On the Relationship Between Job Satisfaction and Burnout Among Nurses Working in Hospitals of Erbil, a City in Kurdistan Region of Iraq

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Abstract

Background: Witnessing chronic patients suffering from incurable diseases and the agony of watching their death make nursing one of the most stressful jobs. Job satisfaction is a key factor in providing quality nursing care services. Stress and burnout are other factors that can affect nurses' job satisfaction and negatively influence the quality of care.

Objectives: The present study aimed to determine the relationship between job satisfaction and burnout among nurses working in hospitals of Erbil, a city in the Kurdistan region of Iraq, during 2015 - 2016.

Methods: This research was a descriptive, correlational, and cross-sectional study, which encompassed 455 nursing staff, including nurses, auxiliary nurses, and nurse aids working in the public hospital in Erbil city, Kurdistan. The participants were selected using the random stratified sampling method. Demographic information forms, Herzberg's job satisfaction scale, and Maslach's burnout questionnaires were used to collect data. The collected data were analyzed with SPSS software version 20 using descriptive statistics, chi-square statistical tests, Fisher's exact test, and Pearson's correlation coefficients.

Results: According to the findings, 7.8% of nurses had low job satisfaction, 45.2% had moderate job satisfaction, 42.7% had high job satisfaction, and 4.4% had remarkably high job satisfaction. The burnout results showed that the mean values were 36.16 ± 12.51 for the lack of personal success, 13.38 ± 9.86 for emotional exhaustion, and 8.67 ± 8.39 for depersonalization. Pearson's correlation coefficient test revealed a statistically significant but inverse relationship between the job satisfaction of nurses and the three burnout dimensions ($P \leq 0.0001$).

Conclusions: The authors propose a periodic job satisfaction evaluation and the detection of factors negatively affecting job satisfaction. To further reduce nurses' burnout, managers should encourage and promote effective communication in work environments and ensure that nurses participate in decision-making. Job contradictions and ambiguities should also be reduced and avoided, if possible.

Keywords: Burnout, Job Satisfaction, Nurses, Stress

1. Background

Healthcare professionals, including nurses, are in close contact with patients and their families and are always responsible for their health. Witnessing patients suffering from incurable diseases and the agony of watching their death make nursing one of the most stressful jobs (1). Job satisfaction is a key factor in providing quality nursing care services (2) and an important component in many studies. Job satisfaction refers to individuals' positive emotions

and attitudes toward their jobs (3). Stress and burnout are among other factors that can affect the quality of care by having a negative impact on nurses' job satisfaction (2).

The ratio of nurses per 1000 people in Iraq in 2018 was two, which is an important factor in burnout and job stress levels. Although many studies have addressed this issue, few studies, if any, have investigated the hospitals of the Kurdistan region of Iraq, which have a different context with different patient experiences caused by the

burden of civil wars and the low socio-economic status of people living around this region. For example, Ali et al. examined nurses working in public hospitals in Erbil. The results showed that 63.8% of the nurses had a moderate level of job satisfaction ([4]). Other studies in this region usually reported smaller sample sizes and used evaluation tools that did not cover all dimensions of job satisfaction. This issue highlighted the significance of this study, which sought to examine and evaluate nurses for the early signs of burnout and provided recommendations for avoidance and possibly early treatment options.

Job dissatisfaction can threaten nurses' physical and mental health and ultimately lead to poor quality of life ([5]) and patient care. Some studies, however, refer to job satisfaction as an essential factor that affects burnout and depression ([6]); hence, low job satisfaction can lead to high levels of burnout and the desire to leave jobs and predispose nurses to diseases ([7]). However, its relationship and effectiveness vary in different studies.

Burnout is a psychological state with a series of physical symptoms such as fatigue, emotional exhaustion, and demotivation leading to absenteeism, reduced motivation, mental disorders, cardiovascular disorders, and in extreme cases, hospitalization ([8]). Burnout is listed as an occupational hazard and has attracted the attention of many researchers in recent years ([9]). Dall'Ora et al.'s study in 12 European countries showed that when nurses work beyond their schedule, they report more dissatisfaction and burnout ([10]). High levels of burnout are one of the major problems posing safety risks for patients and nurses and could affect the patient's recovery process ([10], [11]). It can lead to nurses' decreased work efficiency, physical and behavioral changes, and the reduced quantity and quality of services provided for patients ([12]). When nurses experience burnout, they provide lower-quality care, ultimately causing losses in their organizations ([13]).

Stress and burnout become critical when a nurse is busy caring for incurable patients in one of the intensive care units. In long-term care (LTC) settings, nurses constitute the most significant proportion of the workforce ([14]) and are exposed to a large number of stressors, including heavy workload, time pressure, role conflict, role ambiguity, and physical exhaustion ([15], [16]). Moreover, patients have complicated needs, and many of them suffer from deterioration of cognitive and physical functions and impaired communication ability ([17], [18]). Accordingly, nurses in LTC settings are highly vulnerable to emotional stressors, including burnout ([19]).

The second author's experience and observation as well as interaction with nurses in different hospitals

in Erbil, indicated several stress-inducing factors, which were mainly caused by the following variables: The city's location (as a capital of the Kurdistan region of Iraq and its closeness to the war zone), the socio-cultural context of the city (subject to immigration and the influx of refugees), the limited number of hospitals regarding the population and high hospital admissions, high levels of violence in hospitals, crowded therapy environments (due to patient referrals from smaller cities around Erbil and refugees), and the disproportionate number of nurses compared to the high numbers of patients. Moreover, civil wars (ISIS attacks) and their negative consequences, increasing night shifts, low wages and benefits, and overlapped responsibilities at the workplace put nurses under much pressure in Erbil. Among other factors, these factors made it necessary to examine and evaluate nurses in terms of burnout.

Considering the limited number of studies and inconsistent findings of few foreign studies, and since the relationship between these two variables (job satisfaction and burnout) in Kurdish nurses working in different cultural contexts has not yet been explored, this study aimed to determine the relationship between the nurses' job satisfaction and burnout. This relationship would help administrators' planning and promote human and organizational resources. The findings of this study can provide administrators and nursing managers with evidence to take effective steps in promoting nurses' job satisfaction and reducing burnout; hence, they can improve the quality of patient care.

2. Objective

The present study aimed to determine the relationship between job satisfaction and burnout among nurses working in hospitals of Erbil, a city in the Kurdistan region of Iraq, during 2015 - 2016.

3. Methods

3.1. Study Design

This descriptive, correlational, and cross-sectional study was conducted during 2015 - 2016. The study population consisted of different categories of nursing staff, including nurses, auxiliary nurses, and nurse aids working in public hospitals in Erbil, Kurdistan region of Iraq, who were willing to participate in this study.

3.2. Participants

The study's statistical population encompassed 2035 individuals in public hospitals in Erbil. The exact sample size was determined using the following sample size formula:

$$n = \frac{Z^2 \, P \, (1 - P)}{d^2} - \frac{\alpha}{2} \tag{1}$$

To determine sample size at the confidence level of (95%), test power of (80%), and precision of (0.05%), the above formula was used, and the sample size was determined to be 384. However, the researcher increased it by 455 for further precision. In the above formula, the significance level was 0.5 to obtain the largest sample size. Accordingly, 455 nurses were selected using the random stratified sampling method. The research objectives were explained to the interested participants, and informed consent was obtained. Then 455 questionnaires were distributed and received back after a few days. Of the 455 questionnaires, 19 were incomplete and removed, and 436 were analyzed further. Inclusion criteria were having at least one year of working experience, willingness to participate in the study, not experiencing intense stress over the last year (e.g., the death of a close relative, divorce, bankruptcy, and loss of property), not consuming sedatives and tranquilizing medications (self-reported), and not diagnosed with mental illness during the research period (self-reported).

3.3. Instruments

Data was collected using demographic information forms, Herzberg's job satisfaction scale, and Maslach's burnout questionnaires. All three questionnaires were translated into Kurdish.

The demographic information form consisted of 17 questions addressing gender, age, level of education, type of employment, work experience, name of the current ward, duration of employment, category of nursing staff, type of shift, and others.

Herzberg's job satisfaction questionnaire contained 51 items scored on a Likert scale ranging from very high to low, which measured job satisfaction in eight job dimensions: job status, job security, wages and benefits, working conditions, policy-making management, supervision, and communication with colleagues and in life. High scores on this scale indicate higher job satisfaction. The scientific validity of the Persian version of Herzberg's job satisfaction has been confirmed in several studies (20-22). The reliability of the questionnaire has also been evaluated in several studies (0.94 - 0.96) (20, 22). However, in the present study, after the translation

process (from Persian to Kurdish) and re-translation (from Kurdish to Persian), Cronbach's alpha reliability coefficient of Herzberg's job satisfaction questionnaire for 20 nurses was 96.4%.

Maslach's burnout standard questionnaire, which was developed by Maslach and Leiter, as a gold standard assessment tool, is the most commonly used tool measuring the level of burnout and contains 22 items addressing three dimensions of burnout: Emotional exhaustion (9 items), depersonalization (5 items), and lack of personal success (8 items) (23). A high emotional exhaustion score indicated a loss of interest and indifference, that meant emotional resources had been exhausted. Depersonalization is formed by the development of negative attitudes and distrust in receiving work and services. Completion (personal success) evaluates the sense of competence and successful accomplishment, and reduced personal success is identified by a tendency towards negative self-evaluation, particularly in working with patients. High scores in the first and second dimensions (emotional exhaustion and depersonalization) and low score in the third dimension (lack of personal success) reveal high levels of job burnout. Maslach and Leiter's burnout questionnaire has been used in several studies, and its validity is confirmed (23, 24). The reliability of the questionnaire has also been evaluated in several studies, and the reliability coefficient of the burnout questionnaire's tertiary dimensions has been reported to be > 0.7 (25-27). In the present study, after the translation process (from English to Kurdish) and re-translation (from Kurdish to English), the reliability of the tool was tested for 20 nurses, and the Cronbach's alpha coefficients were 0.77 for emotional exhaustion, 0.7 for depersonalization, and 0.89 for individual success.

3.4. Data Analysis

The present study analyzed the collected data with SPSS software version 20 using descriptive and inferential statistical methods. To describe the data, frequency distribution tables and graphs, frequency percentage, mean, standard deviation, and inferential statistics, including Fisher and Pearson's correlation coefficient, were used.

4. Results

The results of the present study showed that more than half of the participants were female (51.8%) and married (75.7%) nurses aged 22 - 33 years (53.7%). A majority of the participants had a nursing associate degree (67.9%) and one or two children (38.8%), with full-time employment

(90.6%). Moreover, 27.3% of their spouses had associated degrees, and 44% were employed. Regarding the total number of participants, 29.4% had less than five years of work experience in nursing, and more than half of the nurses (54.4%) had less than five years of work experience in a current ward with permanent morning and evening shifts (57.8 %). Most nurses (88.1%) were involved in nursing positions and had no second job (82.6%). More details are presented in Table 1.

The findings on nurses' job satisfaction showed that 7.9% of nurses had low levels of job satisfaction, 45.2% had moderate levels of job satisfaction, 42.7% had high levels of job satisfaction, and only 4.4% had very high levels of job satisfaction (Table 2).

The findings on the burnout dimensions showed that lack of personal success was 36.16 ± 12.51, emotional exhaustion was 13.38 ± 9.86, and depersonalization was 8.67 ± 8.39 (Table 3).

Pearson's correlation coefficient test results showed a statistically significant but inverse relationship between nurses' job satisfaction and all three burnout dimensions (i.e., emotional exhaustion, depersonalization, and lack of personal success) ($P \leq 0.0001$) (Table 3).

Regarding the relationship between job satisfaction and demographic variables, the variables only had a significant relationship with marital status (P = 0.004) and ward (P = 0.005) (Table 4).

The results on the relationship between burnout dimensions and demographic variables showed that emotional exhaustion had a significant relationship with age (P = 0.033), general employment history (P = 0.025), and working hours (P = 0.001). Depersonalization had a significant relationship with age (P = 0.017), general employment history (P = 0.005), and working hours (P = 0.001), and that lack of personal success had a significant relationship with marital status (P = 0.005) (Table 5).

5. Discussion

It is important to constantly monitor and ensure high job satisfaction among nurses since it has a direct relationship with the quality of care delivered to patients. According to the findings of this study, most nurses are less satisfied with their job since 53.1% reported low and moderate job satisfaction levels, and 47.1% had high job satisfaction.

In Ghamari Zare et al.'s study, 7.5% of the nurses had low job satisfaction, and 17.3% had high job satisfaction. A majority of the nurses (75.2%) had moderate job satisfaction (28). Price showed that half of the studied nurses (50%) were satisfied with their job (29), which is

Table 1. Summary of Demographic Characteristics

Characteristics	No. (%)
Gender	
Female	226 (51.8)
Male	210 (48.2)
Age (y)	
22 - 33	234 (53.7)
34 - 45	147 (33.7)
46 - 57	50 (11.5)
> 57	5 (1.1)
Level of education	
Course	2 (0.5)
Primary nursing school	13 (3.0)
LPN	63 (14.4)
Associate degree	296 (67.9)
Bachelor's degree	56 (12.8)
Master's degree	6 (1.4)
Marital status	
Single	101 (23.2)
Married	330 (75.7)
Widow	1 (0.2)
Divorced	4 (0.9)
Employment	
Contractual	37 (8.5)
Projective	4 (0.9)
Official	395 (90.6)
Total experience (y)	
< 5	128 (29.4)
6 - 10	117 (26.8)
11 - 15	90 (20.6)
16 - 20	35 (8.0)
> 20	66 (15.1)
Experience in recent ward (y)	
< 5	237 (54.4)
6 - 10	134 (30.7)
11 - 15	45 (10.3)
16 - 20	15 (3.4)
> 20	5 (1.1)
Shifts	
Fix (morning/evening)	252 (57.8)
Fix (night)	35 (8.0)
Circular (M/N, M/E)	103 (23.6)
E/N	40 (9.2)
24 hours	6 (1.4)

Table 2. Mean and Standard Deviation of Job Satisfaction Dimensions (2016)

Job Satisfaction Dimension	Minimum	Maximum	Mean ± Standard Deviation
Job position	11	55	38.33 ± 8.47
Job security	5	25	13.07 ± 4.7
Salary	6	30	14.03 ± 5.96
Status and working conditions	6	30	16.50 ± 4.98
Policy management	8	40	22.19 ± 7.48
Supervision	7	35	18.97 ± 6.52
Communication with colleagues	5	25	17.91 ± 4.36
Relation with individual life	3	15	9.28 ± 3
Total job satisfaction	61	257	1.53 ± 34.38

Table 3. Mean and Standard Deviation of Burnout Dimensions (2016)

Burnout Dimension	Minimum	Maximum	Mean ± Standard Deviation
Emotional exhaustion	0.00	42	13.38 ± 9.85
Depersonalization	0.00	40	8.67 ± 8.39
Personal achievement	0.00	48 ± 36.16	12.51

Table 4. Correlation Between Burnout Dimensions and Total Job Satisfaction

Burnout	Total Job Satisfaction	
	r	P-Value
MBI 1-7 (depressive anxiety syndrome)	-0.377 [a]	0.000
MBI 8-14 (depersonalization)	-0.286 [a]	0.000
MBI15-22 (decrease of personal achievement)	-0.160 [a]	0.000

[a] Correlation is significant at P = 0.01 (2-tailed).

Table 5. Correlation Between Burnout and Job Satisfaction Dimensions (2016)

Job satisfaction dimensions	Burnout					
	Emotional Exhaustion		Depersonalization		Personal Achievement	
	r	P	r	P	r	P
Job position	-0.395 [a]	0.000	-0.374 [a]	0.000	0.017	0.731
Job security	-0.222 [a]	0.000	-0.129 [a]	0.000	-0.188 [a]	0.000
Salary	-0.203 [a]	0.000	-0.074	0.122	-0.294 [a]	0.000
Status and working conditions	-0.303 [a]	0.000	-0.205 [a]	0.000	-0.191 [a]	0.000
Policy management	-0.274 [a]	0.000	-0.206 [a]	0.000	-0.208 [a]	0.000
Supervision	-0.286 [a]	0.000	-0.152 [a]	0.000	-0.158 [a]	0.000
Communication with colleagues	-0.224 [a]	0.000	-0.275 [a]	0.000	0.136 [a]	0.000
Relation with individual life	-0.245 [a]	0.000	-0.210 [a]	0.000	-0.061	0.205

[a] Correlation is significant at P = 0.01 (2-tailed).

closely consistent with the findings of this present study. Mirzabeigi et al. also reported that about one-third of nurses (34.3%) were satisfied with their job (30). However, in Jafar Jalal et al.'s study, most nurses (62%) had low job satisfaction, 34% had moderate job satisfaction, and 4% had high job satisfaction (2). According to Karimi Babokani et al.'s findings, 35% of the nurses were quite satisfied with their current job, while 45% of the participants were not satisfied with their job, and 14% were neither satisfied nor dissatisfied (31). In general, the level of job satisfaction among the participants was low (31).

However, in this study, 63.8% of the nurses were neither quite satisfied nor completely dissatisfied, 22% were satisfied, and 14.2% were dissatisfied with their jobs (4). In another study on Kurdish-speaking nurses, nurses' job satisfaction was at a moderate level (32). Further studies in other cities showed moderate levels of job satisfaction (28, 33, 34).

Considering the effect of various aspects of the job on the nurses' job satisfaction and given that these dimensions are different in different countries, cities, and hospitals, differences in job satisfaction scores are also expected and explainable. Differences could be due to dissimilarities in working conditions and the existing professional situation in the research environments. Ingersoll et al. documented that job satisfaction levels vary based on job positions, the environment, and roles (35).

In the present study, the findings on burnout dimensions showed that the mean values were 36.16 ± 12.51 for the lack of personal success, 13.38 ± 9.86 for emotional exhaustion, and 8.67 ± 8.39 for depersonalization. Moreover, the values were 48% for the lack of personal success, 42% for emotional exhaustion, and 40% for depersonalization. The burnout level varied in many domestic and foreign studies. For example, Arab et al. concluded that 5.4% of the nurses had high levels of depersonalization, 41.1% had high levels of feeling the lack of personal success, and 35.6% had high levels of emotional exhaustion (36). Moreover, in Farsi et al.'s study, most participants had moderate to high emotional exhaustion and low personal success (37). The researchers in the present study found that a majority of the nurses had an acceptable status in terms of job burnout (37).

In several studies, different dimensions of burnout such as emotional exhaustion and lack of personal success were at a moderate level, and depersonalization was at a low level (24, 38, 39). In comparison to studies conducted in other countries, Armstrong and Holland's study at the Cancer Center in New York (USA) showed that the nurses' emotional exhaustion dimension was moderate to high,

and their lack of personal success was high (40). Lopez Franco et al. also reported the dimensions of emotional exhaustion and depersonalization at low levels and the lack of personal success at a high level, which is consistent with the findings of this study (41).

The findings of this study, however, are not consistent with those of some other studies. In Zargarshirazi et al.'s study, burnout was 90.26 ± 74.7 for emotional exhaustion, 21.11 ± 75.3 for depersonalization, and 14.20 ± 78.4 for the lack of personal success (42). Accordingly, burnout dimensions, including emotional exhaustion, depersonalization, and lack of personal success, were higher than average among the studied nurses (42). In some other studies, all three dimensions of burnout were low in nurses (43).

The level of burnout varies in different studies, which probably could be due to several reasons such as differences in the roles of nurses, type of shifts, long working hours, high workload, working conditions, and discrimination at the workplace (44). This is while people with similar working conditions do not suffer from the same level of burnout, and burnout is influenced by several factors (38). In the meantime, what is important is that the high burnout level is one of the problems posing safety risks to patients and nurses (10). Accordingly, nurse managers' plans should consider empowering nurses in adopting effective strategies associated with their general health (both individual and organizational). Communication skill improvement methods in nursing work environments can also be adopted, which may include holding in-service training workshops, involving nurses in decision-making, promoting occupational support, and reducing job conflict. Moreover, the other measures are reducing mitigations, using psychological interventions to reduce work-related stress, and increasing adaptability in the workplace to reduce burnout. The high prevalence of burnout dimensions, especially lack of personal success, requires special attention and interventions.

Regarding the relationship between job satisfaction and burnout, the findings of this study showed an inverse and significant relationship between nurses' job satisfaction and all three dimensions of burnout (e.g., emotional exhaustion, depersonalization, lack of personal success). This finding is consistent with Habibi et al.'s study, in which job satisfaction had an inverse and significant relationship with all three dimensions of burnout in both private and public sectors (45). A significant and inverse relationship between nurses' job satisfaction and burnout is also reported in other studies (44, 45). In this regard, Sekol and Kim conducted

a study to assess job satisfaction and burnout among pediatric nurses in the surgery, intensive care, and hematology/oncology wards of an acute care hospital (46). According to their findings, there was a significant relationship between job satisfaction and burnout in four studied wards (46). The inconsistency of the present findings with those of others indicating a significant and positive relationship between job satisfaction and burnout among nurses (4) could be due to differences in research participants and environment as the participants in this study were nursing staff, and most of the previous studies included non-nursing staff.

In the nursing profession, nurses constantly face stressful and difficult working conditions (e.g., long shifts, lack of breaks at night shifts, and low wages) and spend much energy; however, they do not receive as much reward (50). According to Siegrist's (51) model, they do not perceive a balance between effort and reward, and this makes them unhappy with their job, leading to burnout. Moreover, job satisfaction, workplace conditions, work experience, high workload, work-related stress, and fatigue also affect burnout (2).

The findings of the present study about the relationship between job satisfaction and demographic variables indicated their relationship with marital status and ward. Other studies in the United States and Iran have also confirmed this relationship (31, 46, 52, 53); however, some other studies have revealed no relationship (2, 30-32). In this regard, differences in the effects of different demographic factors on job satisfaction in different studies may be due to differences in cultural and socio-economic variables and the research environments. The relationship between burnout dimensions and demographic variables showed that emotional exhaustion and depersonalization had a significant relationship with age, general employment history, and hours of working. Moreover, lack of personal success had a significant relationship with marital status. These findings are consistent with other studies conducted in Iran and Korea (44, 54). However, the findings of this study are not consistent with some other studies (38, 55, 56).

5.1. Study Limitations

One of the limitations of this study was using the 10-item job satisfaction questionnaire which was not comprehensive. The findings are also reported for Iraqi doctors; hence, we should be cautious in generalizing the findings to other professions.

5.2. Conclusions

This study provides hospital managers and health policymakers with evidence on job satisfaction and burnout among nurses in Kurdistan, Iraq. In this regard, reducing nurses' burnout should be a priority for nurse managers and policymakers. Given that most participants in this study had moderate job satisfaction, hospital nurse managers must make plans to promote their job satisfaction. The authors suggest the periodic measurement of job satisfaction and the identification of factors affecting nurses' job satisfaction. Furthermore, nurse managers should provide opportunities for nurses' promotion regarding their abilities and provide facilities and grounds to update nurses' knowledge. Cooperation with experienced consultants to resolve existing problems and decrease dissatisfaction is also highly recommended.

5.3. Implication for Practices

One of the main roles of nursing managers in hospitals is to be aware of the position and conditions of nurses in their healthcare system. Managers must create a productive working environment by introducing modifications (e.g., providing opportunities for using decentralized management methods and detailed descriptions of duties, education, and human relations), identifying and organizing formal and informal support groups, and finally providing strong support systems to reduce burnout among nurses. The findings of this study showed an inverse and significant relationship between job satisfaction and all three dimensions of burnout (emotional exhaustion, depersonalization, and personal success) among nurses. According to the present findings, by focusing on factors affecting job satisfaction and burnout, removing shortages, organizing the nursing profession, and improving and making the payment system fairer, a condition should be provided in which higher quality care is delivered to patients and staff, and patients are more satisfied. Moreover, we can increase nurses' job satisfaction and decrease their burnout by allocating a percentage of welfare funding to nursing staff, increasing the number of nurses in the wards, improving facilities and equipment, increasing the service payment plan, and increasing wages and benefits.

questionnaires and helped the researchers to conduct this study.

Footnotes

Authors' Contribution: F. H., A. H. M., W. J. S., H. A., and N. D. N. were involved in designing the idea and preparing the proposal. Data collection was performed by A. H. M., W. J. S., and H. A., and data analysis was performed by F. H .and H. A. All researchers participated in data interpretation, preparation and article preparation.

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Data Reproducibility: The datasets used and analyzed in this study are available upon reasonable request from the corresponding author.

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