# Exploring the Relationships between Job Burnout, Job Satisfaction, and Missed Nursing Care Among Staff Nurses

### Ibrahim Abdullatif Ibrahim <sup>1</sup>, Nehad Saad El-wkeel<sup>2</sup>

<sup>1, 2</sup> Lecturer of Nursing Administration-Faculty of Nursing-Mansoura University-Egypt

#### **Abstract:**

Background: Job satisfaction in nursing is associated with increased nurse retention, better organizational performance, and lower reports of staff nurses' job burnout. Burnout staff nurses are at greater risk of making mistakes, which can involve mistakes that arise from missing or delayed nursing care. Missed nursing care is a factor that has been related to job satisfaction. Aim: To explore the relationships between job burnout, job satisfaction, and missed nursing care among staff nurses. Methods: Descriptive correlational design. This study was included a convenience sample of 124 staff nurses who were providing nursing care at emergency hospital Mansoura University. Three scales were utilized for data collection namely; Maslach burnout inventory, job satisfaction scale, and missed nursing care scale. Results: The majority of staff nurses had a high level of job burnout regarding emotional exhaustion and depersonalization, but regarding personal accomplishment, the majority of staff nurses had a low level of job burnout. In addition to a moderate level of job satisfaction and a low level of missed nursing care. Conclusion: There was a statistically significant negative relationship between staff nurses' job burnout and job satisfaction, but staff nurses' job burnout was correlated positively with their perception of missed nursing care. Recommendations: Nursing managers should develop training programs that will help staff nurses to utilize effective coping strategies toward work stress and burnout, create a safe and healthy work environment with adequate staff and resources to avoid the occurrence of job burnout, missed nursing care, as well as improve job satisfaction among staff nurses.

Keyword: Job Burnout, Job Satisfaction, Missed Nursing Care, Staff nurses.

#### Introduction

Nursing is a demanding career concerned with extreme facets of health and illness inhuman beings. Consequently, nursing's stressful nature will inevitably contribute to job burnout. Burnout is a mental illness described as the reaction of the body to the failure of the coping mechanisms that people usually use to relieve work stress. Stress accumulation exhausts staff nurses to the point that their energy resources are inadequate to try to overcome the stress of a situation<sup>(8,9)</sup>.

Burnout includes three key aspects; (i) Emotional exhaustion, which refers to the state of physical and emotional exhaustion due to job stress, which is associated with low energy, fatigue, depression, hopelessness helplessness. and (ii) Depersonalization, meaning the interpersonal component of burnout that manifests in unfeeling, hostile attitudes towards others and detachment from treatment and instructions. (iii) Low personal achievement that has identified as the state of negative evaluation (27).

Burnout is occurring due to prolonged imbalance between a nurse and at least one of the following six dimensions of work; first, workload; unreasonable workload and requirements. Second, control; staff nurses do not have adequate control over the services required to complete or perform their job. Third, reward; the incentives may be economical, social and intangible without enough incentive for the job done. Fourth, community; staff nurses do not of experience a sense supportive relationships with their peers administrators, contributing to frustration and decreasing the probability of social support. Fifth, equity; staff nurses who experience occupational unfairness, workload inequity, and compensation. Finally, values; staff nurses feel constrained by their work to behave against their own values and expectations or when contradictions between the values of the organization are experienced (10,13). Burnout described as physical emotional exhaustion that occurs from exposure to continuous stress. Emotional exhaustion associate with can physical exhaustion. Burnout may be harmful to the staff, organization and patients. Exhausted staff nurses are risk for health problems, psychological damage, a decrease in the sense of personal achievement and work dissatisfaction. Negative outcomes of burnout syndrome on personal level are high blood pressure, and cholesterol, tachycardia, abdominal

disorders, cold and exhaustion, physical and psychological symptoms, decline in trust and self-respect, unhappiness, work dissatisfaction. depression, anxiety. agitation, failure in communication and Organizational family related issues. effects caused by burnout syndrome include a decrease in service quality, absenteeism, poor morale, desire to leave work, and increased nursing errors (33).

Job satisfaction is defined as the affective response of staff nurses to a job based on contrasting real results with desired results and is a multi-faceted construct that involves both intrinsic and extrinsic work variables factors. Extrinsic include observable aspects of the job, such as benefits, while wages and intrinsic variables include opportunities for personal and professional growth and recognition. Also, job satisfaction is conceptualized as the feelings associated with a job based upon fulfillment of expectations and needs within the working environment (26).

Job satisfaction of the nurses refers to the degree to which staff nurses like and appreciate their jobs. It can refer to the general attitude or perceptions of staff nurses towards their job. The degree of work satisfaction may be dependent on the degree of importance that staff nurses have

put on their workplace incentives and/or benefits. Staff nurses indicate that the rewards of his / her work and greater job satisfaction resulted in good emotional states, quality and continuous patient care (40).

Job satisfaction improves the development of positive attitude, which establishes the relationship between nursing improves peer interactions, staff nursespatients relationship, and the trust among staff nurses. Subsequently, job satisfaction by collaborative and partnered patient care will enhance teamwork and thereby increase patient satisfaction with care. There are many factors that impact job satisfaction. such as interpersonal relationships, interaction, burnout avoidance, professionalism, career growth, organizational policy, autonomy, and pay (3, 12).

Job burnout and job dissatisfaction linked to missing nursing care, in other words, enhancing job satisfaction and avoiding job burnout is crucial to preventing missed nursing care among staff nurses<sup>(40)</sup>. Missed nursing care means as any lapse in essential patient care. Moreover, missed nursing care is defined as any aspect of standard, required nursing care, not provided to the patient. For instance, a failure to ambulate an older adult patient

can contribute to muscle deconditioning and functional decline. These losses can subsequently extend hospitalization, increase mortality and increase the risk of hospital-acquired conditions, post-hospital rehabilitation and nursing home placement (32). Furthermore, it refers to nursing task incompletion, care left undone or implicit rationing of nursing care may represent a form of cognitive prioritization that occurs during external influence. This form of prioritization mav be based upon immediate and direct patient care needs, such as medication administration and mandatory nursing tasks such as documentation (30,41).

Nursing care is considered missed if staff nurses reported that one or more activities undone. These tasks include: proper patient supervision, mouth care, administration of medication timely, skin care, pain control, ambulation /or range of motion, proper reporting, coordination of care, patient comfort, discharge planning for patients and families, development or / updating care plans, patient and family teaching<sup>(32)</sup>. There are many reasons for missing nursing care, such as labor resources (e.g. number and types of nursing staff, level of nursing staff competency, staff qualifications and experience; material resources (e.g. availability of required

medications, supplies and equipment); and resources for coordination and communication (among members of the patient care team, between staff nurses and physicians, between staff nurses). Staff nurses must priorities their care activities when one or more of these services are absent from an agency or during a working period, and the stage is set for delayed or omitted nursing care (15).

#### Significance of the study

Staff nurses are performed critical roles in achieving patient safety and quality because they provide most of the bedside care and are well-positioned to recognize and prevent patient harm. However, nursing care for patients may not be reliable or amply provided; care tasks can be missed, and care omissions can lead to adverse patient outcomes to date, efforts to improve healthcare quality and safety have intentionally emphasized the reduction of omission errors such as administering the wrong dose of medication to a patient because they are easier to detect and more frequently reported (32). Health care managers seek to maintain quality of patient care through avoid missing nursing care by identifying factors that contributes to missing nursing care, these factors may be staff nurses' burnout and iob dissatisfaction. Therefore the present study will be conducted to explore the relationships between staff nurses' job burnout, job satisfaction, and missed nursing care among staff nurses.

#### Aim of the study

The present study aims to explore the relationships between job burnout, job satisfaction and missed nursing care among staff nurses through (1) Assessing job burnout, job satisfaction, and missed nursing care among staff nurses, (2) Exploring the relationships between job burnout, job satisfaction, and missed nursing care among staff nurses.

#### **Research questions**

- 1. What is the level of job burnout, job satisfaction, and missed nursing care among staff nurses?
- 2. Is there a relationship between job burnout, job satisfaction, missed nursing care, and staff nurses' personal characteristics?
- 3. Does staff nurses' job burnout correlates with their job satisfaction?
- 4. Does staff nurses' job burnout correlates with missing nursing care?
- 5. Does staff nurses' job satisfaction correlates with missing nursing care?

#### **Subject and methods**

## The research design, setting, and participants

The research design was descriptive correlational design. The present study was

undertaken at emergency hospital that affiliated to Mansoura University. It concerned with providing health care for acute, critically and emergency cases with 141 bed capacity. It includes inpatient units neurosurgery, vascular surgery, cardiothoracic surgery, orthopedic surgery, and surgical intensive care units, in addition to other departments as radiology, blood bank, pharmacy, operations. The study includes a convenience sample of 124 staff nurses who were providing nursing care during the time of data collection.

#### Tools of data collection

Three tools were utilized to collect the data of the current study as follows;

#### 1. Maslach Burnout Inventory

This scale was developed by Maslach and Jackson(1981)<sup>(23)</sup>to assess job burnout among staff nurses. It includes two sections; the first section concerned with personal data of the studied staff nurses as age, gender, marital status, education, working hours, and experience. The second section includes 22 items that categorized under three domains as follows; (1) Emotional exhaustion includes 9 items. (2) Depersonalization includes 5 items and (3) Personal accomplishment includes 8 items.

#### **Scoring system**

Theses 22 items rated on seven-point Likert scale ranging from zero for never to six for every day. The emotional exhaustion and depersonalization dimensions with higher scores indicate a higher degree of job burnout, while personal accomplishment with high scores representing a low degree of job burnout. The total scores of staff nurses' job burnout subscales were classified into three levels as showed in the table (1) (25).

Table (1): Levels of staff nurses' job burnout subscales.

Burnout levels	Emotional Exhaustion	Deperson alization	Personal Accomplis hment
• Low	≤18	≤5	≥40
Moderate	19-26	6-9	34-39
• High	≥27	≥10	≤33

#### 2. Job satisfaction scale

This scale was developed by Spector (1985) <sup>(35)</sup>to assess job satisfaction of staff nurses. It includes 36 items under nine domains namely; pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Each domain includes four items.

#### **Scoring system**

The staff nurses' responses were rated on six point Likert scale as (1= strongly disagree, 2= disagree, 3=somewhat disagree, 4= somewhat agree, 5= agree, 6=

strongly agree). The negative items were reversed before computing the total score of staff nurses' job satisfaction. The total score was divided into three levels as follows; low <50% (36-107), moderate 50-75% (108-162), and high >75% (163-216).

#### 3. Missed nursing care scale

This scale was developed by Kalisch and Williams (2009)<sup>(14)</sup>to measure perception of missed nursing care. It includes two sections; the first section includes 22 items that represent missed activities Monitoring nursing (e.g., intake/output). The second section concerned with reasons for missing nursing care (15 items) (e.g., inadequate number of staff).

#### **Scoring system**

The responses were rated on a five-point Likert scale ranging from 1 for never to 5 for always. The total score of 22 items classified into four levels based on cutoff point as follows; no missing care  $\leq 20\%$  (22), low 21-40% (23-44), moderate >40-60% (45-66),and high >60% (67-110).

#### Pilot study

Pilot study was included 14 staff nurses that represents (10%) from total study sample (n=138). It was conducted before starting data collection to assess the applicability and clarity of the tools. It helped the researchers to recognize

possible hinders and issues that could occur during the data collection process. It also helped to estimate the time required to complete the questionnaire. The pilot study sample was excluded from the main study sample. The data obtained from the pilot study was analyzed.

#### Validity and reliability

The data collection tools were translated into Arabic and back translated into English to ensure accuracy and clarity. Panel of five professors in nursing administration specialty reviewed the tools to test face and content validity of these tools. The reliability of tools was confirmed by Cronbach alpha test; it was 0.84, 0.89, and 0.87 for three scales; job burnout, job satisfaction, and missing nursing care, respectively.

# Ethical considerations and data collection

The purpose of this study was explained to the hospital director, head staff nurses of the units and staff nurses. Written permission was obtained from the faculty of nursing, Mansoura University to the hospital director to carry out this study. Ethical approval was obtained from ethical research committee - faculty of Nursing, Mansoura University. All staff nurses were informed that participation in the study is voluntary and oral consent was obtained

participant in the study. from each Confidentiality of the collected data maintained. The staff nurses were informed that the content of the tools will be used for the research purpose only. The staff nurses had right to withdraw from the study at any time was ascertained. The utilized selfresearchers were administered questionnaire for collecting the data from the beginning of October 2019 to the end of November 2019. The time that staff nurses were spent to fill questionnaire was ranged between 20 to 25 minutes.

#### **Statistical analysis**

The collected data were statistically analyzed using SPSS software version 25. Data were presented in form of frequencies and percentages for qualitative data and mean & SD for quantitative data. Independent t-test was used to compare between two means of continuous variables. ANOVA test was conducted to compare more than two means continuous variables. Correlation between continuous variables was evaluated using coefficient Pearson correlation Statistically significant was considered at  $(p-value \le 0.01 \& 0.05).$ 

#### **Results**

**Table (2)** illustrates that the majority of the studied staff nurses aged from 20-30 years

(90.3%) with mean aged 26.04±4.16, females (85.5%), having a technical degree of nursing (82.3%), working day shift 12 hours (60.5%), experienced (1-5) years (61.3%), and half of them were married (50.8%).

Table (3) shows that the majority of the studied staff nurses had high level of burnout regarding emotional exhaustion depersonalization, but regarding personal accomplishment, the majority of the studied staff nurses had low level of burnout. The personal accomplishment has the highest mean score  $(40.43\pm6.60)$ , followed by emotional exhaustion  $(39.58\pm13.56),$ and depersonalization  $(14.76\pm6.94)$  respectively.

**Table (4)** shows that overall staff nurses' job satisfaction mean score was 113.24±19.39. The highest mean score was 19.03±3.32 for nature of work domain while the lowest mean score was 9.49±3.41 for benefits domain.

**Figure** (1) illustrates that more than half of studied staff nurses (65.3%) reported moderate level of job satisfaction, while slightly more than one third of the studied staff nurses (37.7%) reported low level job satisfaction.

**Figure (2)** illustrates that the majority of the studied staff nurses (83.9%) reported a

low level of missed nursing care, followed by 11.3 % of the studied staff nurses reported a moderate missed nursing care level, 3.2 % of the studied staff nurses reported a high missed nursing care level, and 1.6% of the studied staff nurses reported a low missed nursing care level.

**Table (5)** shows that mean score of staff nurses' missed nursing care was 37.41±14.05. The highest mean score of missed nursing care was for patient bathing/skin care (1.76±1.09) and the lowest mean score of missed nursing care was for monitoring glucose for patients (1.22±0.63).

**Table (6)** illustrates that the most reason for missed care was inadequate handover from previous shift or sending unit with mean and SD (3.35±1.29), while the lowest reason for missed nursing care was for unexpected rise in patient volume and/or acuity on the unit with mean and SD (2.48±1.14).

**Table** (7) shows that there was statistically significant relationship between staff nurses' emotional exhaustion and their age and marital status. There was statistically significant relationship between staff nurses' depersonalization, marital status,

working shift, and experience years. There was statistically significant relationship between staff nurses' personal accomplishment, and working shift. The overall staff nurses' burnout was statistically significant correlated with marital status, and working shift.

**Table (8)** shows that there was statistically a significant relationship between staff nurses' job satisfaction, and their marital status. There was a statistically significant relationship between staff nurses' missing nursing care, and their age, gender, marital status, and educational level.

Table (9) shows that there was a high statistically significant negative staff relationship between nurses' emotional exhaustion, depersonalization, and overall burnout with their job satisfaction. While personal accomplishment correlated positively with job satisfaction. Staff nurses' emotional exhaustion, depersonalization, and overall burnout were correlated positively with their missed nursing care. But staff nurses' accomplishment correlated personal negatively with their missed nursing care. There was no statistically significant relationship between missed nursing care with staff nurses' job satisfaction.

Table (2): Personal characteristics of the staff nurses (n=124).

Variables	No	%
Age years		
■ 20-30	112	90.3
<b>•</b> 31-40	9	7.3
<b>■</b> >40	3	2.4
Mean±SD	26.04-	±4.16
Gender	-	
<ul><li>Male</li></ul>	18	14.5
■ Female	106	85.5
Marital status	1	I
■ Single	52	41.9
<ul><li>Married</li></ul>	63	50.8
<ul><li>Divorced</li></ul>	9	7.3
Level of education	-	
<ul> <li>Diploma degree</li> </ul>	6	4.8
<ul> <li>Technical degree</li> </ul>	102	82.3
<ul> <li>Bachelor degree</li> </ul>	16	12.9
Working hours		
<ul><li>Morning shift</li></ul>	22	17.7
<ul><li>Evening shift</li></ul>	17	13.7
<ul><li>Day shift (12hrs)</li></ul>	75	60.5
<ul><li>Night shift</li></ul>	10	8.1
Experience		
■ 1-5 years	76	61.3
■ 6-10 years	31	25.0
■ >10 years	17	13.7
Mean±SD	5.33±	3.73

Table (3): Levels of staff nurses' job burnout (n=124)

Job burnout levels	Emot exhau		Depersonalization		Personal accomplishment	
levels	No	%	No	%	No	%
■ Low	13	10.5	2	1.6	86	68.4
<ul><li>Moderate</li></ul>	12	9.7	34	27.4	26	21.0
<ul><li>High</li></ul>	99	79.8	88	71.0	12	9.7
Mean±SD	39.58±	13.56	14.76±	6.94	40.43	±6.60

Table (4): Descriptive statistics of staff nurses' job satisfaction(n=124).

Job satisfaction domains	Min- max	Mean±SD
1. Pay	4.0-20.0	9.75±3.38
2. Promotion	4.0-22.0	12.33±3.98
3. Supervision	4.0-22.0	13.65±4.02
4. Benefits	4.0-18.0	9.49±3.41
5. Contingent rewards	4.0-19.0	10.84±3.44
6. Operating procedures	4.0-24.0	11.15±3.43
7. Co-workers	4.0-22.0	14.59±3.20
8. Nature of work	12.0-24.0	19.03±3.32
9. Communication	4.0-19.0	12.38±3.24
Overall job satisfaction	70.0-157.0	113.24±19.39

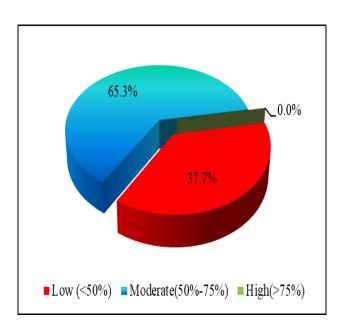


Figure (1): Levels of staff nurses' job satisfaction (n=124)

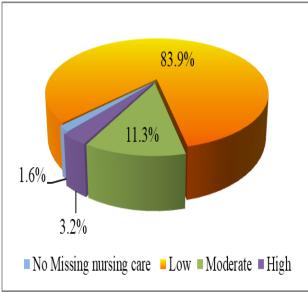


Figure (2):Levels of missed nursing care as perceived by the staff nurses (n=124).

Table (5): Mean scores of missed nursing care as reported by the studied staff nurses (n=124).

Missed nursing care	Mean±SD
Ambulation three times per day or as ordered	1.69±1.07
2. Turning patient every 2 hrs as requested	1.75±1.06
3. Medications administered within 30 min before or after scheduled time	1.53±0.80
4. Teach patient about plans for his/her care and when to call after	1.69±1.00
discharge	
5. Provide care for IV/central line site and conducting assessments	1.33±0.75
according to policy	
6. Perform oral hygiene	1.61±1.11
7. Provide emotional support to patients and/or their families	1.66±0.93
8. Teach patient about his/her procedures, tests and other diagnostic	1.62±0.91
studies	
9. Full documentation of all necessary data	1.41±0.84
10. Assess effectiveness of medications	1.52±0.87
11. Assist with toileting needs within 5 min of request	1.71±0.94
12. Monitoring intake/output	1.33±0.75
13. Response to patients' call light within 5 min	1.45±0.86
14. PRN medication requests acted on within 15 min	1.54±0.96
15. Reassessments done according to patient condition	1.50±0.82
16. Assessment Patients' condition each shift	1.47±0.87
17. Feeding patient when the food is still warm	1.51±0.81
18. Assess vital signs as physicians' order	1.48±0.92
19. Skin/wound care as ordered	1.25±0.72
20. Monitor glucose for patients as ordered	1.22±0.63
21. Perform hand washing	1.50±0.89
22. Patient bathing/skin care	1.76±1.09
Total	37.41±14.05

Table (6): Mean scores of missed nursing care reasons among the studied staff nurses (n=124).

Rea	sons of missed nursing care	Mean±SD
1.	Unexpected rise in patient volume and/or acuity on the unit	2.48±1.14
2.	Inadequate number of staff	2.60±1.31
3.	Heavy admission and discharge activity	2.65±1.17
4.	Inadequate number of assistive personnel (e.g., unit secretaries)	2.50±1.25
5.	Urgent patient situations (e.g., a patient's condition worsening)	2.23±1.12
6.	Unbalanced patient assignments	2.61±1.24
7.	Tension or communication breakdowns with the medical staff	2.87±1.23
8.	Medications not available when needed	3.10±1.29
9.	Lack of backup support from team members	3.30±1.27
10.	Supplies/equipment not functioning properly when needed	2.94±1.28
11.	Supplies/equipment not available when needed	3.25±1.26
12.	Nursing assistant did not communicate that care was not done	2.98±1.22
13.	Tension or communication breakdowns within the nursing team	2.78±1.31
14.	Other departments did not provide the care needed (e.g.,physical	2.68±1.26
	therapy)	
15.	Inadequate handover from previous shift or sending unit	3.35±1.29

Table (7): Relationship between staff nurses' job burnout, and their personal characteristics (n=124).

characteristics (n=124).						
Variables	Emotional exhaustion	Depersonalization	Personal accomplishment	Overall burnout		
Age years	Mean±SD	Mean±SD	Mean±SD	Mean±SD		
20-30	40.80±13.23	14.87±7.07	40.77±6.65	62.90±19.16		
<b>31-40</b>	28.25±11.67	13.75±5.69	37.25±5.29	52.75±12.83		
t-value / p-						
value	3.15 / <b>0.002**</b>	0.53 / 0.59	1.77 /0.07	1.78 /0.07		
Gender						
<ul><li>Male</li></ul>	37.44±8.89	17.33±4.37	39.61±5.14	63.16±12.81		
<ul><li>Female</li></ul>	39.95±14.20	14.33±7.21	40.57±6.82	61.70±19.72		
t-value / p- value	0.72 / 0.47	1.70 / 0.09	0.57 /0.56	0.30 / 0.76		
Marital status						
• Single	40.57±12.50	16.94±6.35	39.00±7.24	66.51±15.55		
Married	41.03±13.69	14.09±6.99	41.17±6.25	61.95±19.15		
<ul><li>Divorced</li></ul>	23.77±8.77	6.88±1.05	43.55±1.94	35.11±11.29		
F-value / p-						
value	7.28 /0.001**	9.88 /0.000**	2.70/0.07	12.68 / <b>0.000**</b>		
Level of educat	ion					
■ Diploma degree	39.50±10.07	17.16±7.54	40.16±5.98	64.50±14.34		
■ Technical degree	40.50±12.96	14.56±7.18	40.52±6.72	62.53±19.06		
Bachelor degree	33.81±17.40	15.12±5.13	39.93±6.36	57.00±19.12		
F-value / p-value	1.69 /0.18	0.41 /0.66	0.06 /0.94	0.65 /0.52		
Working shift						
<ul><li>Morning shift</li></ul>	33.45±16.43	11.31±5.90	41.22±4.57	51.54±19.38		
<ul><li>Evening shift</li></ul>	38.47±10.54	15.41±7.32	41.00±4.76	60.88±14.51		
Day shift (12hrs)	40.90±13.44	15.02±6.69	40.84±6.39	63.09±18.20		
<ul><li>Night shift</li></ul>	45.10±7.66	19.30±7.80	34.70±11.42	77.70±17.98		
F-value / p-value	2.40 /0.07	3.51 /0.02*	2.88 /0.04*	5.14/ <b>0.002</b> **		
Experience years						
■ 1-5 years	40.30±13.43	15.82±7.01	40.69±6.58	63.43±18.60		
■ 6-10 years	38.61±13.23	11.90±6.12	40.09±7.73	58.41±20.57		
■ >10 years	38.17±15.31	15.23±6.94	39.88±4.35	61.52±16.70		
F-value / p-value	0.27 / 0.76	3.72 /0.03*	0.15 /0.85	0.78 / 0.46		
T.			•			

<sup>&</sup>quot;\* Statistically significant ( $P \le 0.05$ ) / \*\* highly statistically significant ( $P \le 0.01$ )"

Table (8): Relationship between staff nurses' job satisfaction, missed nursing care and their personal characteristics (n=124).

Variables		Job satisfaction	Missed nursing care
		Mean±SD	Mean±SD
Age years 20-30		112.82±19.83	33.62±7.65
Age years	<b>•</b> 31-40	117.16±14.67	57.16±29.48
	t-value / p-value	0.73 /0.46	6.75 / 0.000**
Gender	<ul><li>Male</li></ul>	119.00±13.39	45.00±27.00
Genuel	■ Female	112.26±20.12	34.35±8.69
	t-value / p-value	1.36 /0.17	3.23/ <b>0.002**</b>
Marital	■ Single	107.46±21.41	32.98±8.85
status	<ul><li>Married</li></ul>	115.52±14.93	40.01±17.42
status	<ul><li>Divorced</li></ul>	130.66±23.02	32.55±5.17
	F-value / p-value	7.00 / <b>0.001**</b>	4.47 / <b>0.01</b> **
	<ul> <li>Diploma degree</li> </ul>	115.50±8.40	51.33±32.67
Education	<ul> <li>Technical degree</li> </ul>	113.27±19.36	34.77±11.27
	<ul> <li>Bachelor degree</li> </ul>	112.18±23.08	37.31±12.40
	F-value / p-value	0.06 /0.93	4.69 / <b>0.01**</b>
	Morning shift	116.81±22.49	38.40±11.50
Working	Evening shift	122.17±10.50	41.52±29.40
shift	Day shift (12hrs)	111.17±19.64	34.13±7.16
	Night shift	105.70±17.55	34.10±8.96
	F-value / p-value	2.31 / 0.08	1.78 / 0.15
	■ 1-5 years	112.53±21.73	35.40±9.71
Experience	■ 6-10 years	115.64±15.41	36.90±20.52
	■ >10 years	112.00±14.70	36.29±11.98
	F-value / p-value	0.31 / 0.72	0.14 / 0.86

<sup>\*</sup> Statistically significant ( $P \le 0.05$ ) / \*\* highly statistically significant ( $P \le 0.01$ )

Table (9): Relationships between missed nursing care, job burnout, and job satisfaction as reported by the studied staff nurses (n=124).

Variables	Job satisfaction		Missed nursing care	
, armores	r	р	r	р
Emotional exhaustion	-0.51	0.000***	0.21	0.02*
Personal accomplishment	0.23	0.008**	-0.45	0.000**
Depersonalization	-0.43	0.000**	0.20	0.03*
Overall job burnout	-0.60	0.000**	0.22	0.011*
Job satisfaction	1		0.04	0.68

<sup>\*\*</sup> Highly statistically significant (P ≤0.01).

#### Discussion

To achieve the aim of the present study and answer the research questions, the discussion of the study findings will be presented through two main sections as follows;

Section I: Assessment the study variables (job burnout, job satisfaction, and missed nursing care among staff nurses) and its relationship with their personal characteristics

Regarding staff nurses' burnout, present study revealed that the majority of the staff nurses had a high level of burnout regarding emotional exhaustion depersonalization, while a low level of burnout regarding personal accomplishment. This may be due to stressful work environment, lack of support or respectful relationships within the health care team, or lack of recognition and rewards. In the same line, Mudallal, Othman, and Al Hassan<sup>(27)</sup>declared high levels of burnout as demonstrated by their high scores for emotional exhaustion and depersonalization and moderate scores for personal accomplishment. Also, Lahana et al., (20) reported that burnout dimensions of emotional exhaustion were at high levels while personal accomplishment was at low levels. These results disagreed with the study of Mashego et al., (24) reported a moderate level of burnout among staff nurses who were selected for participation

from six hospitals in Limpopo province, South Africa. It also disagreed with this study of Abed-Ali et al., <sup>(9)</sup> who reported that majority of studied staff nursesmore felt burned due to their nursing care and workplace.

Regarding relationship between staff burnout, nurses' and their personal characteristics, the present study revealed that overall staff nurses' job burnout had significant relation with their marital status and working shift. Staff nurses' emotional exhaustion had significant relation with their age, and marital status. Staff nurses' depersonalization had significant relation with their marital status, working shift, and experience years. Staff nurses' accomplishment was correlated with working shift. This may be due to family environment provides staff nurses with security, and support that protect staff nurses from job burnout, in addition to they may spend their working shift with their supported colleagues. These results in the same line with Van Doorn et al, (38) who reported staff nurses' age associated with emotional exhaustion. Also Lahana et al, (20) reported marital status, daily routine and relationships with supervisors were significantly related with emotional exhaustion and personal accomplishment and professional experience with higher

levels of emotional exhaustion and depersonalization. These results disagreed with Mefoh, Ude, and Chukwuorji<sup>(22)</sup> showed the age was not significantly related with emotional exhaustion.

Regarding job satisfaction, more than half of studied staff nurses have a moderate level of job satisfaction, while slightly more than one third staff nurses reported a low job satisfaction level, the staff nurses had highest perception related nature of work domain. whereas the lowest perception was related pay domain. Staff nurses with a low job satisfaction may be due to unfair salaries, low autonomy, they were not satisfied their needs through their hospital management job, does concerns with their opinion or creates healthy work environment for staff nurses. These results in the same line with the study of Kalinowska, and Marcinowicz (16) showed that the staff nurses were moderately satisfied with their job. Also the study supported with Chien and Yick (3) who showed that the majority of staff nurses had an overall moderate level of satisfaction with their work. The present study also supported by the study of Alshahraniand Baig<sup>(6)</sup> that reported the staff nurses were moderately satisfied with their work. Also the study of Edoho et al, (11) was conducted at three public hospitals in Calabar, Cross River State found that the majority of the staff nurses were moderately satisfied with their work.

Regarding relationship between staff nurses' job satisfaction, and their personal characteristics, the present study revealed that overall staff nurses' job satisfaction had significant relation with their marital status. This could be due to satisfying with marital status had a positive effect on job satisfaction. The happier staff nurses will be satisfied with job. These results agreed with Kemunto, Raburu and Bosire (19) who found a relation between marital status and job satisfaction. Hsu et al, (17) found that there was a significant difference was found between satisfaction and marital status of staff nurses who were recruited from a hospital in northern Taiwan. Also the study of Olatunji and Mokuolu (28)showed that iob satisfaction influenced by marital status of health care providers. These results disagreed with Ogboenviva<sup>(26)</sup> who revealed there was statistically significant between nurses' job satisfaction, and their experience. Tarcan et al, (37) found that gender, age, education, marital status had no significant effect on job satisfaction among staff nurses. Also Chien and Yick (3) reported nurses' job satisfaction of the study is strongly and positively correlated with staff nurses' age, and years of experience.

Regarding missed nursing care, the present study revealed that majority of the nurses reported low perception level of missed nursing care. This may be due to effective patient care assignment, supervision, or having a high level of loyalty and commitment. White, Aiken and McHugh disagreement with this study and reported majority of missing one or more necessary care tasks on their last shift due to lack of time or resources.

The present study revealed that highest missed nursing care was patient bathing/skin care and the lowest missed nursing care was monitoring glucose for patients. This may be due to the bathing skin care to patient is little importance and nurse independent on patient relative to make it, but the monitoring glucose is the main activities to nurse. White, Aiken and McHugh (40) support the present study and verified that tasks most often left undone were patient bathing skin care, comforting speaking with patients, providing adequate patient observation, patient family education and care planning.

Regarding Winsett et al., <sup>(30)</sup> also reported that the most commonly missed care was ambulation as ordered, medications given within thirty-minute window, patient bathing skin care and mouth care. While the lowest reasons reported for the missed care were unexpected rise in volume

acuity, monitoring glucose for patients, heavy admissions discharges, inadequate assistants, and inadequate staff. While, Schmidt (32) not support the present study stated majority of respondents and indicated that assessing patients each shift, monitoring patients' glucose levels, and reassessing patients but respondents reported that missed was low such as patient bathing skin care, attending interdisciplinary care conference, ambulation three times per day and turning every two hours.

Regarding the most reason for missed nursing care among staff nurses was inadequate handover from previous shift or sending unit, while the lowest reason for missed nursing care was for unexpected rise in patient volume and/or acuity on the unit. This may be due to the nurse at end of shift like to hurry to traveling and go to home to your family but the unexpected rise in patient volume and/or acuity on the unit it's the main function in the unit and the nurse still in the unit. Verrall et al, (39) agree with this study and mentioned a significant reasons for missed care include the variety of daily tasks as interruptions to their daily routine such as visitor requests, important meetings with inter-professional colleagues, the enormity of paperwork, inadequate handover from previous shift or sending unit and an unpredictable

workload with increasing intensity a formula for missed care. On the other hand, they mentioned three overriding factors as contributors of missed nursing care. These factors have been identified as: competing demands that reduce time for patient care; ineffective methods for determining staffing levels; and inadequate skill mix including insufficient staff numbers. These factors describe tension between what staff nurses perceive as essential care, staffing allocations and the resultant missed care or delayed care the staff nurses describe in their daily practice. Regarding the relationship between missed nursing care, and staff nurses' characteristics, the study revealed that there was a statistically significant relationship between staff nurses' missing nursing care, and their age, gender, marital status, and educational level. This may be due to old age staff nurses with high level of education had ability and experience about missed nursing care, therefore they avoid its occurrence, through effective managing their time, full documentation the required nursing care for the patients. The female nurses who are married may not achieve balance between work and home life, and load with more needs related their home life; therefore this may increase missed nursing care among married and female staff nurses more than

others. These results agreed with the study of Bragadóttir, Kalisch, and Tryggvadóttir<sup>(5)</sup> who reported missed nursing care was significantly related to staff nurses' age. Also it supported by the study of Palese et al, (29) that was conducted at 12 north eastern acute medical units, included 314 nursing staff members and reported that missed nursing care associated with staff nurses' age. The present study disagreed with Phelan, McCarthy, and Adams (34) reported that the number of nursing experience years was most likely to be related with missed care. Srulovici and Drach-Zahavy(36) reported staff nurses' age, gender, and education had no significant relation with missed nursing care. It also disagreed with Cho et al, (2) who revealed educational level was not significantly related to the missed nursing care. It also in contrast with Kalisch et al, (18) who reported that missed nursing care was not correlated with staff nurses' age and gender.

### Section II: The relationships between job burnout, job satisfaction, and missed nursing care among staff nurses

The present study revealed that staff nurses' emotional exhaustion, depersonalization, and overall burnout were correlated negatively with their job satisfaction. This may be due to staff nurses with large workload, highly

emotionally exhausted from her job, relation with your peer and supervisor all of this led to feel of frustration, depression job from their and increase dissatisfaction. These results agreed with Ogboenyiya<sup>(26)</sup> who revealed that there was statistically significant association originate between burnout dimensions of exhaustion emotional depersonalization and job satisfaction. Tarcan et al., (37) found that a significant relationship exists between burnout and job satisfaction. Also, it agreed with Abed-(9) showed that a highly Aliet al.. significant impact of the nurses' burnout on the patient and staff nurses' satisfaction with nursing care. Alharbi et al., (7) found that emotional exhaustion of burnout, is a predictor of low job satisfaction among Saudi critical care staff nurses. The study of Chien and Yick<sup>(3)</sup> also stated that the staff nurses' job satisfaction negatively correlated with their job burnout and intention to quit. Also Lambrou el al., (21) reported that there was a high negative relationship between overall iob satisfaction and staff nurses' burnout. Regarding this study revealed that there statistically significant positive was correlation between nurses' job burnout and missing nursing care. This may be due to staff nurses with job burnout feel a lack of motivation, appreciation and stressful

work environment. These results in the same line with the study of Clark and Lake that revealed staff nurses' burnout increases missed nursing care. It also agreed with White, Aiken and McHugh (40) reported that nurses' burnout correlated positively with missing nursing care. Also Singh (31) stated that burnout was significantly associated with variations in missed care and then by showing that missed care attenuated the relationship between nurse burnout and frequent adverse events. On the other side, the study results disagreed with Ogboenviva (26) revealed that there were no statistically significant relationships found between any dimensions of burnout (emotional exhaustion, depersonalization, and personal accomplishment and missed nursing care among nurses. The study revealed that nurses' job satisfaction was not correlated significantly with their missing nursing care. This may be due to staff nurses had high level of career conscientiousness, or utilize time management strategies. These results in the same line with the study of Clark and Lake (1) that revealed staff nurses' dissatisfaction increases missed nursing care. It also agreed with Ogboenyiya(26) who revealed that there was no significant relation between nurses' job satisfaction and missed nursing care. Also Schmidt

stated that there was not a significant relationship between the nurses' job satisfaction and the types of missed nursing care.

#### Conclusion

Based on the findings of the present study, it was concluded that nurses' job burnout was correlated negatively with their job satisfaction, but staff nurses' job burnout was correlated positively with their perception of missed nursing care. Nurses' job satisfaction was not correlated with their perception of missed nursing care.

#### Recommendations

On the light of the findings of the present study, the following recommendations were suggested:-

- -Nursing managers should develop training programs that will help staff nurses to utilize effective coping strategies toward work stress and burnout.
- -Create safe and healthy work environment with adequate staff and resources to avoid occurrence of burnout, and missed nursing care among staff nurses.
- Develop educational training for staff nurses to increase their perception about the concept of missed nursing care, why it occurs, the risks/benefits of care tasks that are completed or

omitted, and the potential impact on outcomes.

- -Develop non-punitive system of reporting missed nursing care to encourage staff nurses to report missed nursing care. Therefore they can identify barriers of completing nursing care in addition to prevent reoccurrence of missed nursing care.
- Health care organization should have fair payment and benefits system for nursing staff to maintain their job satisfaction.

Nursing curriculum should include the concept of missed nursing care, its preventive measures and negative outcomes for patients, nurses, and health care organizations.

-Further study should be directed towards identifying the other important contributing factors of missed nursing care as patient acuity, teamwork, and workplace bullying.

#### References

- Clark R, Lake E. Burnout, Job Dissatisfaction and Missed Care among Maternity Staff nurses. Journal of Nursing Management. 2020; 28(8):1-5.
- 2. Cho S, Kim Y, Yeon K, You S, Lee I. Effects of increasing nurse staffing on missed nursing care. International nursing review, 2015; (62) 2: 267-274.

- 3. Chien W, Yick S. An investigation of nurses' job satisfaction in a private hospital and its correlates. The open nursing journal. 2016; (10): 99-100.
- Brenan M. Staff nurses Again Outpace
   Other Professions for Honesty, Ethics.
   2018; Retrieved oct, 2, 2020 retrieved
   from <a href="https://news.gallup.com/poll/2455">https://news.gallup.com/poll/2455</a>
   97/staff nurses-again-outpace professions -honestyethics
- Bragadóttir H, Kalisch BJ, Tryggvadóttir GB. Correlates and predictors of missed nursing care in hospitals. J ClinNurs. 2017; 26 (12):1524–34.
- 6. Alshahrani F, Baig L. Effect of leadership styles on job satisfaction among critical care staff nurses in Aseer, Saudi Arabia. Journal of the College of physicians and Surgeons Pakistan. 2016; 26(5):366-370.
- 7. Alharbi J, Wilson R, Woods C, Usher K. The factors influencing burnout and job satisfaction among critical care staff nurses: a study of Saudi critical care staff nurses. Journal of nursing management.2016; 24(6):708-717.
- 8. Abushaikha, L, SacaHazboun H. Job satisfaction and burnout among Palestinian staff nurses. EMHJ-Eastern Mediterranean Health Journal.2009; 15 (1): 190-197.

- Abed-Ali D, AthbiH, Nawam S. Impact of Staff nurses' Burnout on Patients' Satisfaction with Nursing Care in Al-Najaf City. International Journal of Scientific and Research Publications. 2016; 6 (1): 186-192.
- 10. Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. Human Resources for Health. 2020; 18 (1): 1-17.
- 11. Edoho S, Bamidele E, Neji I, Frank,
  A. Job satisfaction among staff nurses
  in public hospitals in Calabar, Cross
  River State Nigeria. American Journal
  of Nursing Science. 2015; 4 (4): 231-237.
- 12. Ferlise, P., Baggot, D. Improving Staff
  Nurse Satisfaction and Nurse
  Turnover: Use of a Closed-Unit
  Staffing Model. Journal Nursing
  Administration; 2009; 39(7-8): 318-20.
- Gerencer, T. Burnout: Prevention,
   Treatment, and Advice for Employees
   & Employers.2020 Retrieved at 10,
   May, 2020 from <a href="https://zety.com/blog/burnout">https://zety.com/blog/burnout</a>
- 14. Kalisch B, Williams R. Development and psychometric testing of a tool to measure missed nursing care. JONA:

  The Journal of Nursing Administration. 2009; 39(5): 211-219.
- 15. Kalisch B, Landstrom G, Hinshaw A.Missed nursing care: a concept

- analysis. Journal of advanced nursing. 2009; 65(7): 1509-1517.
- 16. Kalinowska P, Marcinowicz L. Job satisfaction among family staff nurses in Poland: A questionnaire-based study. Nursing Open.2020;7(6): 1680-1690.
- 17. Hsu H, Wang P, Lin L, Shih W, Lin M. Exploring the relationship between professional commitment and job satisfaction among staff nurses. Workplace health & safety.2015; 63(9): 392-398.
- 18. Kalisch B, Tschannen D, Lee H, Friese C. Hospital variation in missed nursing care. American Journal of Medical Quality. 2011; 26(4): 291-299.
- 19. Kemunto M, Raburu P, Bosire J. Is marital status a predictor of job satisfaction of public secondary school teachers?.International Journal of Psychology and Behavioral Sciences. 2018: 8(3): 51-58.
- 20. Lahana E, Papadopoulou K, Roumeliotou O, Tsounis A, Sarafis P, Niakas D. Burnout among staff nurses working in social welfare centers for the disabled. BMC nursing.2017; 16(1); 15.
- 21. Lambrou P, Merkouris A, Middleton N, Papastavrou E. Staff nurses' perceptions of their professional practice environment in relation to job satisfaction: a review of quantitative

- studies. Health Science Journal. 2014;8(3): 298-317.
- 22. Mefoh P, Ude E, Chukwuorji J. Age and burnout syndrome in nursing professionals: moderating role of emotion-focused coping. Psychology, Health & Medicine. 2019; 24(1); 101-107.
- 23. Maslach C, Jackson, S. The Measurement of Experienced Burnout. Journal of Organizational Behavior.1981; 2(2): 99-113.
- 24. Mashego B, Nesengani D, Ntuli T, Wyatt G. Burnout, compassion fatigue and compassion satisfaction among staff nurses in the context of maternal and perinatal deaths. Journal of Psychology in Africa. 2016; 26(5):469-472.
- 25. Lasebikan V, Oyetunde M. Burnout among nurses in a Nigerian general hospital: Prevalence and associated factors. International Scholarly Research Notices. 2012;1-6
- 26. Ogboenyiya, A. Exploring the Associations of Burnout, Missed Nursing Care, Turnover Status, and Job Satisfaction among Neonatal Intensive Care Staff nurses, Doctoral dissertation, University of Cincinnati.(2019).
- 27. Mudallal R, Othman W, Al Hassan N. Staff nurses' burnout: the influence of leader empowering behaviors, work

- conditions, and demographic traits. INQUIRY: The Journal of Health Care Organization, Provision, and Financing.2017; (54) 1-10.
- 28. Olatunji S, Mokuolu B. The influence of sex, marital status, and tenure of service on job stress, and job satisfaction of health workers in a Nigerian federal health institution. African Research Review.2014; 8(1): 126-133.
- 29. Palese A, Ambrosi E, Prosperi L, Guarnier A, Barelli P, Zambiasi P, Padovan M. Missed nursing care and predicting factors in the Italian medical care setting. Internal and emergency medicine.2015; 10(6): 693-702.
- 30. Winsett R, Rottet K, Schmitt A, Wathen E, Wilson D, Group M. Medical surgical staff nurses describe missed nursing care tasks-Evaluating our work environment. Applied Nursing Research.2016;(32): 128-133.
- 31. Singh S. The Nexus between Nurse Burnout Missed Care and Patient Outcomes.PhD Dissertation, University of Pennsylvania.2019.
- 32. Schmidt A. Missed Nursing Care Reported by Medical- Surgical RNs in a Community Hospital, PhD thesis, school of nursing, George Washington University.2018.

- 33. Polat S, Terzi B. Identification of the Burnout and Job Satisfaction Levels of the Beginner Staff nurses who were in the Process of Orientation. International Journal of Medical Research & Health Sciences.2018; 7(12): 156-163.
- 34. Phelan A, McCarthy S, Adams E. Examining missed care in community nursing: A cross section survey design. Journal of advanced nursing.2018; 74(3): 626-636.
- 35. Spector P. Measurement of Human Service Staff Satisfaction: Development of the Job Satisfaction Survey. American Journal of Community Psychology. 1985; 13(6): 693-713.
- 36. Srulovici E, Drach-Zahavy A. Staff nurses' Personal and Ward Accountability and Missed Nursing Care: A Cross-Sectional Study. International journal of nursing studies.2017; (75):163-171.
- 37. Tarcan M, Hikmet N, Schooley B, Top M, Tarcan G. An analysis of the relationship between burnout, sociodemographic and workplace factors and job satisfaction among emergency department health professionals . Applied nursing research. 2017; (34):40-47.

- 38. Van Doorn Y, Van Ruysseveldt J, Van Dam K, Mistiaen W, Nikolova I. Understanding well-being and learning of Nigerian staff nurses: a job demand control support model approach. Journal of nursing management.2016; 24(7): 915-922.
- 39. Verrall C, Abery E, Harvey C, Henderson J, Willis E, Hamilton P, Blackman I. Staff nurses and midwives' perceptions of missed nursing care—A South Australian study. Collegian. 2015; 22(4): 413-420.
- 40. White E, Aiken L, McHugh M. Registered nurse burnout, job dissatisfaction, and missed care in nursing homes. Journal of the American Geriatrics Society. 2019: 67(10); 2065-2071.
- 41. Zeleníková R, Jarošová D, Plevová I, Janíková E. Staff nurses' Perceptions of Professional Practice Environment and Its Relation to Missed Nursing Care and Nurse Satisfaction . International Journal of Environmental Research and Public Health.2020;17(11): 3805.