A study of relationship between job stress, quality of working life and turnover intention among hospital employees

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Summary

Job stress is a serious threat to the quality of working life (QWL) of health-care employees and can cause hostility, aggression, absenteeism and turnover, as well as reduced productivity. In addition, job stress among employees affects the quality of health-care services. The purpose of this study was to gain a better understanding of the relationships between job stress and QWL of employees, and their impact on turnover intention at Isfahan hospitals, Iran. The study employed a cross-sectional research design. A validated questionnaire was used to collect data from hospital employees. Overall, 26% of employees graded their job stress high. The major sources of stress were inadequate pay, inequality at work, too much work, staff shortage, lack of recognition and promotion prospects, time pressure, lack of job security and lack of management support. An inverse relationship was found between job stress and QWL among hospital employees. The most important predictor of QWL was disturbance handling, followed by job proud, job security and job stress. Finally, while QWL was negatively associated with turnover intentions, job stress was positively related to employees' intention to quit. Since job stress has a strong correlation with employee QWL and turnover intention, it is very important to apply the right human resources policies to increase employees' QWL and decrease subsequent turnover. This study invites further research to explore, implement and evaluate intervention strategies for prevention of occupational stress and improvement in QWL

Introduction

A high quality of working life (QWL) is critical for health-care organizations to attract and retain qualified, committed and motivated employees. For the last two decades, there has been an increased concern in improving employees' QWL to foster a high-quality corporate culture and high organizational performance. However, there are many barriers to overcome in order to achieve this. Job stress is one of these barriers, which is becoming an increasingly important occupational health problem.

Job stress produces a condition of psychological strain that causes employees to display several negative behavioural reactions. Job stress among health-care professionals may produce physical and psychological disabilities. It is also associated with lower employee morale, motivation and job satisfaction, increased tardiness, high rates of absenteeism and turnover, reduced productivity, decreased quality and quantity of care, and increased costs of health-care services.

Very little research in the literature is available on the links between employees' job stress, QWL and turnover intention. Most of these studies have been based on data collected in Western countries and limited to health-care employees. However, where job stress has been found to be a direct predictor of turnover, QWL has not been analysed. This study aims to overcome this gap by investigating these variables in a group of hospital employees in Iran. There are no known studies related to the links between these subjects in the health-care organizations of the country.

The results of this research will allow a better understanding of the relationship between employees' job stress and their QWL, and their impact on turnover intention. The results also will enhance our understanding of the determinants of these two important employee attitudes. It is anticipated that a better understanding of

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these issues and their relationships, can pinpoint better strategies for recruiting, promotion and training of future hospital employees, particularly in Iran but perhaps in other societies as well.

Literature review

Quality of working life

QWL refers to an employee's satisfaction with working life. It is a multidimensional concept and covers an employee's feelings about various dimensions of his or her work including the job content, work environment, pay and reward systems, training and career development opportunities, participation in decision-making, occupational health and safety, work stress, job security, organizational and interpersonal relations, and relationship between life on and off the job.[1–4]

Improving employees' QWL is a prerequisite to increase their organizational productivity. High QWL organizations achieve better productivity and become highly competitive.[5] Positive results of QWL include reduced absenteeism, lower turnover and improved employee job satisfaction.[6] QWL enhances employees' dignity through job satisfaction and humanizing the work by assigning meaningful jobs, giving opportunities to develop human capacity to perform well, ensuring job security, adequate pay and benefits, and providing safe and healthy working conditions.[1,6,7]

Job stress

Michie[8] defines stress as 'the psychological and physical state that results when an individual's resources are not sufficient to cope with the demands and pressures of the situation'. Similarly, Ullrich and Fitzgerald[9] consider job stress to result from 'an imbalance between the demands of the work place and the individual's ability to cope'. Therefore, job stress as a negative psychological state results from the interaction between a worker and his or her work environment.

Health care is an inherently stressful profession with long working hours, difficult working conditions, dealing with difficult patients, and numerous occupational health and safety hazards. Several researchers have sought to identify sources of stress among health-care employees. Quantitative and qualitative overload coupled with insufficient time, staff shortage, excessive work hours, irregular shift work, burdensome task, danger of work, propagation of diseases from patients, being responsible for patient outcomes, uncertainty concerning treatment of patients, and dealing with death and dying, have been identified as sources of stress in many studies.[10–14]

Other major stress sources include high job demands in relation to the worker's abilities, lack of resources, poor professional relationships with colleagues, inadequate salary, lack of participation in decision making, lack of control over work, too much responsibility and too little authority, unfair human resource practices, poor social support, lack of job security, inadequate job descriptions, poor management styles and type of personality.[15–19]

Job stressors may have harmful effects on an individual's physical, as well as mental and emotional health and well-being. These problems have been associated with increased cardiovascular diseases,[20] musculoskeletal disorders,[21] occupational cancers, respiratory diseases, psychological distress such as sleep disturbance, insomnia, lack of concentration, depression,[10,22] anxiety,[23] intolerance and even suicide.[24]

On the organizational level, high levels of job stress have been linked to low levels of productivity,[25,26] as stress decreases attention, concentration and decision-making skills.[27] Job stress is also negatively related to quality of care, due to loss of compassion for patients and increased incidences of mistakes.[28–30]

Job stress, QWL and intention to leave

Employee turnover is an employee's voluntary withdrawal from the organization.[31] High turnover has been a major issue in health-care organizations. Turnover of skilled staff can incur substantial costs (e.g. costs associated with recruiting and training new staff) for organizations. High staff turnover can also impact negatively on an organization's capacity to meet patient needs and provide quality care.[32,33] Turnover intention is a determinant of actual turnover behaviour. Turnover intention and turnover decisions may be an indicator of low, and decreased QWL.

Some studies found a positive relationship between employees' QWL and their job satisfaction[34] and organizational commitment.[35] Low employees' job satisfaction is a significant predictor of their turnover intention and actual turnover.[36,37] Other empirical studies confirm the important role of organizational commitment in the turnover process.[37,38]

On the other hand, a strong inverse relationship was found between employees' job stress and their job satisfaction.[39,40] Job stress also may lead to increased burnout.[41,42] In addition, some studies found a relationship between *employees*' job stress and their organizational commitment,[43,44] and intentions to leave their workplaces.[41,42,45]

Based on the literature review, a conceptual model aiming to explain turnover intention has been developed. The proposed framework is expressed graphically at Figure 1. There are a variety of job related, interpersonal, organizational and environmental factors influencing a person's level of job stress, QWL, turnover intention and eventually actual turnover decisions. As shown, the relationship between job stress, QWL and employees' outcomes, is moderated by individual and sociocultural factors.

The initial hypothesis is that job stress is negatively related to employees' QWL, which is *positively related* to job satisfaction and organizational commitment, which are negatively related to turnover intention.

Therefore:
Hypothesis 1: The lower the employee's job stress, the greater their quality of working life.

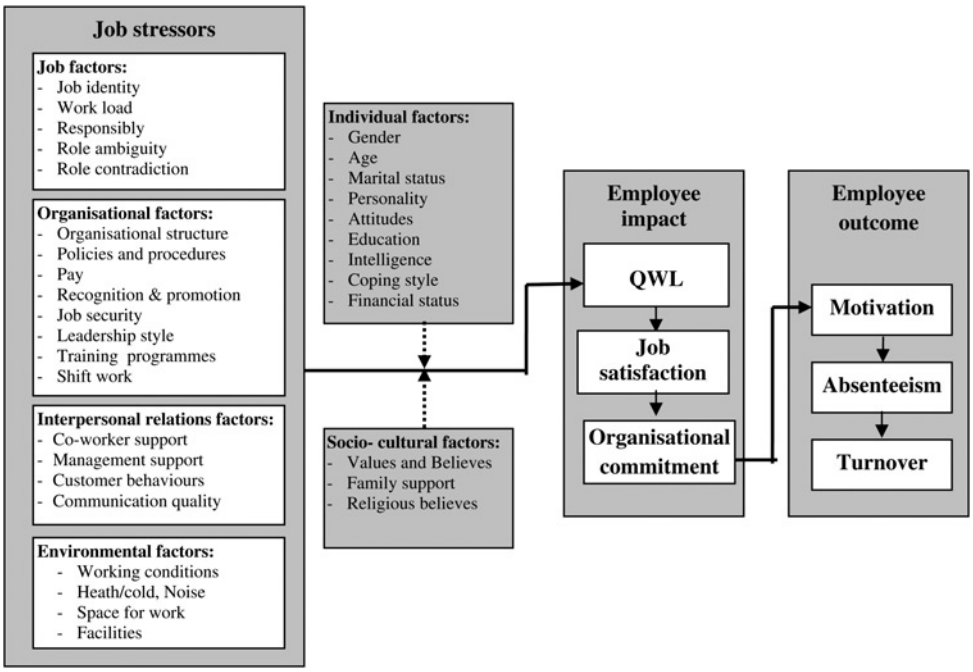

Figure 1 Hypothesized relationship between job stress, quality of working life (QWL) and turnover intention

Hypothesis 2: The greater the employee's quality of working life, the lower their turnover intention.

This study aims to examine and investigate the role of job related, interpersonal, organizational and environmental factors and employee's level of job stress, QWL and turnover intention with a sample of Iranian hospital employees. A cross-national test allows us to evaluate the relations among variables in the model in a real working context.

Methods

Purpose and objectives

The overall aim of this study was to explore the relationship between job stress, QWL and turnover intention among hospital employees in Isfahan, Iran. Doing so, has practical relevance for designing and implementing strategies and interventions to combat job stress, and improve QWL among hospital employees.

Design

The study utilized cross-sectional, descriptive and correlational design, and survey methodology.

Setting

Hospital care in Iran is provided by a network of regional hospitals located in the main cities. This includes government financed Ministry of Health hospitals (MOH), the Social Security organization affiliated hospitals (SSO) and private hospitals. The study was carried out at six hospitals, three MOH (two educational and one non-educational), one SSO and two private hospitals. The six hospitals of the study were selected to represent the three dominant hospital care systems in Iran.

Population and sample

Seven hundred and forty employees were selected for this research after a pilot study by using the following formula ($N = 2411$, $d = 0.03$, $z = 1.96$ and $s = 0.50$). Employees who had less than six months working experience were excluded from this study.

$$n = \frac{Nz^2s^2}{Nd^2 + z^2s^2}$$

Instruments

A survey instrument was designed to measure levels of job stress and QWL among employees of hospitals. The survey questionnaire was divided into three sections.

Section 1: *Demographics*. The questionnaire gathered data relative to participants' (a) age, (b) gender, (c) marital status, (d) years working in the hospital, (e) education level, (f) place of work and (g) employment status.

Section 2: *Job stress*. A literature review was conducted to identify the job stress questions.[11,12,46] From each study, a list of questions was created. Using a Delphi technique, the organizational behaviour and management experts' opinions were used in completing this list. Factor analysis was used to group questions into certain dimensions (Table 1). These included stress related to job, organizational policies, work environment and interpersonal

Table 1 Internal consistency analysis

Constructs	Number of items	Cronbach's alpha
Participation and involvement	4	0.81
Job promotion	4	0.78
Disturbance handling	4	0.82
Communication	4	0.76
Motivation for work	4	0.71
Job security	4	0.72
Wages and salaries	4	0.76
Job proud	4	0.73
Job stress	4	0.77
Overall QWL	**36**	**0.91**
Job related stress	12	0.78
Working environment related stress	3	0.71
Organisational related stress	10	0.88
Interpersonal relations related stress	5	0.81
Overall job stress	**30**	**0.82**

QWL, quality of working life

relations. Respondents rate the intensity of 30 common job stressors on a 5-point scale from 'very low' (weighted 1) to 'very high' (weighted 5) for each of the items.

Section 3: QWL. The items of this questionnaire were gathered again by means of a literature review[47–50] and Delphi technique. In total, nine dimensions of QWL were defined (Table 1). This questionnaire has 36 items (four items in each domain). Ratings were completed on a five-point scale (from very low = 1 to very high = 5). Turnover intention was measured using a single item: to what extent do you want to leave this organization, if you find another job opportunity?'

Pilot study

A pilot study was undertaken to test the relevance and clarity of the questions, and to refine them as needed to avoid misunderstanding. A small sample of 40 randomly selected hospital employees, who were not included in the final sample, received the questionnaires. The questionnaires were found to be understandable and acceptable, and could be completed in about 15 minutes.

Validation of research instruments

In this research, four job stress constructs and nine QWL constructs have content validity, since they were derived from an extensive review of the literature, and evaluations by a panel of academics and practitioners (content and face validity).

Reliability of research instruments

Cronbach's alpha was computed for each scale using the SPSS-11 statistical package. The reliability coefficient was 0.82 for job stress questionnaire, and 0.91 for QWL questionnaire (Table 1).

Acceptability of research instruments

Acceptability was assessed in terms of refusal rates, and rates of missing responses. A total of 608 hospital employees filled out the questionnaires (82.2%). Missing data analysis showed that 91.9% respondents had no missing values for the entire set of 66 items.

Ethical consideration

Ethical approval of the study was gained from the Isfahan Medical University's Research Ethics Committee. The main ethical issues involved in this study were respondents' rights to self-determination, anonymity and confidentiality. For this reason, respondents were given full information on the nature of the study through a letter which was distributed with the questionnaire. The questionnaire data were kept confidentially and respondents were assured of their right to withdraw at any time. The names of the respondents were not recorded and so all the data were rendered anonymous.

Data collection

The sampling method was stratified random sampling. Data collection was undertaken in September 2008. Informed consent was obtained from all subjects following receipt of information on the purpose of the study, assurances of anonymity and confidentiality.

Data analysis

All data were analysed using the statistical package for the Social Sciences (SPSS 11). In order to normalize the Likert scale on 1–5 scales for each domain of job stress and QWL questionnaires, the sum of raw scores of items in each domain was divided by the numbers of items in each domain; for overall job stress and QWL, sum of raw scores of items were divided by 30 and 36 respectively.

The possible justified scores were varied between 1 and 5. Scores of 2 or lower on the total scale indicate very low, scores between 2 and 2.75 indicate low, scores between 2.76 and 3.50 indicate moderate, scores between 3.51 and 4.25 indicate high and scores of 4.26 or higher indicate very high job stress or QWL.

The differences between groups were tested with the χ^2, in-dependent *T*-test, Mann–Whitney and Kruskal Wallis tests. Then, the relationship between job stress and QWL was investigated by calculating Pearson's correlation coefficients. Regression analysis was used to identify the most important predictor domains in job stress and QWL. The significance level was set at $P < 0.05$.

Results

Characteristics of the respondents

The characteristics of the sample are summarized in Table 2. More than half of the respondents were women (54.3%) and over four-fifths (80.6%) were married. Most (65.4%) had at least a college degree. More than half of

Table 2 Percentage of participants and the mean score of their job stress and QWL

Demographic parameters	Percent of sample	Job stress		QWL	
		Mean	SD	Mean	SD
Gender					
Male	45.7	3.1	0.65	2.6	0.51
Female	54.3	3.18	0.68	2.49	0.52
Marital status					
Single	19.4	3.21	0.6	2.47	0.52
Married	80.6	3.12	0.69	2.56	0.51
Education					
Illiterate	0.70	2.67	0.58	2.53	0.44
Under diploma	14	2.85	0.53	2.66	0.47
Diploma	19.90	3.07	0.58	2.62	0.43
Post diploma	15.80	3.16	0.60	2.46	0.49
Bachelor's degree	45.40	3.24	0.69	2.50	0.48
Master's degree or GP	3.60	3.28	0.68	2.46	0.56
Doctoral degree	0.70	3.31	0.52	2.33	0.41
Area of work					
Managerial and clerical	12	2.97	0.62	2.74	0.44
Ancillary or logistic	19.4	3.01	0.60	2.65	0.45
Diagnostic	17.1	3.11	0.60	2.53	0.55
Therapeutic	51.5	3.24	0.71	2.46	0.53
Age (years)					
20–30	34.4	3.15	0.67	2.49	0.52
31–40	32.6	3.2	0.71	2.57	0.53
41–50	29.1	3.12	0.63	2.55	0.46
>50	3.9	2.73	0.58	2.64	0.57
Tenure (years)					
1–5	32.9	3.16	0.7	2.51	0.54
6–10	26	3.19	0.71	2.54	0.54
11–15	15.1	3.14	0.68	2.58	0.56
16–20	11.2	2.11	0.65	2.52	0.43
21–25	7.6	3.09	0.59	2.5	0.5
26–30	6.9	3.08	0.54	2.63	0.48
>30	0.3	2.82	0.6	2.76	0.62
Type of employment					
Contract	51.3	3.2	0.7	2.58	0.53
Permanent	48.7	3.08	0.66	2.5	0.51
Received wages					
<30,00,000 RLS	58.4	3.16	0.66	2.48	0.52
>30,00,000 RLS	41.6	3.12	0.69	2.63	0.51

QWL, quality of working life

the employees (58.4%) had incomes of less than 3,000,000 Rials ($US 300, poverty line in Iran in 2008). In total, 48.7% of employees had permanent employment.

The age of hospital employees ranged from 21 to 60, with an average age of 34.53 ± 8.28 (mean ± SD). Over half (67%) are less than 40 years old. Employees on average had 10.80 years of working experiences, respectively. Employees' working experience is fairly evenly distributed across five-year increments, with those having five or less years of experience being the largest group (32.9%), and those with 26 or more years being the smallest (7.2%).

Quality of working life

The mean score of employees QWL was 2.53 on a 5-point scale (low) (Table 3). The overall scores ranged from 1.47 to 4.45 (possible range 1–5). QWL was very low, low, medium, high and very high in 16.1%, 53.9%, 25.2%, 4.6% and 0.2% of hospital employees, respectively.

In correlation analysis between QWL and its nine dimensions, disturbance handling, job proud, job security, job stress, and participation and involvement, respectively, had the highest effect on employees' QWL.

Organizational factors explained the largest amount of the variance in employees' QWL (26.2%), followed by individual factors such as education and marital status. There was strong correlation between QWL of employees and their gender, organizational position and education level ($P < 0.05$). A statistical significant association was seen between employees job stress and their area of work or specialty ($P < 0.001$). Employee's job stress in therapeutic and diagnostic departments was higher than ancillary and administrative departments.

The Kruskal Wallis test revealed that the total job stress scores differed among six hospitals ($\chi^2 = 22.195$, df = 5, $P = 0.00$). Employees' job stress in public hospitals was less than private and semi-public hospitals (Table 3). The differences between values of employees job stress in these hospitals were statistically significant ($P < 0.001$). Employees' QWL in private hospitals was less than public and semi-public hospitals. However, the differences between values of employees QWL in these hospitals were not statistically significant ($P > 0.05$).

Supervisors registered a statistically significant higher level of QWL than employees ($t = 21.998$ and $P = 0.043$). Employees were more likely than managers to be dissatisfied with their promotion, job proud, motivation for work, and involvement in hospital management activities (Table 4).

Job stress

The mean score of employees' job stress was 3.14 compared with the possible range from 1.10 to 4.63 (Table 5). Overall, 26% of hospital employees reported their job was very or extremely stressful. The major sources of job stress were inadequate pay (3.79), inequality at work (3.75), insufficient regular breaks at work (3.71), too much work (3.67), staff shortages (3.62), lack of recognition and promotion prospects (3.61), time pressure (3.60), lack of job security (3.58), and lack of management support (3.48).

The Kruskal Wallis test revealed that the total job stress scores differed among six hospitals ($\chi^2 = 22.195$, df = 5, $P = 0.00$). Employees' job stress in public hospitals was less than private and semi-public hospitals (Table 5). The differences between values of employees job stress in these hospitals were statistically significant ($P < 0.001$).

Employee's job stress in therapeutic and diagnostic departments was higher than ancillary and administrative departments. A statistically significant association was seen between employees job stress and their area of work or specialty ($P < 0.001$). Nurses and physicians reported the most job stress relative to other hospital staff. The mean score of employees' job stress in the Psychiatry

Table 3 The mean of employees' QWL in different hospitals (on a 5-point scale)

	Public hospital		Semi-public hospital		Private hospital		Overall	
QWL dimensions	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Participation and involvement	2.38	0.80	2.2	0.70	2.28	0.84	2.32	0.80
Job promotion	2.23	0.81	2.13	0.69	2.07	0.71	2.17	0.76
Disturbance handling	2.34	0.71	2.16	0.6	2.18	0.73	2.27	0.70
Communication	2.81	0.84	2.62	0.79	2.88	0.83	2.80	0.76
Motivation for work	3.25	0.74	3.36	0.75	3.31	0.81	3.28	0.67
Job security	2.77	0.79	2.59	0.67	2.55	0.80	2.68	0.68
Wages and salaries	1.97	0.76	2.34	0.81	1.88	0.73	2.01	0.70
Job proud	2.63	0.71	2.84	0.68	2.57	0.72	2.65	0.71
Job stress	2.71	0.89	2.76	0.89	2.49	0.92	2.66	0.89
Overall QWL	2.56	0.53	2.55	0.45	2.47	0.53	2.53	0.52

QWL, quality of working life

Table 4 The mean of employees and supervisors' QWL (on a 5-point scale)

	Supervisors		Employees		*P* value	Results
QWL dimensions	Mean	SD	Mean	SD		
Participation and involvement	2.48	0.84	2.28	0.78	0.001	Sig.
Job promotion	2.39	0.77	2.12	0.75	0.001	Sig.
Disturbance handling	2.49	0.76	2.22	0.69	0.002	Sig.
Communication	2.91	0.90	2.78	0.84	0.062	Not Sig.
Motivation for work	3.46	0.81	3.24	0.75	0.001	Sig.
Job security	2.85	0.90	2.64	0.76	0.030	Sig.
Wages and salaries	2.10	0.84	1.99	0.79	0.158	Not Sig.
Job proud	2.86	0.65	2.60	0.72	0.006	Sig.
Job stress	2.71	0.94	2.65	0.91	0.70	Not Sig.
Overall QWL	2.69	0.53	2.50	0.52	0.001	Sig.

QWL, quality of working life

Table 5 The mean of employees' job stress in different hospitals (On a 5-point scale)

	Public hospitals		Semi-Public hospitals		Private hospitals		Over all	
Job stress dimensions	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Job related stress	3.05	0.79	3.36	0.81	3.13	0.77	3.12	0.73
Interpersonal relations	2.92	0.94	3.11	0.94	2.72	0.83	3.06	0.92
Working environment	3.15	0.96	3.25	0.93	3.26	0.98	3.20	0.83
Organisational policies	3.06	0.76	3.38	0.65	3.23	0.70	3.16	0.73
Overall Job stress	3.07	0.70	3.3	0.60	3.15	0.66	3.14	0.67

Ward (4.07), internal medicine (3.91), orthopaedics (3.62), surgery (3.55), obstetrics (3.53), admission (3.44), ICU (3.43), paediatrics (3.42), cardiology (3.35), operation room (3.38), accident and casualty department (3.27), physiotherapy (3.26), CCU (3.21) and laboratory department (3.03) were high. Employees experienced low job stress in non-specialized and clinical environments, such as library (2.32), secretariat (2.73) and administrative office (2.82).

As Table 6 shows, employees reported more job stress than supervisors. However, the differences between values were not statistically significant ($T = -0.137$ and $P = 0.891$).

Employees stress ratings were associated with several demographic variables. There was strong correlation between job stress and gender ($P = 0.001$), age ($r = -.131$ and $P = 0.002$), years of work experiences ($r = -.110$ and $P = 0.008$), graduation level ($r = -.125$ and $P = 0.002$), place of work ($P = 0.001$) and type of employment ($P = 0.04$).

There is a meaningful difference in stress among various ages. Job stress was higher in younger employees.

Table 6 The mean of employees and supervisors' Job stress (on a 5-point scale)

	Supervisors		Employees			Results
Job stress dimensions	Mean	SD	Mean	SD	*P*-value	Mean
Job related stress	3.11	0.82	3.13	0.78	.76	Not Sig.
Interpersonal relations	3.20	0.89	3.15	0.92	.29	Not Sig.
Working environment	2.99	0.92	3.08	0.95	.90	Not Sig.
Organisational policies	3.18	0.65	3.20	0.74	.61	Not Sig.
Overall Job stress	3.12	0.68	3.15	0.68	.73	Not Sig.

Job stress peaked at ages 31–40, with about 30.3% of hospital personnel in this age range reporting high job stress. Older employees with more years of experience had less job stress than their younger colleagues. Regarding marital status, although the average job stress among single employees was higher than the married ones, Mann-Whitney test did not show a meaningful difference ($P = 0.665$).

In order to determine the main factors that cause stress, the relationship between total job stress and job stressors was analysed. Calculations of Spearmen's ratios revealed the strongest correlation between total job stress and job stressors related to organizational policies, duty, human relations, physical environment and role. As Table 7 shows, this relationship was statistically significant in all of cases ($P < 0.001$).

Correlation analysis revealed that job stressors such as low decision latitude (0.680), being given responsibility without the authority to take decisions (0.666), lack of job security (0.635), bullying and harassment behaviour from managers (0.631), inequality at work (0.623), lack of management support (0.616), inadequate equipment (0.615), bullying and harassment behaviour from co-workers (0.608), conflicting demands (0.590), job identity (0.542), lack of recognition and promotion prospects (0.541), role ambiguity (0.537), bullying and harassment behaviour from customers (0.494), role contradiction (0.479), and policies and regulations (0.329), had more effect on employees' job stress.

Multiple linear regression analysis was used to assess the impact of independent organizational, job-related and individual variables upon self-reported stress (dependent variable). Job-related factors explained the largest amount of the variance in employee job stress (80.2%), followed by organizational factors, interpersonal relations and working environment. Regards to job-related factors, time pressure explained the largest amount of the variance, followed by conflicting demands, needing more conscious for doing tasks (quality burden), lack of coordination between the job and employee abilities and too much responsibility. Employees' characteristics explained a smaller amount of variation in job stress.

Job stress, QWL and turnover intention

As can be seen in Table 7, there is a negative correlation between QWL and job stress ($rs = -0.594$, $P < 0.01$), indicating that those employees who are suffering from more job stress have less QWL. The regression analysis results show that we could expect a decrease of 0.233 in the QWL score for every unit increase in job stress, assuming that all other variables in the model are held constant. The data demonstrate strong support for the research hypothesis one.

As expected, correlation analysis revealed significant relationships among facets of QWL and stress-related factors. Of the 78 relationships between facets of QWL and stress-related factors measured in this study, 77 were significant at the 0.01 level, and one was significant at the 0.05 level.

Furthermore, correlation analysis revealed the correlation between employees' QWL and job stress dimensions as organizational policies, interpersonal relations, job-related and working environment. On the other hand, job security, disturbance handling, communication, promotion and wages had more effect on employees' job stress.

Correlation analysis revealed that job stressors such as management style (-0.540), inequality at work (-0.533), lack of promotion prospects (-0.492), bullying and harassment behaviour from managers (-0.453), changes imposed from managers (-0.436), lack of management support (-0.430), lack job security (-0.418), inadequate pay (-0.416), low decision latitude (-0.407) and inappropriate working conditions (-0.386), had more effect on employees' QWL.

When asked whether they would leave their organization if they find another job opportunity, 40.4% of hospital employees responded that they would leave their organization if they find another job opportunity. QWL was negatively ($r = -0.438$ and $P < 0.001$) and job stress was positively ($r = 0.254$ and $P < 0.001$) associated with turnover intentions. The findings support the study's second research hypothesis.

QWL was a major contributor to employee turnover intention. Regression analysis of data indicated that predictors of intent to leave were low motivation, organizational policies, job stress, poor communication and lack of job security.

Significant relationships were found between employees' turnover intention and their age ($P < 0.001$), tenure ($P < 0.001$), were marital status ($P = 0.030$) and type of employment ($P = 0.046$). An inverse relationship between employees' education level and turnover intention was found in this study. Employees in lower educational background were less satisfied with pay and more

Table 7 Inter–correlations between job stress and QWL

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Overall QWL	–															
2. Participation and involvement	.769**	–														
3. Job promotion	.771**	.575**	–													
4. Disturbance handling	.707**	.590**	.667**	–												
5. Communication	.668**	.562**	.472**	.483**	–											
6. Motivation for work	.489**	.213**	.296**	.275**	.241**	–										
7. Job security	.712**	.534**	.470**	.424**	.475**	.235**	–									
8. Wages and salaries	.611**	.429**	.452**	.282**	.218**	.238**	.388**	–								
9. Job proud	.691**	.448**	.474**	.438**	.362**	.416**	.336**	.453**	–							
10. Job stress	−.466**	−.277**	−.198**	−.188**	−.106**	−.111**	−.313**	−.177**	−.149**	–						
11. Over all Job stress	−.594**	−.459**	−.450**	−.456**	−.455**	−.176**	−.525**	−.348**	−.304**	.302**	–					
12. Stress-related to the Job	−.392**	−.361**	−.273**	−.374**	−.383**	−.103*	−.329**	−.152**	−.162**	.147**	.776**	–				
13. Stress-related to human relations	−.541**	−.412**	−.424**	−.367**	−.461**	−.151**	−.497**	−.364**	−.271**	.223**	.835**	.607**	–			
14. Stress-related to work environment	−.405**	−.287**	−.265**	−.266**	−.337**	−.089*	−.363**	−.250**	−.241**	.255**	.715**	.535**	.547**	–		
15. Stress-related to organisational policies	−.587**	−.424**	−.495**	−.423**	−.345**	−.179**	−.516**	−.390**	−.337**	.327**	.869**	.620**	.677**	.531**	–	
16. Intention to leave	−.438**	−.212**	−.268**	−.214**	−.150**	−.739**	−.273**	−.259**	−.308**	.184**	.254**	.187**	.155**	.113**	.246**	–
17. Recommending hospital to others for work	.544**	.334**	.467**	.338**	.294**	.332**	.294**	.481**	.704**	−.171**	−.263**	−.146**	−.274**	−.225**	−.286**	−.292**

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

likely to leave. Temporary and casual employees were more likely to leave their hospitals than full-time permanent staff.

Discussion

Iran's health system is passing through a period of transformation. Since the early 2000s, the Ministry of Health has been working on a comprehensive health-care reform programme especially in hospitals. One of the aims of this reform programme is to strengthen health-care management. However, human resource management is still not what it should be, and the employee QWL has not been given as much attention.

This study set out to assess the degree of job stress and QWL among Iranian hospital employees. From the results of this study, the job stress level of hospital employees can be seen to be classed in a medium scale, mainly because of inadequate pay, inequality at work, excessive workload, inadequate staffing levels, poor promotion opportunities, lack of job security and lack of management support. Job stress was found negatively related to employees' quality of working life and positively related to turnover intention.

The findings revealed that organizational policies had the strongest correlation with overall employee job stress. Organizational policies such as benefit and promotion programmes and work equality, and organizational strategies such as downsizing, restructuring and re-engineering result in a change in the nature of work for many employees and eventually their lay off or relocation. Thus, hospital policies and strategies should be changed to reduce organizational sources of stress.

Inadequate and unfair pay seem to be major sources of distress for Iranian hospital employees. Lack of benefit and reward is an increasing source of frustration, and contributes to employees' turnover. Employees cannot concentrate on their job effectively until their basic needs are met. In addition, poor communication, tensions between employees and their colleagues, managers or clients and lack of support from managers or co-workers, are important predictors of job stress among Iranian hospital employees. Unpleasant or dangerous working conditions can also cause stress for employees. Varied work schedules and having less control over work and related duties can even make the job more stressful.

Too much work and lack of adequate staff to cover duties, were the most significant associated factors of stress for Iranian hospital employees. High job demands (quantity and quality burden) were also predictors of employees' turnover intention. An excessive workload increases job tension and decreases job satisfaction, which in turn, increases the likelihood of turnover.[51–53] Inadequate staffing also inversely influences the quality of provided health-care services and patient outcomes.[54,55]

Unfairness and inequality at work were also reported as main job stressors among hospital employees in this study. Findings from the study showed that treating people unfairly, could result in a series of negative or stress-related reactions that increase the risk of poor physical and mental health. These findings are consistent with those findings of McCann *et al.*[17] and Wilkinson.[56]

The findings revealed that organizational policies had the strongest correlation with overall employee job stress. Organizational policies and strategies such as downsizing, restructuring, merger and re-engineering result in a change in the nature of work for many employees and eventually their lay off or relocation. Thus, hospital policies and procedures should be changed to reduce organizational sources of stress.

Stress scores were significantly higher for employees in therapeutic and diagnostic departments. Nurses and physicians in psychiatric, internal medicine, orthopaedics, surgery and obstetrics wards, experienced more job stress and were more likely to leave their positions than did staff in other departments. This findings support the assumption that nursing and medicine are stressful occupations and nurses and physicians are more prone to a high degree of stress and burnout than other staff in health-care settings. Job stressors in nursing and medicine include excessive workloads, irregular and working hours, dealing with patients and their families, uncertainty concerning treatment of sick patients, conflict with other colleagues, dealing with death and dying people, and concerns about technical knowledge and skills.

Employees' job stress in semi-public hospitals was higher than private and public hospitals mainly because of the duty-related stressors. Semi-public hospitals provide free health-care services to social security insured patients. Consequently, the demand for services in these hospitals is very high. On the other hand, the findings show that all four dimensions of job stress are interrelated. Therefore, it can be concluded that an increase in duty or environment-related job stress, can result in more role related and interpersonal tensions.

Hospital employees reported low levels of QWL in this study. The results showed that disturbance handling, job security, promotion, participation and wages are key factors in employees' QWL. Most of employees were dissatisfied with these five dimensions of QWL. Dargahi and Sharifi Yazdi[57] in their study in hospital clinical laboratories in Iran also found that employees were more dissatisfied with their career prospects, pay, benefit and working conditions.

Job insecurity was found in this study to be a factor that negatively influences QWL of hospital employees. Job insecurity threatens the private sector more than the public sector. Since private hospitals are profit oriented, there is redundancy resulting from over staffing. This is in contradiction with the findings of Ogunjimi *et al.*[58] study.

The current study showed that promotion opportunities were another significant predictor of job stress and QWL among study participants. Unfair promotion policies, as perceived by employees, may negatively affect their QWL. Employees should be considered as developing human assets. Life-long learning, professional growth and advancement promote employees' job satisfaction, and enable continued provision of high-quality health-care services.[59,60]

Dissatisfaction with promotion opportunities has been shown to have a stronger impact on employees' turnover.[33,61]

It is therefore recommended that managers provide equal promotion opportunities for employees. Management should put in place localization programmes and initiatives that would promote employees to key positions, and increase their involvement in decision-making. Such steps will help to increase the level of QWL. If management wants to improve QWL of employees, they must be more supportive and give employees opportunities for advancement.

This study revealed a reverse relationship between job stress and QWL. Improving employees' QWL will ultimately lead to increased job satisfaction and reduced job stress and turnover intention among employees. It is recommended that coping strategies such as stress management training and employee assistance programmes should be used to improve employees' morale.

Although recruiting more staff, wages and fringe benefits increasingly offset hospital staff dissatisfaction in the short term, improving employees' QWL would have a more long-term approach to improving hospital staff retention and reducing turnover. However, the success of QWL initiatives depend on organizational culture, and partnership between management and employees.

The goal of QWL programmes is to improve the work design and requirements, the working conditions and environment, and organizational effectiveness. It aims to create more involving, satisfying and effective jobs, and a better work environment for employees at all levels of the organization. A decentralized organizational structure, a commitment to flexible working hours, an emphasis on professional autonomy, and improved communication between management and employees, result in higher levels of employee job satisfaction and lower turnover.

Conclusion and implications for management

In a cross-sectional study, the levels of employees' job stress and QWL, and factors contributing to them among a group of hospital employees in Iranian hospitals, were examined. Hospital employees reported low levels of QWL and moderate levels of job-related stress. In addition, the relationship between job stress and QWL was explored. Findings revealed a negative relationship between job stress and QWL. Employees who experienced more job stress, had lower levels of QWL.

Factors that may influence the level of employees' job stress are demographic variables of gender, age, years of work experiences, graduation level, place of work, type of employment, type of hospital, employees' QWL and its nine dimensions and the four subscales of job stress, as indicated in Table 1. Job stressors related to job itself, organizational policies, interpersonal relations and working environment were the best predictors of job stress among hospitals' employees.

There are several practical implications that can be derived from our findings. Since job stress is correlated with employees QWL, it is very important to reduce it by applying the right human resources polices. The most common job stressors for hospital employees found in this study were inadequate pay, unfairness and inequality at work, too much work, staff shortages, lack of recognition and promotion prospects, time pressure, lack of job security, and lack of management support.

Hospital managers must deal with these and other stressors, and manage them more constructively; in a way that positive consequences will be maintained, and negative ones will be eliminated. Besides, there are many strategies for coping with job stress that employees should adopt to cope with stress easily and effectively, and improve their QWL.

The results of this study suggest that management might be able to decrease the level of job stress in the organization by increasing employees' satisfaction with policies, work conditions, equal compensation and equal promotion. Changes in management systems and structure, senior management behaviour, and organizational variables; such as benefit scales, employee involvement, and participation in policy development and work environment, all demonstrate to staff what could be done to increase employees QWL and decrease subsequent turnover.

Jobs should be designed in ways that provide meaning, motivation and opportunities for employees to use their skills. Workload should be in line with employees' capabilities and resources. Employees' roles and responsibilities should be clearly defined. They should be given opportunities to participate in decisions and actions affecting their jobs, to resolve stress-producing problems. Workplace discrimination should be minimized and preferable eliminated.

Limitations and implications for future research

This study contributed to understanding the relationships between occupational stress, employee QWL and turnover intention, by providing insights into what stress-related factors impacted specific facets of QWL among a sample of hospital employees. Furthermore, this study identified several variables that appeared to be related to employees' QWL, occupational stress and turnover intention.

However, some caution is needed in interpreting the results. In this study, employees' participation was voluntary and was conducted at six hospitals in Isfahan city, Iran; an Islamic country. Therefore, the findings should be interpreted with caution since the participants were hospital employees from a particular province of Iran and do not represent all hospital employees in this country. More research in this area is needed before generalizing the study findings.

Another potential limitation of this study includes the cross-sectional nature of the design, which does not allow for an assessment of impact or cause and effect. Perhaps

most valuable, would be prospective cohort of hospital employees who are able to detect changes in employees' job stress and QWL. If these studies also incorporated interviews with subjects, this would increase our understanding of the factors, which influence job stress and QWL. Future research also needs to explore the effects of variables that were not measured in the current study, which can also directly or indirectly influence feelings of job stress and QWL, such as internal organizational climate and external environmental factors.

Furthermore, this study may serve as a foundation for future studies in different countries, on a larger scale. More studies which involve hospital employees from other countries, would enrich the literature on hospital employees' job stress and QWL, which could in turn generate strategies to improve the global retention of new hospital managers and employees.

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