An - Najah Univ. J. Res. (Humanities). Vol. 25(7), 2011

Exploring the Relationship between Occupational Stress and Organizational Commitment among Nurses in Selected Jordanian Hospitals

استكشاف العلاقة بين الضغوط المهنية والالتزام التنظيمي لدى الممرضين في مستشفيات أردنية مختارة

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Received: (22/2/2010), Accepted: (26/7/2011)

Abstract

The present study aims at exploring the relationship between occupational stress and organizational commitment among nurses in selected Jordanian hospitals, and measuring the level of occupational stress and the level of organizational commitment among nurses in selected Jordanian hospitals in Amman. The research population consisted of two governmental teaching hospitals, and a systematic random sample of 150 nursing personnel was selected. A self-administered questionnaire was used for collecting data for this study. The questionnaire was developed by the researcher based on pertinent literature. It includes two main parts; one of them is the occupational stress (sources of work pressure, health information, and coping strategies), the other one is the organizational commitment. The findings of the present study revealed that occupational stress is present among thirty percent of the nurses; and forty percent of the nurses had organizational commitment. The study also reveals that the organizational commitment is statistically significantly negatively correlated to occupational stress ($P = 0.025$, $r = -0.18$). Based on the previous findings relevant recommendations were made.

Keywords: Occupational stress, Organizational commitment, coping strategies, Physical Health, Sources of work pressure.

ملخص

هدفت هذه الدراسة إلى استكشاف العلاقة بين الضغوط المهنية والالتزام التنظيمي، بالإضافة إلى قياس مستوى الضغوط المهنية ومستوى الالتزام التنظيمي لدى الممرضين في المستشفيات الأردنية في مدينة عمان. وقد تألف مجتمع الدراسة من مستشفيين حكوميين تعليميين، وتم اختيار عينة عشوائية منتظمة تألفت من (١٥٠) مبحوثا. واعتمدت الإستبانة كأداة لجمع بيانات الدراسة ، حيث طورت الإستبانة بالاعتماد على الأدبيات الإدارية، وقد احتوت على جزأين رئيسيين: تناول احدهما الضغوط المهنية (مصادر ضغط العمل، والمعلومات الصحية، واستراتيجيات التكيف) ، في حين تناول الجزء الأخر الالتزام التنظيمي. وأظهرت نتائج الدراسة أن هناك ضغوط مهنية لدى (٣٠%) من الممرضين، كما أن (٤٠%) من الممرضين لديهم التزام تنظيمي، كما أظهرت الدراسة أن هناك علاقة عكسية ضعيفة ذات دلالة إحصائية بين الالتزام التنظيمي والضغوط المهنية($P=0.025$, $r= -0.18$). وبناء على النتائج قدمت الدراسة عددا من التوصيات ذات العلاقة بموضوعها.

Introduction

Nursing is generally perceived as a stressful and demanding profession. It is both physically and psychologically challenging. There is substantial evidence that nursing is a stressful occupation, which can lead to disruptions in both psychological and physical health and can impair professional practice (Huber, 2000). Stress is a pervasive and insidious part of every day life and in the work environment. It is a common theme in nursing (Rogers, 2003). There is a growing body of evidence, which validate that health care providers particularly nurses experience stress in the course of carrying out their work.

Occupational stress is defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, responses, or need of the worker (National Institutes for Occupational Safety and Health, 1999). Work place stress or job stress is defined as any characteristic of the job environment that poses a threat to the individual, either excessive demands or insufficient supplies to meet the need and lead to a rising tension in a person (Hinshaw, 1993; Edwards, 1995).

Occupational stress exists in all professions. But nursing appears to be particularly stressful. In a review of over 100 occupations, using

stress rating scale to compare work pressures, nursing had one of the highest scores among the service occupations (Thomas, 2002). Organizational commitment is characterized by a number of desirable outcomes including a strong belief in and acceptance of the goal and values of the organization, a willingness to work hard for the organization, and a desire to maintain membership in the organization. Organizational commitment has been found to be positively correlated with various organizational goals (Mowday, Steers and Porter, 1980).

Staff commitment is an important ingredient to organizational success. Mathieu and Zajac (1990) have examined the impact of stress on individuals with different degrees of commitment, and found that individuals who have a high degree of commitment to their organizations experience greater amounts of stress than those who are less committed.

Alternatively, other researchers as Kobasa and Antosrovsky (1998) have argued that organizational commitment protects the individual from negative outcomes as stress. Job stress and its more severe forms are increasingly prevalent in the work environment. With the rapid pace of change and the ever-increasing demands on our times, stress becomes a major factor that most employees have to content with (Srinivas, 1991). Previous studies have demonstrated a strong relationship between occupational stress and organizational commitment (Lee and Henderson, 1996; Kobasa and Antrosrusky, 1998). Therefore, exploring the relation between occupational stress and organizational commitment is important in improving the quality of health care through investigating the factors that affect both. Hence, the present study has attempted to explore the relationship between occupational stresses on organizational commitment among nurses in selected Jordanian hospitals.

Problem statement

What is the nature of the relationship between occupational stress and organizational commitment among nurses in selected Jordanian hospitals?

Study reason

As the analysis of scientific literature (Reichhled,2006, etc.) showed, the level of organizational commitment depends on the number of factors. These are microclimate, relationship with co-workers, teamwork, pay, involvement, work conditions, age, marital status, work experience of nurses. It is important to mention that most of these factors have influence on the level of nurse's occupational stress as well. Therefore naturally the question if there is relation between those two concepts (occupational stress and organizational commitment) arises. Further in this study the question if there is the correlation between the level of organizational commitment and the level of occupational stress of nurses is examined.

A correlation, cross-sectional study design was utilized to investigate the research questions. The relationships among occupational stress and organizational commitment were explored. The effects of personal characteristics such as age, gender, marital status, nursing education, nursing experience, job position, and current job experience, occupational stress and organizational commitment were also explored.

Research questions

The study is built on further existing research by examining the relationship between occupational stress and organizational commitment among nurses in selected Jordanian hospitals. Guiding this study are three research sub-questions:

a. What is the nature of the relationship between sources of work stress and organizational commitment among nurses in selected Jordanian hospitals?

b. What is the nature of the relationship between coping strategies and organizational commitment among nurses in selected Jordanian hospitals?

c. What is the nature of the relationship between physical health and organizational commitment among nurses in selected Jordanian hospitals?

Study objectives

This study aims at exploring the relationship between occupational stress and organizational commitment among nurses in selected Jordanian hospitals. The specific aims of the study were to:

1. Examine the relationship between occupational stress and organizational commitment among nurses at selected Jordanian hospitals.
2. Establish whether nurses’ socio-demographics and work characteristics influence occupational stress and organizational commitment among nurses Jordanian hospitals.
3. Examine whether there is a difference in levels of occupational stress and organizational commitment among nurses.

Significance of the study

Studies of potential sources and effects of occupational stress have been conducted among nurses in the United States and Europe. However, stress is a complex phenomenon which results from interaction between an individual and the environment in which the person exists. Thus, significant differences in occupational stress among nurses may exist due to different work settings and levels of social support (Evans, 2002).

It was further asserted that occupational stress is a function of local forces, pressures and cultures that require customized interventions (Muscroft & Hicks, 1998), therefore, this study examined associations between occupational stress and organizational commitment among nurses in Jordanian hospitals. The results of this study may be used to guide policy makers and nurse managers to develop a stress prevention or management model specific to the Jordanian situation. Prevention and management of occupational stress among nurses will not only improve their health but may improve organizational commitment and nursing

care, which will in turn reduce costs for the healthcare organizations as well as individuals.

Literature review

This part provides a review of literature related to occupational stress and organizational commitment. The first section of the review is related to sources and effects of occupational stress. The second section includes a review of organizational commitment.

Occupational stress

Occupational Stress (OS) among health workers has been a matter of much scientific inquiry in literature over the past decades. High level of stress at work is a major threatening factor to both physical and psychological health of individuals (Verhaeghe, Vlerick, DeBacker, Van Maele, and Gemmel,2008) and affects their cognitive processes involving memory, recall of knowledge and attention(Kornitzer, DeSmet, Sans, Dramaix, Boulenguez, DeBacker et al,2006). In the aspects of organizational and managerial affairs, a strong negative relationship has been found between nurses' occupational stress and job satisfaction (Wolf, 2003). and it has been reported that high levels of (OS) results in increasing turnover rates and causes more and more nurses to leave their jobs(Byrne,2002). Also a high level of (OS) caused by heavy workload has been found to reduce nursing quality, and can threaten the lives and security of patients(Shader, Broome, Broome, West , Nash, 2001).The available statistics reveal that (OS) has become more and more prevalent and costly over the past decades (Giana Kos, 2002). Direct medical costs of stress related problems are estimated to be between $150 to $300 billion annually in the United States (Tenant, 2001). It was found that job stress causes health problems that lead to decrease productivity (Riedel, Lynch, Baase, Hymel, Peterson, 2001) as well. The literature indicates that there is a relationship between age, gender, marital status, educational level, position, length of service and working experience with occupational stress (Landa, Esther, Pilar , Maria ,2008) but the results of a study that was conducted on urban police officers in the USA, showed that dynamic factors such as work environment and coping

mechanisms, contributed more to explain variance of police stress than static factors such as race and gender(He , Zhao , Ren , 2005).

In several studies, income, heavy workload, lack of workspace, lack of resources (including equipment and material to do tasks), absence of proper company procedures, insufficient time to perform duties, meeting deadlines imposed by others, have been introduced as stressors related to work environment (Botha , Pienaar ,2006; Sveinsdottir, Biering , Alfons , 2006). In other studies, external accountability, responsibility, work relationships, insufficient consultation, communication, inadequate feedback on performance and organizational changes have been introduced as sources of occupational stress (Meyer, & Allen, 1997).

Many studies have investigated occupational stress occurrence among various professions in the U.S, Europe and Asia. Researchers have examined effects of stress on employee health, job satisfaction, job performance, organizational commitment and coping strategies. As a result of their studies, these authors have also suggested management and prevention strategies (Bianchi, 2004; Chen, Chen, Tsai, & Lo, 2007). Occupational stress is documented as a common occurrence in health professions throughout the world. The National Health Services (NHS) in the United Kingdom and in Australia reported that occupational stress occurred among health professionals at higher levels than in any other comparable profession (Adeb-Saeedi, 2002). This higher level of stress in health service has been attributed to the nature of the work of health professionals in which nurses, physicians and hospital administrators are involved in providing help to people experiencing life crises (Tyson & Pongruengphant, 2004). Nursing has been shown to be a strenuous profession, with nurses more exposed to stress-provoking factors than other healthcare workers. According to Evans (2002), a survey commissioned by the Sunday Times in 1997 reported that nursing was the sixth most stressful profession. This literature review will examine the sources of identified occupational stress and then the effects of stress.

Sources of occupational stress among nurses

Sources of stress for nurses can be divided into four areas: workload, organizational pressures, interpersonal interactions, and professionalism. In reality it is rare that only one source of stress is present. Sources of stress are frequently interrelated and synergistic effects are observed due to a variety of sources of stress.

For example, interpersonal conflicts may be due to organizational and management issues. Research has demonstrated that sources of occupational stress among nurses vary between regions, countries, organizations, departments, nursing specialties and individuals. This has been attributed to the different health systems, their culture, availability of resources, nature of work, different educational levels, age, employment contract, work experience and personality traits (Lindholm, 2006).

Workload

Workload has been demonstrated to be one of the most frequent stressors. In a study of 102 nurses in a Chinese intensive care unit, excessive workload was the most frequently cited source of workplace stress. This was a result of the nursing shortage with fewer nurses to care for more patients (Li & Lambert, 2008).

Work load, shift work, overtime, and covering for absent colleagues were the most common identified stressors in other studies (Xianyu & Lambert, 2006). Lee and Wang (2002) investigated perceived occupational stress and related factors among public health nurses, and reported that personal responsibility and workloads were the major sources of occupational stress. Excessive work load was also included as a major contributor to stress among hospital based Brazilian nurses (Stacciarini & Troccoli, 2004).

Organizational pressure

Organizational pressure and management issues are common causes for stress (McGrath, Reid, & Boore, 2003). Stress from a perceived lack

of organizational support, lack of resources, lack of autonomy, lack of competence and confidence, lack of communication and guidance, and low salaries or absent reward systems are organizational and management issues. Lee and Wang (2002) reported personal responsibility, inadequate guidance and support, lack of consultation and communication, lack of materials or resources, inadequate manpower, and having to take risks to complete tasks as sources of institutional stress.

Ongoing organizational pressure has been identified as another source of stress (Xianyu & Lambert, 2006). The work environment and institutional settings themselves have been associated with occupational stress. Sveinsdottir and colleagues observed that, in addition to stressful factors intrinsic to nursing, organizational and management attributes influenced work-related stress among nurses (Sveinsdottir, et al., 2006).

Interpersonal relationships/intrinsic nature of the work

Working with difficult patients, the nurses' feelings about death and dying, interpersonal conflicts, managing the patients' pain and the presence of the family also contribute to occupational stress (McGrath, et al., 2003). The HIV epidemic and high mortality rates have contributed to stressful work conditions for nurses. In a study of occupational stress of nurses in South Africa, health risks posed by contact with HIV/AIDS patients, lack of recognition for the job they are doing and insufficient staff were identified as the most common stressors for nurses (Rothmann, van der Colf, & Rothmann, 2006).

These findings are consistent with literature about the effect of the HIV/AIDS pandemic on the health care workforce, with reports of increased emotional burden and stress among health workers due to anxiety and fears of occupational exposure (Dieleman, et al., 2007).

Professionalism

Professional issues have also been reported to lead to stress among nurses. For example, Evans (2002), in a Yorkshire, UK study exploring the district nurses' perception of occupational stress, found that job

image and reward systems were among the six major stress factors for the nurses. Ethical conflicts have also been identified as sources of job related stress and anxiety (Begat, et al., 2005). According to Begat and colleagues, ethical dilemmas arise because of nurses' values and desires to provide high-quality care.

Effects of occupational stress

Occupational stress has been reported to result in a significant monetary cost for health care systems (Evans, 2002). This is due to lack of productivity as a result of staff conflicts, health care consumption, recruitment and retention problems, burnout, absenteeism, litigation, and rapid turnover. The World Health Organization (WHO, 2002) estimates the cost of stress and stress related problems to organizations to be in excess of $150 billion annually. According to the Health Enhancement Research Organization, a depressed employee is estimated to spend $3,189 annually on health care expenses as compared with $ 1,679 for a no depressed employee in the UK (Cottrell, 2001). In addition, depressed workers' accumulated short-term disability days resulted in 20 million more lost work days per year than non-depressed workers (Cottrell, 2001). Therefore, the cost of occupational stress is likely to increase in health care ministries in these countries not only in terms of medications and other supplies but also in litigation cases. It is also likely to increase individual nurses' stress as they will be working with anxiety and fear of litigation in the event of errors as they execute their duties.

Occupational stress negatively affects individuals' health and wellbeing**.** Individual effort-reward imbalance has been associated with burnout, which results from prolonged intense stress. In a study of burnout among nurses in Germany, the nurses who experienced effort-reward imbalance reported higher levels on two of the three core dimensions of burnout (Bakker, Killmer, Siegrist, & Schaufeli, 2000). Bakker and colleagues found that the nurses who identified a negative imbalance between efforts spent on their job and the reward they felt from the job reported feeling more emotionally drained than those who did not. The feelings of personal accomplishment were lowest among nurses who had a mismatch between demands and rewards, and who had

high intrinsic effort in their jobs. Emotional exhaustion and burnout have been recognized as occupational hazards for people-oriented professions such as nursing. Brown and colleagues examined demanding work schedules and mental health in nursing assistants working in nursing homes, and reported that working two or more double shifts per month was associated with an increased risk for all negative mental health indicators (Brown, Zijlstra, & Lyons, 2006). Furthermore, working 6-7 days per week was associated with depression and somatization. In a study of stress, coping and managerial support and work demand among nurses, consistent relationships between work stress and depression, anxiety and job satisfaction were identified (Bennett, Lowe, Matthews, Dourali, & Tattersall, 2001).

They suggested that lack of management support, having job overspill, making decisions under time pressure and lack of recognition by the organization were key predictors of negative effect. Chronic health problems such as cardiovascular disease, musculoskeletal disorders, physical injuries and cancers have also been associated with occupational stress (Alves, 2005). Mental illness and serious health compromising behaviors such as increased risk for suicide, substance abuse (such as smoking and alcohol consumption), poor diet, and lack of exercise weree also associated with occupational stress (Adeb-Saeedi, 2002; Oginska-Bulik, 2006).

Occupational stress also contributes to many nurses leaving their jobs (Sveinsdottir, et al., 2006). The high turnover of nurses results in a shortage of nurses, which leads to work overload for the remaining nurses and becomes a vicious cycle. The high turnover of nurses is attributed to a lack of job satisfaction which is associated with occupational stress.

Organizational commitment

Organizational commitment (OC) has been understood in a number of ways. Some view it as a measure of an individual's dedication and loyalty to an organization (Mowday, Steers & Porter, 1979). Organizational commitment can be characterized by at least three related

factors: (a) a strong belief in acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; and (c) a strong desire to maintain membership in the organization. In this definition, commitment involves an active relationship with the organization, and it represents something beyond mere passive loyalty to an organization. In this study, organizational commitment is defined as "the relative strength of an individual's identification with and involvement in a particular organization" (Mowday, Porter, Steers,1982).

Researchers have identified a range of variables that affect organizational commitment, including personal characteristics (age and level of education), job characteristics (autonomy, feedback, teamwork, work environment, and work pressure), and organizational characteristics (size, leadership style, career prospects, human resource policies, possibilities for future education and participation in decision making) (Fontana, 1993).Organizational commitment is considered to be one of the foremost important and crucial outcomes of the human resource strategies. And the employee commitment is seen as the key factor in achieving competitive performance (Sahnawaz & Juyal, 2006).

Hypotheses

The following hypotheses were formulated:

H_{o1}: Nurses would show no differences on occupational stress and organizational commitment due to the variations in socio-demographic characteristic of respondent and job tenure.

H_{A1}: Nurses would show differences on occupational stress and organizational commitment due to the variations in socio-demographic characteristic of respondent and job tenure.

H_{o2}: A statistically significant relationship does not exist between sources of work stress and organizational commitment among nurses.

H_{A2}: A statistically significant relationship exists between sources of work stress and organizational commitment among nurses.

Ho_3: A statistically significant relationship does not exist between coping strategies and organizational commitment among nurses.

H_{A3}: A statistically significant relationship exists between coping strategies and organizational commitment among nurses.

Ho_4: A statistically significant relationship does not exist between physical health and organizational commitment among nurses.

H_{A4}: A statistically significant relationship exists between physical health and organizational commitment among nurses.

Study design

Study population

The target population in this study was all nurses working in the tow selected hospitals namely; Al-basheer and University of Jordan Hospital which situated in Amman, Jordan. Al-basheer hospital and Jordan University hospital are utilized for clinical and practical teaching/experience for medical, nursing, pharmacy and other health professional students. The Directorate of Nursing in both hospitals is headed by the Assistant Commissioner Nursing Services who is assisted in his/her managerial duties by several Area Managers or Senior Nursing Officers. Each Area Manager is responsible for an area which is composed of several units/wards. These areas include: Accident and Emergency, Medical, Surgical, Pediatrics, Obstetrics and Gynecology, Outpatient Clinics, Community Health Services, Operating Theatres and Special Clinics (Ear, Nose and Throat and Ophthalmology). Several cadres of nurses including graduate nurses, Registered Nurses, Public Health Nurses and Enrolled Nurses work in both hospitals. The nurses are allocated to the various units according to their availability and consideration of the expected workload on the unit. The hospitals nursing staff includes 960 nurses and the hospitals have a bed capacity of 2,500 patients. Nursing staff on the units/wards are also assisted by nursing assistants/nursing aides and nursing students from the various nursing schools.

Study sample

The study was conducted in two hospitals at Amman, Al-Basheer hospital and University of Jordan Hospital. A systematic random sample of 160 nursing personnel was selected to constitute the present study subjects from the selected units of the two selected study hospitals. The population consisted of a listing of the names of all nurses in both hospitals obtained from the hospitals personal files. Since the population size (960) is three digital numbers, each assigned code number must also be three digitals, so that every nurse has an equal chance for selection.

To obtain systematic sample, the N= 960 nurses who make up the population were divided into K=6 groups by dividing the size of the population (960) by the desired number of nurses to be sampled (160). The first nurse to be selected was chosen at random and the rest of the sample is obtained by selection every sixth nurse thereafter from the population listing.

Tools of data collection

A self-administered questionnaire was used for collecting data for this study .This questionnaire was developed by the researcher based on pertinent literature. It consisted of two scales:

First scale

- *Part I:* concerned with nurse's socio-demographic data such as age, gender, marital status, qualifications, years of experience, place and department of work.
- *Part II: **Occupational stress scale**:* this was composed of questions aiming at determining the level of occupational stress among nurses in the selected units. It was based on review of similar tools by Fontana (Fontana, 1993; Sullivan& Decker, 1993), and (Ivancevich and Matteson, 2002). This scale consisted of 63 questions sub-grouped under the following three domains: Sources of work (job Stress):31 items, Physical health: 10 items, coping strategies: 22 items.

Second scale

Organizational commitment scale: the aim of this scale was to determine the extent or the level of organizational commitment among nurses. Elements of the questionnaire were determined and based on Mowday, Steers & Porter's (2002) scale and Brewer & Look's (1995) scale. It consists of 14 items dealing with other opportunities for work, mismatching with policies and procedures, and incentives for staying in job. The possible response for each item was on a three-point Likert-type scale with choices of "agree", "uncertain", or "disagree."

Scoring system

Occupational stress scale: five possible responses were present of each item in the scale; the responses of "never", "rarely", "sometimes" " often", and " always" were scored 1, 2, 3, 4, and 5 respectively. Nurses' commitment scale: the possible response for each item in the scale was "agree", "uncertain", and "disagree". There were given scores of 3, 2, and 1, respectively, for positive items.

Pilot study

After review of the questionnaire by experts and its approval, a pilot study was carried out before starting the actual data collection. The purpose of the pilot study was to ascertain the clarity, and applicability of the study tools, and to identify the obstacles and problems that may be encountered during data collection. It also helped to estimate the time needed to fill in the questionnaire. Based on the results of the pilot study, modifications, clarifications, omissions, and rearrangement of some questions were done. It was done on 20 nursing personnel working in different units, and these were not included in the total sample of the research work to ensure stability of the answers.

Field work

Before any attempt to collect data, two formal letters were issued from the faculty of nursing: one letter was addressed to Jordan University to obtain an official approval from the administrators of the two hospitals

where the data were collected to conduct the study, another letter identified the researcher, and the title and aim of the research.

The data collection phase of the study was carried out in three months from 1/8/2009 through 30/10/2009. Each participant was notified about the right to refuse to participate in the study, before taking her verbal consent. Anonymity and confidentiality of the information gathered were ensured. The designed questionnaire was distributed to them, with instructions about its filling. This was repeated in each department of the study hospitals. They were asked to fill them out throughout the different shifts. The time taken for every questionnaire to be completed was about 15-20 minutes for each nurse. The researcher was present all the time to clarify any ambiguity.

Statistical analysis

Data entry and analysis were done using SPSS 17 statistical Package for Social Science (Joreskog, 1999). Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and ranges, means and standard deviations for quantitative variables. For reliability testing, chronbach alpha coefficient was used to assess the internal consistency of the developed tool. Qualitative variables were compared using chi-square test. Whenever the expected values in one or more of the cells in a 2x2 tables was less than 5, Fisher exact test was used instead. Pearson correlation analysis was used for assessment of the inter-relationships among quantitative variables. Spearman rank correlation was used in case of ranked variables. Statistical significance was considered at p-value <0.05.

Reliability analysis

The reliability of the new tool was assessed through measurement of its internal consistency using chronbach alpha coefficient analysis. It indicates high level of internal consistency for the total stress part (0.85), sources of work stress (0.89), Physical health (0.74) and coping strategies (0.78). Also, assessment of the reliability of the commitment scale has revealed a very high chronbach coefficient of (0.88). See table (1).

Table (1): Reliability analysis of scales used in the study.

Scale	No. of items	Chronbach Alpha coefficient
Occupational stress	74	0.85
Sources of work stress	42	0.89
Coping strategies	22	0.78
Physical health	10	0.74
Organizational Commitment	14	0.88

Validity analysis

Content validity depends on the extent to which an instrument reflects a specific domain of content. It cannot be evaluated numerically; it is a subjective measure of how appropriate the items seem to various reviewers with some knowledge of the subject.

The evaluation of content validity typically involves an organized review of the survey's contents to ensure that it includes everything it should, and does not include anything it should not. Strictly speaking, content validity is not a highly scientific measure of a survey instrument's accuracy. Nevertheless, it provides a solid foundation on which to build a methodologically rigorous assessment of a survey instrument's validity. In this research it was argued that the five scales for measuring occupational stress and the organizational commitment had content validity since the development of these measurement items was based mainly on an extensive review of the literature and detailed evaluations by academicians and practitioners.

RESULTS

The aim of this study was to explore the relationship between occupational stress and organizational commitment among nurses in Jordanian hospitals. This was achieved through measuring the level of occupational stress among nurses in selected hospitals in Amman, and measuring the level of organizational commitment among them. One hundred and sixty (160) questionnaires were distributed, 150 responses i.e. 94% of totals were obtained.

Table (2) describes the socio-demographic and job characteristics of nurses in the study sample. As evident from the table, the highest percentage of nurses was in the age group 25 years and less, with a mean age 27.3±6.3 SD years. The majority were females (86.7%), and staff nurses (74.7%), having diploma with or without specialty, 20.7% and 48.0%, respectively. More than half (58.0%) were married. Their total experience was ranging from 1 to 33 years, with a mean 8.9±6.6 SD years, while the mean current job experience was 6.1±5.8 years.

Table (2): Socio-demographic and job characteristics of nurses in the study sample (n=150).

-demographic and job characteristics of nurses	Frequency	Percent
Age (years):		
<25	58	38.7
25-30	45	30.0
30+	47	31.3
Range	18.0-53.0	
Mean ±SD	27.3±6.3	
Gender:		
Male	20	13.3
Female	130	86.7
Job position:		
Staff nurse	112	74.7
Head nurse	38	25.3
Nursing qualification:		
Bachelor	39	26.0
Technical institute	8	5.3
Associated degree	31	20.7
Diploma	72	48.0
Marital status:		
Married	87	58.0
Unmarried	63	42.0

... Continue table (2)

-demographic and job characteristics of nurses	Frequency	Percent
Total experience (years):		
<5	37	24.7
5-10	59	39.3
10+	54	36.0
Range	1.0-33.0	
Mean ±SD	8.9±6.6	
Current job experience (years):		
<5	80	53.3
5+	70	46.7
Range	0.1-31.0	
Mean ±SD	6.1±5.8	

Table (3) displays the relation between organizational commitment and occupational stress, sources of work stress, coping strategies, and physical health among nurses in the study sample. A lower percentage of nurses with organizational commitment had sources of work stress (13.3%), compared to those with no organizational commitment (24.4%).

Table (3). Distribution of organizational commitment and occupational stress among nurses in the study sample.

Variables	Organizational commitment			
	Absent (n=90)		Present (n=60)	
	No.	%	No.	%
Job stress:				
Absent	64	71.1	41	68.3
Present	26	28.9	19	31.7
Job sources of work stress:				
Absent	68	75.6	52	86.7
Present	22	24.4	8	13.3

... Continue table (3)

Variables	Organizational commitment			
	Absent (n=90)		Present (n=60)	
	No.	%	No.	%
Coping strategies:				
Absent	76	84.4	45	75.0
Present	14	15.6	15	25.0
Physical health:				
Absent	58	64.4	36	60.0
Present	32	35.6	24	40.0

The relation between occupational stress and nurses' socio-demographic and work characteristics is described in table (4). The only relation of statistical significance was between occupational stress and the department of work, p=0.03. It can be noticed that the highest percentage of nurses with occupational stress were working in specialized units (46.7%), while the least were in surgical departments (20.0%).Table (4) show the findings.

Table (4): Relation between occupational stress and nurses' socio-demographic and work characteristics

Variables	Job stress				X^2 test	p-value
	Absent (n=105)		Present (n=45)			
	No.	%	No.	%		
Hospital:						
University of Jordan	53	50.5	22	48.9		
Al-Basheer	52	49.5	23	51.1	0.03	0.86
Department:						
Surgical	41	39.0	9	20.0		
Medical	35	33.3	15	33.3	6.86	0.03*
Specialized units	29	27.6	21	46.7		

... Continue table (4)

Variables	Job stress				X^2 test	p-value
	Absent (n=105)		Present (n=45)			
	No.	%	No.	%		
Age (years):						
<25	41	39.0	17	37.8		
25-30	31	29.5	14	31.1	0.04	0.98
30+	33	31.4	14	31.1		
Gender:						
Male	13	12.4	7	15.6		
Female	92	87.6	38	84.4	0.27	0.60
Job position:						
Staff nurse	79	75.2	33	73.3		
Head nurse	26	24.8	12	26.7	0.06	0.81
Nursing qualification:						
Bachelor	26	24.8	13	28.9		
Less	79	75.2	32	71.1	0.28	0.60
Marital status:						
Married	60	57.1	27	60.0		
Unmarried	45	42.9	18	40.0	0.11	0.75
Total experience (years):						
<5	28	26.7	9	20.0		
5-10	40	38.1	19	42.2	0.76	0.68
10+	37	35.2	17	37.8		
Current job experience (years):						
<5	57	54.3	23	51.1		
5+	48	45.7	22	48.9	0.13	0.72

(*) Statistically significant at $p < 0.05$

Table (5) presents the relation between organizational commitment and nurses' socio-demographic and work characteristics. As evident from

the table, the only relation with statistical significance was between organizational commitment and gender, p=0.01. The figures point to higher percentage of male nurses among those with organizational commitment (21.7%) compared to those without organizational commitment (7.8%). No other statistically significant relation between organizational commitment and nurses' socio-demographic and job characteristics could be revealed.

Table (5): Relation between organizational commitment and nurses' socio-demographic and work characteristics

Variables	Organizational commitment				X^2 test	p-value
	Absent (n=90)		Present (n=60)			
	No.	%	No.	%		
Hospital:						
University of Jordan	40	44.4	35	58.3		
Al-Basheer	50	55.6	25	41.7	2.78	0.10
Department:						
Surgical	32	35.6	18	30.0		
Medical	25	27.8	25	41.7	3.17	0.21
Specialized units	33	36.7	17	28.3		
Age (years):						
<25	38	42.2	20	33.3		
25-30	26	28.9	19	31.7	1.26	0.53
30+	26	28.9	21	35.0		
Gender:						
Male	7	7.8	13	21.7		
Female	83	92.2	47	78.3	6.01	0.01*
Job position:						
Staff nurse	65	72.2	47	78.3		
Head nurse	25	27.8	13	21.7	0.71	0.40

... Continue table (5)

Variables	Organizational commitment				X^2 test	p-value
	Absent (n=90)		Present (n=60)			
	No.	%	No.	%		
Nursing qualification:						
Bachelor	26	28.9	13	21.7		
Less	64	71.1	47	78.3	0.98	0.32
Marital status:						
Married	54	60.0	33	55.0		
Unmarried	36	40.0	27	45.0	0.37	0.54
Total experience (years):						
<5	22	24.4	15	25.0		
5-10	37	41.1	22	36.7	0.34	0.85
10+	31	34.4	23	38.3		
Current job experience (yrs):						
<5	49	54.4	31	51.7		
5+	41	45.6	29	48.3	0.11	0.74

(*) Statistically significant at $p < 0.05$

The correlation between each of the sources of work stress and commitment scores and the domains of occupational stress scores is shown in table 6. It points to statistically significant positive weak to moderate correlations between sources of work stress scores and almost all occupational stress domains. The only exceptions were the domains of resources and workload, which were not statistically significant. Conversely, negative weak statistically significant correlations were revealed between organizational commitment scores and only three of the occupational stress domains, namely role ambiguity ($r=-0.18$, $p=0.03$), work relations ($r=-0.18$, $p=0.03$), and work system ($r=-0.23$, $p=0.004$). The table also indicates that total stress scores were statistically significantly and positively correlated with sources of work stress ($r=0.61$, $p<0.001$). Meanwhile, the correlation between organizational

commitment scores and stress scores was negative and statistically significant (r=-0.18, p=0.025).

Table (6): Correlation between sources of work stress and commitment and domains of occupational stress.

Occupational stress domains	Job sources of work stress		Organizational commitment	
	r	p-value	R	p-value
Role ambiguity	0.52	<0.001*	-0.18	0.03*
Work Relations	0.59	<0.001*	-0.18	0.03*
Work Environment	0.42	<0.001*	-0.15	0.06
Resources	0.09	0.25	0.15	0.06
Family-related	0.31	<0.001*	-0.15	0.06
Workload	0.16	0.06	-0.07	0.42
Personality	0.52	<0.001*	-0.15	0.07
Professionalism	0.53	<0.001*	-0.14	0.08
Work system	0.48	<0.001*	-0.23	0.004*
Total stress	0.61	<0.001*	-0.18	0.025*

(*) Statistically significant at p <0.05.

Table (7) demonstrates the correlation between coping strategies and physical health scores, from one side, and the scores of various domains of occupational stress, from the other side. From the table, it can be noticed that there are statistically significant positive weak correlations between coping strategies scores and most of the occupational stress domains. The only exceptions were the domains of resources and workload, which were not statistically significant. As for the scores of the physical health, the table indicates weak statistically significant

positive correlations with role ambiguity (r=0.25, p=0.02), work relations (r=0.18, p=0.03), and professionalism (r=0.20, p=0.01).

Table (7): Correlation between coping strategies and physical health and domains of occupational stress.

Job stress domains	Coping strategies		Physical health	
	R	p-value	R	p-value
Role ambiguity	0.35	<0.001*	0.25	0.002*
Work Relations	0.39	<0.001*	0.18	0.03*
Work Environment	0.16	0.049*	0.13	0.11
Resources	0.06	0.47	0.03	0.73
Family-related	0.23	0.005*	0.10	0.21
Workload	-0.03	0.76	0.02	0.77
Personality	0.27	0.001*	0.11	0.17
Professionalism	0.32	<0.001*	0.20	0.01*
Work system	0.23	0.005*	0.12	0.16

(*) Statistically significant at p<0.05.

Discussion

Although the foregoing present study findings provide support to the results obtained by Sullivan & Decker who have indicated that the psychiatric nurse is exposed to stressors common to other areas of nursing, such as staffing level, administrative duties, and over workload sources of stress identified in the present study included role ambiguity, work environment, nursing professionalism, and work relations . Similar findings were reported by Wong (2001) who has mentioned that work condition, poor staffing, poor staff cohesiveness, shift work, low staffing levels and restructuring initiatives had contributed to the stress under

which nurses try to deliver care, to more and sicker patients with fewer resources (Wong, 2001). Another study has similarly shown that non-supportive work environment, role ambiguity, family-related, personal characteristics and professionalism are occupational stressors that have been suggested as factors contributing to sources of work stress in nursing profession (Ivancevich, & Matteson,2002).

Also, in line with the present study findings related to professionalism-related causes of stress, Heim and Abram (2001) have claimed that nurses are dissatisfied with their professional status, and feel more stressed because they do not possess the rights and prestige accorded to most other professionals. In the same vein, the study conducted by McGrath et al (1998) has indicated that doctor-nurse relationship is another source of stress for nurses. Nurses saw their main function as assisting and supporting the doctor (McGrath, Lambert and Lambert, 1998).

When the relation between the years of experience in nursing practice and nurses' commitment was investigated in the present study, no statistically significant association could be revealed. This finding is in agreement with Abd El-Fatah (2002) who could not reveal any statistically significant association between the year of experience in nursing and participant's commitment. However, the finding is incongruent with what Wilson and Laschinger have reported (Wilson and Laschinger, 1994).They have shown a positive relationship between years of experience in nursing and organizational commitment. The above authors have explained this by the fact that when nurses gain more experience, they may be reluctant to give-up their seniority and reputation of being experts on particular wards, and thus become increasingly committed to the organization. Similarly, Diab (2003) has reported that the level of commitment among nurses is high with more total years of experience. The discrepancy with the present study findings might be related to the generally low level of organizational commitment among nurses, as revealed in the results.

As for the relation between organizational commitment and occupational stress, the present study findings have demonstrated that

commitment scores were negatively correlated with stress and sources of work stress. This was particularly evident in relation to role ambiguity, work relations, and work system stresses. This means that the more these stresses and/or sources of work stresses are felt, the less the nurses are committed to their jobs. The lack of such stressors at work is certainly associated with a higher level of job satisfaction, which is an important determinant of organizational commitment. In line with this, Look (2001) has claimed that more satisfied nurses have reported more organizational commitment than dissatisfied ones. Moreover, Cooper & Baglionif (1998) have reported that organizational commitment is affected by sources of stress such as workload, conflict, and work relationships. Also, Chen (2002) has reported that occupational stress has a statistically significant negative effect on organizational commitment. Finally, in a study done by Lee and Henderson to examine the relationship between occupational stress and organizational commitment in nurse administrators, it was found that commitment scores were high for most nurse executives, and were correlated inversely with occupational stress.

However, other studies have reported contradictory results regarding the relation between organizational commitment and occupational stress. Thus, Srinivas (1991) could not find any statistically significant relationship between organizational commitments and stress. In another study that examined the impact of stress on individuals with varying degrees of commitment, it was found that individuals who have a high degree of commitment to their organizations experience greater amounts of stress than those who are less committed.

Alternatively, Mathieu and Zajac (1990) have argued that organizational commitment protects the individual from negative outcomes experienced at work, as stress, either because those individuals who are committed to the organization have connected more closely to the individuals at work, or because they have found meaning in their work .

The present study has revealed statistically significant positive correlations between coping strategies scores and most of the occupational stress domains. Also, physical health has statistically

significant positive correlations with stresses related to role ambiguity, work relations, and professionalism. This means that nurses exposed to such stresses develop coping strategies and find physical health to deal with these stressors. In congruence with these present study findings, Srinivas & Aven (2002) have shown that support is statistically significantly correlated with occupational stress.

Conclusion

In the light of the present study findings, it can be concluded that about one third of the studied nurses experienced occupational stress, and a lesser percentage had sources of work stress. Occupational stress was statistically significantly higher in specialized units. About two-fifth of the nurses had organizational commitment. This was statistically significantly higher among male nurses, than female nurses.

The domains of occupational stress were statistically significantly inter-correlated. A source of work stress was statistically significantly correlated with occupational stress. Organizational commitment was statistically significantly negatively correlated with occupational stress and sources of work stress. No other socio-demographic or job characteristics had any influence on either occupational stress or organizational commitment.

Recommendations

Based on the findings of the present study, the following recommendations are proposed:

- Since the study showed that male nurses had higher level of organizational commitment compared to female nurses, appropriate recruitment strategies in health care organization should be formulated focusing on recruitment of nurses who pose low levels of occupational stress and high level of organizational commitment.
- Since work environment and personal characteristics contributed to occupational stress and organizational commitment, nurses should be able to assess these factors and give each other support in order to

improve performance and nursing care to their patients. The Ministry of Health in Jordan as one of Arab countries should try to improve those factors, such as good communication and recognition for excellent work, which may reduce occupational stress and increase organizational commitment among their nurses. Appointed nurse managers and other managers in health care settings should be trained in management in general and in human resource management in order for them to be able to address the above issues.

- Healthcare organizations should identify factors that contribute to sources of work stress and identify the various conditions that bring staff into the work using appropriate coping strategies and providing clear and specific job description, flexible work schedules, fair treatment and regular meeting between supervisors and their staff nurses to discuss and solve their problem.
- Both nurses and nurse managers must be willing to work together to develop a climate of mutual trust that fosters a genuine commitment to organizational goals, to provide quality patient care.
- Although most studies recognize the need to investigate stress management in healthcare settings, the literature at the moment is limited in terms of offering appropriate, feasible and effective ways of handling stress. A more sophisticated conceptualization is required in order that ideas can be operational zed into research regarding optimum stress management techniques that also incorporate aspects of organizational design and the development of supportive mechanisms and networks.
- Further studies are necessary to identify and clarify the specific coping strategies used by nurses, and to increase understanding regarding the relationship between the experience of stress and the effects of stress.

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Questionnaire

Introduction:

Please read the following before you complete the questionnaire.

- Your name is not required. Do not write your name anywhere on this document.
- All of your replies will be treated confidentially by the University Research Team.

This questionnaire is designed to measure sources of stress, to identify groups of people that feel stress more often than others, and to identify how they cope. This survey is completely anonymous and confidential. Your participation is voluntary and return of the questionnaire will be considered as consent to participate in the survey. This questionnaire has five sections:

Section One: Demographic Information

Section Two: Sources of work pressure

Section Three: Health Information

Section Four: Coping strategies

Section Five: Organizational Commitment

Instructions:

Section One: Demographic Information

Please indicate your answer

Age

- ❑ <25
- ❑ 26-30
- ❑ 30+

Gender

- ❑ Female
- ❑ Male

Nursing Qualification

- ❑ Bachelor
- ❑ Technical Institute
- ❑ Associated degree
- ❑ Technical Institute

Marital Status

- ❑ Married
- ❑ Single

Job Position

- ❑ Staff nurse
- ❑ Head nurse

Total experience (years):

- ❑ <5
- ❑ 5-10
- ❑ 10+

Current job experience (years):

- ❑ <5
- ❑ 5+

Section Two: Sources work stress

Almost anything can be a source of stress at a given time, and individuals perceive potential sources of pressure differently.

➢ *The statements below are all potential sources of pressure. You are required to rate them in terms of the degree of pressure you perceive each may place on you. Please indicate this by writing/ typing beside each item a number from the scale below:*

1	*2*	*3*	*4*	*5*
Never	**Rarely**	**Sometimes**	**Often**	**Always**

	Answer
1. I have far too much work to do	
2. I have a lack of power and influence	
3. Over-promotion – being promoted beyond my level of ability	
4. Under-promotion – working below my level of ability	
5. I do not have enough work to do	
6. Managing or supervising the work of other people	
7. Coping strategies with office politics	
8. Taking my work home	
9. Rate of pay	
10. Personal beliefs conflicting with those of the organization	
11. Inadequate guidance and back up form superiors	
12. Lack of consultation and communication	

13. Keeping up with advances in technology	
14. Ambiguity in the nature of job role	
15. Inadequate or poor quality of training/ management development	
16. Lack of social support by people at work	
17. My spouse's/ partner attitude towards my job and career	
18. Having to work very long hours	
19. Mundane administrative tasks	
20. A lack of encouragement by superiors	
21. Demands my work makes on my relationship with my spouse/ partner/ children	
22. Being undervalued	
23. Having to take risks	
24. Working with those of the opposite sex	
25. Absence of emotional support from others outside work	
26. Demands that work makes on my private/ social life	
27. Factors not under your direct control	
28. Home life with a partner who is also pursuing a career	
29. Making important decisions	
30. Personality clashes with others	
31. Pursuing a career at the expense of home life	

Section Three: Physical Health

- *Below are a number of statements relating to your physical health Please indicate how often you feel the following occur by writing/ typing beside each item a number from the scale below:*

1	*2*	*3*	*4*	*5*
Never	**Rarely**	**Sometimes**	**Often**	**Always**

	Answer
32. Inability to get to sleep or stay asleep	
33. Headaches	
34. Indigestion or sickness	
35. Feeling unaccountably fatigued or exhausted	
36. Tendency to eat and/ or drink more than usual	
37. Tendency to smoke more than usual	
38. Tendency to eat and/ or drink less than usual, that is, a decrease in appetite	
39. Muscles trembling, for example, eye twitch	
40. Feeling as though you don’t want to get up in the morning	
41. Tendency to sweat or a feeling of your heart beating hard	

Section Four: Coping strategies

Whilst there are various different ways individuals react to sources of pressure and effects of stress, most people attempt to cope – consciously or subconsciously.

1	*2*	*3*	*4*	*5*
Never	**Rarely**	**Sometimes**	**Often**	**Always**
				Answer
42. I deal with the problems immediately as they occur				
43. I try to recognize my own limitations				
44. I 'buy time' and stall the issue				
45. Look for ways to make the work more interesting				
46. Reorganize my work				
47. Seek support and advice				
48. Resort to hobbies or pastimes				
49. Try to deal with the situation objectively in an unemotional way				
50. Effective time management				
51. Suppress the emotions and try not to let the stress show				
52. Having home that is a 'refuge'				
53. Talk to understanding friends				
54. Deliberately separate work and home				
55. Stay busy				
56. Plan ahead				
57. Concentrate on a specific problem				
58. Set priorities and deal with problems accordingly				

59. Use distractions	
60. Resort to rules and regulations	
61. Delegation	
62. Try to avoid the situation	
63. Seek as much social support as possible	

Section Five: Organizational Commitment

The second group of questions is oriented towards measuring the organizational commitment and includes 14-category answers.

	3	2	1
	agree	**uncertain**	**Disagree**
1. I agree to commit all my efforts beyond normal to support the hospital's success.			
2. I tell my friends about "Fantastic", describing it as a great hospital			
3. I feel little emotional attachment to the hospital (reserved)			
4. I would accept any assignment just to stay at my job here			
5. I have understood that my values and the values of the hospital are very similar			
6. I am proud to be part of the hospital			
7. I would work for another similar chain performing the same job (reserved)			
8. The Hospital gives me the best so that I can perform my duties well			
9. If a very small change occurs, I will quit the job (reserved)			
10. I am satisfied with my choice to work for this hospital			
11. There are not many things that make the hospital different from other similar companies			

12. I often have a hard time agreeing with the policy of the hospital in the care for its staff			
13. I am really concerned about the hospital's culpability to customers			
14. It has been a mistake to work all these years for the hospital			