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The stress of the Health Workers at Night Shift in Al Basrah Teaching Hospital

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Abstract

To assess stress on health workers at night shift to reduce the stress on health workers at night shift in Al Basrah Teaching Hospital. A descriptive, cross-sectional questionnaire-based study was conducted at the College of Nursing of Basrah University from 15 November 2021 – 1 April in 2022. Questionnaire consisted of (25) general knowledge questions related to antibiotic use and antibiotic resistance was given to a sample of 100 students from the third and fourth stage. Data were collected through a questionnaire of 50 samples (35 male 15 female) that included two axes, the first axis of demographic information for nurses. And the second axis there were some questions about assessing stress on health workers at night shift and to reduce the stress all health workers answered about (12) question through interviewing.

The findings of present study revealed that the majority of health workers (76%) suffered from stress during night shift. The stress increases with age of health workers and workload. The stress causes problems to health workers such as physical problems included: impaired sleeping/waking, gastrointestinal disorders, and an increased risk of cardiovascular diseases.

The majority of healthcare workers experience stress while working the night shift. The main cause of stress at night shift according to the opinions of participants in this study is workload. Most of the participants are satisfied with working the night shift but the majority of them think that the amount of their monthly income does not fit with the amount of the submitted effort and hard work.

Keywords: stress, night shift, nursing, students, knowledge

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Introduction

Stress is a part of daily life. It is a psychological state or the process that occurs when a person is faced with an event he perceives as threatening to his physical and psychological welfare. It stems from interactions with one's environment and inconsistencies between the pressures of a situation and one's resources.[1][2]

Stress has become significantly important in occupational health with globalization, promotion of competition, increased movement between nations, and changing employment relationships. Moreover, it has been identified as a major cause of economic loss throughout the world.[3]

Health workers are continually exposed to stress because of the sensitive nature of their profession. Health workers in parts of a hospital are regular, sympathetic, and interested people when they enter their profession; after a few years of working and facing a lot of occupational stress, they become fatigued and tend to withdraw from their work.[4]

Night-shift working is the work time stretching out to all or part of the night, which can be ceaseless to involve all days of the week or intermittent that can be varied by the number of working nights/week or month [5].

Night-shift working is common among healthcare workers and the night time activities requested by shift work schedules in hospitals cause disruptions of the normal sleep-wake cycle, exposure to artificial light at night , occupational and psychosocial stress [6].

Many studies have analysed the impact of night shift work on the physical health of workers. In particular, some authors identified a maladaptation syndrome related to shift work, characterized by impaired sleeping/waking gastrointestinal disorders, and an increased risk of cardiovascular diseases. Recently, a syndrome called “shift work disorder” has been identified by the presence of the following symptoms: alteration of circadian rhythm of sleep/wake, insomnia, excessive day sleepiness, and fatigue.[7][8][9]

There are Some techniques to manage the stress such as :

Relax in any situation, taking break from the work, do proper diet and exercise, gaining control over the work, negotiating home responsibilities, manage the time perfectly, listening to music, make better decisions during crises and conflict, Adaptability to

change, bring stress energy under control, team productivity, turn negative feelings in positive feelings, Self-confidence, increase self-awareness.[10]

The aim of the present study is to investigate the impact of the stress that occurs in the night shift healthcare workers and find strategies in order to cope with negative consequences. **Importance of the study**

This study aims to assess the stress that occurs to the healthcare workers during the night shift in Al Basrah Teaching Hospital.

Statement of the problem

Stress of health workers at night shift at Al Basrah Teaching Hospital.

Objective of the study

To assess the stress during the night shift.

Definition of terms

Stress , health workers , night shift.

Stress : - Stress is described as a sense of being overwhelmed, worry, destroyed, press, exhausted, and lethargy. Therefore, stress can influence people in every age, sex, race, and situation and can result in both physical and psychological health.[11]

Health workers :- A healthcare worker is one who delivers care and services to the sick and ill people either directly as doctors and nurses or indirectly as aides, helpers, laboratory technicians, or even medical waste handlers. [12]

Nightshift: - Night shift term defined as work performed after 6pm and before 6am the next day[13].

Methodology:

Design of the study:

This study was cross- sectional has been carried to assess the stress on health workers during night shift at Basrah teaching hospital through 15 November in 2021 – 1 April in 2022. The sample was collected using a questionnaire by interviewing randomly in the wards of Basrah teaching hospital.

The instrument of the study:

We adopted an assessment tool to assess the stress on the health workers at night shift in Al-Basrah teaching hospital. A questionnaire was made to study the stress that faced by them after reviewing several research studies [10]. After completing the

questionnaire was distributed and presented to a panel of experts .The data was collected through interviewing with health workers on the subject of the study.

Research Study Tool (Questionnaire): The questionnaire consists of:

Part 1: The first section is the socio-demographic characteristics sheet consisting of (8)items age, gender, education levels, residence, place of work , social status, years of experience and monthly income.

Part 2: : In the second part, there were some questions to assess stress on health workers at night shift and to reduce the stress all health workers answered about (12) question through interviewing that included the times of night shift, if they faced stress while night shift ,if the health workers have(family problem, health problem, work pressure, children education ,or other problems),if they feel the rest is enough for them or not ,if the health institution provided them with any facilitates to relieve stress during night shift ,if the night shift effect on the efficiency of health care services ,if there is cooperation between staff in the workplace during night shift ,if the working in the night shift affect social relationships, if they are satisfied with working in the night shift ,numbers of sleep hours ,if the health workers think that the salary is fit for them effort and work , and if the health institution provided them with food meal.

The sample of the study:

The study involved(50 samples of 35 male and 15 female) health workers in AL-Basrah teaching hospital at night shift. A simple random sampling method was used when selecting the sample to be used for the purpose of collecting data.

Statistical data analysis:

Data were analyzed using SPSS version 17 (statistical package for social sciences), and the data is expressed in (frequency and percentage). The mean score and significance were used to assess the correlation between the different variables.

Results:

We included 50 healthcare workers from Al Basrah Teaching Hospital. Table 1 presents sociodemographic characteristics of the participants.

Table (4.1): social demographic characteristics

variables	frequent	percentage
Age:		
20-30 years	23	46%
≥31years	27	54%
Gender:		

Male	35	70%
Female	15	30%
Education level:		
Nursing school	17	34%
diploma	21	42%
bachelor	12	24%
Place work:		
emergency	12	24%
surgical department	16	32%
medicine	8	16%
operation	8	16%
intensive care unit	6	12%
Years of experience:		
Less than 5 years	11	22%
5-10years	11	22%
More than 10 years	28	56%
Monthly income level:		
Less than 500000	2	4%
500000-1million	35	70%
More than 1million	13	26%
Place of resident :		
centre of the city	44	88%
countryside	6	12%
Social status:		
married	39	78%
single	11	22%

According to this table, the majority of health workers with age more than(31) years and the percentage of them is (54%).while the female was (30%) and male was (70%)also the percentage of nursing school was (34%)while the diploma was(42%) and the bachelor was (24%).and about the place of work included the emergency the percentage of it was (24%) and also percentage of surgical department was (32%) ,and the percentage of medicine and operation were(16%) ,while the percentage of years of experience less than 5 years was (22%) while the percentage of 5-10 years was (22%) and the years more than 10 years was (56%).the percentage of monthly income of health workers less than 500000 was(4%) and from 500000to 1 million was (70 %) while the health workers more than 1 million was (26%) ,in the social condition the percentage of the married was (78%) and the single about (22%)and the end of this table the place of resident included centre of the city its percentage was (88%) and countryside was (12%).

Table (4.2): Frequency of study sample according to stress:

	frequency	percent
No stress	12	24%
Stress	38	76%
total	50	100%

According to this table (4.2) majority of health workers suffered from stress during night shift, their percentage is (76%) and other health workers are not exposed to stress, their percentage is(24%).

Table (4.3): The relationship between the age of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
age	20-30years	7	16	23	0.508
	≥31 years	5	22	27	

Correlation is significant at >0.05 level

Table (4.3) showed the health workers with (20-30 years) suffered from stress about (16 for 23)and another without exposure to stress. While the other health workers with age more than 31 years also exposed to stress about (22from 27) and others without stress.

Table (4.4): The relationship between the gender of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
gender	Male	5	30	35	0.027
	female	7	8	15	

The correlation significant at <0.05

According to this table the male of health workers exposed to the stress more than female during night shift.

Table (4.5): The relationship between the education levels of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
Education level	Nursing school Diploma bachelor	4	13	17	0.742
		6	15	21	
		2	10	12	

The correlation significant at >0.05

According this table the health workers from nursing school suffering from stress about (13 from 17) while other of them without stress. Also the health workers with diploma exposed to stress about (15 from 21) and other of them without stress. And the health workers with bachelor suffering from stress about (10 from 12) and other of them without stress.

Table (4.6): The relationship between the place of work of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
Place work	emergency	1	11	12	0.064
	surgical department	4	12	16	
	medicine	1	7	8	
	operation	5	3	8	
	intensive care unit	1	5	6	

According this table the health workers at emergency suffering from stress about (11from12) and other of them without stress. While the health workers at surgical department suffering from stress about (12 from16) and other of them without stress. Also the health workers at medicine suffering from stress about (7from8) and other of them without stress. The health workers at operation are not exposed to stress about (3 from 8) and other suffered from stress. The health workers at intensive care unit suffering from stress about (5from6) and other of them without stress.

Table (4.7): The relationship between the years of experience of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
Years of experience	Less than 5years	4	7	11	0.457
	5-10 years	3	8	11	
	More than 10 years	5	23	28	

The correlation significant at >0.05

According this table the health workers with less than 5 years of experience suffering from stress about (7 from 11) and other of them without stress, Also the health workers 5-10 years of experience suffering from stress about (8 from 11) and other of them without stress, while the health workers with More than 10 years of experience suffering from stress about (23 from 28) and other of them without stress.

Table (4.8): The relationship between the monthly income level of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
Monthly income level	Less than 500000	2	0	2	0.004
	500000-1 Million	10	25	35	
	More than 1million	0	13	13	

The correlation significant at <0.05

According this table the health workers with Less than 500000 of monthly income level are not suffering from stress. While the health workers with 500000-1 million exposed to stress about (25 from 35) and other of them without stress. And also the all health workers with more than 1 million of monthly income level exposed to stress.

Table (4.9) : The relationship between the place of resident of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
place of resident	Centre of city	11	33	44	0.553
	Countryside	1	5	6	

The correlation significant at >0.05

According this table the health workers that they live in centre of city suffering from stress about (33 from 44) and other of them without stress, while the health workers that they live in countryside exposed to stress about (5from6) and other of them without stress.

Table (4.10): The relationship between the social condition of sample and stress:

		Mean(binned)		total	value
		No stress	stress		
Social condition	Married	7	32	39	0.073
	single	5	6	11	

The correlation significant at >0.05

According this table the married persons of health workers exposed to stress about (32 from 39) and other of them without stress. And also the single persons of health workers suffering from stress about (6from 11) and other of them without stress.

Discussion

In the healthcare system, shift work is considered necessary and indispensable to ensure continuity of care in hospitals and residential facilities. Rotating and scheduling are the main characteristics of shift work and health workers are largely locked into schedules that provide 24-hour care and include night shift work. ^[29]

The night shift is one of the most frequent reasons for the disruption of circadian rhythms, causing significant alterations of sleep and biological functions that can affect physical and psychological well-being and negatively impact work performance. ^[30]

In our study, The response rate was 76% (38/50). Majority of health workers suffered from stress during night shift.

The results of our study were almost similar to the other studies. The finding in the table (3) indicates that stress increases with increasing age of the health worker

working in the night shifts, this suggests that middle-aged adults who feel stressed or stressed in the workplace may be more prone to health problems. The finding in the table (5): The health workers engaged in rotating night shifts who had diploma and bachelor's degrees were more likely to be stressed because they are often in critical care units. There was an extra workload on health workers during their night shifts, although they worked the same hours as day shifts, because there were fewer health workers during night shifts, and they had to deliver healthcare services to patients alone. This finding is in line with those of the study conducted by Moattari & Jahromi in (2013)^[31] who referred to the fact that health workers undergo excessive working pressure, which is an organizational issue and needs to be resolved by the hospital management by increasing the number of health workers working night shifts. This finding is also in agreement with the study done by Abdullah Karim et al. (2017).^[32]

The finding in the table (10) another theme emerging out of the health workers' lived experience was psychological issues which included personal and family issues such as decreased performance and imbalance between the desired lifestyle and work. This finding is in agreement with those of the studies carried out by Costa (2016) and Moattari and Jahromi (2013), who declared that night shift health workers in family-oriented communities are faced with numerous familial and social issues which might be resolved by making or changing the public culture and ideology about night-shift working health workers through the mass media.

The following significant relationships were observed: job stress was inversely related to sleep quality, which was directly related to self-perceived health status. Conclusion and implications for nursing management Hospital managers need to ensure healthier shift work scheduling in order to improve health workers' clinical performance and personal health status, thereby also improving the quality of patient care.

Our research suggests that night shift work, like jet lag, can frequently induce sleep disorder which, still underestimated, can represent a risk factor for poor mental and physical health as well as for accidents.^[29]

Limitation of the study took place only in one hospital (Al-Basrah Teaching Hospital), and it would be better to include health workers such as health to improve from different hospitals and also from different cities.

Conclusion

- 1-Our current study showed that the majority of healthcare workers experience stress while working the night shift .
- 2- The main cause of stress at night shift according to the opinions of participants in our study is workload .
- 3-Most of the participants are satisfied with working the night shift but the majority of them think that the amount of their monthly income does not fit with the amount of the submitted effort and hard work.
- 4-Majority of the participants suffer from sleep deprivation and that results in the disruption of circadian rhythms and natural sleep cycle which will lead to fatigue and decrease cognitive performance.
- 5-Majority of the participants don't have enough reset during the night shift and they also disagree with the fact that health institutions provide facilities to relieve stress at night shift .
- 6-Most health workers disagree with the fact that working the night shift affects social relationships.
- 7-Most health workers think that stress at night shifts affect the work performance.

Recommendations

- 1-Reducing night shift hours by providing alternatives of the same staff.
- 2-Increasing the number of health workers at night shift.
- 3- Provide financing incentives and food meals for the health workers at night shifts.
- 4-Encourage the health workers to pay attention to sleep strategies such as taking enough naps on break or after eating.

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