit (Table 3). In the literature, there are no findings related to the comparison of the mean scores of the three most missed nursing care items with the nurses' job characteristics. About the most missed nursing care item first in line, which was "Ambulation three times per day or as ordered", nurses in center or district public hospitals had a significantly higher mean score than the nurses in university hospitals. Nurses are believed to be careful about providing this kind of care since the patients in the university hospital need such care more because their diseases are more complicated, and the nurses try to avoid any negative outcomes by accelerating the healing process, shortening the hospital stay, preventing complications such as decubitus, etc., and consequently, reducing the workload of themselves. According to the unit comparison, it was determined that the mean score of nurses working in the intensive care unit was significantly higher than those working in internal medicine and surgical units, and the mean score of those working in internal medicine units was significantly higher than those working in surgical units. The greater amount of care equipment

(catheter, drain, monitor, chest tube, infusion pump, etc.) required for the treatment of patients staying in the intensive care unit compared to the patients in surgical and internal medicine units, removing some equipment while leaving others during the mobilization of the patient is a challenging and time-consuming process. It is believed that such care is missed in intensive care units due to inadequate number of staff to perform this. Since mobilization in the surgical unit is important to care which should not be missed and should be given in the early period to prevent complications (thrombophlebitis etc.) which patients may develop in the post-op period, it is considered to be a form of care provided more compared to the internal medicine units.

When the scores for the most missed nursing care second in line, "Turning patient every 2 hours", regarding the unit variable was examined, it was found that the mean score of this item for the surgical unit and internal medicine nurses was significantly higher than the intensive care unit nurses. The reason for this is believed to be the small number of immobilized patients in the surgical and internal medicine units and the assignment of the relevant task to the accompanying person(s) by the nurses even when in need.It was found that the item score for the most missed nursing care third in line concerning the unit variable, "Patient bathing/skincare", of the nurses working in surgical and internal medicine units was significantly higher than the ones working in the intensive care unit. It is considered that this care is given more since there are more immobilized patients in the intensive care unit than the surgical and internal medicine units, the hospital stay of these patients are long, and they need this hygiene care. Since the patients in the surgical and internal medicine units are more mobile than the patients in the intensive care unit, it is thought that this care can be performed by the patient himself/herself, or together with the patient's family, and consequently leading to the missing of this care by not assisting the patient or providing the care itself.

Limitations: The limitations of the study are that the study was conducted with the nurses who were working in the units providing care in public and university hospitals, and who agreed to participate in the study. Therefore, the results obtained from the study can be generalized only to this research group.

It was difficult to reach the volunteers because nurses were working in a shift system.

Besides, the limitations of the study are that the nurses may not want to explicitly express MNC, can hide it, and respond to the survey questions by hiding it, or might pretend that care is provided even though it is omitted. Previous studies also show that nurses are sometimes aware of MNC and can easily identify them; however, when asked, they do not explicitly accept the situation and label it as a secret.

Conclusion: In line with the findings obtained from the study to determine the missed nursing care and its reasons in public and university hospitals in the three cities, the following conclusions were reached;

- Missed nursing care existed in the relevant hospitals, and the reason for it was the inadequate number of staff.

- The most missed nursing care was "Ambulation three times per day or as ordered" while the least missed nursing care was "Handwashing".

- The nurses working in the internal medicine unit had more missed nursing care needs than those working in the intensive care and surgical units.

Implications for Practice: This article revealed that nursing care could be missed in clinics due to various reasons. Hospitals should conduct descriptive studies on this issue and determine the reasons, and when by eliminating these', patient results will be positively affected.

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