

ORIGINAL RESEARCH

# NURSES' PERSPECTIVES ON THE DEGREE OF MISSED NURSING CARE IN THE PUBLIC HOSPITALS IN HAIL CITY, KINGDOM OF SAUDI ARABIA

Mohammed Hamdan Alshammari<sup>1</sup>, Haidee Pacheco<sup>1</sup>, Eddieson Pasay-an<sup>1\*</sup>, Farhan Alshammari<sup>1</sup>, Abdalkarem Alsharari<sup>2</sup>, Ebaa Felemban<sup>3</sup>, Richard Dennis Dayrit<sup>1</sup>

<sup>1</sup> Faculty, College of Nursing, University of Hail, Hail City, Kingdom of Saudi Arabia

<sup>2</sup> Faculty, Nursing Department, College of Applied Medical Sciences, Jouf University, Jouf, Kingdom of Saudi Arabia

<sup>3</sup> Department of Nursing, Faculty of Applied Medical Sciences, Taif University, Kingdom of Saudi Arabia

**Corresponding author:**

**Dr. Eddieson Pasay-an**

Building 9, University of Hail Campus,  
College of Nursing, Hail City,  
Kingdom of Saudi Arabia  
Email: [edspasayan@yahoo.com](mailto:edspasayan@yahoo.com)  
Mobile: 0503931676

**Article Info:**

Received: 25 October 2020

Revised: 9 & 20 November 2020

Accepted: 23 November 2020

**DOI:**

<https://doi.org/10.33546/bnj.1233>

**Abstract**

**Background:** Literature suggests that merely omitting nursing care can put patients in danger and that avoiding these omissions potentially prevents deaths in hospitals.

**Objective:** This study aimed to determine the perspective on the degree of missed nursing care among hospital nurses as it relates to their demographic profile.

**Method:** A quantitative comparative research design was employed in this study. The study was conducted in the public hospitals in Hail City, Kingdom of Saudi Arabia. The study participants were 317 staff nurses, chosen through a simple random sampling, from the public hospitals of Hail City. Data were collected through a self-administered questionnaire between February and June of 2019.

**Results:** The overall mean of the participants' reported scores was "never missed" at 4.62. Statistically significant results were found in terms of the number of children (0.001), years of experience (0.004), unit of assignment (0.001), and the level of satisfaction with the profession (0.001). All other variables such as gender, age, marital status, and shift were found insignificant, where all of the *p*-values were more than 0.05.

**Conclusion:** Nurses who had more children, a greater lack of experience, were assigned to a complex unit, and were less satisfied in the profession were more likely to miss nursing care. As such, these errors can compromise the outcomes of nursing care in hospitals.

**KEYWORDS**

nurses; nursing care; medical errors hospitals; attitude; health personnel

© 2020 The Author(s). This is an **Open Access** article distributed under the terms of the [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/) which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms.

ISSN: 2477-4073

## BACKGROUND

Whether in part, entirely, or even just a delay, "missed nursing care" is essential care omitted by nurses ([Lucero et al., 2010](#)). More attention is needed to address this concern both globally and in the form of national policy development ([Kalisch, 2016](#)). Nurses need to be more fully aware that the quality of care they deliver is based on the standards established by the nursing profession. Therefore, refocusing and directing interventions on the factors that influence the improvement of the nursing practice is of paramount importance. According to [Hessels et al. \(2015\)](#), the degree of missed nursing care can be reduced significantly when the intervention of the elements affecting the environment of the nurses' workplace is targeted.

In 2001, the Institute of Medicine highlighted that errors are preventable, especially when organizations adapt to the cognitive strengths and weaknesses of their employees ([Institute of Medicine \(US\) Committee on Quality of Health Care in America, 2001](#)). Hospitals can be designed to ameliorate the effects of human error by

correcting the practices of healthcare providers. One such example is the incorrect assumption of nurses in omitting the final check when counter-checking a previously identified cross-matching problem merely because they are working in a stressful condition ([Allard et al., 2002](#)). Another example is in the protocols that are not accessible at all times so that staff can refer to them when they are needed ([Ibojje & Urbaniak, 2000](#)). These practices threaten patient safety.

Literature has shown that being overwhelmed due to fatigue and "swamping" is one of the most likely and most common reasons for errors to occur ([Roth, 2014](#)). Indeed, research has revealed that nurses are likely to make errors in their work because of their working conditions (e.g., work shifts, uncertainties of their role, tiredness, and lack of occupational autonomy) ([Demir-Zencirci, 2010](#); [Fidanci et al., 2014](#); [Yudiah et al., 2018](#)). Such missed nursing care can affect patient outcomes significantly ([Carthon et al., 2015](#)).

Research suggests that merely omitting nursing care can put patients in danger and that avoiding this omission could potentially prevent deaths

in hospitals (Griffiths et al., 2018). For instance, reports have found that death can be prevented in hospitals when the nurses correctly measure and report the patients' vital signs, correctly assess the early signs of deteriorating patients, and provide timely reporting (Luettel et al., 2007). Researchers such as Hernández-Cruz et al. (2017) suggest that nurses' care may differ based on individual characteristics such as the level of education, work experience, and work shift. Because of the large quantity of and the range of different roles, nurses experience missed care more frequently than other healthcare groups. This includes their complex independent and dependent functions, more contact hours with their patients, and demanding work hours (Aydin et al., 2016; Smits et al., 2010). Studies demonstrate that undesired medical results can frequently be attributed to the provider of healthcare; consequently, the law acknowledges that using dynamic judgment in the clinical setting is required (Giordano, 2003). However, some researchers have argued that nurses need to recognize that errors suggest a prevailing problem in the safety context and not because they are doing a bad job (Al-Youssif et al., 2013). Innovations in research, life-saving devices, and even specialized nursing can assist nurses in facing complex physiological scenarios among their patients; nonetheless, medical errors in patient care continue to increase (Fidancı et al., 2014).

A study of Alahmadi (2010) in Saudi Arabia demonstrated that, along with an increase in media attention on improving the quality and safety of healthcare services, there is a rising concern for missed nursing care and malpractice. To the researchers' knowledge, there is limited research on this topic, specifically in the Hail Region, Saudi Arabia. This study uses data from a less studied region to provide educational institutions with an empirical baseline measurement for missed nursing care. It seeks to recognize the insights and characteristics of nurses that may have an impact on missed nursing care. This includes differences in the degree of missed care when staff nurses are grouped according to their demographics. In this study, it was predicted that no difference exists in the degree of missed care when staff nurses are grouped according to their demographic information.

## METHODS

### Design

The study used a quantitative comparative research design to determine the degree of missed nursing care that may fall below the nursing standards of practice in hospital-based delivery of care.

### Sampling and Participants

The respondents of the study were staff nurses from the public hospitals in Hail, Kingdom of Saudi Arabia. These hospitals had the largest number of nurses in the region. A simple random sampling was employed in this investigation. The researchers' exclusion criteria eliminated both nurses who had no direct patient care and nurse interns. Nurses who were on leave during the study period were also excluded. The researchers assigned a unique number to each of the 2,171 nurses who exceeded the criteria. The researchers utilized the Lynch formula (Hulley et al., 2013) to identify the sample size, using a 95% confidence level and 5% confidence interval; this resulted in 327 nurses generated through random numbers, and 317 of them consented to participate. Upon approval from the authorities of the six

participating hospitals, data were collected between February and June of 2019.

### Instrument

The researchers adapted a survey with permission by Özata et al. (2013). It comprised two sections, which the first addressed the respondents' demographic information, and the second explored the responsibilities of staff nurses. It included five items on patient falls, eleven on drug application and transfusion, eleven on hospital infection, nine on patient monitoring and equipment safety, and five on doctor-nurse-patient communication.

The questionnaire was scored on a 5-point Likert Scale. The mean scores were interpreted as 5 (never missed), 4 (almost missed), 3 (occasionally/sometimes), 2 (almost every time missed), and 1 (frequently missed). The higher the mean, the lesser the chance of missed nursing care. Minor revisions such as adjustments to the number of items on the original questionnaire were made to suit the local context: Validity and reliability testing were conducted. The content validity was done by a panel of experts with master's and doctoral degrees in nursing. An overall content validity index of 0.88 for relevance and 0.89 for clarity was obtained, which indicates that the tool was highly valid. Pilot testing was conducted with 20 nurses to ascertain the reliability of the instrument. These nurses were not included in the actual data gathering. Cronbach's alpha was utilized:  $\alpha = 0.70$ , indicating that the instrument was reliable. The researchers followed the English version of the original developer of the tool. The translation was not needed since the participants could understand, write, and speak English.

### Ethical Consideration

Ethical approval for this study was obtained from the Institutional Review Board of the University of Hail (H-2016-019). In compliance with research ethics protocol, the ethical principles of informed consent, beneficence, respect for anonymity, confidentiality, and respect for privacy were all applied in the study. The researchers scheduled an orientation for the possible participants to explain the research aims and the extent of their participation. The willing participants signed a written informed consent thereafter.

### Data Analysis

The Statistical Package for Social Sciences Version 22 (SPSS 22) was used for analysis. Frequency count and percentage were used to determine the profiles of the respondents. A weighted mean was utilized to determine the degree of missed nursing care. The Kolmogorov-Smirnov test was conducted to check for the data distribution, with the hypothesis that the data were normally distributed. The result of the Kolmogorov-Smirnov test (0.93) was higher, with a  $p$ -value of 0.05, indicating normally distributed data. Therefore, an analysis of variance ( $F$ -test) was employed to determine differences in missed nursing care practices in terms of the participants' existing demographic information. The  $t$ -test was used to determine the differences in gender. All statistical analyses were performed at a 0.05 level of significance.

## RESULTS

The majority of the participating nurses were females (97.5%), followed by males (2.5%). Most of the participants were single

(53.6%), while 45.7% were married. The age range varied among the study participants, with most of the staff in the 20–29 year age bracket (59.9%). Regarding the participants' number of children, a substantial proportion had no children (62.1%). In terms of the years of experience as a nurse, most had 5–9 years of experience (43.5%). As to the assignment unit, a greater part of the nurses were assigned to the intensive care unit (29.3%), 14.8% were assigned to the female medical ward, and 13.6% to the emergency room. The remainder of the participating nurses were dispersed across different units. Regarding the number of years working in the assigned unit, there was an almost equal distribution of less than 3 (46.7%) and 3–6 years (44.5%). Most of the participants were assigned to the morning shift (58.0%), while 22.7 and 19.3% were assigned to the afternoon and night shifts, respectively. A vast majority of the participants were highly satisfied with the nursing profession (79.2%); 11.4% expressed that they were moderately satisfied, and 9.5% were least satisfied (Table 1).

**Table 1** Demographic Information of the Respondents

Profile		f	%
Gender	Male	309	97.5
	Female	8	2.5
Age	20–29	190	59.9
	30–39	108	34.1
	40–49	19	6.0
Marital Status	Single	145	45.7
	Married	170	53.6
	Widowed/Divorced/Separated	2	0.6

**Table 1** (Cont.)

Number of Children	0	197	62.1
	1–2	56	17.7
	3–4	37	11.7
	5 and above	27	8.5
Years of Experience as a Nurse	Less than 5	132	41.6
	5–9	138	43.5
	10–14	25	7.9
	15 and above	22	6.94
Unit of Assignment	Emergency Room	43	13.6
	Outpatient Department	16	18.6
	Pediatric Ward	4	1.3
	Male Surgical Ward	36	11.4
	Neonatal Intensive Care Unit	42	13.2
	Intensive Care Unit	93	29.3
	Female Medical Ward	47	14.8
	Acute Care	18	5.7
	Pediatric Intensive Care Unit	4	1.3
	Gynecology	8	3
Shift	Morning	184	58.0
	Afternoon	72	22.7
	Night	61	19.3
Level of Satisfaction with the Profession	1. Least satisfied	30	9.5
	2. Moderately satisfied	36	11.4
	3. Highly satisfied	251	79.2

Overall, the degree of missed nursing care demonstrated that staff nurses have “never missed” (4.62± 0.22) nursing care. In particular, the lowest mean applies to the patient “falls” (4.16± 0.24), and the highest mean pertains to “drug applications and transfusion” (4.72± 0.07) (Table 2).

**Table 2** The Areas of Concern that were Identified on the Degree of Missed Nursing Care by Staff Nurses in Terms of Falls, Drug Applications and Transfusion, Hospital Infections, Patient Monitoring/Equipment Safety, and Doctor-Nurse-Patient Communication

Area of Concern	Mean	Items that received the highest score from the subtitles	Mean	Items that received the lowest score from the subtitles	Mean
Falls	4.16 ± 0.24	5. I take necessary precautions in patient transfers.	4.50 ± 0.91	4. I encourage clients to use the grab bars mounted in the toilet and bathing areas and the railings along hospital corridors.	3.95 ± 1.23
Drug Applications and Transfusion	4.72 ± 0.07	4. I observe the 10Rs in giving medications.	4.77 ± 0.64	11. I know the indications, contraindications, side effects, adverse effects, and interactions associated with the medications. I question the order and discuss concerns with the ordering physician or my head nurse when I have doubts about the order.	4.56 ± 0.80
Hospital Infections	4.64 ± 0.04	10. I take care to maintain patient comfort by maintaining a sterile, closed urinary drainage system and ensuring no tension is on the catheter tubing.	4.68 ± 0.77	7. I check the patients' catheter every day.	4.57 ± 0.86
Patient Monitoring/ Equipment Safety	4.61 ± 0.03	2. I convey essential patient care information during endorsements to ensure continuity of care. 4. I follow the doctor's orders in setting up to-follow IV fluids.	4.66 ± 0.71	1. When charting, I document nursing interventions by being specific, chronological, and recording exact times.	4.56 ± 0.76
Doctor-Nurse-Patient Communication	4.62 ± 0.05	4. When receiving a verbal/telephone order, I document the order immediately on the chart, repeat the order back, and question the physician if there is any uncertainty regarding the order.	4.67 ± 0.73	1. I ensure that the patient is well educated on the procedures and medications before administration.	4.54 ± 0.76
<b>Grand Mean</b>	<b>4.62 ± 0.22</b>				

1.0–1.08 Frequently missed | 1.81–2.60 Almost every time missed | 2.61–3.40 Occasionally/sometimes | 3.41–4.20 Almost missed | 4.21–5.00 Never missed

The results indicate significant differences in the degree of missed nursing care in terms of demographic characteristics. The data yielded significant results in terms of the number of children ( $p < 0.001$ ), years of experience as a nurse ( $p < 0.004$ ), unit of assignment ( $p < 0.001$ ),

and the level of satisfaction with the profession ( $p < 0.001$ ). All of the other variables, including such things as gender ( $p > 0.093$ ), age ( $p > 0.443$ ), marital status ( $p > 0.808$ ), and shift ( $p > 0.441$ ), were found insignificant to missed nursing care (Table 3).

**Table 3** Differences in the Degree of Missed Nursing Care of the Staff Nurses in Terms of Their Profile

Demographic Profile		Mean Response	t-value	p-value
Gender	Male	4.63 ± 0.18	1.686	0.093
	Female	4.30 ± 0.55		
Age	20–29	4.65 ± 0.20	0.817	0.443
	30–39	4.54 ± 0.14		
	40–49	4.68 ± 0.29		
Marital Status	Single	4.58 ± 0.15	0.324	0.808
	Married	4.65 ± 0.21		
	Widowed/Divorced/ Separated	4.85 ± 0.35		
Number of Children	0	4.63 ± 0.17	3.074	*0.001
	1–2	4.67 ± 0.18		
	3–4	4.26 ± 0.28		
	5 or more	4.96 ± 0.20		
Years of Experience as a Nurse	Less than 5	4.68 ± 0.19	3.521	*0.004
	5–9	4.49 ± 0.19		
	10–14	4.77 ± 0.16		
	15 and above	4.85 ± 0.20		
Unit of Assignment	Emergency Room	4.67 ± 0.21	2.323	*0.001
	Outpatient Department	4.83 ± 0.25		
	Pediatric Ward	4.79 ± 0.22		
	Male Surgical Ward	4.74 ± 0.19		
	Neonatal Intensive Care Unit	4.50 ± 0.33		
	Intensive Care Unit	4.77 ± 0.42		
	Female Medical Ward	4.32 ± 0.26		
	Acute Care	4.49 ± 0.31		
	Pediatric Intensive Care Unit	5.00 ± 0.00		
	Gynecology	4.72 ± 0.29		
Others (Burn, Ortho, etc.)	3.57 ± 0.18			
Shift	Morning	4.58 ± 0.16	0.822	0.441
	Afternoon	4.68 ± 0.22		
	Night	4.65 ± 0.21		
Level of Satisfaction with Profession	Least satisfied	4.46 ± 0.17	5.192	*0.001
	Moderately satisfied	4.59 ± 0.16		
	Highly satisfied	4.41 ± 0.27		

\*significant at 0.05 level

## DISCUSSION

This study aimed to determine hospital nurses' perspectives on their degree of missed nursing care. In this study, staff nurses believed that, during the course of their duties, they would not commit an error in patient care, including in drug application and transfusion, hospital infections, patient monitoring/equipment safety, and doctor-nurse-patient communication. It was assumed that the nurses in this study prioritized patient care even though their roles and responsibilities were complex (Özata et al., 2013). Griffiths et al. (2018) noted that the greatest area of missed dimensions of care was when assessing newly admitted patients together with the care plan set up, which entirely contradicts the findings of this present study. The participants conveyed communication, medications, and the handling of infections and related procedures as never missed care. This indicates that the staff nurses managed their priorities and operated within a well-organized work system, where interdisciplinary teamwork is frequently built-in. It is of note to this present study that nursing care on fall prevention was reported as "almost missed" by the participants.

As corroborated in the study of Kalisch and Lee (2012), falls in the hospital continue to be a major and costly problem. This result is further validated by the previous study, which suggests that prescribed ambulation three times per day was the basic intervention that was missed the most (42.0%) (Moreno-Monsiváis et al., 2015).

In this study, the number of children of the nurses, the years of experience as a nurse, the unit of assignment, and the level of satisfaction with the profession were all-potentials for missed nursing care. The results could be attributed to the specific procedures and activities in the services studied. Nonetheless, the literature suggests that there is a relationship between nurses' family-related dimensions and the tendency to commit missed nursing care. The current results showed that the number of children was such a variable. This finding is in agreement with Yamaguchi et al. (2016). These authors found that distractions in work were significantly related to family needs and kinship responsibilities. Because of these reasons, nurses who are in clinical practice may feel difficulty creating a good working relationship with patients. Therefore, for the nurses to avoid missed

care, nurse managers should recognize this as a factor that leads to missed nursing care.

The current findings additionally indicate that the number of years of experience as a nurse can affect nursing care. A study by Björkstén et al. (2016) found that, in contrast to their more experienced colleagues, nurses might possibly commit an error, especially when they lack experience (e.g., wrong patient due to a “mix-up of patients” and the error “wrong route”). The inexperienced nurses were also more prone to “negligence, forgetfulness, or lack of attentiveness” (Björkstén et al., 2016, p. 8). Moreover, the results demonstrate that, when considering their unit of assignment, nurses showed significant differences in the degree of missed nursing care, which agrees with previous studies (Alshammari et al., 2019; Kalisch & Lee, 2012). This implies that the nurses in the busy units of hospitals tend to have more errors because of their more complex functions.

The level of satisfaction with their profession accounts for some instances of missed nursing care. Researchers such as Nyirenda and Mukwato (2016) validate this finding in affirming that job dissatisfaction among nurses generates negative attitudes, negligence, and malpractice. As a key person who plays a tremendous role in the delivery of excellent healthcare, nurses need to be supported by their managers in ensuring their job satisfaction. For instance, the nursing management needs to afford their nurses a healthier work scheduling (Yudiah et al., 2018) so that nurses can grow and freely exercise their autonomy. This promotes a healthy work environment where they further enhance proper attitudes toward fulfilling their responsibilities. To Hessels et al. (2015), it is of paramount importance for hospital administrators to create and employ well-organized but diverse resources to maintain the delivery of safe care that is error-free. The essential findings of this current study, such as the number of children, unit of assignment, and the level of satisfaction with the profession, have an impact on nursing practice. These findings could serve as valuable information for nurse managers on what and how to address the missed nursing care in their hospital. Addressing such missed nursing care that is omitted by the nurses can improve patient outcomes. Further, addressing missed nursing care with the findings of this study may prevent the likelihood of malpractice claims and litigation. Future research is recommended on expanding the variables that include nurses' experiences on missed nursing care and on how the nurse managers address them. This helps both the nurses and the managers to understand the deeper context of missed nursing with the actual experiences.

The researchers acknowledge some of the limitations of this study. For instance, the study was conducted in a small region of Saudi Arabia, where the results may not be applicable to other regions. This indicates that the need to conduct it in a wider context is recommended. Moreover, studies on perception are always prone to bias. Therefore, an interview could be conducted with the nurses to validate the results in the next study.

## CONCLUSION

This study demonstrated that missed care is associated with several factors: The number of children of the nurses, the years of experience as a nurse, the unit of assignment, and the level of satisfaction with the profession. All of these characteristics are related directly to patient

care. In this context, nursing administrators are required to manage staff and create a nursing workforce to address the demands of complex care. These changes could have an effect on an improvement in the work of the nurses, thus leading to improved patient outcomes.

## Declaration of Conflicting Interests

There is no conflict of interest.

## Funding

This research did not obtain funding from any agency.

## Authors Contribution

MHA, HP, and EP were responsible for the study conception and design, while FA, AA, and EF were responsible for the acquisition of data. EF, RDD, and AA analyzed and interpreted the data. All of the authors drafted the manuscript and critically revised it. Further, all authors give final approval of the version submitted in this journal.

## Authors Biographies

**Dr. Mohammed Hamdan Alshammari** is An Associate Professor and Head of the Department of Mental Health Nursing, College of Nursing, University of Hail, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0001-9661-192X>

**Dr. Haidee Pacheco** is An Assistant Professor and Course Coordinator of Female Branch, University of Hail, College of Nursing, Hail City, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0003-2792-3692>

**Dr. Eddieson Pasay-an** is A Program Coordinator and Assistant professor at the University of Hail, College of Nursing, Hail City, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0003-1257-3175>

**Dr. Farhan Alshammari** is A Former Dean of the College of Nursing, University of Hail and is presently the General Director of Health Affairs at the Ministry of Health, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0003-3722-4457>

**Dr. Abdalkarem Alsharari** is An Associate Professor of Nursing Department, College of Applied Medical Sciences, Jouf University, Jouf, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0002-8911-3356>

**Dr. Ebaa Felemban** is An Assistant professor and Director of Simulation and Medical Training Center at Taif University, Taif, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0002-7232-6566>

**Dr. Richard Dennis Dayrit** is An Assistant professor and Vice Deanship of Quality Assurance and Development Unit, University of Hail, College of Nursing, Hail City, Kingdom of Saudi Arabia. ORCID iD: <https://orcid.org/0000-0002-3321-174X>

## Data Availability Statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

## References

- Al-Youssif, S. A., Mohamed, L. K., & Mohamed, N. S. (2013). Nurses' experiences toward perception of medication administration errors reporting. *IOSR Journal of Nursing and Health Science*, 1(4), 56-70. <https://doi.org/10.9790/1959-0145670>
- Alahmadi, H. A. (2010). Assessment of patient safety culture in Saudi Arabian hospitals. *Quality and Safety in Health Care*, 19(5), e17-e17. <https://doi.org/10.1136/qshc.2009.033258>
- Allard, J., Carthey, J., Cope, J., Pitt, M., & Woodward, S. (2002). Medication errors: Causes, prevention and reduction. *British Journal of Haematology*, 116(2), 255-265. <https://doi.org/10.1046/j.1365-2141.2002.03272.x>
- Alshammari, F., Pasay-an, E., Alboliteeh, M., Alshammari, M. H., Susanto, T., Villareal, S., . . . Gonzales, F. (2019). A survey of hospital healthcare professionals' perceptions toward patient safety culture in Saudi Arabia. *International Journal of Africa Nursing Sciences*, 11, 100149. <https://doi.org/10.1016/j.ijans.2019.100149>
- Aydin, Y., Turan, Z., & Dikmen, Y. (2016). Identification the level of tendency in malpractice among midwife and nurse interns. *International Journal of Caring Sciences*, 9(2), 463-470.

- Björkstén, K. S., Bergqvist, M., Andersén-Karlsson, E., Benson, L., & Ulfvarson, J. (2016). Medication errors as malpractice—a qualitative content analysis of 585 medication errors by nurses in Sweden. *BMC Health Services Research*, 16(1), 431. <https://doi.org/10.1186/s12913-016-1695-9>
- Carthon, J. M. B., Lasater, K. B., Sloane, D. M., & Kutney-Lee, A. (2015). The quality of hospital work environments and missed nursing care is linked to heart failure readmissions: A cross-sectional study of US hospitals. *BMJ Quality & Safety*, 24(4), 255-263. <https://doi.org/10.1136/bmjqs-2014-003346>
- Demir-Zencirci, A. (2010). Nursing and medical errors. *Journal of Nursing Research and Development*, 12, 67-74.
- Fidancı, B. E., Yıldız, D., Konukbay, D., Akyol, M., Akbayrak, N., & Hatipoğlu, S. (2014). Assessment of the malpractice tendencies of nurses working in an educational and research hospital. *International Journal of Caring Sciences*, 7(1), 294-301.
- Giordano, K. (2003). Examining nursing malpractice: A defense attorney's perspective. *Critical Care Nurse*, 23(2), 104-107. <https://doi.org/10.4037/ccn2003.23.2.104>
- Griffiths, P., Recio-Saucedo, A., Dall'Ora, C., Briggs, J., Maruotti, A., Meredith, P., . . . Missed Care Study, G. (2018). The association between nurse staffing and omissions in nursing care: A systematic review. *Journal of Advanced Nursing*, 74(7), 1474-1487. <https://doi.org/10.1111/jan.13564>
- Hernández-Cruz, R., Moreno-Monsiváis, M. G., Cheverría-Rivera, S., & Díaz-Oviedo, A. (2017). Factors influencing the missed nursing care in patients from a private hospital. *Revista Latino-Americana de Enfermagem*, 25. <https://doi.org/10.1590/1518-8345.1227.2877>
- Hessels, A. J., Flynn, L., Cimiotti, J. P., Cadmus, E., & Gershon, R. R. M. (2015). The impact of the nursing practice environment on missed nursing care. *Clinical Nursing Studies*, 3(4), 60. <https://doi.org/10.5430/cns.v3n4p60>
- Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D., & Newman, T. B. (2013). *Designing clinical research*. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins.
- Ibojie, J., & Urbaniak, S. J. (2000). Comparing near misses with actual mistransfusion events: A more accurate reflection of transfusion errors. *British Journal of Haematology*, 108(2), 458. <https://doi.org/10.1046/j.1365-2141.2000.01876.x>
- Institute of Medicine (US) Committee on Quality of Health Care in America. (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington, DC: National Academies Press
- Kalisch, B. (2016). Errors of omission: How missed nursing care imperils patients. *Journal of Nursing Regulation*, 7(3), 64. [https://doi.org/10.1016/s2155-8256\(16\)32323-7](https://doi.org/10.1016/s2155-8256(16)32323-7)
- Kalisch, B. J., & Lee, K. H. (2012). Missed nursing care: Magnet versus non-Magnet hospitals. *Nursing Outlook*, 60(5), e32-e39. <https://doi.org/10.1016/j.outlook.2012.04.006>
- Lucero, R. J., Lake, E. T., & Aiken, L. H. (2010). Nursing care quality and adverse events in US hospitals. *Journal of Clinical Nursing*, 19(15-16), 2185-2195. <https://doi.org/10.1111/j.1365-2702.2010.03250.x>
- Luettel, D., Beaumont, K., & Healey, F. (2007). *Recognising and responding appropriately to early signs of deterioration in hospitalised patients*. Retrieved from <https://www.patientsafetyoxford.org/wp-content/uploads/2018/03/NPSA-DeteriorPatients.pdf>
- Moreno-Monsiváis, M. G., Moreno-Rodríguez, C., & Interrial-Guzmán, M. G. (2015). Missed nursing care in hospitalized patients. *Aquichan*, 15(3), 318-328. <https://doi.org/10.5294/aqui.2015.15.3.2>
- Nyirenda, M., & Mukwato, P. (2016). Job satisfaction and attitudes towards nursing care among nurses working at Mzuzu Central Hospital in Mzuzu, Malawi. *Malawi Medical Journal*, 28(4), 159-166. <https://doi.org/10.4314/mmj.v28i4.3>
- Özata, M., Öztürk, Y. E., Cihangiroğlu, N., & Altunkan, H. (2013). The development of a scale of malpractice trend in nursing and validity and reliability analysis. *International Journal of Academic Research*, 5(2), 57-65. <https://doi.org/10.7813/2075-4124.2013/5-2/b.8>
- Roth, C. (2014). *Human factors contributing to nursing errors*. (PhD Thesis). Retrieved from <http://hdl.handle.net/10950/206>
- Smits, M., Zegers, M., Groenewegen, P. A., Timmermans, D. R. M., Zwaan, L., Van der Wal, G., & Wagner, C. (2010). Exploring the causes of adverse events in hospitals and potential prevention strategies. *Quality and Safety in Health Care*, 19(5), e5-e5. <https://doi.org/10.1136/qshc.2008.030726>
- Yamaguchi, Y., Inoue, T., Harada, H., & Oike, M. (2016). Job control, work-family balance and nurses' intention to leave their profession and organization: A comparative cross-sectional survey. *International Journal of Nursing Studies*, 64, 52-62. <https://doi.org/10.1016/j.ijnurstu.2016.09.003>
- Yudiah, W., Yudianto, K., & Prawesti, A. (2018). Fatigue and work satisfaction of emergency nurses in Bandung, West Java, Indonesia. *Belitung Nursing Journal*, 4(6), 602-611. <https://doi.org/10.33546/bnj.558>

**Cite this article as:** Alshammari, M. H., Pacheco, H., Pasay-an, E., Alshammari, F., Alsharari, A., Felemban, E., & Dayrit, R. D. (2020). Nurses' perspectives on the degree of missed nursing care in the public hospitals in Hail City, Kingdom of Saudi Arabia. *Belitung Nursing Journal*, 6(6), 190-195. <https://doi.org/10.33546/bnj.1233>