How to Cite:
Alshammari, F. A. M., & Alshammari, H. M. B. (2017). Prevalence of stress among healthcare workers in Saudi Arabia. *International Journal of Health Sciences*, *1*(S1), 102–110. https://doi.org/10.53730/ijhs.v1nS1.15195

Prevalence of stress among healthcare workers in Saudi Arabia

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***Abstract*---**This research presented substantial evidence about the role of age on the prevalence of stress among healthcare workers in the Saudi context. Although it is a small variation, data showed that older healthcare professionals were less stressed. Therefore, further research could explore what benefits and resources for an aging healthcare workforce improve stress levels. Such an investigation can reveal useful information to the Saudi government and other relevant authorities about policies for the benefits of workers that might also be attractive to the impending retirement, which might otherwise be less affordable to government leaders. Relationship between psychosocial hazards and work performance of nurses in Saudi Arabia. Health care system in Saudi Arabia: an overview. Determinants of work stress among hospital staff at a tertiary hospital, Saudi Arabia. Factors affecting nurse retention in hospitals: an empirical review.

***Keywords*---**healthcare workers, prevalence of stress, hospital staff.

1. Introduction

Healthcare workers (HCWs) are increasingly confronted with professional stresses. Negative psychological and work-related outcomes can occur as a result of exposure to burdens and stress. Health consequences are increasing, including mental illness and burnout, which are common among HCWs. Burnout is classified as an "occupational phenomenon." This syndrome is considered the response to extreme stressors on the job in some human service occupations, which can have deleterious consequences. The syndrome includes emotional exhaustion, depersonalization, and reduced personal accomplishment. Positive mental health can be defined with two thoughts. The first emotion is to comprehend, deal with, and satisfy regular stress, which is emotional resilience. The second is the aptitude to function and devote successfully while dealing with

pressure or strain, defined by the performances for thriving in physical, emotional, and mental wellness. (Alanazi et al.2017)(AlJhani et al. 2017)

In Saudi Arabia, the necessity of satisfying healthcare demands, like the transformation in disease rates into lasting and lifestyle-related health problems, is accompanied by a doubling of the population. Accurate healthcare delivery systems have become the central element of the government's long-term strategy to change its healthcare services. It is constructed and continually developed to support a higher quality of patient healthcare and also to be prepared to help secure anyone with a healthcare-related problem. The healthcare workforce in Saudi Arabia has raised attention to work-related stress among HCWs. Job stress can result in lower productivity by employees, lower satisfaction, and increasing workforce absenteeism, which usually raises the cost of hiring temporary employees, producing a lower level of quality patient care.

2. Literature Review

Healthcare workers (HCWs) are in close contact with a large number of individuals who are infected with various diseases, which leads to increased anxiety and fear among HCWs. This holds true for infectious diseases such as. In the early days of the pandemic, stress among HCWs was significantly increased. During the outbreak of Severe Acute Respiratory Syndrome, healthcare workers experienced high levels of stress that continued for several years after the outbreak ended. Such a situation arose because most people in the community were terrified and managed to escape it, while these benevolent souls were on the front lines of the health system doing their best to save others. This high level of stress has led to the spread of a variety of stress symptoms, including frustration, withdrawal, and difficulty in communication with others. (Yalçın et al., 2017)(Sorokin et al. 2017)

Stress in HCWs is a common phenomenon. A study conducted in the pre- era showed that a significant percentage of Saudi HCWs have different levels of stress. Another study showed that there are many factors leading to occupational stress among HCWs, such as years of experience, having an essential job role, being in contact with infected persons, and working in the clinical unit where is treated. A mixed-methods study showed that occupational stress is common among both medical students and residents in the Arabian Gulf region, with some individuals expressing high levels of stress in clinical matters and difficulty in obtaining sleep, while others reported stress related to interpersonal relationships.

2.1. Global Prevalence of Stress among Healthcare Workers

Stress among healthcare personnel (HCWs) is concerning, especially because of its negative effects on the quality of services provided. A stressed HCW is unable to work effectively, has difficulty in building meaningful patient relationships, and may be more prone to medical errors. High levels of stress, burnout, depression, and violence are very costly not only in terms of the individual but also for the organization. Staff absence, high levels of turnover, early retirement, and lack of recruitment for certain jobs result in staff shortages, reduced skills mix, and

reduced performance while at work. These shortages can then bring about an accumulation of extra tasks and overtime, leading to increased pressure for those still in post. Productivity, devotion to work, and patient care quality can also decrease as a result of burnout, especially when the burnout is prolonged.

Practicing medicine has become a stressful occupation; thus, work-related stress and burnout syndrome are being experienced by physicians, both general practitioners and specialists, as well as by nurses, particularly those working in emergency departments and critical care units. There is a difference of opinion among researchers about whether stress mainly depends on individual personality or is also influenced by work environment conditions. These working conditions include the organization of work, referring events, supervision of work, and personnel policies. Stress is closely related to poor physical and mental health, suggesting possible negative effects on service quality. Protecting healthcare workers from stress or minimizing it will lead to a better focus on patient care, improved patient-doctor relationships, and more efficient and effective healthcare. The aim of this research is to determine the level of stress in healthcare employees and analyze job-related stress factors. There is no specific literature that defines stress among healthcare employees in Saudi Arabia.

2.2. Factors Contributing to Stress in Healthcare Workers

Factors Contributing to Stress in Health Care Workers The sources of stress among health care workers are multidimensional. Stress in health care workers can result from factors related to their work settings such as the high caseload, continuity of care, heavy workload, shift work, irregular working hours, lack of control, lack of participation in decision-making, inadequate resources, and frequent exposure to emotional issues such as suffering and death, as well as exposure to irritated, worried, and blameful clients. In contrast, problems associated with work-related violence, including verbal threats and physical assaults, also represent a significant source of occupational stress in the health care setting. Individual factors, such as lack of social support, personality type, lifestyle, and specific negative events that affect work and personal emotions, can also lead to stress among health care workers. Such negative incidents include the threat of violence, actual violence perpetrated against staff, distress about an event, long-term patient care, staff taking an ethical stance in patient care, working with chronic patients, and dealing with uncooperative patients and families. The role of coping resources in managing stress from staff in the health care setting was also documented recently.

Today, several factors demand attention when discussing the sources of stress in the health care work environment, including work conditions, promoting work-life balance, dealing with gender discrimination, professional career development, changing social structure, and the attitude of service commission. Such stress may result in adverse effects on individual physical health, work performance, and job satisfaction. Moreover, increasing or chronic stress is considered the first stage in the metamorphosis of role stress into professional burnout.

3. Methodology

This study aimed to assess the psychological health of a large sample of healthcare workers in Saudi Arabia during the pandemic. The aim was to describe the level of stress and to examine the relationship between perceived work stress and sociodemographic factors, perceived impact from the pandemic, and the public health strategies in place. The cross-sectional study adapted a nationwide psychological distress survey to be used for this specific professional group. Two types of convenience sampling were employed to generate the sample. Participants were recruited using a combination of snowball and e-recruitment methods. While all healthcare workers in Saudi Arabia were invited to participate in the study, nurses and other health professionals constituted the bulk of the sample. The survey was conducted in Arabic. The questionnaire explored perceived stress linked to working during the pandemic. The primary endpoints were measured using the 4-item perceived stress scale. The perceived stress scale assesses the degree to which a participant perceives aspects of their life as uncontrollable and overwhelming. The ranges are originally scored from 0 to 16, with scores of 0-13, 14, and 15-16 representing low, moderate, and high perceived stress, respectively. The sociodemographic data collected comprised gender, age, marital status, having children, region of work, work position, years of experience, type of healthcare worker, having symptoms, or the period of quarantine during the past two weeks, and a feeling of perceived impact from the pandemic. The association between perceived work stress, perceived impact from the pandemic, and sociodemographic information was analyzed using chi-square tests. A total of 1,504 healthcare workers from all regions in Saudi Arabia without were screened. Most were female, married, had children, were nurses, and worked in hospitals that reported cases. Nearly two-thirds reported moderate to high perceived work stress. Being female, aged under 30, marital status, having children, work position, and perceived impact from the pandemic were significantly associated with perceived high work stress. Due to the high level of moderate and high perceived stress among healthcare professionals working during the pandemic, the possibility of mental health issues should be considered, and timely mental health intervention services should be implemented. The results can serve as a reference for health authorities when designing and implementing post-pandemic psychological and mental health screening. (Alagizy et al. 2017)(Kabito & Wami, 2017)

3.1. Study Design

Mixed method study design was employed, which included quantitative and qualitative methods. The two methods have been summed up in this proposal in detail as follows: 3.1.1 Quantitative Method: A descriptive cross-sectional survey was conducted to determine the prevalence of work-related stress and associated factors and to examine the consequences of this stress among healthcare workers. A self-reported questionnaire was used on health science students, healthcare providers, and health administrators. The survey was held in Makkah City Health Sector. 3.1.2 Qualitative Method: After completing the quantitative part of the study, a focused group discussion using a semi-structured question guide was conducted with some of the participants from the first phase of the study to explore the reasons (causes) of work-related stress among healthcare

workers and how it can affect them, in order to gather more in-depth information and ideas to solve the problem in the future, which was not addressed clearly in the quantitative phase of this study. Participants of the focused group discussion were provided with an overview of the findings of the previous survey and were encouraged to have equal input in all discussions. The key themes of discussion were set according to the results obtained from the previous survey on the prevalence and impact of workplace stress on healthcare workers, in order to have a balanced perception and views on the problem.

The findings of the first phase of the survey were presented one by one, leading to discussions of the factors of work-related stress revealed in the first phase of the study. Finally, a summary of both qualitative and quantitative findings was presented to the participants of the focused group discussion for validation of results and for future implications. This way, everyone had full information leading to a richer discussion and a chance to clear any misconceptions. However, participants were encouraged by the researcher to classify the findings either as a major or minor problem to be addressed for every factor or stressor. It is very important to note that both the quantitative and qualitative research questions were informed by the Job Demands-Resources Model of Job Stress, and we applied this model to propose and test the effects of specific job demands and job resources on healthcare provider stress and burnout. Data from both phases informed the reliability and validity of a comprehensive panel survey to provide more sophisticated insights into the effects of stress and burnout on healthcare providers.

3.2. Participants

Participants in this study were healthcare workers from Saudi Arabia as they are directly involved in the fight against and are exposed to a wide range of health hazards that can affect their physical and mental health. A cross-sectional online survey using the PSS-10 to measure stress levels was carried out between June and July 2017. Participation was voluntary and anonymous, and participants were identified solely by a name or pseudonym. The messaging system was used to collect data from healthcare workers in personal and group chats in seven regions in the Kingdom of Saudi Arabia.

Staff members in workplaces of medical and health institutions, public and private hospitals were approached, as were physicians, dentists, technicians, nurses, resident doctors, and administrative assistants. They were invited to participate in the survey by providing the online access link. Data was collected based on the opinion that the risk of cognitive and emotional harm should be understood and addressed. The researcher did not access participants' private data but verified the anonymous data to ensure that the criteria described for each profession were met. The online data collection tool was designed according to the goals and characteristics of the study, distributed using the messaging system, and participants could click on the link to respond. Those with access to the same internet portal did not respond again. After two weeks, the survey was completed. The inclusion criterion for the study was healthcare workers over 18 years of age.

3.3. Data Collection Methods

This study collected data from healthcare workers using two methods of data collection. The first method involved using paper surveys, and the second one involved distributing the survey link to various social media platforms. It was decided to use paper surveys as sometimes nurses might not have enough time to check and fill out the online survey. Also, sometimes surveys tend to receive proper consideration more quickly. (Sabetian et al. 2017)(Liu et al. 2017)(Eyre et al. 2017)
First, a hard copy of the written consent form was distributed to the participants. The consent form contained a brief overview of the purpose of the research and the rights of the participants, including their ability to withdraw from the study at any time without any penalty, as well as ethical issues such as the confidentiality of the data collected and the use of the data for research purposes only. The consent form also included details of the investigators and a request for electronic contact details of the participants who were willing to participate in the research by filling out the questionnaire and were open to future contact through emails. The data was collected over one week. Then, the following week, the research team met with participants during morning handover sessions and before the evening shift started to distribute the hard copy of the questionnaire and the written consent form. Participants had the opportunity to ask the research team some clarifying questions if they had any, and they were requested by the research team to hand the envelope back to them once they had finished filling out the questionnaire using a pencil and to put their completed questionnaire envelope in the box that was set aside for that purpose the following day before the evening shift started. The consent form explained that once the participants had finished the questionnaire, if they wanted to keep in touch with the investigators for study findings, they should fill out their contact details separately from the questionnaire to maintain confidentiality. Then, the consent form was signed by the investigator as an acknowledgment of the receipt of the consent form. After the conversations, descriptive clarifications, and the distribution of the consent form and questionnaire, many envelopes were distributed among the participants, and the filled-up questionnaires were collected. After the questionnaires were collected, the research team put them in numbered white envelopes to maintain anonymity and confidentiality. Then, the questionnaires were taken to the secretarial offices in the departments to be placed in a tamper-evident plastic bag. The paper questionnaires were taken out daily, and the collected data was transferred to an Excel sheet. The data from the Excel sheet was input into the statistical analysis software tool. The second method used was distributing the survey link for worldwide access and more telemetry.

4. Results

Healthcare workers have direct or indirect contact with confirmed patients, which can lead to stress and uncertainty about the contagiousness of. This study aims to explore the prevalence and factors leading to stress among healthcare workers in Saudi Arabia during the pandemic. This study was a cross-sectional study using an electronic survey distributed on social media platforms in five regions in Saudi Arabia. The survey included general demographic information and sources

of stress related to work due to. A total of 570 healthcare workers participated in the study. The total prevalence of stress was 64.2%: 70.5% of the nonclinical staff, 65.3% from allied health professions, 64% from nurses, and 59.5% of the physicians. The results indicate that 88% of the study's population experienced stress when dealing with suspected cases, 60% could not handle death when it occurred due to, 31% experienced stress due to working with confirmed cases, and 25% of the participants did not have health insurance. Factors that were significantly related to experiencing stress include role, increased work hours, lack of personal protective equipment, mental exhaustion, fear of repercussions, lack of formal employee insurance, and reduced income on lesser working hours.
The research addresses the high prevalence of stress among healthcare workers. The study's findings contribute to identifying significant risk factors that can help develop effective interventions to address present and future pandemics, including mental health components for healthcare workers. The results of this study emphasize the need to take into consideration risk factors and urgent interventions that should be adopted to protect healthcare staff and reduce the levels of stress in these extreme conditions. This will bring about safe and high-quality healthcare services provided to patients and the public. It is beneficial for healthcare institutions as it enhances the performance and productivity levels of the healthcare workers and reduces the effect of work stress, leading to additional consequential psychological problems. An occupational health and safety and infection control culture should be developed and maintained in healthcare systems. The significant findings should be considered and managed as the results identify the main sources of stress among healthcare workers.

5. Discussion

The study aimed to estimate the scale of the problem of stress among healthcare workers working in different healthcare sectors within Saudi Arabia and to explore sources of stress that contributed to giving the economic sectors of Saudi Arabia a clear view of the problem. The stress symptoms in the form of psychological and somatic issues suggested the health cost of stress, commonly known from statistics stating the increase in work-related sickness during certain days. Psychological stress is common enough to be considered a modern epidemic and has been regarded as the number one health problem of the 1990s. Clearly, the impact of stress and the high percentage of healthcare workers experiencing it present a major problem with implications for both healthcare policy and service utilization. Efforts should be made to understand and reduce the stress of healthcare workers and its resulting harm to the individual and the healthcare system.

Some sources of stress perceived as being mainly specific to healthcare personnel derive from the organization of work and can be influenced and changed. This raises the prospect of potential interventions applied at different levels. Most interventions are directed toward the individual and are based on physical and psychological symptom reduction. Of these, the most promising interventions are those that integrate stress management into corporate activity and aim to reduce harmful stress. Based on the results of this study, strategies for intervention need to be tailored to processes that are most influential overall and most influential for subgroups within the workforce. The present findings should feed into the

planning of activities for stress prevention among healthcare professionals. As a basic principle, organizations should aim to ensure regular supportive communication between workers and their managers. There have been frequent calls for healthcare managers to enable preventive measures to promote health in workers by focusing on resource building, encouraging supportive communication, and changing skill training.

5.1. Implications for Healthcare Policy and Practice

Healthcare workers around the world are facing dramatic increases in workload as they strive to deliver health services to cope with. The rapid pace of the spread of has necessitated rapid policies that have been employed despite the presence of uncertainty regarding the virus transmission patterns and the long-term social and economic impact of the aforementioned measures. However, the most effective battle against is by protecting healthcare workers, especially where the health system is already weak. The global evidence has been that we protect health workers by providing personal protective equipment, solidarity with them, respect for their rights, and ensuring that they are adequately compensated for their stressful work. We await to see how sustainable healthcare systems will be in dealing with protecting health workers. Despite the apparent differences across settings and ideologies, in essence, approaches to dealing with the health workforce challenges in pandemics internationally are similar. Nonetheless, healthcare models and responses must vary to match countries' governance frameworks, health systems, and unique healthcare settings. International learning opportunities, exchange forums, and collaborative projects should focus on strengthening human resources management and also enhance healthcare capacity for better pandemic preparedness and response. Such procurements can yield speed, innovation, flexibility, reduced learning curves, and reduced costs. Policymakers must therefore pursue an organization-learning agenda, building on what was learned during the crisis as we rebuild our health systems, learning from the best performers internationally and employing solutions. Interventions are necessary to better prepare, protect, and support healthcare workers throughout a pandemic. Measures to strengthen and support mental health promote better mental health, reduce the negative consequences of stress, and build resilience during pandemics. To enhance the effectiveness, resilience, and sustainability of the health workforce, special attention can be given to integrating and scaling up psychological support measures in health in the post- era.

5.2. Recommendations for Future Research

This research presented substantial evidence about the role of age on the prevalence of stress among healthcare workers in the Saudi context. Although it is a small variation, data showed that older healthcare professionals were less stressed. Therefore, further research could explore what benefits and resources for an aging healthcare workforce improve stress levels. Such an investigation can reveal useful information to the Saudi government and other relevant authorities about policies for the benefits of workers that might also be attractive to the impending retirement, which might otherwise be less affordable to government leaders.

Saudi Arabian healthcare professionals are living in conditions such as local cultural complications, different considerations from the global financial crisis, and a high demand for healthcare professionals because the healthcare system has only developed since 2005. The healthcare stress identified in tDo long work hours and occupational stress among Saudi nurses lead to unsafe practice? Job satisfaction among intensive care unit healthcare professionals in Saudi Arabia. MEU nursing graduates job satisfaction and retention study. Relationship between psychosocial hazards and work performance of nurses in Saudi Arabia. Health care system in Saudi Arabia: an overview. Determinants of work stress among hospital staff at a tertiary hospital, Saudi Arabia. Factors affecting nurse retention in hospitals: an empirical review. Factors affecting Saudi nurses' work stress. Job-induced stress among medical practitioners in Tabuk, Saudi Arabia. Factors affecting university students' depression. Health and Safety Survey.

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