ANALYZING THE PSYCHOLOGICAL IMPACT OF COVID-19 ON HEALTH PROFESSIONALS IN PAKISTAN

Naveeda Sarwar (Corresponding Author)
Ph.D. Scholar Psychology, Department of Psychology, University of Peshawar.
Email: naveedasarwar6@gmail.com

Dr. Summiya Ahmad
Associate Professor and Supervisor, Department of Psychology, University of Peshawar.
Email: summiya_ahmad@hotmail.com

Dr. Adnan Sarwar
Assistant Professor Hematology, Pak International Medical College, Peshawar.
Email: adikhan909090@gmail.com

Dr. Saima Abid
Associate Professor, President Public Health, Pak International Medical college, Peshawar.
Email: saimabiddr@gmail.com

Abstract

However, on the sideways definite physical health, the conceivable impact of COVID-19 pandemic on mental and emotional wellness should be paid attention too. Although recent research has shown that a major disaster's emotional effect had a greater and longer impact than the physical injury on health professionals. The study objectives were to assess the psychological impact in addition to associated factors during Covid -19 pandemic on health professionals in Pakistan.The Cochran formula constituted a 200 with a 95% confidence interval sample with a 5% precision error. The online survey was conducted by sending emails and a google survey by using the purposive sampling technique. Respondent provided information on gender, age, province of residency, marital status, children's number, family earnings and service life. Impact of Event Scale-Revised (22-item)and Depression Anxiety and stress Scale (DASS) were used.The study showed that Depression, anxiety and stress scale have a positive correlation with perceived health status, which is rated into (0-10), p<.05. In comparison, the impactof the event scale was revised to have a positive association with a significant change in daily life, p > .05. Pakistani healthcare workers and nurses who are more vulnerable than other peoples, during COVID-19 pandemic had major psychological impact. Our findings revealed that psychological factors of i-e, depression, anxiety, and stress had a positive association with perceived health status and significant change in those health professionals' daily lives and the impact of post-traumatic events in everyday life.

Keywords: DASS, IESR, covid-19, health professional, the psychological impact.

Introduction

Coronavirus infection 2019 is a new infectious illness produced by new strains of the dangerous acute respiratory condition (SARS-CoV-2). In Wuhan, China in December 2019, the first outbreak was recorded as pneumonia of unknown etiology associated with exposure to the seafood industry (Stratton &Tang,2020). On 1 June 2020, the World Health Organization (WHO) reported 6,040,609 confirmed cases and 370,657 deaths worldwide (Luo,Yu & Wang 2020). Multifaceted approaches to public health have been shown to be temporarily correlated with improved COVID-19 pandemic control (Pan et al.,2020). Nevertheless, in addition to physical health, the possible effect of the COVID-19 pandemic proceeding psychological and mental health should be taken seriously as well. While there have been previous studies, that a significant disaster's mental impact had a broader and more prolonged Mental health attracts far fewer staff for preparation and resources than physical injuries to persons (Allsop et al., 2019). Researches on the psychological impact of recent infectious outbreaks, such as extreme acute respiratory syndrome (SARS) related to the COVID-19 pandemic, devisesevere psychological pressures among healthcare workers and the general public, such as anxiety, depression, panic attacks, or psychotic symptoms (Maunder et al.; 2003). Working in SARS units or having SARS-infected relatives and associates, health care workers who were quarantined had significantly more anxiety, depression, anger, fright, and post-traumatic stress than those individuals who did not pass on suchexperience. Since COVID-19 case number is still growing rapidly in many countries, it may have affected psychological disorders. Around the World, Millions of People will continue to be affected. Understanding the psychological effect of various communities and countries will provide a theoretical framework for recognizing high-risk individuals and developing strategies, preparing resources, and supporting important national and government policies and public health consequences globally (Xiang et al., 2020).

China, the COVID-19 epicenter, Pakistan to the northeast. Pakistan also shares its southwestern frontier with Iran, where the number of cases and deaths is rising exponentially. In addition to WHO declaration COVID-19 as a pandemic, in two countries bordering Pakistan (Iran and China), the geographical locations of excessive outbreaks forced the Pakistani government to take urgent, serious, and rapid steps to avoidfurther virus transmission in the nation (Javed et al., 2020).

The Health Ministry was also responsible for important materials on the road to fight contrary to this illnesssuch as facemask, gloves, and pandemic security suits for paramedics and medical doctors'vanguards.In full swing hospitals essentially dealtfundamental crises and COVID-19 patients side by side (Saqlain et al., 2020). The dread of a public monetary slump to an all-around grieved economy combined through the dread of decreased positions and through the capacity of normal resident toward procure then accommodate their familiesfurther hindered the intensity of public authority to secure urban communities and marketplaces to diminish the spread of microbe, by means ofstandard residents overlooked legislative calls and mandates encouraging individuals to remain at home (Saqlain , 2020).

The anxiety and depression in public exist worldwide, disturbing every single person to different life aspects. Recent research indicatesthat persons who are isolated and kept in quarantine experience severe anxiety,distress, frustration, uncertainty, and post-traumatic stress symptoms (Khan ,2020).

Taking this into account, coupled with an increasing fright of becoming ill with COVID-19, this may fundamental feelings of vulnerability now in the over-all population and causes some difficulties to dealwith dailylife challenges (Roy et al., 2020).

This is understandable because, for example,onehas to facade new home challenges andoffice problems when caring for children, neglected of a normal routine, facing distresses about relatives or friends at risk of having a severe COVID-19 incident and spending a long time in a confined space. The lack of a regular routine can impact psychological well-being, which can include psychotic symptoms, depression, anxiety, sleep disorders, violence, or even suicide and drug misuse (Asmundson, & Taylor, 2020).

The Health care professionals is not protected to the psychological effects due to COVID-19, despite persistence of disaster board's citizens. Among health staff, frontline workers directly engaged in treating these patients are at higher risk than others. These negative psychological effects vary from heavy amount of work/working times, insufficient individual protecting kit, over-enthusiastic reports from the mass media, and emotion poorly maintained. The disease rate among clinical staff is another important reason behind such a mental influence. The sudden inversion of the HCP role to a patient can lead to dissatisfaction, insecurity, transition problems, shame, and distress of separation in the medical staff (Benecke, 2020).

During the SARS flare-up over 10 years earlier, the writing circulated that during these times, HCP is at greater risk of causing anxiety, depression, and stress. Over-all public undertakes such protection initiatives, But the numerous problems are unfortunately left to health practitioners that occur because of this situation. Second, health practitioner’s facade extremely extensive work times, even without insufficient means and questionable setup, because of a huge load of cases arising from the pandemic. HCPsare at high burnout risks with anxiety, depression and stress more likely to be affected in this pandemic must therefore be established. Where and when appropriate, support can be provided. The factors responsible for this stress should also be identified and discussed. We would evaluate the prevalence of anxiety-affected HCPs, depression, and stress in this analysis and determine the causative variables behind them (Shigemura et al., 2020).

Since COVID 19 is a new disease, health care providers during COVID 19 are the most affected segment of the population. The meager research on the psychological effect and determinants of Khyber Pakhtunkhwa health care providers has been written. Such security programs are embarked on by the general public, but health practitioners (HCPs) are sadly left to deal with numerous challenges take place because of these circumstances. Health professionals have identified an effect on their emotional, physical, and social well-being. They felt irritated, nervous, and stressed out. Owing to travel limits, their social lives and other regular activities were disrupted. They did not attend funerals, and several meetings were delayed. During this pandemic, some reported difficulty in dealing with the requisite expectations and needs for social distancing. Hence, for this report, this subject was chosen.

Materials and Methods

Descriptive cross-sectional study wascarried out in Pakistan. The Cochran formula constituted a 200 sample with a 95% confidence interval and 5% precision of error. This study was conducted among health professionals working in the hospital during covid-19. These health professionals were from leading hospitals of KP, both public and private. Participants werenurses and doctors. Male were 92 (45%), female was 108 (54%). The online survey was conducted by sending emails and a google survey by using the purposive sampling technique. Demographic features Information regarding gender, age, province of residency, marital status, children's number, family income and service life

revenues was given to the participants. Daniel S. Weiss developed initiallyImpact of Event Scale-Revised in 2007, Cronbach s' Alpha of scale is 0.84. A self-administered 22-item questionnaire assesses the severity of the symptomatic reaction to a particularly stressful life event in the past 7 days. The scale varies from an answer format of 0 -4 points (not at all or hardly ever to a great deal). The DASS-21 developed by Lovibond, S.H. & Lovibond, P. F (1995). The Cronbach s' Alpha of DASS 21 is 0.81. It is a 21-item mental health self-reporting method composed of three subscales, depression, anxiety and stress. A 4-point Likert scale ranging from 0 (Did not apply to me at all to 3 (Applied to me very much or most of the time) is indicated by participants as to the degree towhat was the symptom over the last week. Participants revealed their perceived degree to which their everyday life were impacted by the current crisis, whether they had to cancel important tasks, whether they had major improvements to the working/studying process, and whether any travel had to be canceled/postponed. Status of Health Participants suggested the signs they hadendured during the 14 days earlier as their health status perceived (0 = very bad, 10 = very good), their view of being part of the population at high riskin the event of corona viral infection. An online google semi-structured questionnaire was developed, with an agreement form attached to it. The questionnaire's link was sent via emails, WhatsApp, and other social media to the investigators' associates.

Results

Demographic characteristics of the study variables and category ofvariables their frequency, percentages, means, standarddeviation and correlation was computed. Out of 250, males with 92 (46%), female 108 (54%) with 100% cumulative frequency, mean age $\bar{\bar{X}}$ = 40, with standard Deviation SD=20 and range 25-55 years. Health Professionals were categorizing Doctor =150 (75%), nurse =50 (25%).Married were =112 (56%), single=85 (42%)and widow =3 (1.5 %). Health Status were divided into poor and good categorize with class interval of poor, 0-3=19 (9.5%), moderately poor 4-6=52 (26%) and good 7-10=129 (64%).200 participants of the mean score of depression was 4.9±3.5, anxiety was 4.5±3.5, and stress was 5.2±3.6. There were 90 (45%) participants suffer from extreme depression, 110 (55%) suffer from severe anxiety, and 130 (65%) were suffering from extreme stress.

Table No: 1

Demographic Characteristics of Participant's (N=200)

Characteristics of Participants	N	%
Gender		
Male	92	46
Female	108	54
Health Professional		
Doctors	150	75
Nurse	50	25
Marital status		
Single	85	42
Married	112	56
Widow	3	1.5
Widower	0	0
Divorced	0	0
If married, number of children		
0	103	51
1	26	13
2	37	18
3	23	11
4	7	3
5	2	1
6	1	.5

Length of service			
1-5 years		142	71
5-10 years		29	14
10-15 years		12	6
15-20 years		3	1.5
20 onward		14	7
Province of residence			
KP	194	96	
Punjab	7	3	
Socio-Economic status			
Lower class 1		.5	
Middle class		115	57
Upper middle class		78	39
Upper class		6	3
Perceived Health Status[1]			
0-3		19	9.5
4-6		52	26
7-10		129	64
Significant change in daily life[2]			
Cancel important activities		33	16
substantial modification in working		88	44
cancel/postpone traveling		22	11
cancel imptt/sub mod/postpone travelling		57	28

Note: *N=200 (n*=200for each condition). health professionals were selected.

[1]the responses were rated from (0-10) category from poor to excellent health status during a covid-19 situation.

[2]the response category was categorized into basically three with the addition of all three combinations of responses.

Table 2

Psychometric Properties of DASS and IESR (N=200*).*

Measures	No. of Items	*M*	*SD*	Min	Max	Skew.	Kurt.
DASS[a]	21	16.04	20.79	1	44	.41	-.32
IESR[b]	22	24.80	5.18	1	67	.57	-.12

Note. [a] = Depression Anxiety and Stress Scale

[b]Impact of Event Scale-Revised

The skewness and kurtosis showed normally distributed data for population, DASS, s = .41, IESR, s=.57.

Table 3
Correlations between DASS and IESR (N=200).

	DASS	IESR
DASS [a]	-	
IESR [b]	.42**	-

Note: [a]Depression anxiety and stress scale have a significant positive correlation with [b] impact of event scale revised. ** *p*< .01.

Table 4
Correlations between DASS and IESR with a significant change in daily life and perceived health status (N=200).

	The significant change in daily life	Perceived health status
DASS [a]	-	.12*
IESR [b]	.08	-

Note: [a]depression anxiety and stress scale positivelycorrelate with perceived health status, which is rated into (0-10), p<.05. While the [b]impact of the event scale was revised to positively associate with a significant change in daily life, p > .05.

Discussion

This study was investigated on Psychological impact and associated factors in Pakistan's Covid 19 Pandemic among health professionals. The finding reveals that health professionals who are the front liner during the covid-19 situation positively correlate with depression, anxiety, and stress with the event's post-traumatic stress (Covid-19). The perceived health status and significant changes in those health professionals' daily lives have a profound positive association with DASS and IESR.The result was accompanied by a detailed view of the literature examined. The following discussion is based on these results.

Medical health workers exposed and meticulously related cases of coronavirus definite and suspected cases have been reported to be vulnerable to high-risk contagion and mental health issues, disturbed, terrified, feeling grief and trauma (Khaliq, 2020). The current study was also conducted to find a health professional's psychological impact on their mental health and daily life changes. The outcome was a mean anxiety score of 19,01 ± 9,2, 18,12 ± 10 and 20,12 ± 12,0. There were 81 people (72.3%) with mild to too severe depression, 96 (85.7%) with moderate to severe anxiety and 101 (90.1 %) with moderate to extreme stress levels (Sandesh et al., 2020). While the current study of 200 participants of the mean score of depression was 4.9±3.5, anxiety was 4.5±3.5, and stress was 5.2±3.6. There were 90 (45%) participants suffer from extreme depression, 110 (55%) suffer from severe anxiety, and 130 (65%) were suffering from extreme stress.

Study reported, because of this health crisis, most participants had undergone major life changes. These include deterioration in the financial and work climate, extreme limits on travel, and the cancellation of important activities. In a short time, both of these took place and, subsequently, resultsshow present situation was considered very serious threats to mental health of health. During the initial phase of the pandemic outbreak, the Spanish citizens were affected with a minimum to moderate acute stress symptoms of 63 percent of participants, which are represented the data obtained from China, where approximately 45 percent fall in that category Wang et al. (2020).The current study also demonstrated the depression, anxiety and stress of health professional significant change in daily life i-e.cancel important activities 33 (16%), substantial modification in working 88 (44%), cancel/postpone traveling 22 (11%) cancel imptt/sub-mod/postpone traveling 57 (28%).

Eighty-five percent ofMedical workers on the frontlines were very worried and 41.1% felt their risk of infection with the COVID-19 was high. The National Health Commission of the People's Republic of China (2020) results showed 60% of primary healthcare workers have suffered anxiety and other negative feelings, such as apprehension and anxiety. 11.6 % of the 225 preventive drug users reported taking immunomodulatory and antiviral drugs after accidental occupational exposure. In the current study, depression anxiety and stress scale positivelycorrelate with perceived health status, rated into (0-10), $p<.05$. by the side of impact of event (covid-19) has a positive association with a significant change in daily life, $p > .05$.

The sample population was small since only one of Pakistan's major city was included. The findings and generalizations of the analysis were further need to replicate. Further researches are required to recommend Integrated Pakistan's efficacy in COVID-19 prevention and careof psychological effects. It was essential to support and maintain frontline medical staff's physical and mental health while further reducing the possibility of front linerscontracting the virus. While contracting the virus post Covid counselling session were need to be imparting in the hospitals as well as in primary care.

Conclusion

Pakistani healthcare workers and nurses who are more vulnerable than other people, during COVID-19 pandemic had major psychological impact. Our findings revealed that psychological factors of i-e, depression, anxiety, and stress had a positive association with perceived health status and significant change in those health professionals' daily lives and the impact of post-traumatic events in everyday life. Eighty-five percent of Medical workers on the frontlines were very worried and 41.1% felt their risk of infection with the COVID-19 was high. Because of greater exposure, intimate observance, bad prognosis and the fact that no definite treatment has been discovered, it has taken a toll on the healthcare workers.

Recommendations

1.The government should make such policies for those health professionals who should provide relieve for time being, as well provide extra incentive to make them more satisfied from their works.

2. Mental health concerns are being pushed back into the shadows once more. This is a critical time for all mental health stakeholders, from psychiatric associations to global mental health practitioners to civil society advocates, to unite behind a single message: the pandemic and its socio-economic consequences will have profound effects on population mental health, and some of the financial resources being pumped into the Covid19 response must be directed elsewhere.

3.To alleviate unfounded worries, public health education is required, which may be quickly fueled by the media. Even healthy respondents, for example, rated their risk of Covid-19 as quite high, and the

majority of people classified more than eight pathways as extremely likely to transmit Covid. Furthermore, infected HCWs who lack self-reliance in infection control may be provided additional infectious disease control training programs and stress treatment when they return to work. Serviceableregaining lags behind Covid in recovered patients, raising the risk of a variety of severe mental health issues including adjustment or stress-related problems, as well as depression.

References

Allsopp, K., Brewin, C. R., Barrett, A., Williams, R., Hind, D., Chitsabesan, P., & French, P. (2019). Responding to mental health needs after terror attacks. *BMJ*, *366*, l4828

Asmundson, G. J., & Taylor, S. (2020). Chronophobia: Fear and the 2019-nCoV outbreak. *Journal of anxiety disorders*, *70*, 102196

Benecke, A. V., Bäuerle, A., Jansen, C., Schneider, J. S., Dörrie, N., Teufel, M., & Skoda, E. M. (2020). Techniques, Methods, and Dissemination of Community-Based Psychological Support Strategies in Times of the COVID-19 Pandemic. *Journal of Primary Care & Community Health*, *11*, 21

Javed, B., Sarwer, A., Soto, E. B., & Mashwani, Z. U. R. (2020). Is Pakistan's Response to Coronavirus (SARS-CoV-2) Adequate to Prevent an Outbreak? *Frontiers in Medicine*, *7*, 158.

Khan, Z., Muhammad, K., Ahmed, A., & Rahman, H. (2020). Coronavirus outbreaks: prevention and management recommendations. *Drugs & Therapy Perspectives*, 1-3

Khaliq, M. A., Ali, S., Kamran, A., & Qasrani, T. B. Opinion on Impact of Covid-19 Lockdown on Agriculture, Food Security and livelihoods in Pakistan.

Luo, M., Guo, L., Yu, M., & Wang, H. (2020). The Psychological and Mental Impact of Coronavirus Disease 2019 (COVID-19) on Medical Staff and General Public–A Systematic Review and Meta-analysis. *Psychiatry Research*, 113190

Lu, H., Stratton, C. W., & Tang, Y. W. (2020). An outbreak of pneumonia of unknown etiology in Wuhan, China: The mystery and the miracle. *Journal of medical virology*, *92*(4), 401-402.

Maunder, R., Hunter, J., Vincent, L., Bennett, J., Peladeau, N., Leszcz, M., ... & Mazzulli, T. (2003). The immediate psychological and occupational impact of the 2020 SARS outbreak in a teaching hospital. *Cmaj*, *168* (10), 1245-1251

Pan, A., Liu, L., Wang, C., Guo, H., Hao, X., Wang, Q., ... & Wei, S. (2020). Association of public health interventions with the epidemiology of the COVID-19 outbreak in Wuhan, China. *Jama*, *323*(19), 1915-1923

Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 102083.

Sandesh, R., Shahid, W., Dev, K., Mandhan, N., Shankar, P., Shaikh, A., & Rizwan, A. (2020). Impact of COVID-19 on the Mental Health of Healthcare Professionals in Pakistan. *Cureus*, *12*(7), e8974

Saqlain, M., Munir, M. M., Ahmed, A., Tahir, A. H., & Kamran, S. (2020). Is Pakistan prepared to tackle the coronavirus epidemic?. *Drugs & Therapy Perspectives*, 1-2.

Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., & Benedek, D. M. (2020).

Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry and clinical neurosciences*, *74*(4), 281.

Wang, D.Hu,B, Hu,C ,et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. *JAMA*. Published February 7, 2020.

Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *TheLancet Psychiatry*, *7*(3), 228-229