

Content available at: <https://www.ipinnovative.com/open-access-journals>

IP Journal of Paediatrics and Nursing Science

Journal homepage: <https://www.jpns.in/>

Original Research Article

Knowledge of nurses about missed nursing care and its factors in governmental hospitals in the coastal region of hadhramout-Yemen

Haddad Salim Al-Hebshi^{1*}, Maha Shkuri Bamarouf², Khadega Saeed Bamahdi¹¹Dept. of Community Health Nursing, Faculty of Nursing, Hadhramout University, Mukalla, Yemen²College of Nursing and, Hadhramout University, Al-Mukalla, India

ARTICLE INFO

Article history:

Received 30-07-2024

Accepted 20-09-2024

Available online 18-12-2024

Keywords:

Knowledge
Missed nursing care
Hospital
Hadhramout

ABSTRACT

Background: Preserving patient safety is a critical responsibility of nurses. Missed nursing care, which refers to the loss of care during a patient's hospitalization, has been identified as a significant issue in acute care hospitals in various countries. However, the assessment of nursing care in Hadhramout hospitals remains limited.

Aim of the Study: This study aimed to assess the knowledge and satisfaction of nurses and identify factors that affect nursing care in Hadhramout hospitals.

Materials and Methods: A cross-sectional descriptive study was conducted, involving 407 nurses selected from governmental hospitals along the Hadhramout coast. Data were collected using a questionnaire.

Results: The findings revealed that approximately two-thirds (62.9%) of nurses had moderate knowledge regarding missed nursing care, with only 25% of them providing a clear definition of missing care. The majority of nurses (95.8%) agreed on the importance of preventive precautions in ensuring patient safety. Additionally, a significant percentage of nurses (91.9% and 78.9% respectively) reported that increased working hours and inadequate environmental conditions negatively affected their psychological well-being. Furthermore, only 19.4% of nurses cited the lack of availability of medical devices as an example of missed nursing care.

Conclusion: The study concluded that a majority of nurses possessed moderate knowledge about missed nursing care, with a limited understanding of the concept. Nurses acknowledged the significance of preventive precautions in maintaining the quality of nursing care. However, they expressed dissatisfaction with the number of nurses in the hospital, as it hindered their ability to take leave, although they were generally satisfied with their working hours.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

Nursing care is a crucial component of patient care that plays a pivotal role in both the curative and rehabilitation processes. It encompasses various activities performed by nursing staff, such as medication administration, repositioning patients, providing comprehensive care, monitoring vital signs, documenting patient information,

maintaining fluid balance records, delivering nutritional education, and ensuring proper discharge planning. When these essential elements of care are not adequately provided to patients, it is known as missed nursing care.¹

Missed care presents ethical challenges to nurses' professional and moral values, leading to a mismatch between patients' needs and the available or limited resources. Consequently, nurses are required to prioritize their tasks, and missed care becomes an outcome of this prioritization process. Missed care represents an error of

* Corresponding author.

E-mail address: haddad2014@outlook.com (H. Salim Al-Hebshi).

omission, indicating a failure to perform necessary actions, which can potentially result in adverse outcomes for patients and negatively impact the quality of care.²

Missed nursing care encompasses a range of activities that deviate from the six objectives of good nursing care: efficiency, safety, equity, patient-centeredness, effectiveness, and timeliness. Common issues reported across countries, such as low staffing levels, inadequate material resources, and poor communication and teamwork, contribute significantly to missed nursing care.³

Factors associated with missed care are often related to staffing levels, the skill mix of healthcare providers, unavailability of necessary resources, patient acuity, and teamwork/communication. The consequences of missed nursing care include lower quality of patient care, decreased patient satisfaction, reduced job satisfaction among nurses, increased incidence of adverse events in patients, prolonged hospital stays, and higher rates of hospital readmission.⁴

The nursing staff is responsible for the providing quality care, and identifying care omissions the associated factors enable necessary measures in the restructuring nursing services, in order to contribute to the solution of the missed nursing care problem.⁵

Over the past decade, global austerity measures have led to reduced healthcare spending, hiring restrictions, reduced nursing staff numbers and resulted increased the workloads for fewer nurses. The impact of these actions is most evident in the delivery of patient care, where patients, the public and nurses interact, thus highlighting the importance of nursing practice. Since the early 2000s the concept of missing or incomplete care has gained increasing emphasis in the field of nursing.⁶ Limited evidence from three studies conducted outside the USA links missed care to patient satisfaction. All three identified significant effects of missed care. In a military hospital in Turkey, a single measure of missed care (medications not given on time) was examined and found to be significantly associated with less satisfied patients.⁵

Previous studies have shown that missed nursing care is a significant problem in acute care hospitals. Other studies have demonstrated that teamwork is a critical element in assuring patient safety and quality of care. The purpose of this study, was to determine if the level of nursing teamwork impacts the nature and extend of missed nursing care. Teamwork alone accounted for about 11% of missed nursing care. The results of this study show that the level of nursing teamwork impacts the nature and extent of missed nursing care. The study results point to a need to invest in methods of enhancing teamwork in these settings.⁷

Missed nursing care events span a wide range of basic hospital nursing responsibilities, such as patient assessment (44%), therapeutic interventions and basic care (73%), and discharge planning (71%). However, there is a lack of information on risk factors associated with missed nursing care, thus limiting our ability to develop and implement

targeted interventions to reduce the risk of missed nursing care.²

In a study conducted in Switzerland, nurses reported that a significant percentage of nosocomial infections (58%), falls (44%), medication errors (30%), pressure ulcers (24%), and critical events (16%) were consistently attributed to unmet care.⁸ The interest in missed care arises from its potential role in explaining the well-established association between low nurse staffing levels and increased mortality among hospitalized patients.⁴

The literature indicates that various factors have different effects on missed nursing care. Missed care refers to the loss of care during a patient's hospitalization. It has been found to be associated with communication issues and limited human resources. While there was a weak link observed between missed care and the availability of material resources, human factors were identified as the main dimension directly affecting patient care. The nursing work environment, including working conditions, practice environment, and job characteristics, has an influence on missed nursing care and can have implications for both patients and nurses.

2. Definitions

2.1. Nurses

As the chief providers of care in the hospital, likely nursing care omission or completion is to have a large effect on care experience of patient.⁹

2.2. Nursing

Is the protection, promotion and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response and advocacy in the care of individuals, families, communities and populations.¹⁰

2.3. Role of nurses

Nurses play a crucial role in preserving patient safety, considering that they constitute the largest portion of healthcare providers. Also play an active role in detecting and preventing errors¹¹

2.4. Quality care

Is safe, effective, patient-centered care that is equally accessible to all patient care outcomes are used as an important Indicator of quality care in health care policies around the world.¹²

2.5. The care quality provided

Is the responsibility of nursing staff, so, determining care missing and elements that contributed to omissions allow

carry out the suitable strategies needed in nursing services restructuring, to provide the solutions for problem of missed nursing care which improves the patient care' quality and safety.⁹

2.6. Patient safety (WHO)

As the prevention or mitigation of errors and harms to patients associated with the provision of health care.¹¹

2.7. Missed nursing care

Is an omission error wherein some aspects of required nursing care are partially or totally delayed or un-fulfilled. It occurs in all cultures and countries and is an important indicator of nursing care quality and patient safety.⁹

2.8. Nursing process

The five phases of the nursing process are: assessment, diagnosis, planning, implementation and evaluation. Within each step of the nursing process, there are nursing actions that are appropriate for a given patient. While the nursing process has been criticized by some nursing scholars as positivistic and not representative of the simultaneous integrative nature of nursing, it does provide a common structure for nursing care.¹⁰

2.9. Nurses' internal processes

The choice to complete, delay or omit items of patient care is influenced by four factors internal to a nurse, namely (1) team norms (2) decision-making processes (3) internal values and beliefs and (4) habits.

2.10. The first internal factor

Refers to the norms of the team within which individuals operate. Every team has a set of norms concerning acceptable behavior by its members. Some norms will be strictly adhered to, while others will allow for a range of behavior. Team or group norms are usually implicit, and new members learn these accepted behaviors relatively quickly.¹⁰

2.11. The second internal factor

Is priority decision-making. When nurses determine the elements of care within the nursing process that are needed for patients, they do so based on their assessments of the patients' conditions and needs.¹⁰

2.12. The third internal factor is the values

Attitudes and beliefs nurses hold about their roles and responsibilities. Built upon a foundation of internalized cultural values and norms, people's beliefs, feelings and

expectations about the self-play a fundamental role in shaping their behavior.¹⁰

2.13. The fourth internal factor is the Habits

Affect the ultimate decision by nurses to delay or omit care. Once care is missed, and there is no apparent detrimental effect on a patient or no one notices, it is easier to decide to delay or omit that element of care the next time.¹⁰

3. Missed Nursing Care Model They include

1. Labor resources available to provide patient care¹⁰
2. Material resources accessible to assist in patient care activities¹⁰
3. Various relationship and communication factors that have an impact on nurses' ability to provide care.¹⁰

3.1. Labor resources

Address the number and type of nurse and assistive caregivers (competency level, education and experience of staff, etc.) available in relation to the demands for nursing care by patients.¹⁰

3.2. Material resources

Medications, supplies and functioning equipment required for nursing care are material resources, the availability of which influences nurses' ability to provide care.¹⁰

3.3. Various relationship and communication

Is teamwork and communication among patient unit team members, between nurses and physicians and between nursing staff and ancillary personnel. The quality of the communication can lead to missed care.¹⁰

3.4. Classification of quality problem¹³

1. Quality problems in healthcare have been classified into three major categories: overuse, underuse, and misuse.
2. Underuse occurs when healthcare services that would have produced favorable patient outcomes are not provided. Evidence suggests that quality problems associated with underuse of healthcare services are significantly more common than those related to overuse and misuse combined.

3.5. Implications for practice of the concept of missed nursing care¹⁰

There are three implications for practice of the concept of missed nursing care and its explanatory model:

First, missed care has been documented to influence patient outcomes negatively:

1. Failure to ambulate and turn patients has been linked to new-onset delirium Pneumonia.
2. Increased length of stay and delayed discharge.
3. Increased pain and discomfort and physical disability.

Studies to date suggest that the volume of missed care is underestimated, and that the consequences to patients could be greater than currently understood.

Secondly, important practice implications include the need to develop and test nursing interventions for counteracting the negative patient outcomes of missed care.

Thirdly, the development of The MISSCARE Survey has implications for constructing major databases for the profession, such as with the USA-based National Database of Nurse Quality Indicators. The policy implications of investigating the concept of missed care are numerous, based on the predicted relationship to patient outcomes. With the advent of the Centers for Medicare and Medicaid Services policy in the USA, which will not reimburse healthcare providers for complications contracted in hospitals, negative patient conditions developed due to missed care could cause sizeable economic losses to provider organization.

Unfinished care is conceptualized as a three-pronged phenomenon consisting of:¹³

1. Problem (resource/Tim scarcity)
2. Process (clinical decision making to prioritize and ration care)
3. An outcome (care left undone)

3.6. Reasons for missing nursing care

1. Increase in work intensity due to overtime, the large number of patients who need more care may increase the workload, Lack of supplies/equipment is another reason for multinationals, Lacking or not having medications and supplies available when needed, and medical equipment is not available or not working properly.¹⁴
2. Loss of care, such as the lack of staff, the limited time needed to make nursing interventions.¹⁵
3. Staffing inadequacy, time restriction, poor delegation, and insufficient material resources, inferred that inadequate manpower is the most frequent cause.¹¹

3.7. Major elements of nursing care

1. Ambulation, position change, feeding, patient teaching, discharge planning, emotional support, hygiene, intake and output, documentation.¹¹
2. Recording vital sign, bathing patients, administering medications.¹⁴

3.8. Type of errors in nursing care¹¹

1. Errors of the commission as a result of the wrong action taken
2. Errors of omission as a result of actions not taken or missed

4. Outcome of MNC

4.1. Nurses' outcomes, such as

Poor quality of staff's work life Dissatisfaction with their work and overwork¹⁰

4.2. Patient outcomes, such

1. Medication errors, Upper gastrointestinal bleeding, heart attacks and deaths, nosocomial infections and pressure ulcer ,insufficient ambulation, falling patient, pneumonia, Nurses' job dissatisfaction and job reduction.¹⁴
2. Increase death rate, falling Sick, infection, increased hospital costs, failure to rescue.¹⁰

4.3. Consequences of missed nursing care for nurses

1. Low quality of working life for employees, Dissatisfaction with their work, Exhaustion.¹⁵
2. Poor nursing care, job dissatisfaction and absenteeism, poor retention, and staff morale, negative effect on patient safety, increased length of hospital stay, ineffective pain management, malnourishment, and high mortality.¹⁴

4.4. Relationships between the practice environment, nursing process and patient outcomes

The Missed Nursing Care Model postulates many relationships, e.g., that missed nursing care predicts job satisfaction, that staffing type and teamwork predicts missed nursing care, and that size of hospital predicts teamwork.¹⁶

The aim of this study was to evaluate the quality of nursing care in government hospitals in the coastal Hadhramout region, specifically focusing on the concept of missed care.

4.5. Rational of study

1. At Hadhramout Hospital, the nursing care provided is not adequately assessed to identify instances of missed care. Understanding the factors that contribute to nursing care being missed is crucial.
2. Perception of low-quality nursing care in Hadhramout hospitals exists due to various instances of missed nursing care, which have been shown to increase patient mortality and complications.

4.6. Hypothesis

1. Nurses' information in government hospital in Hadhramout about the missed nursing care.
2. The missed nursing care in Hadhramout is effectively by several factors in sex, age, experience, number of staff, availability of equipment and a safe environment.
3. The level of nurse's satisfaction with the nursing services in government hospital in Hadhramout is not satisfactory.

Table 1: Research design

No.	Hospital	Total	sample
1	Ibn sina	253	125
2	University hospital	151	74
3	Mukalla hospital of mother and childhood	230	114
4	Al sheher hospital	146	68
5	Gail bawazeer hospital	52	26
6	Total	832	407

5. Methodology

5.1. Study design

The cross-sectional method will be used in this study.

5.2. Setting

The study was conducted in government hospitals of coastal area of Hadramout, including Ibn Sina hospital, Mukalla hospital for mother and childhood, University Hospital, Gail Bawazeer hospital and Alshihier hospital. The study period is from 26 December 2022 to 10 February 2023.

5.3. Study population

Includes all nursing staff working in government hospital in the coastal area Hadhramout.

5.4. Sample methods

The non-probability convenient sampling technique was employed to recruit registered nurses who met the inclusion criteria and were willing to participate in the study. This method involved selecting participants based on their convenience and accessibility for the research.

5.5. Sample size

There were a total of Eight Hundred Thirty -Two staff nurses working in the designated hospital. The sample size was calculated as 407 using the Rao Soft calculator, with a 95% confidence level and a 5% acceptable error. The prevalence rate for missed nursing care was 40.1%.

5.6. Data collection

5.6.1. Types of data

The study will include quantitative and qualitative data for data collection.

5.7. Tools of data collection

The data will be collected from nurses who attend and are registered in governmental hospitals in the coastal area of Hadhramout, using a pre-tested questionnaire. The data will include personal and socio-demographic information such as name, age, sex, educational level, marital status, name of hospitals and departments, name of town, and duration of working at the hospital.

Another part of the questionnaire will consist of general activities related to nursing satisfaction with their work, using closed-ended questions. All collected questionnaires will be checked to ensure that all required questions are answered and completed.

5.8. Measurements

Their knowledge of missed nursing care was measured by calculating the mean \pm SD of their responses to 11 items with "yes/no" options.

Knowledge (1.3 \pm (0.15))
 Good Knowledge (\geq 1.45)
 Moderate Knowledge (1.16-1.44)
 Poor Knowledge (\leq 1.15)

Satisfaction (1.5 \pm (0.25))
 Good Satisfaction (\geq 1.75)
 Moderate Satisfaction (1.26-1.74)
 Poor Satisfaction (\leq 1.25)

About their satisfaction with missed nursing care was measured by calculating the mean and \pm SD of their responses to 9 items with the "appropriate/neutral/inappropriate" options.

5.9. Pilot study (pre-test)

The pre-testing questionnaire was conducted among 50 nurses who voluntarily and randomly selected from different department of the internal medicine, emergency and surgery The sample of nurses which was used in this pre-test was not included in this study.

The questionnaire was pre-tested to determine the question sequence and the identification of difficult words. During the pre-test a few difficult words in some questions were found and these words were changed into simple local words.

5.10. Inclusion criteria

All nursing staff in government hospitals in the coastal region of Hadhramout who work in the department of the internal medicine, emergency and surgery will be included in the study

5.11. Exclusion criteria

Nursing staff working in clinics and external department will be excluded from the study.

5.12. Ethical consideration

1. The study was approved by the Faculty of Nursing at the University of Hadhramout.
2. We obtain institutional endorsements from hospitals targets by the study.
3. All nurses provided written informed consent .the anonymity and confidentiality of participants were assured and there decision to participate voluntarily in this study was respected.

5.13. Statistical analysis

The data will be processed and analyzed using Statistical Package for Social Sciences (SPSS® version 23). Obtained data will be analyzed by using descriptive Statistical tools such as frequency and percentage, mean, and standard deviation. The results will be presented in tables and graphs created with computer office programs such as Microsoft Word and Excel (Office 2010).

5.14. Validity

It is noteworthy that the questionnaire was taken from several specific researches, and some doctors and experts surveyed it, and in light of it, conduct a trial test on ten people, and through it was modified.

6. Results

shows the distribution of study sample related to socio-demographic characteristics it was observed that (26.8%, 20.9%) were in ICU and emergency respectively , more than half (58.7%) have work experience between 1-10 years, while (23.8%) have more than 10 years' experience, (41.8%) have bachelor degree and more than half (56.5%) were diploma, (54.1%) of the participant were in age group (20-<29.3) with mean±SD (29.7 ±(6. 96).

Figure 1 According to the classification that was shown that (31%) of participant was selected from Ibn sina hospital, while (28%) Mukalla MCH hospital, (18%, 17% an 6%) from university hospital, Al-shaher hospital and Ghail Bawazeer hospital respectively.

Demonstrates the students' knowledge of nurses toward missed nursing care it revealed the (73.7%) of participant

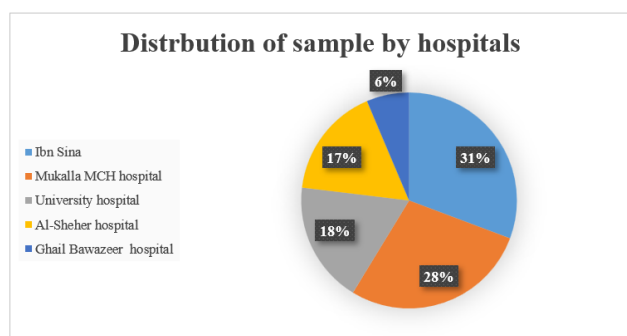


Figure 1: Distribution of sample by hospitals (n=407).

have knowledge about missed nursing care, and (76.2%) say that the phenomenon of missing nursing care is common in hospitals, (70.3%) say that the number of nurses are not sufficient in each department of the hospitals, and (89.9%) say that the lack of nurses effect on care, about 81.8% say yes to the lack of using PPE during work, and (92.1%) say that there is a lack of training and education opportunities, (73%) say that the nursing care provide on time, while there are (27%) don't agree with that.

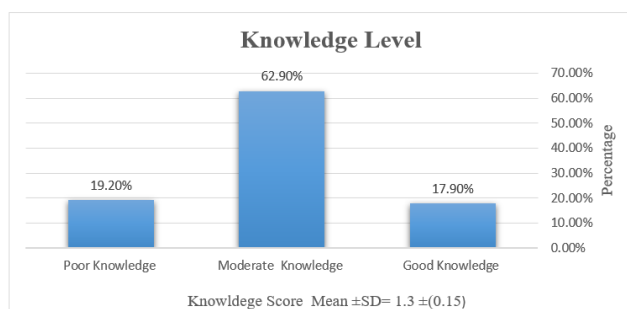


Figure 2: Mean knowledge level score (n=407).

Figure 2 Results of overall level of knowledge about missed nursing care among nurses shown that 62.9% of nurses have moderate knowledge, 17.9% have good knowledge, and 19.2% with poor knowledge.

Illustrates studied factors that affect services, (85.7%) agreed that loss of cooperation between the health staff negatively affects the progress of services, and (71%) agree that lack of salaries and incentives affect health care delivery, most of participant (95.8%) agree with that preventive precautions are important in the safety of patients, (67.6%) agree with thatThe presence of factors are hindering the advanced nursing process.

display the satisfaction of nurses to about nursing care (80.1%) agree with that there is a difficulty of obtaining leave to the lack of health staff, and about (60%) are not satisfied with their current educational level, while (75.9%) agreed with that the working hours are long and tiring ,only (30%) not satisfied with the times and hours of their work in

Table 2: Socio-demographic characteristics of the participants (n=407)

Items	No.	%
Age Groups in year		
(20-<29.3)	220	54.1
(29.3<38.5)	133	32.7
(38.5<47.8)	42	10.3
(47.7-57)	12	2.9
Mean ± SD 29.7 ±(6.96)		
Gender		
Male	170	41.8
Female	237	58.2
Marital Status		
Single	189	46.4
Married	208	51.1
Divorced	8	2.0
Widow	2	0.5
Specialty		
Diploma	230	56.5
Bachelor	170	41.8
postgraduate	6	1.5
Another	1	0.2
Experience in years		
less than 1 year	71	17.5
1-10 years	239	58.7
More than 10 years	97	23.8
Hospital department		
Surgery	25	6.1
Medical	44	10.8
Emergency	85	20.9
ICU	109	26.8
Operation theatre	5	1.2
Labor room	43	10.6
Nursery	29	7.1
pediatric in-patient ward	35	8.6
in patient ward	32	7.9

the hospital, and (73%) satisfied with their presence in this section, and (88.9%) agree with supports the provision of special nursing files for each patient.

satisfied, while 61.2% of nurses with neutral opinion, , and 20.1% are not satisfied for nursing care.



Figure 3: Mean satisfaction score (n=407)

Figure 3 results of overall level of satisfaction about nursing care among nurses shown that only (18.7%) are

shown all definitions about missed nursing care, (25.9%) of participant define it that is the care that provided to the patient is insufficient due to several reasons, while (10.8%) define it as the lack of means to help the patient achieve his pain and the disease he is in, and (10.1%) define it as lack of provision of health services by nurses, while (3.8%) define it as lack of interest, communication, and building trust with the patient and being accompanied by the staff.

Participants give some examples about missed nursing care, (19.4%) say that lack of availability of medical devices is example for missed nursing care, while (11.8%) gave Lack of nursing staff as an example; however, (7.2%) gave an example for missed nursing care that not paying attention to the patient’s hygiene.

Table 3: Knowledge of nurses toward missing nursing care (n=407):

Items		No.	%
Do you have knowledge about missed nursing care?	Yes	300	73.7
	No	107	26.3
Is the phenomenon of missing nursing care is common in hospitals?	Yes	310	76.2
	No	97	23.8
Are the number of nurses sufficient in each department of the hospital?	Yes	121	29.7
	No	286	70.3
Is lack of nurses affecting of care?	Yes	366	89.9
	No	41	10.1
Are you qualified to work in any section if you are Request?	Yes	332	81.6
	No	75	18.4
Is there a lack of use of personal protection equipment while working?	Yes	333	81.8
	No	74	18.2
Is there a lack of education and training opportunities in the field of work?	Yes	375	92.1
	No	32	7.9
Are nursing services provided on time?	Yes	297	73
	No	110	27
Is the patient's privacy respected in this hospital?	Yes	321	78.9
	No	86	21.1
Does the nurses respond quickly when they are called?	Yes	323	79.4
	No	84	20.6
Is the crowd and noise are dealing with effective?	Yes	211	51.8
	No	196	48.2

7. Discussion

Missed care is indeed an ethical issue that challenges nurses' professional and moral values. When nurses are faced with limited resources or a heavy workload, they may have to prioritize their tasks, resulting in some care being missed. This error of omission can have negative consequences for patients, leading to adverse outcomes and impacting the overall quality of care.

In Hadhramout Hospitals, the nursing care may not be adequately assessed to identify instances of missed care. This lack of awareness about missed care could contribute to a perception of low quality of nursing in the hospital. It is important to address and rectify cases of missed nursing care as they can contribute to increased mortality rates and complications for patients.

This study aimed to assess nursing care in government hospitals in coastal Hadhramout from the perspective of nursing missed care. The study showed that the majority of nurses (58.2%) were female, and (51.1%) were married. More than half of the participants were between 20-29 years old (54.1%) with a mean age of (29.7). The majority of nurses in this study held a diploma (56.5%). Additionally, (58.7%) had 1-10 years of experience.

In terms of the department they worked in, (26.8%) of the nurses were in the ICU, while (20.9%) were in the emergency department, and only (1.7%) were in the operating theater. A study conducted in Egypt yielded similar results, with the majority of the sample being female (94.4%) and between the age categories of 30-50 years

old (60.6%). Most nurses in the study worked in surgical units (60.6%), held a nursing diploma degree (68.0%), and worked as "Practical Nurses" (66.5%).

Another study conducted in Egypt also had comparable findings to our study. The majority of nurses (60.4%) were female, married (52.5%), and 51.6% of the nurses were between 30-39 years old, with a mean age of 40.2. The majority (37.1%) of the studied nurses had a technical institute nursing degree. The highest percentage (52.5%) of nurses had 5-10 years of experience, and more than half (54.6%) had three to four patients in their last shift. Less than half (47.9%) worked day shifts¹⁷.

In regards to the knowledge of nurses, (73.7%) of participants have heard about missed nursing care, and (76.2%) say that the phenomenon of missing nursing care is common in hospitals. Additionally, (70.3%) say that the number of nurses is not sufficient in each department of the hospitals, and (89.9%) say that the lack of nurses affects care. Furthermore, (92.1%) say that there is a lack of training and education opportunities.

The results regarding the overall level of knowledge about missed nursing care among nurses show that only (17.9%) have good knowledge, (62.9%) of nurses have moderate knowledge, and (19.2%) have poor knowledge.

This is in contrast to findings from studies conducted in Ethiopia and Turkey, where the percentage of good knowledge about missing nursing care among nurses was (48% and 70.5%) respectively^{18,19}. This difference might be attributed to variations in the delivery of educational and training programs, as well as the country's political situation

Table 4: Factors that affect services and lead to missing nursing (n=407)

		No.	%
Preventive precautions are important in the safety of patients	Appropriate	390	95.8
	Natural	12	2.9
	Non appropriate	5	1.2
Lack of salaries and incentives affect health care delivery.	Appropriate	289	71
	Natural	60	14.7
	Non appropriate	58	14.3
The hospital sets suitable hours for visiting patients.	Appropriate	312	76.7
	Natural	63	15.5
	Non appropriate	32	7.9
Loss of cooperation between the health staff negatively affects the progress of services.	Appropriate	349	85.7
	Natural	32	7.9
	Non appropriate	26	6.4
Doctor's notice by the nurse if the patient's condition worsens.	Appropriate	377	92.6
	Natural	23	5.7
	Non appropriate	7	1.7
Explain the morbidity condition and the treatment plan adequately and effectively.	Appropriate	295	72.5
	Natural	80	19.7
	Non appropriate	32	7.9
The nurses are ready to listen and help patients.	Appropriate	343	84.3
	Natural	52	12.8
	Non appropriate	12	2.9
The nurses wear appropriate clothes at work.	Appropriate	296	72.7
	Natural	82	20.1
	Non appropriate	29	7.1
There is no discrimination in providing nursing services among patients.	Appropriate	300	73.7
	Natural	68	16.7
	Non appropriate	39	9.6
It is personally confirmed by the nurse about the patient's name before performing the treatments.	Appropriate	376	92.4
	Natural	25	6.1
	Non appropriate	6	1.5
Nurses deal with pain quickly and conveniently.	Appropriate	316	77.6
	Natural	77	18.9
	Non Appropriate	14	3.4
Medals play a role in caring for patients.	Appropriate	210	51.6
	Natural	86	21.1
	Non Appropriate	111	27.3
The presence of factors hindering the advanced nursing process.	Appropriate	275	67.6
	Natural	105	25.8
	Non Appropriate	27	6.6
Complications and setbacks of patients in the hospital are related to the lack of patient care.	Appropriate	242	59.5
	Natural	117	28.7
	Non Appropriate	48	11.8

and conflicts that hindered focus on training and developing nursing care.

Regarding factors that affect services, (85.7%) agreed that a loss of cooperation between the health staff negatively affects the progress of services, and (71%) agree that a lack of salaries and incentives affect healthcare delivery. The majority of participants (95.8%) agree that preventive precautions are important for the safety of patients. Additionally, most participants (92.6%) agree with the importance of nurses notifying doctors if the patient's condition worsens. It is also important to explain the

morbidity condition and the treatment plan adequately and effectively; (72.5%) say it is important for patient care. (84.3%) say that the nurses are ready to listen and help patients. However, (59.5%) say that the complications and setbacks of patients in the hospital are related to the lack of patient care, while (67.6%) agree that the presence of certain factors hinders the advanced nursing process.

In a study conducted in Egypt about the factors that affect services and lead to missing nursing care, 65.4% reported occasionally missing the administration of medications within 30 minutes, and 46.2% reported occasionally missing

Table 5: Nurse’s satisfaction to about nursing care (n=407):

Items		No.	%
Are there difficult of obtaining leave to the lack of health staff?	Appropriate	326	80.1
	Natural	2	0.5
	Non appropriate	79	19.4
Are you satisfied with your current educational level?	Appropriate	155	38
	Natural	8	2
	Non appropriate	244	60
Are the working hours long and tiring?	Appropriate	309	75.9
	Natural	9	2.2
	Non appropriate	89	21.9
Is there a lot of visited leads to lack of focus on work?	Appropriate	379	93.1
	Natural	4	1
	Non appropriate	24	5.9
Are the nurses polite?	Appropriate	213	52.3
	Natural	168	41.3
	Non appropriate	26	6.4
Supports the provision of special nursing files for each patient.	Appropriate	362	88.9
	Natural	33	8.1
	Non appropriate	12	2.9
In your opinion, is the educational qualification an important role in the practice of the nursing profession?	Appropriate	302	74.2
	Natural	54	13.3
	Non appropriate	51	12.5
You are satisfied with your presence in this section.	Appropriate	297	73
	Natural	75	18.4
	Non appropriate	35	8.6
You are satisfied with the times and hours of your work in the hospital.	Appropriate	183	45
	Natural	102	25
	Non appropriate	122	30

Table 6: motional and psychological state of the nurses (n=407)

		No.	%
The absence of the appropriate environment affects your psychological state.	Appropriate	321	78.9
	Natural	66	16.2
	Non appropriate	20	4.9
Increased working hours affect your psychological health	Appropriate	374	91.9
	Natural	24	5.9
	Non appropriate	9	2.2
Allow hours to rest. Working period.	Appropriate	331	81.3
	Natural	53	13.0
	Non appropriate	23	5.7
Long working hours affect my attention to wrong practices.	Appropriate	251	61.7
	Natural	91	22.4
	Non appropriate	65	16.0
Family problems play a role in providing services to patients.	Appropriate	171	42.0
	Natural	96	23.6
	Non appropriate	140	34.4

Table 7: Shows that emotional and psychological state of nurses, (91.9% and 78.9%) agreed with that increased working hours and the absence of appropriate environmental affects their psychological state respectively, and (81.3%) agreed with that long working hours affect their attention to wrong practices, (42%) agreed that family problems play a role in providing services to patients, while (34.4%) didn't agree.

Items	No.	(%)
The care provided to the patient is insufficient due to several reasons	41	25.9
lack of provision of health services by nurses	16	10.1
is the care that must be present in order to improve the patient's health condition	5	3.2
Nursing care is not provided to the patient by the nurse	11	7
is the lack of competence, qualification, training	5	3.2
Intentionally establishing nursing work on nursing foundations and plans	6	3.8
Lack of interest in the patient from a psychological and health point of view	16	10.1
is care in which the patient's privacy and safety are not taken into account	6	3.8
lack of interest, communication, and building trust with the patient and being accompanied by the staff	6	3.8
the lack of continuous follow-up of cases by the existing nurses.	5	3.2
It Is care that may affect the health of the patient, which leads to health problems	6	3.8
The lack of means to help the patient achieve his pain and the disease he is in	17	10.8
Absence of some necessary nursing procedures for the patient	5	3.2
Non-application of nursing, preventive and curative care	3	1.9
Failure to perform the tasks of the health worker in the required manner towards the patient	10	6.3
Total	158	100

Participants definitions about missed nursing care? (n=407)

Table 8: Participants examples of missed nursing care? (n=407)

Items	No.	(%)
The large number of patients in the department	4	1.7
No nursing records available	1	0.4
Not paying attention to the patient's hygiene	17	7.2
The presence of visitors at an inappropriate time	5	2.1
Lack of cleanliness and preparation of the section	2	0.8
Not paying attention to the patient's nutrition	5	2.1
Lack of continuous follow-up by the doctor for cases	6	2.5
Lack of availability of medical devices	46	19.4
Lack of control in infection control	10	4.2
Lack of nursing staff	28	11.8
Lack of salaries and incentives	14	5.9
Lack of privacy	7	3
Many working hours	7	3
Not giving treatments on time	12	5.1
Lack of educational opportunities and courses in the field of work	7	3
Lack of availability of safety tools	9	3.8
Lack of nursing services	23	9.7
Unavailability of some medicines	10	4.2
Lack of interest in the patient from the psychological	12	5.1
Lack of competence and experience of nurses	12	5.1
Total	237	100

performing skin/wound care and documenting all necessary data. While performing focused reassessment according to the patient's condition, setting up meals for patients, and teaching patients about illness and tests were reported as always missed by 50.0%, 34.6%, and 33.3% respectively. On the other hand, most of the study subjects reported rarely missing washing hands (30.8%) and performing patient bathing/skin care (7.7%). Additionally, it was observed that 28.2% reported frequently missing providing emotional support to patients and their families, acting on PRN medication requests within 15 minutes, assisting with toileting needs within 5 minutes of request, and turning patients every 2 hours²⁰.

Another study measured factors affecting the omission of nursing care as perceived by nurses and patients. According to the nurses' perception, the factors mainly attributed to the nursing workforce (80.67% average), followed by materials and supplies (69.72% average), and communication factors (65.16% average). Patients highlighted the lack of staff as the primary factor for missed care (18.1%), followed by staff with insufficient experience (13.8%), and lack of organization and teamwork (7.5%). They also mentioned other factors in smaller proportions, such as inadequate staff communication between shifts (6.3%) and staff attitudes (5%)²¹.

The study revealed findings regarding nurses' satisfaction with nursing care. It was found that a significant percentage of nurses (80.1%) agreed that obtaining leave was challenging due to the lack of healthcare staff. Furthermore, 60% expressed dissatisfaction with their current educational level. About 75.9% of nurses agreed that the working hours were long and tiring, while only 30% reported dissatisfaction with the timing and hours of their work in the hospital. In terms of their presence in the section, 73% of nurses reported satisfaction, and a majority (88.9%) supported the provision of special nursing files for each patient.

Overall, the satisfaction level with nursing care among nurses was low. Only 18.7% expressed satisfaction, while 61.2% held a neutral opinion, and 20.1% expressed dissatisfaction with nursing care.

This study also identified a weak negative correlation between most satisfaction elements and the overall score for missed nursing care, indicating that higher levels of satisfaction are linked to lower overall scores for missed care. In a separate study that explored the association between missed nursing care and determinants of satisfaction among direct-care nurses, several findings emerged. Nurses who worked more overtime were more likely to express satisfaction with their current position compared to those who worked no overtime (Adjusted Odds Ratio [AOR] 1.25; 95% Confidence Interval [CI] 1.04–1.52). Conversely, nurses who missed more than six shifts in the previous three months reported lower levels of

satisfaction compared to those who missed no shifts (AOR 0.35; 95% CI 0.27–0.46).

The perception of staffing adequacy on the unit was a significant factor associated with job satisfaction. Participants who perceived staffing to be adequate for 25% or less of the time were substantially less likely to be satisfied with their current position compared to those who perceived staffing to be adequate for 75% or more of the time (Odds Ratio [OR] 0.13; 95% CI 0.11–0.16). However, no statistically significant associations were found between age group, gender, the shift usually worked, and nursing staff satisfaction with their current position.²² It's worth noting that this study did not specifically examine the association for overall satisfaction.

Regarding the emotional and psychological state of nurses, 91.9% and 78.9% agreed that increased working hours and the absence of an appropriate environment affect their psychological state, respectively. Additionally, 81.3% agreed that long working hours affect their attention to wrong practices, while 42% agreed that family problems play a role in providing services to patients. On the other hand, 34.4% did not agree.

In a study conducted in Egypt on the workload of nurses at a study hospital, the majority of nurses worked for more than 30 hours per week (89.0%) and cared for more than 10 patients per shift (43.4%), with a mean of 11.94 patients. The highest percentage of nurses had 0-5 patients admitted and discharged during the last shift (84.6% and 89.5%). As for perceived staff adequacy, around one-third of the sample perceived the staff to be adequate 50% of the time, while 16.1% perceived that the staff was never adequate.

In terms of definitions of missed nursing care, a portion of participants (25.9%) described it as insufficient care provided to patients due to various reasons, while others (10.8%) defined it as the lack of means to manage patient pain and disease. Additionally, some participants (10.1%) defined it as the absence of health services provided by nurses, and a few (3.8%) defined it as a lack of interest, communication, and trust-building with patients and their accompanying staff. According to a study by Moreno-Monsiváis et al. (2015), nursing staff identified an unexpected increase in patient volume (65%) as the primary cause for over 50% of missed nursing care, followed by insufficient staffing (58.8%) and patient emergencies (46.9%). The unavailability of medicines (50%) and supplies/equipment when needed (36.9%), as well as malfunctioning supplies and equipment (33.8%), were also reported as contributing factors. Nurses in the study provided examples of missed nursing care, such as the lack of availability of medical devices (19.4%), insufficient nursing staff (11.8%), and neglecting patient hygiene (7.2%). In a separate study conducted in Jazan, Saudi Arabia, attending interdisciplinary care conferences (7.3%) and facilitating ambulation as ordered (6.6%) were

frequently missed elements of nursing care, while bedside glucose monitoring as ordered was rarely missed (90.7%).²³

8. Conclusion

Based on the results of this study, it can be concluded that nurses' knowledge regarding missed nursing care is moderate, the factors affecting nursing care and leading to missed nursing care are considered important for patient safety by the majority of participants, nurses face challenges in obtaining leave due to staff shortage affecting satisfaction with nursing care, increased working hours negatively impact the emotional and psychological state of nurses, a quarter of participants provided a definition of missed nursing care as insufficient care provided to patients, and a significant percentage of nurses mentioned the lack of availability of medical devices as an example of missed nursing care.

9. Recommendations

Based on the findings of the present study, the following recommendations are suggested:

1. Pay attention to specific aspects such as human resources management, control of admissions, and supply management to address reasons for missed nursing care.
2. Increase awareness among nursing staff about the causes of missed nursing care and provide clear strategies to reduce its occurrence.
3. Implement strategies in hospitals to prevent negative consequences and improve positive outcomes of patient care by addressing missed care.
4. Further research should explore the role of missed nursing care as a mediator between work environments and patient care experiences.
5. Ensure nursing administrators have an adequate and efficient nursing staff to meet patient care needs, thus improving nursing care in hospitals.
6. Hospital administrators should establish effective communication strategies among healthcare team members and stakeholders involved in patient care.
7. Provide educational courses for nurses to understand the concept of missed nursing care, its causes, and how to prevent negative consequences for patients.
8. Share the study's results with hospital officials to provide evidence for designing effective strategies to reduce missed nursing care.

10. Source of Funding

None.

11. Conflict of Interest

None.

References

1. Gustafsson N, Leino-Kilpi H, Prga I, Suhonen R, Stolt M. Missed Care from the Patient's Perspective - A Scoping Review. *Patient Pref Adherence*. 2020;14:383–400.
2. Mishavana FA, Sigaroudi AE, Jafaraghaeec F, Shahsavari H, Maroufizadeh S. Factors affecting missed nursing care in hospitals: A scoping review. *Health Sci Rev*. 2022;4:100053.
3. Chaboyer W, Harbeck E, Lee BO, Grealish L. Missed nursing care: An overview of reviews. *Kaohsiung J Med Sci*. 2021;37(2):82–91.
4. Diab GMAEH, Ebrahim RR. Factors Leading to Missed Nursing Care among Nurses at Selected Hospitals. *Am J Nurs Res*. 2019;7(2):136–47.
5. Lake E, Germack H, Viscardi M. Missed nursing care is linked to patient satisfaction: a cross-sectional study of US hospitals. *BMJ Qual Saf*. 2016;25(7):535–43.
6. Holdforth JC. Missed Nursing Care: A Symptom of Missing Evidence. *World Evid Based Nurs*. 2019;16(2):88–91.
7. Beatrice J, Kalisch RN, Lee RN. The impact of teamwork on missed nursing care. *Nursing Outlook*. 2010;58(2):233–41.
8. Schubert M, Tracy R, Sean P, Linda H. Rationing of nursing care and its relationship to patient outcomes: The Swiss extension of the International Hospital Outcomes Study. *Int J Quality Health Care*. 2008;20(2):227–37.
9. Mishavana FA, Sigaroudi AE, Jafaraghaeec F, Shahsavari H, Maroufizadeh S. Factors affecting missed nursing care in hospitals: A scoping review. *Health Sci Rev*. 2022;4(1):1–7.
10. Diab G, Ebrahim RMR. Factors leading to missed nursing care among nurses at selected hospitals. *Am J Nurs Res*. 2019;7(2):136–47.
11. Muharrag A, Alallah EH, Alkhayrat SM, Jahlan SA. An overview of missed nursing care and its predictors in Saudi Arabia: A cross-sectional study. *Nurs Res Pract*. 2022;12:1–9.
12. Ali M, Memon KN, Chouhan S, Almas S, Lal H. Factors associated with missed nursing care at a tertiary level public sector hospital. *J Pharm Res Int*. 2021;33(43):22–9.
13. Jones TL, Hamilton P, Murry N. Unfinished nursing care, missed care, and implicitly rationed care: State of the science review. *Int J Nurs Stud*. 2015;52(6):1121–37.
14. Kalisch B, Landstrom GL, Hinshaw AS. Missed nursing care: A concept analysis. *J Adv Nurs*. 2009;65(7):1509–17.
15. Gabr H, El-Shaer A. Factors affecting missed nursing care and its relation to nurses' work flow in general medical and surgical units. *J Nurs Health Sci*. 2020;9(3):21–31.
16. Zelenikova R, Jarosova D, Plevova I, Janikova E. Nurses' perceptions of professional practice environment and its relation to missed nursing care and nurse satisfaction. *Int J Environ Res Public Health*. 2020;17(11):1–10.
17. Diab G, Ebrahim RMR. Factors Leading to Missed Nursing Care among Nurses at Selected Hospitals. *Am J Nurs Res*. 2019;7(2):136–47.
18. Biresaw H, Asfaw N, Zewdu F. Knowledge and attitude of nurses towards patient safety and its associated factors. *Int J Africa Nurs Sci*. 2020;12:100191.
19. Kiyancicek O, Dedeli E, Yildiz G. Survey of health professionals' attitude towards patient rights and patient safety. *Nurs Med Sci*. 2014;2(1):19–28.
20. Gabr H, El-Shaer A. Factors Affecting Missed Nursing Care and its Relation to Nurses' Work Flow in General Medical and Surgical Units. *IOSR J Nurs Health Sci*. 2020;9(3):21–31.
21. Moreno-Monsiváis MG, Rodríguez CM, Interrial-Guzmán MG. Missed Nursing Care in Hospitalized Patients. *Aquichan*. 2015;15(3):318–28.
22. Bragadóttir H, Burmeister E, Terzioglu F, Kalisch BJ. The association of missed nursing care and determinants of satisfaction with current position for direct-care nurses—an international study. *J Nurs Manag*. 2020;28(8):1851–60.

23. Muharraq A, Alallah EH, Alkhayrat SM, Jahlan SA. An Overview of Missed Nursing Care and Its Predictors in Saudi Arabia: A Cross-Sectional Study. *Nurs Res Pract.* 2022;12:1–9.

Khadega Saeed Bamahdi, Nursing

Author's biography

Haddad Salim Al-Hebshi, Assistant Professor

Maha Shkuri Bamarouf, Nursing

Cite this article: Salim Al-Hebshi H, Bamarouf MS, Bamahdi KS. Knowledge of nurses about missed nursing care and its factors in governmental hospitals in the coastal region of hadhramout-Yemen. *IP J Paediatr Nurs Sci* 2024;7(4):135-148.