

## Research Article

# Prevalence of Missed Nursing Care and Associated Factors - a Nurse's Perspective - at the Oncology Departments in Gaza Strip, Palestine

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## Abstract

**Background:** The present study aims to determine the prevalence of nursing missed care and associated factors at the oncology departments in Gaza Strip, Palestine.

**Method:** This cross sectional study was conducted among all nurses who worked at the only two hospitals offer oncology nursing care in Gaza Strip, Palestine between May to July 2020 using a self-administered questionnaire.

**Results:** Data from 52 nurses (44 had bachelor and 8 had diploma certificate) on five oncology departments in the European Gaza and Al-Rantisi hospitals revealed that the overall prevalence of missed nursing care was 39%. The most common areas of missed care reported were; providing oral hygiene for those who need (n=39, 75%), treatments and some of nursing procedures left undone because of lack of time (n=34, 65.3%), and always nurses consider cleaning of patient's room or equipment (n=30, 57.7%). The main factors leading to missed nursing care were lack of enough nurses, no opportunity for nurses to participate in policy decisions, absent of active quality assurance program, management do not listen and response to employee concerns, and there is no a preceptor program for newly hired nurses (weighted means: 37.8%, 37.4%, 36.8%, 36%, and 35%, respectively).

**Conclusion:** The findings of the present study demonstrated the need for more quality improvement efforts to reduce missed nursing care in the oncology departments. Considering issues such as shortage in staff number, nurses' continuing education/training programs and involvement in policy decisions, and direct response to the career concerns could reduce the prevalence of missed care.

**Keywords:** Nursing; Missed nursing care; Oncology departments; Nurses

## Introduction

Missed nursing care, for the purpose of this study, is defined as "any aspect of required patient care that is omitted (either in part or in whole) or delayed" [1]. Cancer nurses play a critical role in the delivery of care to patients in oncology inpatient settings. Cancer nursing requires skill and attention to physical, emotional and spiritual aspects of care for patients [2,3] and includes knowledge and preparation to deliver complex, multimodality therapies and initiate timely management of their side-effects to ensure the best outcomes for patients [4].

Missed nursing care has unequivocally and repeatedly been associated with poorer patient outcomes, increased length of hospital stay, and a decrease in patient reported satisfaction with their hospital care experience [5]. Nurses' job satisfaction, intent to stay in their career, burnout, and the quality with which they rate their personal life have all been demonstrated to be impacted by not being able to give the quality of care that they believe their patients demand [6,7]. Missed nursing care has been shown to be influenced by many complex factors. Hospital resources, the working environment of the

ward, nurse patient ratios, and the number of hours a nurse works per shift have all been associated with missed nursing care [8-10].

The body of literature related to unfinished and missed nursing care has grown significantly over the last decade and a cursory review suggests that unfinished care is a global problem [11]. In preparation for this study, to the best of our knowledge, no previous studies addressed missed nursing care in oncology settings were found. As such an understanding of missed nursing care in inpatient oncology settings in Palestine is limited. Therefore, the purposes of this study were to explore and describe missed nursing care in the oncology departments in Gaza Strip, and factors perceived by nurses to result in missed care.

## Methods

### Sampling and data collection

This cross sectional study was conducted among nurses who worked at the only two hospitals offer oncology nursing care in Gaza Strip between May to July 2020. Study participants were selected using census sampling from nurses working in male, female, and pediatric oncology wards at the European Gaza Hospital and Al-

Rantisi Hospitals these being seen as representative of general inpatient wards in Gaza Strip, Palestine.

Having obtained approval from the General Directorate for Manpower Development of Palestinian Ministry of Health. Nurses working the morning, evening, and night shifts on the selected wards and who met the inclusion criteria (i.e. having at least one year of work experience in the selected wards, working full time and willing to participate) were identified by the research assistants (two registered nurses) who distributed the survey questionnaire and information about the present study. In total 52 questionnaire were circulated by the research assistants. Participants were asked to complete and return the questionnaire within two working days.

### Data collection tool

Data was gathered using the nursing missed care questionnaire developed by the researcher after checking of its validity and reliability using a pilot study. This questionnaire consisted of three parts; part one consisted of 15 items in which the participants were asked to determine the staffing levels and workload including questions about the total number of patients in the last shift, total number of registered nurse, and number of patients were required hourly nursing care. Part two included 27 items in which the participants were required to indicate the nursing missed care associated factors using a 5-point Likert scale with score ranging from 1 to 5 (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree). Part three included 15 items in which participants were asked to indicate the nursing missed care during the last working shift using a 3-point Likert scale with scores ranging from 1 to 3 (where 1 = yes (means not missed), 2 = sometimes, and 3 = never).

### Statistical analysis

SPSS for Windows, version 25, was used for data analysis. Descriptive statistics were used to describe continuous and categorical data. The prevalence of the nursing missed care and associated factors were determined by calculation of the weighted mean (The weighted mean involved multiplying each data point in a set by a value which is determined by some characteristic of whatever contributed to the data point).

### Ethical considerations

Ethical clearance was obtained from the Helsinki Ethics Committee of Gaza Strip. Further, approval from the General Directorate for Manpower Development of Palestinian Ministry of Health was obtained. Written informed consent was obtained from all participants through the use of a form signed by them and which advised them that they could withdraw from the study at any stage. Confidentiality and anonymity was maintained for all information collected during the study.

## Results

Table 1 shows the socio-demographic characteristics of the participants. Fifty two nursing staff participated in this study, 42.3% of which were male and 57.7% were female with mean age  $33.96 \pm 8.26$  years. About 59.6% of the participants were from Al Rantisi hospital and 40.4% from the European Gaza Hospital (EGH) and approximately 84.6% of them had bachelor degree or more. Participants' mean work experience was  $10.50 \pm 6.40$  years.

**Table 1:** Socio-demographic characteristics of the study participants (n=52).

Variable	No. of respondent (%)	Mean±SD
<b>Hospital</b>		
EGH	21 (40.4)	
Rantisi	31 (59.6)	
<b>Department</b>		
Adult male	18 (34.6)	
Adult female	23 (44.2)	
Pediatric	11 (21.2)	
<b>Age (Year)</b>		33.96±8.26
24 - 33.9	29 (55.8)	
34 - 43.9	17 (32.7)	
44 - 53.9	3 (5.8)	
≥ 54	3 (5.8)	
<b>Gender</b>		
Male	22 (42.3)	
Female	30 (57.7)	
<b>Job title</b>		
Staff member	45 (86.5)	
Senior Nurse	2 (3.8)	
Head nurse	5 (9.6)	
<b>Educational level</b>		
Diploma	8 (15.4)	
Bachelor	40 (76.9)	
Master or more	4 (7.7)	
<b>Years of experience (Year)</b>		10.50±6.40
<b>Length of service in current hospital (Year)</b>		7.70±5.53
<b>Last shift</b>		
Day	35 (67.3)	
Evening	4 (7.7)	
Night	9 (17.3)	
Evening-Night	4 (7.7)	
<b>Salary (NIS)<sup>1</sup></b>		1401.86±429.79

<sup>1</sup>New Israeli Shekel

### Staffing levels and workload

As shown in Table 2, the mean number of patients were in ward in the last shift and mean of the total number of registered nurses in ward (divided into three shifts) were  $11.01 \pm 3.41$  patients and  $8.05 \pm 3.53$  nurses, respectively. Further, mean number of patients were his/her responsibilities in last shift was  $6.11 \pm 2.47$  patients. Approximately 55.8% of participants reported that they provided most of nursing care by theirselves. The mean number of hours the nurses did work in last shift was  $8.30 \pm 3.36$  hours.

### Prevalence of nursing missed care

As shown in Table 3, the total prevalence of missed care (completely and partially not performed) was 39%. Approximately 75% of the respondents reported that they had missed oral hygiene for patients who need. About 65.3% and 57.7% of participants

**Table 2:** Staffing levels and workload.

Variable	n (%)	Mean±SD
Number of patients were in your ward in the last shift		11.01±3.41
Number of registered nurse (Bachelor and above) is in your ward		8.05±3.53
Number of patients were your responsibility in last shift		6.11±2.47
Number of patients were required hourly nursing care		4.69±2.81
<b>Describe your last shift</b>		
I provided most of the care myself	29 (55.8)	
I supervised the care by others and provided some myself	17 (32.7)	
I provided limited care and most care was provided by others	6 (11.5)	
Number of hours did you work in last shift		8.30±3.36

showed that treatments and some of nursing procedures left undone because of lack of time and always they don't consider cleaning of patients' rooms and equipment, respectively. Whereas, only 21% of the participants demonstrated that they don't comfort/talk with patients or provide adequate document nursing care. Figure 1 shows the prevalence of nursing missed care based on those who answered no.

**Nursing missed care associated factors perceived by nurses**

As presented in Table 4, approximately 63.5% of the participants showed that there are no enough registered nurse on staff to provide quality patient care (weighted mean = 37.8%). Moreover, about 57% and 61.5% of the participants demonstrated that there is no opportunity for the registered nurse to participate in policy decision and there is no enough staff to get the work done, respectively

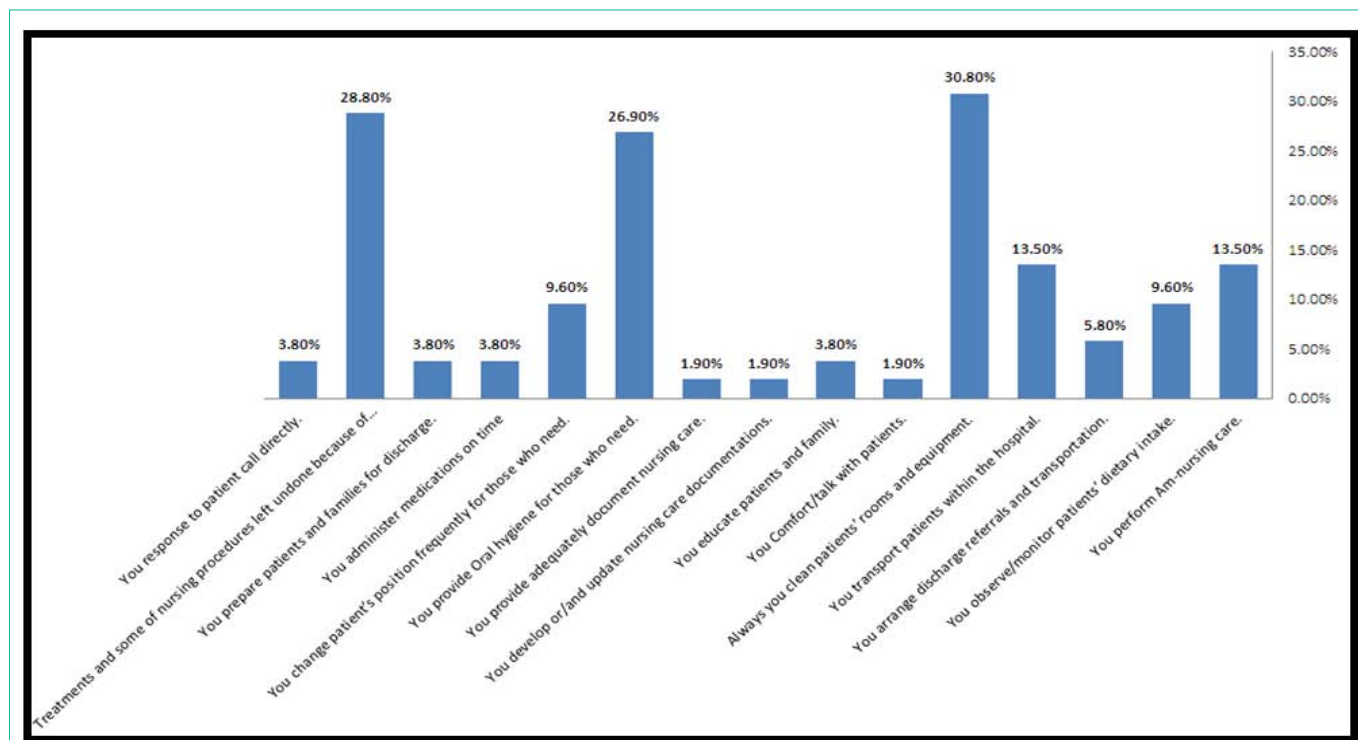
(weighted mean = 37.4% and 36.8%, respectively). Around half (52% and 46%, respectively) of participants showed that there is no active quality assurance program as well as management do not listen and respond to employee concerns (weighted mean = 36% and 35%, respectively).

In contrast, only 11.5% of the participants presented that the actions of hospital management do not show that patient safety is a top priority (weighted mean = 23.6%). Also, 7.7% of them reported that doctors and nurses do not have good working relationship (weighted mean = 24.6%), and 10% of the participants reported that they do not discuss ways to prevent errors from happening again (weighted mean = 24.8%).

**Discussion**

In the current study 39% of nursing care at the oncology wards is missed. These findings are better than findings which were reported in studies conducted in Ethiopia [12] and Sweden [13] in which the results were about 74%. Whereas, the prevalence of nursing missed care in the current study was higher than the prevalence reported in the New Jersey USA study (10-27%) [14]. This difference might be due to the study setting and sample size differences.

The present study suggested that provision of oral hygiene to those who need, treatments and some of nursing procedures left undone because of lack of time, and considering cleaning of patients' room and equipment were the most missed care by nurses. These results are in line with studies [13,15]. A study in England reported that most nurses (86%) showed that one or more care activity had been left undone due to lack of time on their last shift. Further, Bagnasco, Catania [16] showed that the frequency of omission of



**Figure 1:** Prevalence of missed care according to those who answered no.

**Table 3:** Prevalence of missed nursing care.

Item	Yes n (%)	Sometimes n (%)	No n (%)	Weighted mean (%)	Rank
You perform Am-nursing care	30 (57.7)	15 (28.8)	7 (13.5)	27	5
You observe/monitor patients' dietary intake	31 (59.6)	16 (30.8)	5 (9.6)	26	6
You arrange discharge referrals and transportation	30 (57.7)	19 (36.5)	3 (5.8)	25.6	7
You transport patients within the hospital	29 (55.8)	16 (30.8)	7 (13.5)	27.3	4
Always you consider cleaning of patients' rooms and equipment	22 (42.3)	14 (26.9)	16 (30.8)	32.6	3
You Comfort/talk with patients	41 (78.8)	10 (19.2)	1 (1.9)	21.3	10
You educate patients and family	40 (76.9)	10 (19.2)	2 (3.8)	22	9
You develop or/and update nursing care documentations	37 (71.2)	14 (26.9)	1 (1.9)	22.6	8
You provide adequately document nursing care	41 (78.8)	10 (19.2)	1 (1.9)	21.3	10
You provide Oral hygiene for those who need	13 (25)	25 (48.1)	14 (26.9)	35	1
You change patient's position frequently for those who need	23 (44.2)	24 (46.2)	5 (9.6)	27.3	4
You administer medications on time	43 (82.7)	7 (13.5)	2 (3.8)	21	11
You prepare patients and families for discharge	38 (73.1)	12 (23.1)	2 (3.8)	22.6	8
Treatments and some of nursing procedures don't left undone because of lack of time	18 (34.6)	19 (36.5)	15 (28.8)	33.6	2
You response to patient call directly	40 (76.9)	10 (19.2)	2 (3.8)	22	9
<b>Overall percentage (%)</b>	<b>61%</b>	<b>28.40%</b>	<b>10.60%</b>		

**Table 4:** Nursing missed care associated factors.

Risk factors	Strongly disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)	Weighted mean (%)	Rank
There are adequate support services to allow me to spend time with my patients	4 (7.7)	17 (32.7)	11 (21.1)	19 (36.5)	1 (1.9)	32	8
Doctors and nurses have good working relationships	0 (0)	4 (7.7)	13 (25)	33 (63.5)	2 (3.8)	24.6	23
Nursing team has good working relationships	3 (5.8)	7 (13.5)	6 (11.5)	26 (50)	10 (19.2)	26.6	19
There is a supervisory staff that is supportive of nurses	3 (5.8)	16 (30.8)	9 (17.3)	23 (44.2)	1 (1.9)	30.6	12
There are active staff development and continuing education programs for nurses	12 (23.1)	10 (19.2)	13 (25)	14 (26.9)	3 (5.8)	34	7
There is opportunity for career development	9 (17.3)	16 (30.8)	10 (19.2)	14 (26.9)	3 (5.8)	34	7
There is opportunity for registered nurses to participate in policy decisions	14 (26.9)	16 (30.8)	11 (21.2)	9 (17.3)	2 (3.8)	37.4	2
There are clear policy and procedure for all nursing care	8 (15.4)	9 (17.3)	13 (25)	19 (36.5)	3 (5.8)	31.2	9
Doctors value nurses' observations and judgments	1 (1.9)	8 (15.4)	24 (46.2)	18 (34.6)	1 (1.9)	29.2	14
There is enough time and opportunity to discuss patient care with other nurses	2 (3.8)	14 (26.9)	18 (34.6)	17 (32.7)	1 (1.9)	31	10
There are enough registered nurses on staff to provide quality patient care	11 (21.2)	22 (42.3)	9 (17.3)	9 (17.3)	1 (1.9)	37.8	1
There is enough staff to get the work done	7 (13.5)	25 (48.1)	9 (17.3)	11 (21.2)	0 (0)	36.8	3
Doctors recognize nurses' contributions to patient care	3 (5.8)	10 (19.2)	17 (32.7)	21 (40.4)	1 (1.9)	29.8	13
I work with nurses who are clinically competent	1 (1.9)	5 (9.6)	19 (36.5)	21 (40.4)	6 (11.5)	26	20
I have a nurse manager who backs up the nursing staff in decision making, even if the conflict is with a doctor	3 (5.8)	9 (17.3)	14 (26.9)	21 (40.4)	5 (9.6)	28	16
Management listens and responds to employee concerns	7 (13.5)	17 (32.7)	18 (34.6)	8 (15.4)	2 (3.8)	35	5
There is an active quality assurance program	7 (13.5)	20 (38.5)	17 (32.7)	6 (11.5)	2 (3.8)	36	4
There is a preceptor program for newly hired nurses	8 (15.4)	17 (32.7)	13 (25)	12 (23.1)	2 (3.8)	34.6	6
There are written, up-to-date care plans for all patients	4 (7.7)	15 (28.8)	10 (19.2)	22 (42.3)	1 (1.9)	31	10
There are patient care assignments that foster continuity of care	3 (5.8)	6 (11.5)	13 (25)	26 (50)	4 (7.7)	26.8	18
Staff don't feel like their mistakes are held against them	6 (11.5)	15 (28.8)	15 (28.8)	13 (25)	3 (5.8)	29.8	13
Important patient information is often does not loss during shift changes	2 (3.8)	10 (19.2)	13 (25)	19 (36.5)	8 (15.4)	27	17
Things don't fall between the cracks when transferring patients from one unit to another	2 (3.8)	18 (34.6)	13 (25)	14 (26.9)	5 (9.6)	30.8	11
Staff feels free to question the decisions or actions of those in authority	3 (5.8)	9 (17.3)	17 (32.7)	16 (30.8)	7 (13.5)	28.2	15

In this unit, we discuss ways to prevent errors from happening again	3 (5.8)	7 (13.5)	9 (17.3)	21 (40.4)	12 (23.1)	24.8	22
We are given feedback about changes put into place on event reports	0 (0)	9 (17.3)	14 (26.9)	20 (38.5)	9 (17.3)	25.4	21
The actions of hospital management show that patient safety is a top priority	2 (3.8)	4 (7.7)	10 (19.2)	26 (50)	10 (19.2)	23.6	24
<b>Overall percentage (%)</b>	<b>9.10%</b>	<b>22.70%</b>	<b>27.10%</b>	<b>34%</b>	<b>7.10%</b>		

nursing activities ranged between 7% and 50% and oral care was the most frequently missed care activity.

However, an earlier study in Iran reported that patient discharge planning and teaching, emotional support to patient and/or family, and attend interdisciplinary care conferences whenever held were the missed items by nurses. Moreover, in a cross European study conducted in 12 countries, professional nurses commonly did not 'comfort/talk with patients', had tremendous workloads, lacked autonomy, and their relationships with other healthcare professionals, the support from managers, resources, and incorporation in decision making processes were the main factors leading to interruptions in the preparation for patient discharge [17].

The present study demonstrated that "there are no enough registered nurses on staff to provide quality patient care", "there is no opportunity for registered nurses to participate in policy decisions", "there is no enough staff to get the work done", there is no an active quality assurance program", and "management does not listen and respond to employee concerns" were the most associated factors to the nursing missed care. Many factors for inadequate nursing staff including shortage of staff, increased workload due to high professional experience and required clinical expertise in addition to the high demand for nurses in other sections has been reported [18]. The current study findings were in line with Kalisch, Tschannen [19] which evaluated the association between levels and causes for nursing missed care, and Cho, Kim [20], which compared nursing missed care in Korea with high and low staff and Min, Yoon [21] who investigated the relationship between missed care and nurses' breaks. All of these studies demonstrated that inadequate human resources were the most important factor for the missed nursing care. However, according to Blackman and Willis [22] study, associated factors of missed nursing care included shift type, nursing resource allocation, health professional communication, workload intensity, workload predictability, the nurses' satisfaction with their current job and their intention to remain in their jobs. The differences in results between studies maybe rationalized by the differences between workplace, available human resources, interactions with the nursing team, workload and the total number of cared for patients.

Recently, the shortage of nursing staff due to increased turnover has been recognized as a significant challenge for healthcare systems [23]. A recent systematic review suggested effective policies to reduce the shortage of nurses include new payment arrangements, emergency recruitment, and nurses' residency programs [24]. Furthermore, Managers in the educational and clinical sectors must consider staffing resources and how to initiatives might be developed to support educating qualified candidates. Job descriptions for nurses should be clearly defined. A proper estimation model for staffing in hospitals can support the proper distribution of nursing professionals according to need. Moreover, nurses in developing countries often perform inappropriate activities such as answering phone calls

and coordinating patients' appointments with specialists [25]. The distribution and adequacy of medical professionals has been shown to be problematic in developing countries [26]. The Ministry of Health can prioritize the design and embedding of a nursing staff estimation model to support the proper distribution of nurses [27].

The key limitation of the present study is that it was unable to connect nurses' responses to the patients under their care, making it impossible to assess the impact of reported missed care on patient outcomes. This is an essential subject to think about for future research.

## Conclusions

The findings of the current study showed that missed care is common among nurses. The most frequently missed activities reported at the oncology wards in Gaza Strip, Palestine were provision of oral hygiene for those who need, some of nursing procedures and treatments left undone due to lack of time, nurses do not consider cleaning of patients rooms and equipment, and the changing of patients position is not frequently done for those who need. Also, limitation associated with number of nurses and human resources were demonstrated as the most important reason for missing care.

Additionally, the findings of the current study highlighted the need for more quality improvement efforts to reduce missed nursing care in the oncology departments. Considering issues such as shortage in staff number, nurses' continuing education/training programs and involvement in policy decisions, and direct response to the career concerns could reduce the prevalence of missed care.

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