



Relationship between intention to leave with job satisfaction and burnout of nurses in Iraq: A cross-sectional correlational study

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Abstract

Background and aims: Evidence shows that the intention to leave negatively impacts nurses, patients, and health care systems. This study investigated the relationship between intention to leave, job satisfaction, and nurses' burnout in Basra, Iraq.

Methods: This cross-sectional and descriptive study was conducted in three teaching hospitals in Basra from 2022-2023. The sample consisted of 238 nurses selected through convenience sampling. Data was collected using a demographic information form, intention to leave scale, Minnesota Satisfaction Questionnaire (MSQ), Copenhagen Burnout Questionnaire (CBI), and 12-item General Health Questionnaire (GHQ-12). Data was entered into SPSS 20 for analysis.

Results: The mean scores for intention to leave, job satisfaction (MSQ), and burnout were 9.69 ± 4.50 , 70.93 ± 13.74 and 64.14 ± 19.06 , respectively. Job satisfaction had a negative coefficient of 0.021 on "intention to leave" ($P < 0.001$). Higher levels of burnout with a coefficient of -0.028 were associated with an increased intention to leave ($P < 0.001$).

Conclusion: The nurses in the study expressed an intention to leave, and this issue was related to job satisfaction and burnout. Hospitals can enhance the overall quality of care by prioritizing job satisfaction, preventing burnout, and implementing strategies to retain nurses. Health policymakers should consider these factors in decision-making processes and take necessary measures to improve and promote them.

Keywords: Intention to leave, Job satisfaction, Burnout, Nurse

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Introduction

Nursing encompasses many roles and responsibilities, making it a crucial component of the health care system. The intention to leave, which refers to nurses' desire or plan to leave their current job or the nursing profession, is an essential area of study due to its impact on the quality of care and the sustainability of healthcare systems (1).

When nurses intend, it can negatively affect the nurse, the patient, and the healthcare facilities' overall performance, stability, and productivity. High nurse turnover rates can increase the workload and stress on remaining nurses, leading to staff fatigue (2,3). Moreover, Increased intention to leave may lead to an increase in the number of new nurses entering the profession, who may need more experience and skills to provide high-quality patient care. Also, it can lead to interrupted care, patient safety issues, and reduced quality of care provided to patients (2,4,5). The financial strain caused by nurse turnover can impact the hospital's financial stability and sustainability. Hospitals may need to invest additional resources in advertising job openings, conducting interviews, and providing orientation and training programs for new hires (2,6).

Factors influencing nurses' intention to leave can vary. They may include the work climate, type of employment, marital status, overtime, nurse staffing, work environment, organizational commitment, age, salary, transport service availability, policies, job dissatisfaction, working environment, and work pressure (1,7). These factors can have both internal and external influences on nurses' intention to leave.

Studies have shown varying levels of nurses' intention to leave across different regions and countries. For example, a study conducted in the United States revealed a high preference to leave among nurses (7). It is important to note that the level of intent to leave can significantly impact healthcare facilities' performance, stability, and productivity (7). Understanding the factors contributing to nurses' intention to leave is crucial for healthcare systems to develop strategies and interventions to retain nurses and improve job satisfaction. This can include addressing work climate, workload, and job satisfaction issues and providing opportunities for professional growth and development (8).

Job satisfaction is an essential aspect of a nurse's life

that can influence their level of performance, early retirement, job transfers, organizational commitment, and patient safety and satisfaction (9). Job satisfaction is defined as a feeling or affective response of nurses to the situation of their job and work environment (10). The results of studies show a negative relationship between job satisfaction and the intention to leave the job. Nurses dissatisfied with their careers may experience burnout, negatively impacting patient care (11,12). Burnout in nursing can be defined as a state of nurses' physical, mental, emotional, and social exhaustion resulting from the adverse effects of unmanaged occupational stress and inadequate managerial and social support, which reduces the nurses' interest in and motivation for work, affects care quality, and results in negative (13). The consequences of burnout in nursing can be significant and far-reaching, affecting both the individual nurse and the healthcare system. Nurse burnout is a harmful and consequential syndrome that affects not only the individuals but also the system and patients in which those nurses work. It can lead to personal consequences, job dysfunction, and potential patient risk (14).

Numerous studies have investigated the relationship between the intention to leave, job satisfaction, and nurses' burnout. These studies have been conducted in developed countries such as the United Kingdom (15), as well as developing countries like Ethiopia (16) and Iran (17). They have also been conducted in different wards, including mental wards (18), critical care units (15), and during the COVID-19 pandemic (19). However, limited studies have been conducted in Iraq. In Iraq, this issue has been studied by physicians (20), and a study on nurses' job satisfaction was conducted only in the oncology department (21).

Additionally, there is a need for a study on the intention of nurses to leave Iraq, and minimal studies have been conducted on nurses' burnout in Iraq and the Kurdistan region of Iraq (22,23). Therefore, further studies are needed on job satisfaction, burnout, and nurses' intentions to recognize the problems nurses face and prevent them from leaving their jobs. For this purpose, the present study investigated the relationship between the choice to leave, job satisfaction, and nurses' burnout in selected hospitals in Basra, Iraq.

Materials and Methods

This study employed a cross-sectional and descriptive study design. The current study was conducted in three teaching hospitals in Basra from 2022-2023. The three teaching hospitals included in this study were Al Sadder teaching hospital, Al Basra teaching hospital, and Al Fayehaa teaching hospital. Nurses, who numbered 238, were divided proportionally between these three hospitals through convenience sampling and participated in this study. The inclusion criteria were nurses who worked in all wards of these hospitals, had at least six months of nursing experience, had internet access, and gave consent.

Nurses were excluded if they had a known mental illness based on self-declaration or worked in several hospitals simultaneously.

If participants did not send any reply after three phone calls and/or three electronic questionnaires, they were excluded from the study.

The sample size was calculated according to the formula $N = [(Z\alpha + Z\beta)/C]^2 + 3$ ($r = 0.292$, $\alpha = 0.05$, $\beta = 0.10$, $C = 0.5 * \ln[(1+r)/(1-r)]$). Since the sample type was multilevel (hospital selection followed by hospital nurse selection), the sample size ($N = 119$) was multiplied by 2 to account for the sample design, resulting in a final sample size of 238 nurses. The 238 nurses were proportionally assigned to 3 hospitals.

After receiving the Code of Ethics from the School of Nursing and Midwifery & Rehabilitation - Tehran University of Medical Sciences, the researcher (SSIA) requested permission to enter the research setting from the deans of the hospitals in Basra, Iraq, for data collection. One of the researchers (SSIA) contacted the hospital where the study was conducted and began sampling in different hospital wards. Sampling was convenient and continued until the required number of samples was reached. SSIA explained the purpose of the study to the participants, obtained their consent, and provided an electronic link to questionnaires sent via SMS, WhatsApp, or Telegram for them to complete.

Data was collected using a demographic information form, intention to leave questionnaire, Minnesota satisfaction questionnaire (MSQ), Copenhagen Burnout Questionnaire (CBI), and General Health Questionnaire 12 (GHQ-12).

Demographic information includes age, gender, marital status, number of children, degree, regular work shift, type of ward, length of service, satisfaction with the hospital's salary, and source of income other than this hospital.

This study measured the intention to leave using a questionnaire developed by Kelloway, Gottlieb, and Barham in 1999. The questionnaire consists of four items that measure employees' thoughts about leaving their current jobs. The questionnaire is tested on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). People's responses to the phrase were summed up, and an average value was determined. The total score ranges from 4 to 20; a higher score indicates a higher intention to leave. Judging was based on the average. Cronbach's alpha was reported as 0.80 (24).

The MSQ measures job satisfaction. This questionnaire is a short form of job satisfaction that assesses both intrinsic job satisfaction, such as a person's feeling about their job duties, and extrinsic job satisfaction, people's feelings about aspects of their working conditions external to the work itself (24). Responses to each item fall on a Likert scale from "very dissatisfied" to "very satisfied" (5). The sum of responses to items 1, 2, 3, 4, 7, 8, 9, 10, 11, 15, 16, and 20 represents the intrinsic subscale. The sum of questions 5, 6, 12, 13, 14, and 19 (6 questions) and the

sum of two questions 17 and 18 represent extrinsic and general job satisfaction. The overall job satisfaction score is obtained by adding the scores of all items (20 items). The reliability of this tool in the studies was acceptable. The alpha coefficient value of the 20-item MSQ ranged from 0.85 to 0.91 (25,26).

CBI consists of 19 items with three subscales, including personal burnout (items 1-6), work-related burnout (items 7-13), and customer/patient burnout (items 14-19) (27). The personal Burnout subscale measures physical and mental exhaustion, fatigue, and emotional feelings. The work-related burnout subscale measures the symptoms that respondents attribute to work. The client/patient relationship burnout subscale considers respondents' feelings of physical and psychological exhaustion and fatigue from working with patients. Items are answered on a 5-point Likert scale: never=0, seldom=25, sometimes/somewhat=50, often=75, always=100. The total score is taken as the average score of question scores (total question score divided by number). The total score for each subscale is categorized as low (less than 25), medium (25-75), and high (greater than or equal to 75). Scores above 50 indicate that the respondent has emotional burnout (27,28). The psychometric properties of CBI have been determined, and its reliability has been well reported. The Cronbach's alpha coefficients for personal, work, and customer/patient burnout were 0.91, 0.84, and 0.78, respectively (29).

Goldberg developed the GHQ-12 in the 1970s to measure mental health and mental distress. In this study, GHQ-12, which consists of 12 items, was utilized. The questionnaire assesses various aspects such as the ability to concentrate, insomnia, feeling useful, ability to make decisions, stress, inability to overcome difficulties, enjoyment of daily activities, ability to face problems, the feeling of sadness and depression, loss of confidence, the feeling of worthlessness, and the sense of overall happiness. Each item is rated on a scale of 0 to 3, with higher scores indicating a poorer mental state. The total score is obtained by summing up all the item scores. In a study conducted in an Arab country, the reliability of this questionnaire was determined to be 0.87 and 0.81 using Cronbach's alpha (30). Furthermore, the GHQ-12 has been translated into Arabic and evaluated for validity and reliability.

The questionnaire used in this study was previously translated into Arabic and has been used in several studies, demonstrating satisfactory reliability. This indicates that Arabic versions of all the mentioned questionnaires are readily available and have undergone psychometric assessment in Arabic. The Arabic version was provided to 10 professors at the Iraqi College of Nursing for confirmation to ensure the validity of the questionnaire. The reliability of the questionnaire was evaluated using Cronbach's alpha coefficient, which was found to be above 75% for all questionnaires.

The data for qualitative and quantitative variables were summarized and reported using frequency (percentage)

and mean (standard deviation). The normality of quantitative variables used in the analysis was assessed using descriptive indicators such as skewness and Kolmogorov-Smirnov test. Correlation analysis examined the relationship between variables, including the intention to leave, CBI, GHQ-12, and MSQ, and their relationships with quantitative contextual variables. Independent-sample t-tests, chi-square tests, analysis of variance (ANOVA), and regression were used.

Results

Of the 238 individuals, 64.3% identified as female, while 35.7% identified as male. The majority, representing 81.1% of nurses, worked 21-30 hours. The mean of nurses' GHQ-12 was 18.58 ± 3.08 (Table 1).

The results revealed that the mean score for intention to leave was 9.69 ± 4.50 . The sum of MSQ was 70.93 ± 13.74 , while the mean score for burnout among the nurses was 64.14 ± 19.06 . Additionally, 77.7% of nurses had a CBI score over 50, as shown in Table 2.

A significant and inverse relationship existed between the intention to leave and MSQ, with a Pearson correlation coefficient = -0.549 ($P < 0.001$). Additionally, a significant and positive relationship was observed between the intention to leave and CBI, with a Pearson correlation

Table 1. Participants' demographic and their GHQ-12 (N=238)

Variable		No. (%) / Mean \pm SD
Age (y)		27.32 \pm 5.99
Gender	Female	153 (64.3)
	Male	85 (35.7)
Marital status	Single	98 (41.2)
	Married	134 (56.3)
	Divorced	5 (2.1)
	Widow	1 (0.4)
Number of children	0	134 (56.3)
	1-3	71 (29.8)
	4-6	33 (13.9)
Educational degree	Bachelors' degree	60 (25.2)
	Diploma	69 (29.0)
	Secondary school	109 (45.8)
Job experience (y)	<5	90 (37.8)
	5-10	84 (35.3)
	11-15	32 (13.4)
	16-20	17 (7.1)
	>20	15 (6.3)
Working per week (h)	10-20	4 (1.7)
	21-30	193 (81.1)
	31-40	29 (12.2)
	>40	12 (5)
Financial adequacy	Yes	30 (12.6)
	No	208 (87.4)
GHQ-12		18.58 \pm 3.08

SD, Standard deviation; GHQ-12, 12-item General Health Questionnaire.

Table 2. Scores of intentions to leave, MSQ, and CBI of nurses (N=238)

		Mean ± SD/No. (%)	Minimum-Maximum
Intention to leave		9.69 ± 4.50	4-20
MSQ	Intrinsic job satisfaction	43.63 ± 7.72	13-58
	Extrinsic job satisfaction	20.04 ± 5.25	6-30
	General satisfaction	7.25 ± 1.95	2-10
	Total job satisfaction	70.93 ± 13.74	21-97
Total score		64.14 ± 19.06	5.26-100
CBI	Categorization <50	53 (22.3)	-
	>50	185(77.7)	-

SD, Standard deviation; MSQ, Minnesota Satisfaction Questionnaire; CBI, Copenhagen Burnout Questionnaire.

coefficient = 0.526 ($P < 0.001$) (Table 3).

Results of a multiple linear regression analysis showed that satisfaction has a negative coefficient of 0.021 on “intention to leave” ($P < 0.001$). The higher levels of burnout with a coefficient of -0.028 were associated with increased intention to leave ($P < 0.001$). Results indicate that females have a higher intention to leave than males, with a coefficient of -0.299 ($P = 0.015$). Nurses working more than 30 hours have a higher intention to leave, as indicated by the coefficient of 0.544 ($P = 0.001$). Other factors such as age, general health, job experience, marital status, number of children, salary, perception of having enough resources, and education level were not significantly associated with leaving in this study (Table 4).

Discussion

This study aimed to determine the relationship between the intention to leave, job satisfaction and nurses’ burnout in Iraq. The results indicate that job satisfaction and burnout were significant factors associated with the decision to leave. Specifically, higher job satisfaction was associated with a lower intention to leave, whereas higher burnout was associated with a higher intention to

leave. Additionally, gender and working hours were also significant factors, with females and those working more than 30 hours per week having a higher intention to leave. Results indicate a moderate desire among the participating nurses to leave their jobs. The intention to leave the nursing profession is of great concern, and Several studies have explored this topic and provided statistics on nurses’ intention to leave. This study found that 23.70% of nurses expressed their intention to quit nursing (31). Another study found varying levels of intention to leave among nurses in different countries, with rates of 36% in the United States, 61.5% in Saudi Arabia, 60.9% in Jordan, and 64.9% in Iran (3). These statistics highlight the seriousness of the issue and the need to address the intention to leave the nursing profession. This study, conducted in Iraq, revealed a moderate tendency for nurses to quit their jobs,

Table 3. Association between Intention to leave with MQ and CBI of nurses

	MSQ	CBI
Intention to leave	Pearson correlation = -0.549* $P < 0.001$	Pearson correlation = 0.526* $P < 0.001$

MSQ, Minnesota Satisfaction Questionnaire; CBI, Copenhagen Burnout Questionnaire

* Correlation is significant at the 0.01 level (2-tailed).

Table 4. Results of multiple linear regression on factors associated with leaving nurses

Independent Variable	Coefficients	SE	P value	95% CI		
				Lower	Upper	
Job Satisfaction	-0.028	0.005	<0.001	-0.037	-0.019	
Burnout	0.021	0.003	<0.001	0.014	0.028	
General Health	-0.018	0.019	0.339	-0.055	0.019	
Age	30-39 years vs. <30 years	-0.068	0.14	0.628	-0.345	0.209
	≥0 years vs. <30 years	-0.067	0.235	0.776	-0.531	0.397
Gender (Female vs. Male)	-0.299	0.121	0.015	-0.538	-0.06	
Working hours (>30 hours vs. ≤30 hours)	0.544	0.156	0.001	0.236	0.852	
Job experience (>10 years vs. ≤10 years)	0.068	0.173	0.694	-0.273	0.409	
Marital status (Married vs. Single)	-0.151	0.148	0.31	-0.443	0.141	
Number of children	1-3 children vs. no children	-0.101	0.165	0.541	-0.425	0.224
	4-6 children vs. no children	-0.151	0.229	0.511	-0.603	0.301
Financial adequacy (Yes vs. No)	-0.098	0.18	0.587	-0.454	0.257	
Education	(Diploma vs. school)	0.236	0.137	0.085	-0.033	0.505
	(Bachelor vs. school)	0.05	0.144	0.728	-0.234	0.335

SE, standard error; CI, confidence interval.

indicating a low desire to quit.

The result also showed reasonable job satisfaction among the participating nurses. Job satisfaction levels among nurses can vary (32,33), but factors such as working conditions, salary, relationships with colleagues, and opportunities for professional development are significant predictors of job satisfaction (34,35). In this study, nurses in Iraq reported being satisfied with their working conditions. Furthermore, the study found that 77.7% of nurses had a CBI score of 50 or higher, indicating moderate nurse burnout. It is common for nurses to experience burnout at some point in their careers. Nurse burnout can be caused by various factors, including unique professional demands of providing compassionate care, working overtime, changing shift schedules, and standing for extended hours. Additionally, systemic health system challenges, such as the growing demand for nursing professionals, can contribute to nurse burnout (36). The high percentage of participating nurses experiencing burnout in this study emphasizes the need for attention to address this issue.

The results revealed an inverse relationship between nurses' intention to leave and their job satisfaction. Extensive research has been conducted on the relationship between the intention to leave and job satisfaction in the nursing field. For instance, a study conducted in Turkey found a negative correlation between job satisfaction and intention to quit among nurses (37). This study suggests that the likelihood of nurses leaving their current employment increases as job satisfaction decreases. Other studies have highlighted the significance of job satisfaction as a mediating factor in the relationship between work context and intention to leave nursing (38). This implies that job satisfaction plays a crucial role in mediating the impact of work context on nurses' intention to leave. It has also been identified as a strong predictor of nurses' intention to leave their current job, explaining a significant portion of the variance in intention to leave (39). Factors such as job demands and lack of support from coworkers are positively associated with job dissatisfaction and intention to leave the job (40).

The study's results indicated that the nurses' intention to leave increased as their level of burnout increased. The relationship between intention to leave and burnout in nursing has been extensively studied and well-established in the literature. Burnout significantly influences nurses' intention to leave the profession, directly and indirectly, through its impact on job satisfaction and professional commitment (41). A cross-sectional study in Iran identified job satisfaction, burnout, and stress influencing nurses' intention to leave the profession (3). Similarly, a cross-sectional study in Switzerland revealed that temporal, physical, emotional, and mental workloads and job stresses were strongly and positively associated with burnout symptoms and thoughts of leaving the profession among health professionals (42). Consequently, there is a significant positive correlation between the intention to

leave the job and all three components of burnout (43). When nurses experience burnout, they often perceive a decline in their job performance, lack motivation, and face a higher risk of personal consequences, job dysfunction, and potential harm to patients (14).

The results showed that women have a greater intention to leave. Additionally, increased working hours can lead to a higher intention among nurses participating in the study to leave. The relationship between female and male nurses and their intention to leave their jobs has been studied in several countries. A study in Iran found no statistically significant difference between males and females regarding the intention to leave (3). In Korea, a study found that male nurses have a higher turnover intention than female nurses (44). Another study showed that female nurses had a higher rate of intending to leave than male nurses (45). The relationship between female and male nurses and their intention to leave their jobs varies depending on the country and specific social and cultural factors.

Results also indicated that working more than 30 hours was associated with higher intention to leave among nurses. Several research articles have examined the relationship between working hours and intention to leave among nurses. One study revealed that among nurses with a solid intention to leave, 12% reported working 60 hours or more per week (46). Another study conducted in Malaysia found that the long duration of shift significantly impacted nurses' perception of job dissatisfaction, intent to have overtime, and intention to leave (47). A high workload contributes to job dissatisfaction and burnout among nurses (48).

The results of this study revealed that the participating nurses had an intention to leave their jobs, and a lack of satisfaction and burnout influenced this intention. Iraqi policymakers must consider these factors when developing policies to retain nurses and reduce turnover. Hospitals should evaluate and address workload issues and provide resources and support to manage workload to prevent burnout and enhance job satisfaction effectively. Additionally, the intention to leave was higher among women, and there was a positive association between working hours and nurses' intention to leave. Therefore, health policies should focus on reducing working hours, increasing the workforce, and providing facilities specifically for women nurses.

Strengths of the study

This study was the first study conducted in Iraq regarding the desire to leave work and its relationship with job satisfaction and job burnout of nurses. Its results can help health policymakers in Iraq to make decisions about reducing the problems of nurses and increasing the quality of care.

Limitation of the study

The COVID-19 pandemic could affect burnout, job

satisfaction, and nurses' intention to leave. However, determining its effect could not be done and was not investigated in this study.

Conclusion

The nurses participating in the study expressed their intention to leave, and this issue was found to be related to their job satisfaction and burnout. By prioritizing job satisfaction, addressing burnout, and implementing strategies to retain nurses, hospitals can improve the overall quality of care and ensure the sustainability of their healthcare systems. Health policymakers in Iraq should consider this issue to retain nurses in the workforce and enhance the quality of nursing care.

Author's Contribution

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Competing Interests

None declared.

Ethical Approval

Ethical approval for this study was granted on August 17, 2022, with the ethical approval code of IR.TUMS.FNM.REC.1401.070 by the Research Ethics Committees of the School of Nursing and Midwifery & Rehabilitation - Tehran University of Medical Sciences (TUMS).

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