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Research Article

Prevalence of Depression, Anxiety and Stress among Health Care Workers in Eradah Complex in Jeddah City, Saudi Arabia

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Abstract

Introduction: The importance of this study comes from its ability to shed light on depression and anger that spread among health workers, due to the presence of a small number of studies that dealt with this issue, especially in the Kingdom of Saudi Arabia in the Jeddah region.

Objective: To explain prevalence of depression anxiety and stress among health care workers.

Research Methodology: A descriptive research strategy is used for this investigation. The goal of this methodology is to gather data that can be used to provide a comprehensive description of a certain group of people or an observed phenomenon.

Results: The results showed the depression level was mild, the anxiety level was normal, the stress level was normal, there is significant difference in depression level according to marital status, but there is no significant difference according to age, nationality, gender, experience years, and department, there is significant difference in anxiety level according to gender, and marital status, but there is no significant difference according to age, nationality, experience years, and department, and there is significant difference in stress level according to marital status.

Keywords: *Depression; Anxiety; Stress among Health Care Workers*

Introduction

The World Health Organization identified mental health as "essential to human health" in its plan for preventing, treating, and conquering mental health diseases. Despite of this prospective mental health issues remain the leading cause of disability and asignificant public health concern worldwide due to illness evolution, treatment challenges, and growing incidence. Depression, anxiety, and stress, in particular, are crucial measures of mental health that, if left untreated, may have a severe impact on people (Ramón-Arbués., *et al*. 2020).

Depression, Anxiety and Stress among health care worker in Eradah Complex in Jeddah City, Saudi Arabia has great importance The importance of this study comes from its ability to shed light on depression and anger that spread among health workers, due to the presence of a small number of studies that dealt with this issue, especially in the Kingdom of Saudi Arabia in the Jeddah region. The importance of issues related to psychosocial risk contrasts sharply with the lack of statistical information on this topic, which can only lead to policy

measures being taken in haste. The work done to date to assess the causes and effects of occupational stress is primarily based on case studies, company by company, or on sector analyses. Occupational stress has been studied, for example, employees of intercompany services, for workers in mobile emergency and resuscitation services. These studies do not aim to highlight the presence of specific company specific effects.

Research Problem and Significance

High intensity of medical work, high pressure and high risks are one of the main causes of mental health problems for medical staff. In addition, the influence of the internal and external environment of medical work is also an important factor that leads to the frequent occurrence of mental health problems in the medical staff. The combination of these issues and factors has significantly increased the risk of developing mental health disorders for some medical staff. Medical staff are on the front line to protect the life and health of the general public and are an important force in building a healthy work environment. Only on the basis of ensuring their mental health can they do all the work well. How to protect their mental health. The current study attempts to strengthen the building of the mental health services system for medical personnel.

This includes not only introducing the medical personnel's knowledge of mental health, but also providing psychological counseling, psychological counseling, crisis intervention, etc. that directly serve the medical personnel, and ensure the comfort of the medical personnel to use these services in the institutional process.

Research Objectives

1. To explain prevalence of depression anxiety and stress among health care workers.
2. To identify reasons for depression, anxiety and stress among health care workers
3. To evaluate the impact of prevalence of depression, anxiety and stress among health care workers in eradah complex in Jeddah city.

Literature Review

There are many researches [1] explained that Healthcare workers (HCWs), who are on the front lines of the COVID-19 pandemic, may experience a substantial impact on their mental health. Therefore, it is urgently important to track rates of mood, sleep, and other mental health problems to identify moderators and guide individualized interventions. Study by Sharma [2] aims to enhance the occupational protection of medical staff and reduce occupational injuries. On the basis of advocating respect for the entire community for physicians and health care, it is recommended that relevant departments and units establish and improve supportive measures for advance prevention and post-event disposal, and provide a psychological support system for medical personnel. Nayak [3] showed how common mental health issues including depression, anxiety, and stress were among HCWs during the 2009 COVID-19 outbreak, and how they manifested themselves. Research results is used to inform the Ministry of Health's (MoH) future planning of preventative mental health services for frontline employees in the public and private health sectors. Not only should attention be paid to the impact of female health care workers' work on their families, but also the work-family conflict that exists among male health care workers should not be ignored. It is necessary to enhance the awareness of the medical staff to maintain a balance between work and family through lectures, training, promotion of publicity, etc., and to improve coping skills; And provide certain guarantees of regulations and measures to reduce their concerns [4].

Many published economic studies have dealt with the issue of stress at work, none of which revealed any real differences in the stress felt by employees of different companies. The reason for this deficiency is undoubtedly due to the difficulty in obtaining accurate synthetic measurements of employee stress, while controlling for the influence of their personal characteristics on its severity. However, work on the measurement of stress and its determinants has been done by epidemiologists or psychologists. These rely on the use of Likert scales, which capture respondents' self-reported feelings of various statements related to perceived stress in their workplace. The answers are related to a frequency ranging from 'never' to 'often' over a certain period, e.g. the last month [3].

Research Methodology

A descriptive research using cross-sectional strategy will be used for this investigation. The goal of this methodology is to gather data that can be used to provide a comprehensive description of a certain group of people or an observed phenomena [5]. It aids investigators in determining the where, what, how, and when of a study. In this study, data collection will be accomplished using internet survey in which questionnaires will be distributed to the health care worker.

Study design

A cross-sectional study design will be employed. The participants will be selected from the inclusion and exclusion criteria (Taris Kessler and Kelloway, 2021). The researcher will be able to assess both the outcomes and the exposures of the participants. It is a simple, and cost-effectivity study design also has a short data collection period.

Sampling

The sample of the research will be comprised of Employee from Eradah complex for data collection.

Sample size

The number of participants in this study was 140 participants.

Study setting

Eradah complex in Jeddah city, Saudi Arabia.

Target population

The sample of the research will be comprised of Employee from Eradah complex for data collection.

Inclusion criteria: (Workers in Eradah Complex in Jeddah City).

Exclusion criteria: (Any other sample outside Eradah Complex).

Study variables:

- Dependent variable: Prevalence of depression, anxiety and stress.
- Independent variable: Impact on health care workers in Eradah Complex in Jeddah City.

Questionnaires/data sheets from other authors (Copyrights or permission to use, or open access for academic and research purposes) Free for the use of healthcare workers and researchers the person collecting the data should ask the questions on this form.

Statistical analysis

Independent samples t-tests and other appropriate statistical analyses is used to examine the correlation between the different variables of interest.

Data collection/data source

Information regarding prevalence of depression, anxiety and stress among health care workers are collected at Eradah Complex in Jeddah city. Prepared questionnaires that sent to each participant in the research community via e-mail. They are given a two-week period to complete the questionnaires and return them to the researcher. However, a reminder are sent to each of the respondents by the end of the first week in order to increase the response rate of the study by reminding them to fill out the questionnaire on time. Initial pilot testing

and initial review of the Depression, Anxiety and Stress Scale-21 (DASS-21) instrument is conducted. With the assistance of the supervisor and unit coordinator to assess the quality of the data collection methods used.

Ethical considerations

There are numerous ethical issues that must be resolved throughout the study. Keeping information private and safeguarding everyone's rights are two of the most important factors to think about. Participants in study should be able to trust that their information is kept private, as stated by Artal [6]. The University has stringent rules for the protection of student data, and all participants is given a consent document that explains how they is used. Research participants in a study on such a delicate subject could reasonably anticipate being informed by the researcher about the study's purpose and given the option to participate or not. Furthermore, it is anticipated that their participation in the study is entirely voluntary [6]. As a result, everyone involved in the study is aware that they can stop being a part of it at any time with no negative consequences. They will also be assured that their privacy is protected throughout the process.

Before any data is collected, we will submit our protocol to the King Saud University Ethics Committee for review and approval.

Results

Prevalence of depression, anxiety and stress

Variables	Categories	N	%
Age	From 20 - 25 years	22	15.7
	From 26 - 35 years	42	30
	From 36 - 45 years	57	40.7
	More than 45 years	19	13.6
Nationality	Saudi	121	86.4
	Non-Saudi	19	13.6
Gender	Male	87	62.1
	Female	53	37.9
Marital status	Single	41	29.3
	Married	80	57.1
	Another	19	13.6
Experience years	From 1 - 5 years	27	19.3
	From 6 -10 years	49	35
	More than 10 years	64	45.7
Department	Internal	8	5.7
	Psychiatry	14	10
	Nursing	57	40.7
	Dentist	7	5
	x-rays	4	2.9
	Medical analysis	9	6.4
	Others	41	29.3

Table 1: *Demographic data (N = 140).*

The results showed the participants were 140, 15.7% from them aged from 20 - 25 years, 30% from 26 - 35 years, 40.7% from 36 - 45 years, 13.6% more than 13.6%, most of them 86.4% were Saudi, 13.6% non-Saudi, 62.1% male, 37.9% female, 29.3% single, 57.1% married, 13.6% another, the majority 45.7% had experience years more than 10 years, 35% from 6 - 10 years, 19.3% from 1 - 5 years, most of them 40.7% were working in the nursing department, 10% in psychiatry, 6.4% in medical analysis, 5.7% in internal medicine, 5% in dentist, 29.3% were others.

Severity	Depression	Anxiety	Stress
Normal	0 - 9	0 - 7	0 - 14
Mild	10 - 13	8 - 9	15 - 18
Moderate	14 - 20	10 - 14	19 - 25
Severe	21 - 27	15 - 19	26 - 33
Extremely severe	+28	+20	+34

Table 2: *Cut off of points for DASS-21 scores.*

These categories could be used after multiplied the row score by 2.

No	Subscale	Mean	Standard deviation	Score	Level
1	Depression	5.08	5.15	10.16	Mild
2	Anxiety	3.55	5.15	7.1	Normal
3	Stress	4.76	5.43	9.5	Normal

Table 3: *The level of DASS-21 scale.*

The results showed the depression level was mild with mean 5.08 ± 5.15 and score 10.16, the anxiety level was normal with mean 3.55 ± 5.15 and score 7.1, the stress level was normal with mean 4.76 ± 5.43 and score 9.5.

The results showed there is significant difference in depression level according to marital status (F = 4.165, p-value 0.017), but there is no significant difference according to age, nationality, gender, experience years, and department, there is significant difference in anxiety level according to gender (t = -2.159, p-value 0.033), and marital status (F = 4.279, p-value 0.016), but there is no significant difference according to age, nationality, experience years, and department, and there is significant difference in stress level according to marital status (F = 3.193, p-value 0.044), but there is no significant difference according to age, nationality, gender, experience years, and department.

The results showed there is strong positive significant correlation between depression and anxiety (r = 0.841, p-value < 0.001), there is strong positive significant correlation between depression and stress (r = 0.824, p-value < 0.001), and there is strong positive significant correlation between anxiety and stress (r = 0.847, p-value < 0.001).

Discussion

Estimation of models not only makes it possible to understand the influence of specific characteristics of respondents (such as gender, age, diploma or marital status) on these indicators, but also to determine whether there are significant differences. Health institutions looked. We also developed decomposition techniques to better understand the differences observed between companies in pairs and measure differences in self-reported stress by key functions in companies as well as differences between medical organizations at the

Variables	Categories	Depression	Anxiety	Stress
		Mean	Mean	Mean
Age	From 20 - 25 years	6.14	5.41	5.14
	From 26 - 35 years	4.1	2.52	4.07
	From 36 - 45 years	5.53	3.47	5.12
	More than 45 years	4.68	3.89	4.74
	F	1.002	1.563	0.34
	p-value	0.394	0.201	0.796
Nationality	Saudi	4.81	3.21	4.69
	Non-Saudi	6.79	5.68	5.16
	T (Independent Samples Test)	-1.243	-1.53	-0.345
	p-value	0.228	0.141	0.731
Gender	Male	4.62	2.78	4.44
	Female	5.83	4.81	5.28
	T (Independent Samples Test)	-1.353	-2.159	-0.893
	p-value	0.178	0.033	0.373
Marital status	Single	5.02	3.17	4.17
	Married	4.39	3	4.38
	Another	8.11	6.68	7.63
	F	4.195	4.279	3.193
	p-value	0.017	0.016	0.044
Experience years	From 1 - 5 years	6	4.78	6.33
	From 3 -10 years	4.35	3.06	4
	More than 10 years	5.25	3.41	4.67
	F	0.963	1.013	1.634
	p-value	0.384	0.366	0.199
Department	Internal	5.5	4.5	6.13
	Psychiatry	4.36	3.14	4.57
	Nursing	5.39	3.75	4.61
	Dentist	3.14	2.29	1.29
	x-rays	4	2.75	5.5
	Medical analysis	4.44	2.22	4
	Others	5.39	3.8	5.44
	F	8.763	7.367	21.234
	p-value	0.321	0.269	0.71

Table 4: *The difference in the subscales level according to demographic data.*

		Depression	Anxiety	Stress
Depression	r	1		
	p-value			
Anxiety	r	0.841	1	
	p-value	0.000		
Stress	r	0.824	0.847	1
	p-value	0.000	0.000	

Table 5: *Correlation between the subscales.*

same organization level [3]. Results indicate that stress, anxiety and depression generally go hand in hand. If our research highlights the existence of differences between disciplines.

The results showed the depression level was mild, the anxiety level was normal, the stress level was normal, there is significant difference in depression level according to marital status, but there is no significant difference according to age, nationality, gender, experience years, and department, there is significant difference in anxiety level according to gender, and marital status, but there is no significant difference according to age, nationality, experience years, and department, and there is significant difference in stress level according to marital status, but there is no significant difference according to age, nationality, gender, experience years, and department, and there is strong positive significant correlation between depression and anxiety, there is strong positive significant correlation between depression and stress, and there is strong positive significant correlation between anxiety and stress [7].

The psycho-emotional disorders often associated with occupational stress lead to a decrease in job satisfaction, occupational engagement and self-esteem, which can then lead to states of anxiety, depression, boredom and burnout. It affects his psychological (mental illnesses) and not his physical (abnormal blood pressure, heart problems, etc.). Psychologists, for their part, preferred a second approach, which is based on the direct perception of stress by those involved. This can be the subject of direct assessment by means of a single question whose answer is binary or multilateral, for example: "Do you feel stressed?" or "Is your activity demanding mentally?" This perception can also be measured through multi-item measures [8-12].

Conclusion

The importance of issues related to psychosocial risk contrasts sharply with the lack of statistical information on this topic, which can only lead to policy measures being taken in haste. The work done to date to assess the causes and effects of occupational stress is primarily based on case studies, company by company, or on sector analyses. Occupational stress has been studied, for traveling for mobile emergency and resuscitation (SMUR) service workers. These studies do not aim to show any company-specific effects. While many published economic studies have addressed the issue of stress at work, none have revealed real differences in the stress felt by employees of different companies. The reason for this deficiency is undoubtedly due to the difficulty in obtaining accurate synthetic measurements of employee stress, while controlling for the influence of their personal characteristics on its severity. In surveys conducted at the respondents' place of activity, our analysis focused on the role of individuals' work environment in their levels of stress, anxiety and depression. Profession, seniority, or even the company in which the activity is carried out seem to be influential explanatory factors. However, these findings do not mean that the occupational dimension alone is sufficient to fully explain stress. To be convinced of this, previous regressions were re-estimated, by adding two additional types of variables: travel time from home to work and family status, measured by the couple's life potential and number of children.

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