

The Correlation Between Job Stress, Fatigue, and Quality of Life among Nurses in Karbala City, Iraq

Nada Abd Ali Mohammed Ali, PhD* Ali Kareem Al-Juboori, PhD**** Zahraa Mahdi Abd Ali, MSc****

ABSTRACT

Job stress and fatigue are occupational safety and health factors that occur very often among the workers in the health sector including health workers. It is possible that nurses who require work tasks, which are not only repetitive but also long working hours can lead to job stress and affect fatigue. The purpose of the research was to find out the relationship between fatigue, work-related stress and quality of life three-way among nurses. The study design was a cross-sectional study with an approach of comparison and that was conducted in the three Karbala hospitals "Imam al-Hasan al-Mujtaba Teaching Hospital, Karbala Children Teaching Hospital and Al-Kafaeel Specialty Hospital". The research with the four instruments: First the demographic, second the The Work-Related Quality of Life Scale, three of them to assess work fatigue in nurses, the (KAUPK2), fourth the DASS (21 scale), which is an indicator of work stress. Data analysis was done using the SPSS program version (26). The most striking existing results point to the existence of a strong positive relationship between the quality of life of nurses (psychological, physical, social, and spiritual) and their fatigue perception and point that (0.211**) is significant. The present research found that stress was positively related to fatigue among nurses. In addition, quality of life versus fatigue posed the strongest positive correlation.

Keywords: Job Stress, Fatigue, Quality of Life, Nurses

INTRODUCTION

Job stress has been one of the unavoidable aspects of working life in contemporary work place and it has its origin in complicated job requirements, large workloads and mounting expectations. Work-related stress is an issue that impacts employees in large numbers, which has a direct bearing on the quality of their lives, health and overall wellbeing¹. In addition to ensuring medical institutions are also under different hospital reviews and accreditation as high-quality services. Also as the numerous provisions of the health insurance system of the government. The excessive workload in medical institutions enhances fatigue of workers at their workplace and creates work overload issues. High work stress exposes employees to fatigue, heavy workloads bring stress and frustration of work, which are also the primary ones cause of high turnover rates². Fatigue refers to the process of losing efficiency of work and losing strength or physical endurance to remain important activities³. There can be persistent work stress that leads to the development of work fatigue⁴. Therefore, nurses are often seeing the evil circle through which one works factor (job stress and fatigue) fosters the other low QoL and vice-versa. Compassion fatigue has the following effects. Multidimensional, which influences their physical and their working performance, mental health along with the quality of care being given, and as the risk of suicide will occur⁵. Job stress induced fatigue may manifest itself physically, psychologically and behaviorally. Physical It causes symptoms such as loss of hair, irregular

eating habits, weight loss caused by aberrant sleep patterns, etc. high blood pressure, headache, muscle pains, dry mouth and throat, stomach indigestion and diarrhea. Stress may result in psychologically in the inability to concentrate and sense of worthlessness or otherwise. Depression, insomnia and social phobia among the manifestations of behavior, there is the ability to be distracted easily impulsivity, aggression, burnout, smoking and substance consumption and absenteeism⁶. QOL is a subjective perception of the surrounding of an individual and a multilevel conceptual need. If a person considers that he or she has achieved physical, psychological and social comfort he or she has high QOL⁷. The general workload of the nurses in the regional hospitals is high. These employees are extremely physically and mentally drained, anxious and have time pressure. Furthermore, they must focus on decision making at work places which is the major source of workload perception. In other research it was also reported that nurses are more probable to have ischemic heart disease under 15 years than otherwise with other practitioners⁸⁻¹¹. Nurses should be urged to adopt behavioral patterns of health promotion and set an example to the patients on self-care and to avoid high-risk workplaces. As stated in the literature, QOL is a conceptual experience in various levels. Along with physiological, psychological and social factors, environmental in QOL analysis factors ought to be taken into account^{12,13}. The purpose of the research was to find out the relationship between fatigue, work-related stress and quality of life three-way among nurses who work in the Karbala holy city in Iraq.

* Psychiatric and Mental Health Department, College of Nursing
Kerbala University.

Email: nada.abdali@uokerbala.edu.iq

** Professor, Psychiatric Nursing Department
College of Nursing, University of Kerbala.

*** Al-Subtain University for Medical Sciences
College of Nursing and Midwifery, Iraq.
Email: ali.al-jburi@uokerbala.edu.iq

**** Assistant Lecturer, Psychiatric Mental Health
Nursing Department, College of Nursing
University of Kerbala, Iraq.
Email: zahraa.abdali@uokerbala.edu.iq

MATERIALS AND METHODS

Study design: The study was a cross-sectional study with an comparative approach and that was carried out between December 2025 and January 2026 . The design has been selected as it is effective in the process of measuring and analyzing the correlation between variables - in this case job stress, of fatigue, and QoL.

Study setting: The sample of the study was nurses in the three Karbala hospitals “Imam al-Hasan al-Mujtaba Teaching Hospital, Karbala Children Teaching Hospital and Al-Kafeel Specialty Hospital”.

Study participants and sampling: The target population included nurses who were employed in three educational hospitals in Karbala and amounted to 754 nurses. Simple random sampling was applied to select the sample. To achieve the right sample size, Lemeshow Formula was applied, and the sample size was 105 nurses who were chosen to fit in the study. The criteria that were considered in the study were the nurses that work within the surgical, internal medicine, pediatric and emergency wards, and those nurses that work on the administrative side and those who work morning shifts were excluded.

Data collection tool and technique: The Work-Related Quality of Life Scale which contains 23 questions was adopted and utilized to determine the perceptions of the nurses regarding quality of life in main sub-factors that explicitly relate to quality of life which include fatigue and work related stress. In order to measure work fatigue in nurses, the)KAUPK2(,17 items questionnaire was employed. This is a questionnaire that evaluates fatigue caused by the sustained work-related stress. At last, the DASS (21 scale) that is a measure of work-related stress and its correlation to fatigue was applied.

Ethical consideration: In one of the studies, the study on the relation

of the three variables; work stress, fatigue and quality of life of patients was conducted using a special questionnaire. It was presented to the Karbala Health Department and the Medical Ethics Committee at the University of Karbala and approval was obtained based on the Order No. 4563 on October 10, 2025.

Statistical analysis: The researchers employed statistical analysis (r), Version 29, comprising the percentage and frequency analysis of each of the demographic factors of the nurses, and relationship analysis between the variables of the job stress, fatigue, and quality of life.

RESULTS & DISCUSSION

As indicated in Table (1), the researchers found that among the participants, the highest age group that undertook the study was the nurses aged (26-30) with a percentage of (39.04%) and the majority of the participants were married (83.805). Concerning the education level of the participants, most of them had a higher diploma in nursing, which constituted 48.60%. The sample that took part in the study consisted of a large number of Al-Kafeel University Teaching Hospital. Lastly, 59.05% or more than half of the participants worked between 12 to 24 hours. This research is corroborated with the other researches performed on the same subject- the correlation between work effort and quality life- where the majority of the participants were aged between 20 and 30 years and were mostly men¹⁴⁻¹⁶. Their results align with other researchers¹⁷⁻²⁰ when it comes to the education level, namely, nurses with a bachelor's or (48.60%) diploma degree, which are much better equipped to cope with stressful situations, as well as training to cope with difficulty situations, including job stress and workload.

Table 2 illustrates the evaluation of work-related stress in nurses who work in teaching hospitals; among the participants, the study

Table 1. Socio- demographic characteristics of nurse (N=105)

Variables	Items	F.	%
Age	21-25 Years	9	8.5%
	26-30 Years	41	39.04%
	31-35 Years	23	21.9%
	36-40 Years	17	16.20%
	41-45 Years	12	11.40%
	45 Years and above	3	2.85%
Marital Status	Single	13	12.40%
	Married	88	83.80%
	Separated	3	2.85%
	Divorced	1	0.95%
Sex	Male	67	63.80%%
	Female	38	36.20%
Education level	Master of Nursing	6	5.70%%
	Bachelors	43	40.95%
	Diploma	51	48.60%
	School of Nursing	5	4.75%
Type of Hospital	Imam al-Hasan al-Mujtaba Hospital	36	34.30%
	Karbala Children Teaching Hospital	28	26.65%
	Al-Kafeel Speciality Hospital	41	39.05%
Duration of Work	8-12 Hours	43	40.95%
	12-24 Hours	62	59.05%

Table 2. Assessing the job stress of the nurses

Job Stress	F.	%
High	12	11.40%
Moderate	35	33.30%
Low	58	55.30%

Table 3. Assessing the fatigue of the nurses

Fatigue	F.	%
High	33	31.40%
Moderate	48	45.70%
Low	24	22.90%

Table 4. Assessing the QoL of the nurses

QoL	F.	%
High	19	18.10%
Moderate	26	24.80%
Low	60	57.10%

Table 5. The relationship between the three variables (Job stress ,fatigue and QoL)

Variables	Job Stress	Fatigue	Quality of Life
Job Stress	0.776		
Fatigue	**0.243	0.682	
Quality of Life	**0.332	***0.211	0.998

findings revealed that over a half of study participants recorded low levels of work-related stress which represented 55.30% of the overall population. This paper aligns with the result of another research that established that nurses who work long hours in emergency rooms and intensive care units are subjected to a form of stress, which causes low performance^{21,22}.

Regarding Table 3, which expresses exposure to stress or fatigue during nursing work, the statistics demonstrated that the assessment of exposure of nurses to fatigue at work was moderate, with 45.70% of the respondents indicating their exposure to fatigue in their work. This research is in line with other studies carried out in different parts of the world that show fatigue to be connected with work stress and most nurses are facing different levels of fatigue based on time constraint or working with others²⁶⁻²⁹.

Table 4 displays the quality of life of nurses, and it is observed that the quality of life among the nurses was low; (57.10%) of the total sample population participated in this. Quality of life also included several dimensions such as social, psychological, physical and spiritual dimensions. This study is aligned with other studies that have indicated the deterioration in the quality of life of nurses, especially the psychological and the social aspect as a result of the excessive levels of stress that nurses employed in the healthcare institutions experience on a daily basis³⁰⁻³².

The final table 5 depicts the connection between the three variables "stress at work, fatigue, and quality of life" in nurses. The findings revealed the existence of a positive relationship between work stress and fatigue among nurses (0.243**), and between work stress and quality of life among hospital nurses (0.332**) is positive. In the meantime, the highest positive correlation was observed between the quality of life and fatigue (0.211***). This table gives a summary of the fact that there is a statistically significant association between the variables.

CONCLUSION

The present research found that stress was positively related to fatigue among nurses and that job stress was positively related to the quality of life among hospital nursing staff. In addition, quality of life versus fatigue posed the strongest positive correlation.

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Competing Interest: None

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