Prevalence and Distribution of Occupational Stress Among Emergency Nurses in Mosul City hospitals

Salim Shehab Ahmed[1], Kareem Reshak Sajit[2]

M.Sc. in Nursing PMHN. College of Nursing / Ph.D. Student / University of Baghdad. Iraq[1]
Ph.D. PMHN, Assis. Prof, College of Nursing / University of Baghdad. Iraq[2]

Keywords:
Occupational Stress,
Emergency Nurses,
psychological problems

ABSTRACT

Nurses' occupational stress is regarded as a serious issue that may result in increasing nurses' emotional distress and psychological problems and hurts health care services, especially in an emergency unit. The attending study aimed to estimate the expected average stress rate and the variables that are linked to the incidence of occupational stress among nurses who work in emergency units in Mosul City hospitals in Iraq. A descriptive study was initiated from February 15th 2021 to April 1st, 2021; a purposive sample design was used to target 60 nurses in the hospital's emergency department of Mosul City to achieve the study objectives. The questionnaire of the study -as adopted and modified for the current study, which comprised socio-demographic data and a job-related stress scale. A self-administered pre-structured questionnaire was used for data collection. statistical package for social science (SPSS) version 23 was used for the analysis of results. The study confirms that 3.4% of nurses experienced mild stress, 6.3% severe stress, and 90% moderate stress. Nurses working at emergency units engaged in special sessions of stress control. The prevalence of occupational stress, emergency nurses, Mosul hospitals. A high bulk of job stress among emergency nurses seems to be crucial for designing programs to reduce nurses' job-related stress.

1. INTRODUCTION

Stress may increase people's performance in a positive way up to a point even though it is necessary and useful for them all to face obstacles in their lives; but, when pressure gets extreme, it loses its helpful influence and becomes destructive. Being under psychological duress is what stress is characterized as. As the third leading cause of illness [3]. stress is typically felt in the workplace so that all jobs are somewhat stressful [1]. Most people can cope with stress for short periods, but chronic stress produces prolonged changes in the physiological state [1]. However, it is recognized that negative events do not always trigger psychological distress, which arises only when imposed demands are perceived to exceed ability to cope [2]. It is important to recognize that stress is a state, not an illness, which may be experienced as a result of an exposure to a wide range of work demands and in turn can contribute to an equally wide range of outcomes [3]. The everchanging demands of the working world can increase levels of stress, especially for those who are consistently working under pressure [1].

Stress can result from disclosure, or threat of disclosure, both to the more actual workplace hazards and to the psycho-social hazards of work [5]. The experience of stress is one important outcome of exposure to the hazards of work and to hazardous situations. Those risks of work that are associated with the experience of stress are usually termed stressors [6]. job stress has been classified worker's as negatively perceived feelings or sentiments due to the inability to cope with the expected organizational job demands [3], Studies conducted in different countries showed that factors like; work overload, working unit, work experience, sex, conflict at the workplace, marital status, educational status, job satisfaction, working environment and not being rewarded were significantly associated with occupational stress among health care professional [3]. As peer studies, Job stress has been linked to lower creativeness and job satisfaction, lower rates of timely decision making, lower quality of care, raised mistakes, decreased motivation, depression, detachment, decreased mental and physical well-being, sleep disorders, depression, burnout, absenteeism, lower job satisfaction, and physical problems [1]. Recent studies have shown that health service staff experience high levels of occupational stress and that stress is much greater for nurses who work within the critical care environment

such as the ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.1016/s1328-2743(02)80015-3","ISSN":"13282743","abstract":"Abstract INTRODUCTION Recent studies have shown that health service staff experience high levels of occupational stress and that stress is much greater for nurses who work within the critical care environment such as the emergency department. This study was carried out to identify sources of stress for nurses working within the emergency department of Tehran teaching hospitals. METHODS A sample of 120 nurses particpated in the study and data were collected using a two part questionnaire. Part one related to demographic characteristics and qualifications of the respondents, whilst part two consisted of a list of 25 items identified as potential work related stressors. Each respondent was asked to rate on a five point Likert scale. Analysis of the data was carried out using the statistical package SPSS©. RESULTS The most common cause of stress reported by nurses were: dealing with patients' pain and suffering, a heavy workload and the presence of the patients' family in the Emergency Department (ED). CONCLUSION Based on the study results it is suggested that whilst it may not be possible to decrease the demands of the job, improving work conditions and providing greater support to nurses may assist in decreasing the stressors associated with working in the emergency care environment.","author":[{"dropping-particle":"","family":"Adeb-Saeedi","given":"Jhilla","non-droppingparticle":"","parse-names":false,"suffix":""}],"container-title":"Australian Emergency Nursing Journal","id":"ITEM-1","issue":"2","issued":{"date-parts":[["2002"]]},"page":"19-24","title":"Stress amongst emergency nurses","type":"article-:"5"},"uris":["http://www.mendeley.com/documents/?uuid=4ba3e615-abcd-46b3-98e3-d18d90d49324"]}],"mendeley":{"formattedCitation":"[4]","manualFormatting":"[7,8]","plainTextFormat tedCitation":"[4]","previouslyFormattedCitation":"[4]"},"properties":{"noteIndex":0},"schema":"https://g

2. Objectives of the study

The study aims to assess the prevalence of stress rate among nurses who work in emergency units in al Mosul city hospitals/ Iraq, and the distribution of factors associated with occupational stress.

3. Methodology

A descriptive study with purposive non-probability of sample design used targeting 60 nurses in the emergency departments of the Mosul city hospitals/ Iraq in the period from (15st February 2021 to 1st April 2021) to achieve the objective of study. A self-administered pre-structured questionnaire was utilized to gather the data. The instrument of the study was adopted and modified for the present study fall into two parts, the first one is the demographical characteristics of nurses consist of seven items which included (gender, age, educational level, marital status, type of shift work, years of employment as general, and experience in the emergency department). The other is the work-related stress scale. 26 items were scored on

a Likert scale with three levels of stress (stressful=1, occasionally stressful=2, and extremely stressful=3) [5].

The grade of job-related stress was computed by dividing the overall score of the scale into three categories (which indicate the level of stress experienced by nurses) and grading them as follows: mild= 26-43, moderate= 44-61, and severe= 62-78.

4. Results

Table 1 Sociodemographic characteristics of emergency' nurses at al Mosul city hospitals
f: Frequency, %: percentage, M: Mean, SD: Standard deviation

	Characteristics		**f**	**%**
1	**Age (year)**	20 – 29	24	40
		30 – 39	18	30
		40 – 49	16	26.7
		50 and above	2	3.3
		Total	**60**	**100**
		M±SD	**33.9 ± 9.3**	
2	**Gender**	Male	28	46.7
		Female	32	53.3
		Total	**60**	**100**
3	**Nursing qualification**	secondary school	26	43.3
		Diploma	12	20
		Bachelor and above	22	36.7
		Total	**60**	**100**
4	**Marital status**	Single	24	40
		Married	30	50
		Widowed/er	6	10
		Total	**60**	**100**
5	**Shift duty**	Day	38	63.3
		Night	10	16.7
		Both	12	20
		Total	**60**	**100**
6	**Years of experience in nursing**	Less and equal 5	24	40
		6 – 10	12	20
		11 – 15	8	13.3
		16 – 20	10	16.7
		21 and above	6	10
		Total	**60**	**100**
		M±SD	**9.9 ± 7.8**	
7	**Years of experience in emergency**	1 – 3	44	73.3
		4 – 6	12	20
		7 and above	4	6.7
		Total	**60**	**100**
		M±SD	**2.9 ± 1.8**	

The descriptive analysis in table) 1 (shows that the mean nurses' age is 33.9±9.3 years. Highest percentage of age group are 20-29 years it was 40%. The gender refers that 53.3% are female nurses. Regarding nursing qualification, 43.3% of the nurses are graduated from nursing preparatory school. The marital status refers

that 50% in the nurses are married. Regarding shift duty, more than half of nurses in both groups are working at day shift; 63.3%. Regarding years of experience in nursing indicates that nurses are with less than five years of experience as reported among 40% from the sample. While an experience in emergency department indicates the age group 1-3 years represent the majority of nurses 73.3%.

Table 2: Distribution of nurses' stress level according to their personal data at emergency department hospitals

Personal data		Stress level				p. value
		% mild	% moderate	% sever	% total	
Gender	Male	3.3	40	0	43.3	0.05
	Female	0	50	6.6	56.6	
	Total	3.3	90	6.6	100	
Age	20-29	0	45	3.3	48.3	0.253
	30-39	0	21.6	1.6	23.2	
	40-49	3.3	16.6	1.6	21.5	
	50 or more	0	6.6	0	6.6	
	Total	3.3	89.9	6.8	100	
Educational level	Secondary school	0	48.3	3.3	51.8	0.396
	institute	1.6	21.6	1.6	24.9	
	College and above	1.6	20	1.6	23.3	
	Total	3.4	90	6.6	100	
Marital status	Single	0	26.6	1.6	28.3	0.824
	Married	3.3	58.3	5	66.7	
	Widow	0	5	0	5	
	Total	3.3	90.1	6.6	100	
Shift duty	Day	3.3	53.3	3.3	60.4	0.440
	Night	0	11.6	0	11.7	
	Both	0	25	3.3	27.9	
	Total	3.3	90.1	6.6	100	
Experience in nursing	1-5	0	43.3	3.3	46.8	0.163
	6-10	0	13.3	1.6	15.3	
	11-15	0	8.3	0	8.5	
	16-20	3.3	23.3	1	27.8	
	21 or more	0	1.6	0	1.6	
	Total	3.3	90.7	6	100	
Experience in emergency	1-3	1.6	59.4	4	65	0.058
	4-6	0	21.6	0	21.6	
	7 or more	1.6	11.6	0	13.4	
	Total	3.2	92.6	4	100	

f: Frequency, %: percentage

Regarding the level of stress in table)2(the average of stress show that the majority of sample had moderate level of stress, females represent 50%, and males 40%. as a regard of the age group 45% of them was 20-29. while the educational level shows 48.3 of them secondary school graduated. 58.3 of nurses who have moderate level of stress are married. 53.3 of them work as a day shift. While 43.3% fall in the group 1-5 years' experience in nursing as general and 58.3 hade experience in emergency units.

Table 3: the overall distribution of nurses' stress level

Percentage					
			Frequency	%	Valid %	Cumulative %
Stress level	Mild	26-43	2	3.3	3.3	3.3
	Moderate	44-61	54	90.0	90.0	93.3
	Sever	62-78	4	6.7	6.7	100.0
	Total		60	100.0	100.0	

level of job-related stress and scored: mild= 26- 43, moderate= 44-61, and severe= 62-78

The study revealed that 3.3 % of sample had mild stress, where 90% of them had moderate level and 6.7% had severe stress level.

5. Discussion

A) The descriptive analysis in the table (1) shows most of the nurses aged 40% are young between (20-29) years. These results are subsidized by many studies such as Al-Ameri 2014 mentions that 88.2% are more than 26 years old, Godwin and his colleagues upgraded the bulk of them. The age range of 20 to 29 years was represented by 58.9% of the respondents [2], [6]. Theis findings might be a result of the need for new staff nurses to work at emergency units and also these ages are able to bear and more tolerate the burdens of working with emergency cases., but not supported by other studies like Hashemian and his colleagues 2015, and Chatzigianni and his colleague(2018) they revealed that the ages between the of (40–49) years ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.4236/ojem.2020.82005","ISSN":"2332-1806","abstract":"Background: Emergency Clinic (EC) and Central Intensive Care (CIC) are high-stress environments that directly affect the health status of nurses. Methods: The aim of this study was to assess the level of stress at nurses working in the Emergency Clinic and nurses working in the Central Intensive Care. The study included 90 nurses, 45 nurses working in Emergency Clinic and 45 nurses working in Central Intensive Care. The study applied the Emergency Nurse Stress Questionnaire as an instrument to gather the data. This questionnaire was adopted from the Operational Police Stress Questionnaire in order to serve for the function and aim of the present study. Results: Nurses' cohort-age ranged from 20 to 62 years. The largest proportion of respondents 40 (44.4%) was in the 20 - 30 age group, 58 (64.4%) were married, 60 (66.6%) hold bachelor degree and (33.3%) were with secondary school educational level. In terms of work-related fatigue, significant difference was found in working hours, participants reported that there was a significant difference in fatigue between 12 hours shift nurses (61 ± 10.5) compared to 8 hours nurses (41 ± 23.6) with P < 0.001. Results indicated that a vast majority of participants reported moderate to high levels of stress (81% of participants). There was no significant difference in the level of stress between the two groups of participants. There were also no significant differences compared to their demographic characteristics. Conclusion: These findings emphasize the role of using and assuring adequate strategies for ensuring quality management and finding ways of facilitating the increase in the number of nursing staff in these two departments because workplace overload and fatigue are potential factors that increase nurses' stress levels.","author":[{"dropping-

particle":"","family":"Podvorica","given":"Elvana","non-dropping-   particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Rrmoku","given":"Besnik","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Metaj","given":"Albulena","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-

particle":"","family":"Gashi","given":"Hasan","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Open   Journal of   Emergency   Medicine","id":"ITEM-   1","issue":"02","issued":{"date-parts":[["2020"]]},"page":"39-52","title":"Level   of   Stress   at   Nurses Working in   Emergency   Clinic   and   Central Intensive   Care: University Clinical   Centre of   Kosovo","type":"article-journal","volume":"08"},"uris":["http://www.mendeley.com/documents/?uuid=eb86cacc-b057-4819- 8b95-4b33f8e304f6"]}],"mendeley":{"formattedCitation":"[7]","plainTextFormattedCitation":"[7]","previously FormattedCitation":"[7]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-ADDINCSL_CITATION   {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.5812/ircmj.22612v2","ISSN":"20741812","abstract":"Background: Stress has been recognized as a significant psychosocial and physiologic component in educational and practical processes. Objectives: The purpose of present study was to survey stress among Iranian nurses in critical wards. Patients and Methods: In this cross-sectional study, 3643 anonymous questionnaires were disseminated among nurses in different hospitals in Tehran, Iran, by utilizing multistage random sampling. The questionnaire consisted of two sections: demographic characteristics and a 22-item list on a five-point Likert scale. The association of variables with stress was evaluated using hierarchical logistic regression. Results: A total of 3043 completed questionnaires were completed and returned (response rate, 83.53%). Age (> 33 years, 1571 (51.63%); < 33 years old, 1472 (48.37%)), marital status (single, 188 (6.18%); married, 2685 (88.24%); and widow, 170 (5.59%)), working shift (morning, 605 (19.88%); evening, 631 (20.74%); night, 603 (19.82%); and rotation, 1204 (39.57%)), and the years of experience of nurses (1 - 5 years, 413 (13.57%); 6 - 10 years, 589 (19.36%); 11 - 15 years, 832 (27.34%); 16 - 20 years, 758 (24.91%); and 21-25 years, 451 (14.82%)) had significant association with the level of stress (P < 0.05 for all parameters). However, sex (male, 937 (30.79%); and female, 2106 (69.21%)), education (associate, 444 (14.59%); baccalaureate, 2250 (73.94%); and master, 349 (11.47%)), and body mass index (> 24.6 kg/m2, 2514 (49.75%); and < 24.6 kg/m2, 1529 (50.25%)) showed no significant association with the level of stress (P > 0.05 for all parameters). Conclusions: Considering the personal and background characteristics of personnel and understanding their association with stress and stressful situations encompasses the ability to   persevere   and   adapt   to   contextual   stressors.","author":[{"dropping-particle":"","family":"Hashemian","given":"Seyed Mohammad Reza","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Farzanegan","given":"Behrooz","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Fathi","given":"Mohammad","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Ardehali","given":"Seyed   Hossein","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Vahedian-Azimi","given":"Amir","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Asghari-Jafarabadi","given":"Mohammad","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping- particle":"","family":"Hajiesmaeili","given":"Mohammadreza","non-dropping-particle":"","parse- names":false,"suffix":""}],"container-title":"Iranian Red   Crescent   Medical   Journal","id":"ITEM-   1","issue":"6","issued":{"date-parts":[["2015"]]},"title":"Stress among   Iranian   nurses in   critical

wards","type":"article-journal","volume":"17"},"uris":["http://www.mendeley.com/documents/?uuid=a34c1ec5-2a56-4d05- 8a94-2a66c929c9e0"]}],"mendeley":{"formattedCitation":"[8]","plainTextFormattedCitation":"[8]","previouslyFormattedCitation":"[8]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-.

In terms of gender, the research found that females outnumber males by it was 54.3 % of participants, which is supported by many studies such as Jissir and Hassan's 2017 study and Chatzigianni and his colleagues' 2018 study, both of which found that the majority of participants were females (56.6 % and 80.8 %, respectively [9], [10] .Women have reported greater stress levels than males on average since the American Psychological Association began conducting this study, yet the increases in stress levels have usually gone in the same direction each year. On the other hand, this study contradicts Abdullah and Abbas (2015), who found that male nurses account for 79 % of all nurses [11], [12]. These findings may be to the female employer in ministry of health in Iraq are increased int the last decade more than the males due to increase acceptant the nursing job by the female toward the positive view of such job in Iraqi society.

When looking at the participants' educational backgrounds, the results suggest that 43.4 % of them are nursing secondary school graduates. Many research disagree with this conclusion because the normal ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.4103/nms.nms_33_17","ISSN":"2322-1488","abstract":"Background: Many nurses experience job stress in their workplace. Given the wide range of differences in the statistics about job stress among nurses, the question that arises is what is the general prevalence of job stress among Iranian nurses? Objective: The present study aimed to evaluate the prevalence of job stress among Iranian nurses through meta-analysis. Persian and English databases including SID, MagIran, IranMedex, Google Scholar, Sciencedirect, and PubMed were searched by using the keywords such as "job stress, occupational stress, work-related stress, job related stress" and their combinations and 30 articles were finally selected. All the observational research articles that had information regarding the prevalence of job-related stress, sample size, and job stress instruments were entered into the meta-analysis. The form used to extract information included variables such as the first author's name, publication year, the place where the study had been carried out, type of the study, sample size, data collection instruments, and the most important findings. Results: The general prevalence of job stress was estimated to be 69% (confidence interval [CI] 95%: 0.58– 0.79) based on the report of 30 papers with sample size of 4630. By region, type of hospital and the type of study, the highest prevalence of nurses' job stress was 90% (CI 95%: 0.85–0.96) in region one (Provinces of Alborz, Tehran, Qazvin, Mazandaran, Semnan, Golestan, and Qom), 70% (CI 95%: 0.60–0.80) in public and private hospitals, and 79% (CI 95%: 0.58–1.01) in studies where the type of study had not been mentioned. Conclusion: Given the high prevalence of job stress among nurses, developing programs to reduce nurses' job-related stress seems to be essential.","author":[{"dropping-particle":"","family":"Gheshlagh","given":"RezaGhanei","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Parizad","given":"Naser","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Dalvand","given":"Sahar","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Zarei","given":"Mozhdeh","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Farajzadeh","given":"Mohammad","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Karami","given":"Maryam","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Sayehmiri","given":"Kourosh","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Nursing and Midwifery

Studies","id":"ITEM-   1","issue":"4","issued":{"date-parts":[["2017"]]},"page":"143","title":"The prevalence of job stress among nurses   in   Iran: A   meta-analysis   study","type":"article-journal","volume":"6"},"uris":["http://www.mendeley.com/documents/?uuid=56c15c61-978e-4c93-ad27-cf03ac714e32"]}],"mendeley":{"formattedCitation":"[1]","plainTextFormattedCitation":"[1]","previously FormattedCitation":"[1]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-ADDIN   CSL_CITATION   {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.1016/j.ajp.2015.01.002","ISSN":"18762026","PMID":"25703040","abstract":" Nurses caring for psychiatric patients may have to face violent emotions and unpredictable behaviour which can be quite stressful. A stress management program may equip nurses with skills to cope effectively with the stress. A one group pre-test and post-test design was adopted to test this hypothesis. Both gender nurses caring for psychiatric patients were invited to undergo 10 consecutive, one hour sessions of a stress management program. The DCL Stress scale was used to collect data immediately after intervention and four weeks later. RM ANOVA with spss 16 showed that pre-intervention mean stress reduced significantly (p= 0.000) from 57.45 ± 16.42 to 41.06 ± 16.51 immediately following the intervention and 26.43 ± 12.82 (p= 0.000) four weeks after the intervention. The   stress   management   strategies   positively   impacted   on   nurses'   stress   levels.","author":[{"dropping-particle":"","family":"Sailaxmi","given":"Gandhi","non-dropping-   particle":"","parse-names":false,"suffix":""},{"dropping-   particle":"","family":"Lalitha","given":"Krishnasamy","non-dropping-particle":"","parse- names":false,"suffix":""}],"container-title":"Asian   Journal of   Psychiatry","id":"ITEM-   1","issue":"2015","issued":{"date-parts":[["2015"]]},"page":"42-45","publisher":"Elsevier B.V.","title":"Impact of a stress management program on stress perception of nurses working with psychiatric   patients","type":"article-journal","volume":"14"},"uris":["http://www.mendeley.com/documents/?uuid=8a5e01af-0d6f-48c4-ac18-54d37873665c"]}],"mendeley":{"formattedCitation":"[13]","plainTextFormattedCitation":"[13]","previo uslyFormattedCitation":"[13]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-ADDINCSL_CITATION   {"citationItems":[{"id":"ITEM-1","itemData":{"ISSN":"00296503","PMID":"6569540","author":[{"dropping-particle":"","family":"Thomas","given":"V.","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"The Nursingjournal of   India","id":"ITEM-1","issue":"7","issued":{"date-parts":[["1984"]]},"page":"159","title":"Stress management","type":"article-journal","volume":"75"},"uris":["http://www.mendeley.com/documents/?uuid=704b4289-18a8-4dec- bb4d-d7772aa13922"]}],"mendeley":{"formattedCitation":"[14]","plainTextFormattedCitation":"[14]","previou slyFormattedCitation":"[14]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-ADDINCSL_CITATION   {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.4103/0019-5278.146890","ISSN":"19983670","abstract":"Introduction: Nursing has been identified as an occupation that has high levels of stress. Job stress brought about hazardous impacts not only on nurses′ health but also on their abilities to cope with job demands. Objectives: This study aimed at finding out the degree of work-related stress among the staff nurses and various determinants, which have a impact on it. Materials and Methods: Institutional-based cross-sectional study conducted on GNM qualified nurses. Predesigned and pre-tested questionnaire covering their sociodemographic variables in part I and professional life stress scale by David Fontana in part II. Analysis used was Chi-square test and logistic regression for various factors. Results: Risk for professional stress due to poor and satisfactory doctor′s attitude was found about 3 and 4 times more than with excellent attitude of doctors toward the staff nurses. A statistically significant association (P < 0.024) between department of posting and level of stress. Nurses reported that they had no

time for rest, of whom 42% were suffering from moderate-to-severe stress. The nurses who felt that the job was not tiring were found to be less stressed as those who perceived job as tiring (OR = 0.43). Conclusion: The main nurses′ occupational stressors were poor doctor′s attitude, posting in busy departments (emergency/ICU), inadequate pay, too much work, and so on. Thus, hospital managers should initiate strategies to reduce the amount of occupational stress and should provide more support to the nurses to deal with the stress.",

"author":[{"dropping-particle":"","family":"Sharma","given":"Parul","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Davey","given":"Anuradha","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Davey","given":"Sanjeev","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Shukla","given":"Arvind","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Shrivastava","given":"Kajal","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Bansal","given":"Rahul","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Indian Journal of Occupational and Environmental Medicine","id":"ITEM-1","issue":"2","issued":{"date-parts":[["2014","5","1"]]},"page":"52-56","publisher":"Medknow Publications","title":"Occupational stress among staff nurses: Controlling the risk to health","type":"article-journal","volume":"18"},"uris":["http://www.mendeley.com/documents/?uuid=0b57f171-2437-43af-98f1-5eebf82db494"]}],"mendeley":{"formattedCitation":"[15]","plainTextFormattedCitation":"[15]","previouslyFormattedCitation":"[15]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-

CSL_CITATION ADDIN "citationItems":[{"id":"ITEM-1","itemData":{"abstract":"" المستخلص الأهداف

لمستشفيات الأمراض للتعريف على أهم مصادر االجهاد النفسي التي قد يتعرض لها الممرضين العاملين في الرهات النفسية الدراسة تنوي في مدينة بغداد وكذلك إليجاد العالقة ما بين مستويات االجهاد النفسي مع بعض الخصائص اليموغرافية لهؤالء الممرضين .النفسية والعقاية الغرضية عينة البحث بالطريقة. جمعت ، 2004 آذار والعاشر من ، 2003العاشر من كانون االول دراسة وصفية تم أنجازها بين : المنهجية . ممرضة من العاملين في مستشفيات :ابن الرشد ،الرشاد ومن الردهة النفسية مستشفى بغداد التعليمي ممرض و 44 ل األحتمالية غير خاص لهذا الغرض Inventory- والذي يشمل :المعلومات الديموغرافية للممرضين والممرضات المشاركين؛ البحث فقد استخدم من اجل جمع معلومات والذي عن 2000)(20 صين (ح بو ال العربية أل مقياس معدل وبنسخته و أستبان التحليلي .والتوزيع تحليل (PSI) Stress (Psychological متوسط و 3340 % البيانات باستعمال األحصاء الوصفي :التردد والنسبة المئوية. تم األجهاد النفسي فقرة لقياس مستويات 44 يتضمن مستوى وى عالي من االجهاد؛ من المشاركين وجد عندهم مست 3442 % الى ان الدراسة توصلت النتائج ، :واألحصاء المالي وبيئة العمل والسياسي قد حصلت على اعلى نسبة تأثير على الممرضين والممرضات .ووجدت الدراسة ان عندهم 2443 % لديهم :االبعاد الردهات النفسية .هنالك عالقة ما بين االجهاد النفسي وجنس المشارك ،المستوى العلمي ،والعمل في مستوى منخفض .وكانت تخصص الممرض النفسي للعمل في تلك الردهات. ،بأستخدام الممرضين اكثر من الممرضات في تلك الردهات توصي الدراسة التوصيات: محاولة تعيين نسب عالية من الحاصلين على درجة البكلوريوس في التمريض ،وضع معايير خاصة للعالقة فيما بين جميع منسبي تلك إيجاد الردهات،. االجهاد مع التعامل لجلسات الحضور على والممرضات الممرضين حث وأخيرا Abstract: Objectives: The study intends to identify the sources of work-related stress that might face the nurses working at psychiatric wards in Baghdad psychiatric hospitals and to find out a relationship between the levels of stress and some demographic characteristics. Methodology: A descriptive study was achieved from the 01th of December, 2013 through the 10th of March, 2014. Non-probability purposive samples of 94 nurses who work in psychiatric wards of Baghdad psychiatric hospitals were recruited to …",

"author":[{"dropping-particle":"","family":"Al-Ameri","given":"Maan H I","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Iraqi National Journal of Nursing Specialties","id":"ITEM-1","issue":"2","issued":{"date-parts":[["2014"]]},"number-of-pages":"2014","title":"Identifying Sources of Work-Related Stress among Nurses Working at Psychiatric Wards in Hospitals of Baghdad City

الممرضين العاملين في مصادر ل النفسي األجهاد

دى   ردهات والعقلية النفسية األمراض في   مستشفيات بغداد
مدينة","type":"report","volume":"27"},"uris":["http://www.mendeley.com/documents/?uuid=3fa26693-
12b8-39ff-bee0-
2ec6a5132d08"]}],"mendeley":{"formattedCitation":"[16]","plainTextFormattedCitation":"[16]","previou
slyFormattedCitation":"[16]"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-

In terms of marital status, 50 % of them were married, which agrees with Godwin's 2016 estimate of 50.7 % [2]. This condition is regarded a typical commitment in Iraq to marry at a young age, and the bulk of the participants are between the ages of 20 and 29, therefore this high %age of married people is to be expected.

Regarding shift duty majority of nurses are working at day shift; 63.3%.

The number of years of nursing experience suggests that 40% of the nurses in the sample had less than 5 years of experience. While an experience in the emergency department suggests that the age range 1-3 years represents the majority of nurses (73.3%), this might be attributed to a recent appointment in the director of health in al Mosul city, which increased the number of employers.

B) Table (2) shows the distribution of stress levels among nurses' demographical data: The recent study found that nurses working in emergency rooms experience moderate to high levels of occupational stress. The subscales of role overload and physical environment were connected to the greatest and lowest mean of occupational stress, respectively. Some research [13], [16] have found that the amount of occupational

Female nurses had a greater stress level than male nurses, with 56.6 % reporting extremely moderate stress owing to job satisfaction with communication and the dread of being exposed to emergency cases that may be difficult to deal with, as compared to male nurses.

Also, young people (20-29 years old) had the highest degree of stress (48.3%), compared to other age groups. In terms of education, secondary graduates nurses had a greater degree of stress (51.8%), which contradicts findings. .'s A study published in 2015 found that a high degree of education was a critical factor in increasing job stress and was linked to a sense of lack of control in the workplace [4], [14]. However, in comparison to the other group, married nurses report the highest degree of stress (66.7%).

Furthermore, the largest %age of day shift nurses was 60.4 %, which may be explained by the structure of Iraq's health system, which allows the day shift to be accountable for a large number of customers and patients that attend emergency rooms.

In terms of emergency experiences, the majority of those with less experience (1-3) years of employment in emergency units had a higher rate of 60 %.

However, over two-thirds of the nurses in the survey encounter less than 10 patients every day, which explains why the majority of them feel nervous but not too so. The results of who observed a mean score of 58.5 out of 116 for job-related stress among nurses working in Jimma Zone public hospitals, were identical. According to, 42% of people were under moderate-to-severe stress [17].

D) In relation to the stress level in table (3): According to the findings, 3.3 % of the participants experienced light stress, 90 % had moderate stress, and 6.7 % had severe stress.
Other studies [4], [14] have found the same tendency of high levels of stress in emergency department

This conclusion contradicts a research conducted in Addis Ababa, which found that 37.8% of nurses felt stressed [15]. Also, a research conducted in the United Arab Emirates found that 44.4 % of nurses had a low stress level, 55.1 % had a moderate stress level, and 0.5 % had a high stress level [17].

These highly moderate occupational levels among nurses working in al Mosul city hospitals can be considered a huge and real challenge, as the nature of the job directly affects personnel, particularly nurses, and may also affect individuals' mental and physical health, as well as the health services provided in our health sectors.

6. Study Limitation

A major limitation of this study was the difficulty in getting questionnaire data due to the high volume of cases that attend these emergency departments, as well as a scarcity of nurses in such locations, which resulted in nurses' time being wasted.

7. Conclusion and Recommendations

In this regard, the results of a study showed that the emergency nurses in al Mosul city had high level of occupational stress, the study recommend to increase the number of nurses in the emergency inside the Mosul city hospitals as well as enrolled the nursing staff in continuous stress management program to reduce the stress occurs during submitting services.

8. REFERENCES

[1]   R. Gheshlagh et al., "The prevalence of job stress among nurses in Iran: A meta-analysis study,"Nurs. Midwifery Stud., vol. 6, no. 4, p. 143, 2017, doi: 10.4103/nms.nms_33_17.

[2]   A. Godwin, L. Alexander Suuk, and F. Harrison Selorm, "Occupational Stress and its Management among Nurses at St. Dominic Hospital, Akwatia, Ghana," Heal. Sci. J., vol. 10, no. 6, pp. 1–7, 2017, doi: 10.21767/1791-809x.1000467.

[3]   E. Moustaka, "Sources and effects of work-related stress in nursing," Heal. Sci. J., vol. 4, no. 4, pp. 210–216, 2010,

[4]   J. Adeb-Saeedi, "Stress amongst emergency nurses," Aust. Emerg. Nurs. J., vol. 5, no. 2, pp. 19– 24, 2002, doi: 10.1016/s1328-2743(02)80015-3.

[5]   H. S. Abbas and Q. Q. Mohammed, "Association of Phantom Vibration and Ringing Syndrome and Job- Related Stress among Nurses in Al-Nasiriyah City," vol. 31, no. 1, 2018.

[6]   S. A. R. A. Duoaa Seddiq Abdoh, Mohammed Adeeb Shahin, Ahmed Khalid Ali, Shumukh Mohammed Alhejaili, Osama Madani Kiram, "Prevalence and associated factors of stress among primary health care nurses in Saudi Arabia, a multi-center study Duoaa," J. Fam. Med. Prim. Care, vol. 10, no. 7, pp. 2692–2698, 2021, doi: DOI: 10.4103/jfmpc.jfmpc_222_21.

[7]   E. Podvorica, B. Rrmoku, A. Metaj, and H. Gashi, "Level of Stress at Nurses Working in Emergency Clinic and Central Intensive Care: University Clinical Centre of Kosovo," Open J. Emerg. Med., vol. 08, no. 02, pp. 39–52, 2020, doi: 10.4236/ojem.2020.82005.

[8]   S. M. R. Hashemian et al., "Stress among Iranian nurses in critical wards," Iran. Red Crescent Med. J., vol. 17, no. 6, 2015, doi: 10.5812/ircmj.22612v2.

[9]   M. Kinnunen-Amoroso and J. Liira, "Finnish Occupational Health Nurses' View of Work-Related Stress," Workplace Health Saf., vol. 62, no. 3, pp. 105–112, Mar. 2014, doi: 10.1177/216507991406200304.

[10]   A. Rahimi, H. Vazini, F. Alhani, and M. Anoosheh, "Relationship between low back pain with quality of life, depression, anxiety and stress among emergency medical technicians," Trauma Mon., vol. 20, no. 2, pp. 27–32, Feb. 2015, doi: 10.5812/traumamon.18686.

[11]   A. Batran, "Work Related Stress among Saudi Nurses Working in Intensive Care Units," Open J. Nurs., vol. 09, no. 11, pp. 1143–1152, 2019, doi: 10.4236/ojn.2019.911084.

[12]   N. Yuwanich, S. Akhavan, W. Nantsupawat, and L. Martin, "Experiences of Occupational Stress among Emergency Nurses at Private Hospitals in Bangkok, Thailand," Open J. Nurs., vol. 07, no. 06, pp. 657–670, 2017, doi: 10.4236/ojn.2017.76049.

[13]   G. Sailaxmi and K. Lalitha, "Impact of a stress management program on stress perception of nurses working with psychiatric patients," Asian J. Psychiatr., vol. 14, no. 2015, pp. 42–45, 2015, doi: 10.1016/j.ajp.2015.01.002.

[14]   V. Thomas, "Stress management," Nurs. J. India, vol. 75, no. 7, p. 159, 1984.

[15]   P. Sharma, A. Davey, S. Davey, A. Shukla, K. Shrivastava, and R. Bansal, "Occupational stress among staff nurses: Controlling the risk to health," Indian J. Occup. Environ. Med., vol. 18, no. 2, pp. 52–56, May 2014, doi: 10.4103/0019-5278.146890.

[16]   M. H. I. Al-Ameri, "Identifying Sources of Work-Related Stress among Nurses Working at Psychiatric Wards in Hospitals of Baghdad City مدينة بغداد 3004 ,".دى المرضين العاملين في مصادر الجهاد النفسي ل ردهات والعقلية النفسية المراض في مستشفيات

[17]   N. A. Arjmand, Z. Kashaninia, M. A. Hosseini, and P. Rezasoltani, "Effect of stress management on job stress and work-family conflict among nurses," Hayat, vol. 18, no. 4, pp. 81–91, 2012.