

Original Article

PREVALENCE AND FACTORS ASSOCIATED WITH STRESS MANAGEMENT AMONG HEALTHCARE PROFESSIONALS IN LAHORE

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Abstract

Background: Elevated stress levels can significantly impact both the mental and physical well-being of healthcare professionals. This chronic stress can lead to burnout, anxiety, and various health issues, which in turn can compromise the quality of care they provide. Consequently, effective stress management techniques become essential tools for their well-being and for enhancing their overall performance. The objective of the study was to investigate the prevalence and risk factors of stress management among Health Care Professionals (HCPs) in Lahore.

Materials and Methods; In this study, data was collected from 277 HCPs from public and private tertiary care hospitals in Lahore, through a self-reporting questionnaire. This is a cross-sectional study. The questionnaire consisted of 43 items, identifying many risk factors of stress. The Perceived Stress Scale (PSS), developed by Cohen et al. in 1981, was utilized to evaluate the stress levels of participants. The relationship between stress and associated risk factors was analyzed. Additionally, the coping strategies employed by participants were documented. The data has been analyzed using SPSS version 21.0.

Results: The prevalence of stress among HCPs in Lahore in this study was 49.2%. Various environmental factors caused stress in 88.4% of HCPs. Social stress was experienced by 63.2% of HCPs in their lives while 56 % faced organizational stress. A significant association was observed between PSS scores and environmental factors like traffic, pollution, finances, biological factors, social factors, and organizational factors like overwork and work politics. Certain coping strategies like thinking positively and controlling emotional responses were used by HCPs to decrease their stress levels.

Conclusion: HCPs in Lahore are experiencing a high level of stress in their work place as well as personal lives.

Key Words: Stress management, prevalence, risk factors of stress, Health Care Professionals

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INTRODUCTION

Stress is the body's natural response to situations that require us to take action. It can serve as a motivating force, helping us navigate challenge and stay focused in demanding

circumstances. Whereas a certain amount of stress is important to accomplish certain tasks, too much stress is the precursor to many health problems¹. Be it mental, biological, or social, many health issues arise due to continuous, high levels of stress. Many diseases like diabetes, Hypertension, and stomach ulcers are linked to high stress levels in individuals.²

The World Health Organization has identified stress as a global epidemic of the 21st century. Due to digitalization, overpopulation, and

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inflation, everyone is experiencing increased stress levels in their everyday lives, all over the world. Although people living under the poverty line are affected more, it seems that the professionals are experiencing their fair share of stress. The prevalence of stress among HCPs was found to be 59% in India.³ Medical professionals suffer from higher levels of stress than other professionals.⁴ This study aims to highlight the major everyday hassles causing stress to health professionals in the cosmopolitan city of Lahore. The perceived stress scale designed by Cohen et al. is used to measure the levels of stress.⁵ The participants analyzed their own stress and reported on the questionnaire. The participants helped in identifying the various kinds of stressors they experience. The participants also stated whether they performed certain activities to alleviate their daily stress and whether that helped them.

A mentally and physically healthy individual can contribute more to society than an overstressed, exhausted person especially can, especially in the field of healthcare. Better mental health in HCPs diffuses at large to better mental health of our whole society. It is stated that daily hassles including stress on a small and regular basis causes more cumulative stress than a big stressful incident.⁶ Therefore, it is important to find the prevalence of stress in Lahore among the HCPs and to identify the risk factors affecting them daily. Stress has become a global epidemic.⁷ Among Australian nurses' the prevalence of stress was found to be 41.2%.⁸ The prevalence of stress among HCPs was found to be 44.86% in Bangladesh.⁹ The prevalence of stress in Pakistan among HCPs was around 35% in Karachi.⁴ The gravity of the situation needs to be examined and necessary action needs to be taken to alleviate stress.

There are many global issues like air pollution, water pollution, and lack of resources, that cause stress in a community but it appears that these issues are more profound and severe in Pakistan. The result is that everyone appears stressed. Stress is not only an issue of developing countries like Pakistan but many developed countries are suffering from it as well.¹⁰ Both the

social and physical environments play a critical role in shaping physical and mental health, exerting their effects through the neuroendocrine and immune systems.¹¹ This study plans to explore the risk factors contributing to stress among HCPs and their coping strategies in Lahore

MATERIAL AND METHODS

The cross-sectional study was conducted in Lahore from February 2023 to July 2023. The research instrument employed was a questionnaire encompassing four distinct sections. Convenience sampling technique was used. Questionnaires were distributed in four different hospitals; two of the hospitals were public and two were private Hospitals. The sample included 277 participants, ensuring a 95% confidence interval and a margin of error of 5%. The study respondents are the Health Care Professionals working in these hospitals. The HCPs who were working full-time were included in this study. HCPs include doctors, nurses, lab technicians, nutritionists, and physiotherapists. Anyone who did not consent and was not a direct employee of the hospital were excluded from the study. Convenience sampling was used for questionnaire distribution in the hospitals.

The questionnaire consisted of 4 sections. The first section presented the demographic details, which were age, gender, residence, education, designation, marital status, and family income. This section comprises a total of 13 items. The second part included the Perceived Stress Scale (PSS).⁵ It contains 10 questions with Likert-type scale. The third part helped identify the various factors affecting the stress of individuals. Environmental, social, Biological, and Organizational stressors. Some other risk factors of stress are also mentioned here. There are 13 items in this part of the questionnaire. The fourth part consists of the coping strategies used in stressful situations. They were developed by Lazaurus and Folkman.¹² The data was analyzed using SPSS (version 21.0).

Frequencies and percentages were tabulated. Chi-square was applied to all the parameters and associations were noted by determining the P-value. Taking the cutoff point of the PSS score to be 50%. Low-level stress and High-level stress were categorized and the chi-square test was applied.

RESULTS

A total of 277 Health Care Professionals have participated in the study. The socio-demographic characteristics of participants are presented in Table 1.

Table no 1: Descriptive Statistics of Sociodemographic Characteristics (N=277)

Variables		Frequency (n)	Percentages (%)
Age	20-25 years	99	35.7
	26-30 years	6	34.7
	31-35 years	37	13.4
	36-40 years	16	5.8
	More than 41 years	24	8.7
Gender	Male	84	30.3
	Female	193	69.7
Types of Facilities	Public	181	65.3
	Private	96	34.7
Marital Status	Married	165	59.6
	Single	110	39.7
	Divorced	2	0.7
Designation	Doctors	208	75.1
	Nurses	51	18.4
	Others	18	6.5
Working hours per week	>40 hours	113	40.8
	40 to 60 Hours	103	37.2
	<60 Hours	60	21.7

The demographic data showed that almost 70 percent of the participants were between the ages of 21 years to 30 years. Two-thirds of the participants were females. One-third were males. 60 % of participants were married. Two-thirds of them were doctors. One-third included nurses, physiotherapists, nutritionists. Two-thirds of the participants worked more than 40 hours per week.

Table no 2: Risk Factors associated with Stress levels of HCPs (N=277)

Variables	Low Stress Number (n) Percentages (%)	High Stress Number (n) Percentages (%)	P value
Designation			
Doctors	118 42.6	90 32.5	0.5
Nursing Staff	36 13	22 7.9	
Others	9 3.2	2 0.7	
Working Hours			
40 hours	73 26.4	40 14.4	0.18
40-60 Hours	56 20.2	47 17	
>60 Hours	30 10.8	30 10.8	
Environmental			
None	20 7.2	12 4.3	0.001
Pollution	20 7.2	10 3.6	
Traffic	32 11.6	9 3.2	
Political Situation	25 9	9 3.2	
Finances	22 7.9	30 10.8	
All	41 14.8	47 17	
Social			
None	81 29.2	21 7.6	0.000
Relationship Issues	31 11.1	50 18.1	
Peer pressure	32 11.6	26 9.4	
Daycare issues	14 5.1	13 4.7	
All	2 0.7	7 2.5	

Biological			
None	127 45.8	72 26	0.003
Diabetes	11 4	5 1.8	
Hypertension	4 1.4	9 3.2	
Angina	3 1.0	2 0.7	
Depression	15 3.4	27 9.7	
Other	0 0	2 0.7	
Organizational			
None	79 28.5	43 15.5	0.009
Overworked	52 18.8	38 13.7	
Boss	2 0.7	12 4.3	
Office Politics	26 9.4	23 8.3	
All	1 0.36	1 0.36	
Frequency of Exercise			
Never	116 41.8	95 34.3	0.03
Daily	26 9.4	7 2.5	
>2 times a week	18 6.5	15 5.4	
Frequency of Walk			
Never	71 25.6	72 26	0.01
Daily	45 16.3	29 10.5	
>2 times a week	44 15.5	16 5.8	

Regarding the risk factors, interesting findings were that 40% of the participants spend more than two hours on social media per day. Fifty-one percent of the participants reported that they do not engage in relaxing walks. Furthermore, 76.2% indicated that they do not exercise on a regular basis. The primary sources of stress identified by the participants included financial concerns, the political situation within the country, traffic conditions, and pollution, listed in that order of significance. This research indicates that nearly 30% of healthcare professionals (HCPs) encounter relationship

challenges, while 21% report experiencing various forms of peer pressure. Notably, depression emerges as the predominant biological stressor among individuals in the 21-30 age demographic. Additionally, the leading organizational stressors identified are excessive workloads and office politics.

In this study the prevalence of stress among HCPs was found to be 49.2%. Score of less than 20 was labelled low stress and higher than 20 was labelled high stress using PSS scale values. Chi Square was applied to determine the relationship between various factors and Perceived levels of stress according to PSS scale. No relationship was found between various demographic factors and stress levels. Participant’s age, gender, marital status and number of kids had no significant effect on their stress levels.

The positive findings were: that social stressors like relationship issues and peer pressure caused high perceived stress levels, with a p-value of 0.000. Participants with depression and hypertension scored high on PSS, showing a p-value of 0.003. Office politics, boss issues, and overwork caused high-stress levels, with a p-value of 0.009. The environmental factors which include Pollution, traffic, political situation, and finances also were risk factors for high stress showing a p-value of 0.001.

Among other risk factors participants who never went for a walk had high-stress levels with a P-value of 0.01, similarly participants who never exercised had high-stress levels with a p-value of 0.03.

The chi square analysis showed that among the coping strategies thinking positive, p value 0.02 accepting a new challenge (p value 0.01) and seeking escape from your problems, p value 0.03, were found to be significantly associated with stress.

Table 3: Association of coping strategies with stress levels

		Low Stress	High Stress	P value
		Frequency (n) Percentages %	Frequency (n) Percentages %	
1.	Think positive and learn a lesson			
	Yes	145 52.3	95 34.3	0.02
	No	15 5.4	22 7.9	
2.	Accept a new challenge			
	Yes	143 51.6	92 33.2	0.01
	No	17 6.1	25 9	
3.	Accept that you might be part of a problem			
	Yes	121 43.7	96 34.7	0.18
	No	39 14.0	21 7.6	
4.	You might be perceiving a situation wrong.			
	Yes	126 45.5	95 34.3	0.36
	No	34 12.3	22 7.9	
5.	Seek support from family and friends.			
	Yes	120 43.3	83 30	0.27
	No	40 14.4	34 12.3	
6.	Seek escape from your problems.			
	Yes	50 18	54 19.5	0.03
	No	109 39.3	63 22.7	
7.	Control your own emotional response in stress.			
	Yes	141 50.9	99 35.7	0.3
	No	20 7.2	17 6.1	

DISCUSSION

In the present times of digitalization and social media, life is very much fast-paced. Health Care Professionals are trying to accomplish many tasks, performing many jobs, and managing a to-do list that never ends. Additionally, the emotionally and physically demanding nature of

their work, exposure to patient suffering, and the added burden of decision-making further compound their stress levels.⁶ Travelling distances to work have increased due to the ever-expanding large cities. The traffic situation is quite frustrating due to extreme rush and unlawful traffic situation.

As PSS is not a diagnostic tool, there are no cut-off values for moderate or severe stress. The higher the score on Perceived Stress Scale, the more stressed the person is.¹³ However, in their study Silvia et al took the cut off value of 39% PSS score to be acceptable upper limit of stress.¹⁰ In this study 50% cut off value is taken. The prevalence of stress in HCPs of Lahore, according to this study was found to be 49.2% based on PSS scores. The stress levels in this study were more than those reported by Nochiawong which was 36.5%.¹⁵ In a similar study 74.7% nurses reported stress in a tertiary Hospital in Karachi.⁴ This number is higher than what was reported in this study.

The second objective was identifying the risk factors associated with stress among healthcare professionals. Ninety percent of healthcare professionals encounter various forms of environmental stress. Finances, Political situation and traffic are the main causes of stress, among HCPs in Lahore. In a similar study done in Karachi among nurses 36.5% reported moderate stress while 61.5% reported severe stress.¹⁶ The demands placed on individuals have significantly increased, creating a landscape where higher expectations are the norm. Compounded by the prevalence of chaotic traffic, this environment adds further stress to individuals who may already be feeling exhausted. Additionally, the role of news media and social platforms often exacerbates these pressures, rather than alleviating them. Rather when there is political instability, stressful news shown repeatedly further aggravates stress. Finances are another stressful story that almost all Health Care professionals suffer from. Air pollution and improper waste disposal are significant contributors to an increase in health issues and heightened stress levels.¹⁷ Furthermore, while social media has become an

essential component of modern communication, it often consumes valuable time that could otherwise be spent on relaxation and family interactions. Organizational stress is also an added factor to this. In this study, 62% of HCPs experienced some form of social stress. Most common form of social stress were relationship issues and peer pressure issues. Seventy-one (71%) percent of participants did not report any biological issues. This outcome can largely be attributed to the fact that approximately two-thirds of the participants belonged to the age group of 21 to 35 years. Job dissatisfaction was related to stress (p value: 0.009).¹⁸ Most common biological stressor was depression, The prevalence of depression in this study was thirty percent (30%) - which is alarming in younger HCPs. 54.9% of HCPs experienced some form of organizational stressors. most common were overwork 32.5%, no good chemistry with boss, and office politics 17.3%. According to a similar study in Nigeria 35% HCPs experienced overwork, 29.8% experienced office politics. which is higher than this study.¹⁹

Third objective of this study was to assess the association between stress and various risk factors. To achieve this aim, Chi-square test was employed. No association was found between any demographic factors and stress. This shows that males and females were equally stressed. All age participants are stressed. According to this study participant's marital status and number of kids had no significant effect on their stress levels. Erdogan had similar findings in their study in Turkey.¹⁴

In this study no association was found between Perceived Stress and working hours. In a similar study it was found that a greater level of Perceived Stress was caused by overwork.²⁰ A significant association was seen in this study between stress levels and environmental factors (p-value 0.001), social factors (p-value 0.000), biological factors (p-value 0.003), and organizational factors (p-value 0.009). In Nigeria a similar study prevalence of stress due to increased workload and office politics was found to be 15.4%; 9.9% respectively.²¹

According to this study, participants who did not take a walk regularly had high-stress levels with a p-value 0.001. participants who never exercised also had high-stress levels. A p-value 0.002 shows a positive correlation between these factors and stress levels.

The chi-square analysis showed that among the coping strategies (p value: 0.01), accepting new challenges, finding an escape from problems (P value: 0.03), and thinking positively and learning a lesson from their own experience (p Value: 0.02) had significant associations with stress levels. In a similar study 63% nurses found escape in overeating due to high stress levels.²²

Limitation of this study is that the most readily available, and willing participants were the house officers and medical officers. Therefore, the data is short on specialists and nursing staff. Further studies need to be carried out where there is equal participation of all age groups and all designations of HCPs. Additional tools, other than PSS, need to be employed to measure the stress and depression levels to further analyze the mental health of HCPs.

CONCLUSION

The findings of this study indicate that the prevalence of stress among healthcare professionals is significantly elevated. Approximately 50% of healthcare practitioners in Lahore experience high levels of stress.

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AUTHOR'S CONTRIBUTION

NS: Data Collection and Analysis

RZ: Manuscript Writing

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