JDSS | Journal of Development and Social Sciences
www.jdss.org.pk

RESEARCH PAPER

Predictive Impact of COVID-19 Phobia and Work-Related Stress on Mental health wellbeing in Healthcare Professionals: A cross-sectional survey study in Punjab, Pakistan

[1] Nimra Zia* [2] Hafiz Muhammad Tahir Idrees [3] Naveed Iqbal

1. Lecturer, Noon Business School, University of Sargodha, Punjab, Pakistan
2. Lecturer Journalism, Higher Education Department, Sargodha, Punjab, Pakistan
3. PhD Scholar, Department of Management Sciences, Preston University Islamabad, Pakistan

*Corresponding Author: nimra.zia@uos.edu.pk

ABSTRACT

The research was conducted to investigate the correlation between C-19 dread, mental wellbeing, and work anxiety among medical staffs during the COVID-19 pandemic, and to assess the predictive impact of C-19 dread and work anxiety on mental wellbeing. This cross-sectional research was carried out at various hospitals in Punjab, Pakistan, from September to December 2020. Purposive sampling was employed to select a sample of 161 individuals working in health departments and hospitals in Punjab, Pakistan. A questionnaire on mental wellbeing, C-19 dread, and work anxiety was administered using Google doc, and individuals were approached in person, via Email, Facebook, and WhatsApp. This study's findings show that among medical professionals, C-19 dread is significantly correlated with workplace stress. The study also showed relationship between C-19 dread and good mental wellbeing at work. This study also demonstrated that stress at work was a mediator of the relationship between C-19 dread and mental wellbeing in healthcare practitioners. The outcome of research had significant implications for academics and professionals in the healthcare profession.

Introduction

The COVID-19 pandemic which was started in February 2020 has claimed the deaths of at least 200,000 people around the world. According to Woolf and his colleagues, the death rate due to COVID-19 between February 2020 and August 2020 is expected above 225 000. As COVID-19 has spread throughout Pakistan, provincial and federal associations are working tirelessly to prevent from upsurge. According to the Pakistani government, there are 410,072 registered cases, 51,507 functional cases, 8,260 moving cases, and 350,305 recovery cases in Pakistan. Since the outbreak began in late 2018 in China, the (COVID-19) has proliferated over the world, killing thousands of people(Gamonal Limcaoco, Mateos, Fernández, & Roncero, 2020). COVID-19, also known as the CoV-2 virus results in severe acute respiratory syndrome (SARS), has put the entire world at risk, generating tension, worry, phobias, and mental wellbeing concerns in the general public. There has been an uptick, particularly among people working in the mental wellbeing field.

The suffering of mental wellbeing practitioners worldwide who have been gravely wounded by the C-19 was not able to overcome mental problems. Health professionals are the frontline soldiers in this critical situation, working with insufficient equipment, medicine, and other necessities to save the lives of COVID-19 positives. COVID-19 forced individuals all around the world to stay at home and maintain a social distance in order to prevent the virus's rapid spread. The health experts were also under a lot of stress in this dangerous situation, and their mental wellbeing was also vulnerable. Scholars are interested to look at various fear factors and how they interact, as this might have unfortunate consequences on public health professionals' mental wellbeing. Several previous studies

have looked into several aspects like as anxiety, fear, insomnia, and other emotional stress among health professional that work in the COVID-19 wards. Similarly, few other studies have indicated towards health workers' stress levels as a result of workload and an increase in COVID-19 mortality due to a shortage of medical services.

This study, on the other hand, is unique in a way that it seeks to explore the effects of C-19 dread on medical staffs' mental wellbeing and work-related stress. This research will addition to the psychology and public health literature by providing government officials, hospital administrators, and the general public a better understanding of the dreadful situation and psychological suffering faced by frontline public health workers during the pandemic era. Furthermore, based on the findings of this study, researchers in the psychology and public health fields are expected to try to widen their research scope by learning more about C-19 dread, mental wellbeing, and work related stress in other locations or countries.

Literature Review

According to the literature, there is a negative link between work anxiety and mental wellbeing, and work anxiety might reveal indications of mental wellbeing issues.(Garbarino, Cuomo, Chiorri, & Magnavita, 2013) Individuals' mental wellbeing and job stress had a strong negative association (Kopp & Réthelyi, 2004). Van der Klink et al. study revealed that work anxiety has unfortunate consequences on people's cognitive behavior(Van der Klink, Blonk, Schene, & Van Dijk, 2001). A higher level of COVID19 fear was associated with worse job satisfaction and higher psychological discomfort(Labrague & de Los Santos, 2021). A research by Satici et al. (2021) including 1304 Turkish participants showed that increased levels of COVID19 fear had strong unfortunate consequences on mental health as worry, despair, and tension (mental wellbeing problem). Fear of COVID19 was found to have a significant correlation with anxiety like behaviors (Bakioğlu, Korkmaz, & Ercan, 2021). We think that COVID 19 dread and work related stress are key predictors of mental wellbeing among health professionals based on our current findings because there is a lack of research on how COVID 19 dread and work related stress affect mental wellbeing. From the discussion so far it is assumed that:

Hypotheses

H1: COVID 19 dread increases work related stress

H2: COVID 19 dread has a negatively affect mental wellbeing

Because they were on the frontlines dealing with the awful circumstances of COVID-19 during the corona virus, medical personnel were at increased risk of developing indications of mental health disorders. The study looked at the roles of resilience and coronavirus fear in mediating the relationship between perceived risk and mental health problems among healthcare personnel, including physicians and nurses, who were treating patients who had been infected with the virus. According to the findings, perceived risk and corona virus fear positively predicted sadness, anxiety, and stress, whereas resilience negatively predicted similar mental health issues. The connection between perceived risk and resilience, sadness, anxiety, and stress was mediated by coronavirus fear (Yıldırım, Arslan, & Özaslan, 2020).

H3: work anxiety has negatively affect mental wellbeing

Research has also showed that the fear of COVID-19 is prevalent among children, adolescents, adults, old people, people who already suffer from mental wellbeing conditions, and medical and frontline workers(Lindinger Sternart, Kaur, Widyaningsih, & Patel, 2021). According to the findings, vulnerable people that are confined to their homes

during a pandemic might have unfavorable health effects. Children, in particular, were hesitant to participate in jobs requiring physical energy, and they had significantly more screen time, irregular sleep patterns, and a less healthy diet, leading in abnormal weight and loss of heart and respiration system health. There are also direct and indirect links between school closures and unwanted child duties, which are especially prevalent in the healthcare industry. This may be applicable to the situation in the majority of nations throughout the world, not just in health care but also in young people and elderly individuals (Kar, Yasir Arafat, Kabir, Sharma, & Saxena, 2020).

H4: work anxiety mediates the relationship between COVID 19 dread and employee mental wellbeing
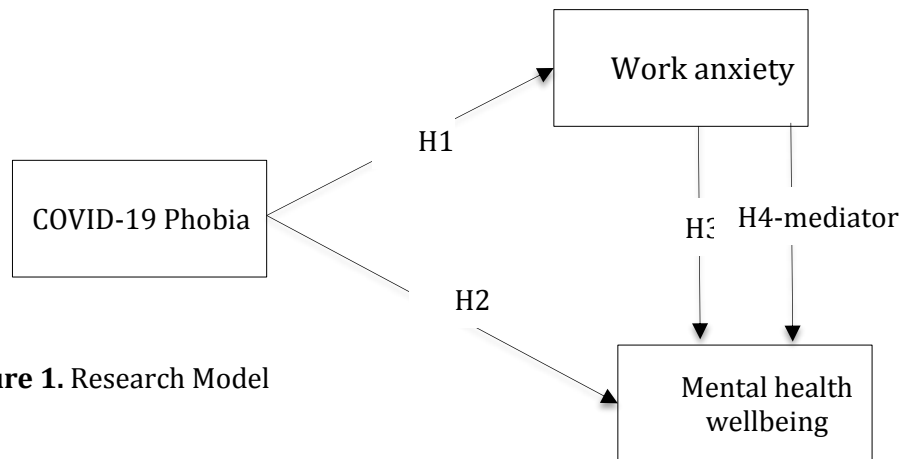

Figure 1. Research Model

Material and Methods

Data Collection Procedure

A cross-sectional study was carried out with 161 participants who provided consent from various health department hospitals and the Ethical Boards of several hospitals in Punjab, Pakistan. Purposive sampling was used to enlist participants of both genders, ranging in age from 19 to 55 years. The study was conducted in Punjab, Pakistan, from September 2020 to December 2020, at various public sector hospitals, clinics, and health agencies.

As the participants were geographically dispersed, they were not able to ask questions about the questionnaire in case of any problems. To minimize this issue, contact details were provided on the cover letter for participants to seek clarification if needed. The questionnaire used in the study was a closed-ended quantitative questionnaire with a five-point Likert scale. The questionnaire was written in English, and public health professionals were asked to score their responses on a scale of one to five.

Measurement

To evaluate the mental wellbeing of individuals, a mental wellbeing scale developed by Tennant *et al.* (2007) that had been translated into Urdu was utilized. Additionally, a COVID 19 dread scale developed by Ahorsu *et al.* (2020) was employed while a work anxiety scale adopted by Cohen, Kamarck and Mermelstein (1983)was used to assess work anxiety. Furthermore, a quantitative questionnaire with closed-ended questions was used to ask participants about the physical and mental impact of COVID-19, as well as any related difficulties they may have experienced.

Data Analysis and Results

SPSS-24 was used to do quantitative analyses to determine the frequencies and percentages of research variables, Pearson product-moment correlation was used to determine the link between variables, and regression analysis was used to predict study constructs.

Respondents' socioeconomic characteristics are categorized in table 1 that shows age, gender, marital status, socioeconomic status, and family status, nature of job, designation and Job experience. Table 2 specifies that mental wellbeing is significant negatively correlated with COVID 19 dread and work anxiety and has significant positive correlation between COVID 19 dread and work anxiety (**$p<.01$). In table 3 regression analysis showed that COVID 19 dread is significant predictor of mental wellbeing ($\beta= -.26$, $t= -2.74$, $p<.01$) and work anxiety also significant predictor of mental wellbeing ($\beta= -.45$, $t= -4.60$, $p<.000$) among individual who are working in health departments during COVID-19.

Table 1
Demographical information of participants (N= 161)

Variable		Frequency	Percentage
Age	Young adult(19-36)	55	34.2
	Middle adult(36-55)	106	65.8
Gender	Male	50	31.1
	Female	111	68.9
Marital Status	Single	65	40.4
	Married	96	59.6
Scio-economic-status	High	78	48.4
	Low	83	51.6
Family Status	Higher	64	39.8
	Lower	97	60.2
Nature of Job	Surgeon	54	33.5
	Nurses	79	49.1
	Pharmacists	28	17.4
Designation	Medical Technologist	22	13.7
	Radiologic Technician	45	28.0
	Pharmacist	63	39.1
	Registered nurse	31	19.3
Job Experience	1-5years	50	31.1
	6-10years	92	57.1
	11-15years	8	5.0
	16-20years	11	6.8

Table 2
Correlation Analysis

Variables	Mental wellbeing	COVID-19	Work related Stress
Mental wellbeing	1	-.63**	-.66**
COVID 19 dread		1	.80**
work anxiety			1
Mean(SD)	51.69 (1.64)	70.70 (1.30)	90.09 (2.45)

**$p<.01$

Table 3: Reliability Analysis

Variable	Loadings	Composite reliability	Average variance extracted (AVE)	Cronbach's alpha
COVID 19 dread	0.79 – 0.91	0.85	0.60	0.80
work anxiety	0.55 – 0.81	0.80	0.55	0.75
Mental wellbeing	0.72 – 0.89	0.90	0.70	0.85

In Table 3, each construct has a factor loading above the acceptable cutoff of 0.5, indicating that each observed variable is a good indicator of its corresponding factor. The composite reliabilities (CR) are all above the acceptable cutoff of 0.7, indicating good internal consistency reliability. The average variance extracted (AVE) for each construct is also above the acceptable cutoff of 0.5, indicating good convergent validity. Finally, the Cronbach's alpha values are all above the acceptable cutoff of 0.7, indicating good internal consistency reliability for each construct.

Table 4
Multiple Regression Analysis (N=161)

Predicting variable	COVID-19 Phobia			Work related stress		
	B	SE	t-value	*B*	SE	t-value
Constant	102.83	5.31	19.36***	102.83	5.31	19.36***
	-.34	.12	-2.74**	-.30	.06	-4.60***

β= Unstandardized coefficients, SE=Standard error, *** = <0.001

Discussion

This study highlights the utilization of a cross-sectional survey research design conducted at various hospitals in Punjab, Pakistan, during the COVID-19, with 161 medical staffs selected through purposive sampling. The administration of a questionnaire on mental wellbeing, COVID 19 dread, and work anxiety using Google doc, and the use of multiple channels such as in-person, email, Facebook, and WhatsApp to approach individuals for data collection is also mentioned.

The results reveal that COVID 19 dread has relationship with work anxiety among medical staffs. This indicates that medical staffs that experience higher levels of COVID 19 dread may also experience increased stress in their workplace. These findings are similar to previous studies that have highlighted the effects of the COVID-19 on medical staffs' mental wellbeing and well-being. Furthermore, the study demonstrates relationship in COVID 19 dread and good mental wellbeing at work. This finding suggests that medical staffs who report lower levels of COVID 19 dread may also have better mental wellbeing outcomes in their workplace. This finding is important as it indicates that managing COVID 19 dread among medical staffs may have influence on their mental wellbeing in the workplace. Additionally, the study identifies work-related stress as a mediator in the correlation between COVID 19 dread and mental wellbeing in healthcare practitioners. This indicated that work anxiety may explain the impact of COVID 19 dread on mental wellbeing outcomes among medical staffs. This result underscores the importance of addressing work anxiety as a potential mediator in interventions targeting the mental wellbeing of medical staffs during the pandemic.

Overall, results of research contribute to the understanding of the correlation between COVID 19 dread, mental wellbeing, and work anxiety among medical staffs during the pandemic. The identification of work-related stress as a potential mediator in this relationship highlights the need for interventions that address both COVID 19 dread and

work anxiety to promote better mental wellbeing outcomes among medical staffs. However, the cross-sectional methodology, small sample size, and potential biases associated with purposeful sampling are all limitations of this study that may impact the generalizability of the findings.

Implications

This study's theoretical implications can add to the current literature in a variety of ways. For starters, it can give useful insights about the relationship between COVID 19 fear, mental wellness, and job anxiety among medical staff in Pakistan's public health system. This can contribute to a better understanding of how COVID 19 dread affects mental health and work anxiety in this environment, as well as emphasize the need for focused treatments to address these difficulties.

Second, the outcomes of this study may be used to support theoretical frameworks and models of mental wellness, job anxiety, and COVID 19 dread. For example, it can assist confirm current theories on stress and coping, such as Lazarus and Folkman's Transactional Model of Stress and Coping, by illustrating how COVID 19 fear may impact mental wellness and work anxiety among medical personnel. Furthermore, this research can add to the body of knowledge about COVID 19 dread, a relatively new notion that developed during the epidemic. This study can give empirical evidence on the relevance and significance of COVID 19 dread as a construct in understanding the psychological well-being of medical staffs by exploring the influence of COVID 19 dread on mental wellbeing and work anxiety in the public health sector of Pakistan.

In terms of managerial implications, the findings of this study may have practical ramifications for Pakistani healthcare organizations and policymakers. Firstly, the study may highlight the importance of addressing COVID 19 dread among medical staffs, as it can significantly impact their mental wellbeing and work anxiety. Organizations may need to provide support mechanisms, such as counseling services, mental wellbeing resources, and training programs, to help medical staffs cope with COVID 19 dread and manage their mental wellbeing effectively.

Secondly, the study may emphasize the need to mitigate work anxiety among medical staffs, especially during the disease. This may include implementing strategies to reduce workload, providing adequate resources and support, and promoting work-life balance to prevent burnout and improve overall well-being.

Finally, the study may underscore the importance of raising awareness and providing education about COVID 19 dread among medical staffs and the general public in Pakistan. This may involve disseminating accurate information about COVID-19, addressing misconceptions and fears, and promoting healthy coping strategies to manage COVID-19-related anxiety and fear.

Limitations and future research directions

The study exploring the influence of COVID 19 has numerous constraints to consider on mental wellbeing and work anxiety in the public health sector of Pakistan, where data were collected from Pakistani public sector hospitals at the height of the COVID-19 disease, and the sample was drawn through purposive sampling with a final sample size of 161. First, the study's findings may not be generalizable to other contexts or people outside of Pakistan's public health sector. Purposive sampling may result in a sample that is not entirely reflective of the whole population of medical staffs in Pakistan, and the results may not be relevant to medical staffs in other sectors or locations.

Second, purposive sampling may introduce sampling bias, as the selection of participants is based on the researcher's judgment or subjective criteria. This may limit the external validity of the findings and may not fully capture the diversity and heterogeneity of medical staffs in the public health sector of Pakistan.

Third, this study may not have accounted for other potential confounding variable that could influence the relationship between COVID 19 dread, mental wellbeing, and work anxiety. Variables such as individual differences, mental wellbeing conditions, personal coping strategies, and organizational factors may not have been fully controlled, which could impact the study's findings.

Forth, this study used a cross-sectional design, which only provides a snapshot of data collected at a specific point in time. This reduces the capacity to discern causality and temporal correlations between variables. Longitudinal or experimental designs may be needed to establish a stronger causal correlation in COVID 19 dread, mental wellbeing, and work anxiety.

Fifth, for evaluating COVID 19 dread, mental wellness, and job anxiety, this study relied on self-report measures, which are susceptible to biases such as social desirability bias and recollection bias. Participants may not accurately report their experiences or may have subjective interpretations of the measures, which could impact the reliability and validity of the findings.

Sixth, this data was collected during the peak of the COVID-19 disease, which may have effect the results. The heightened stress and anxiety levels during the peak of the pandemic may not be representative of typical circumstances, and the findings may not necessarily reflect the long-term impact of COVID 19 dread on mental wellbeing and work anxiety.

Seventh, this study did not include a control group, which makes it difficult to establish a baseline for comparison. A control group would have allowed for comparison with a group of medical staffs who were not exposed to the same level of COVID 19 dread, which could provide a comprehensive picture of the specific impact of COVID 19 dread on mental wellbeing and work anxiety.

Finally, this study relied on multiple methods of data collection, including in-person, email, Facebook, and WhatsApp approaches. This may introduce potential biases and limitations, such as selection bias, non-response bias, and measurement inconsistency. The validity and reliability of data collected through different methods may vary, which could impact the quality of the findings.

Conclusion

Mental wellbeing, work anxiety and fear of COVID-19 have gained importance and many studies have proven the negative effect of work anxiety and fear on mental wellbeing. However, when it comes to medical staff they are always at risk while dealing with any emergency and unforeseen circumstances. This study has explored the extent to which MH has significant negative relation with WRS and COVID 19 dread while; a significant positive relationship existed between WRS and COVID 19 dread. It was also concluded that both COVID 19 dread and WRS are significant predictor of MH in health professionals.

Recommendations

To improve the mental wellbeing of workers in health care field, it is required that workplace stress and other phobias like fear of COVID-19 should be minimized and properly tackled.

References

Bakioğlu, F., Korkmaz, O., & Ercan, H. (2021). Fear of COVID-19 and positivity: Mediating role of intolerance of uncertainty, depression, anxiety, and stress. *International journal of mental health and addiction, 19*, 2369-2382.

Gamonal Limcaoco, R. S., Mateos, E. M., Fernández, J. M., & Roncero, C. (2020). Anxiety, worry and perceived stress in the world due to the COVID-19 pandemic, March 2020. Preliminary results. *MedRxiv*, 2020-04.

Garbarino, S., Cuomo, G., Chiorri, C., & Magnavita, N. (2013). Association of work-related stress with mental health problems in a special police force unit. *BMJ open, 3*(7), e002791.

Kar, S. K., Yasir Arafat, S., Kabir, R., Sharma, P., & Saxena, S. K. (2020). Coping with mental health challenges during COVID-19. *Coronavirus Disease 2019 (COVID-19) Epidemiology, Pathogenesis, Diagnosis, and Therapeutics*, 199-213.

Kopp, M., Skrabski, Á., Szántó, Z., & Siegrist, J. (2006). Psychosocial determinants of premature cardiovascular mortality differences within Hungary. *Journal of Epidemiology & Community Health, 60*(9), 782-788.

Kopp, M. S., & Réthelyi, J. (2004). Where psychology meets physiology: chronic stress and premature mortality—the Central-Eastern European health paradox. *Brain research bulletin, 62*(5), 351-367.

Labrague, L. J., & de Los Santos, J. A. A. (2021). Fear of Covid-19, psychological distress, work satisfaction and turnover intention among frontline nurses. *Journal of nursing management, 29*(3), 395-403.

Lindinger-Sternart, S., Kaur, V., Widyaningsih, Y., & Patel, A. K. (2021). COVID-19 phobia across the world: Impact of resilience on COVID-19 phobia in different nations. *Counselling and psychotherapy research, 21*(2), 290-302.

Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2021). Adaptation of the Fear of COVID-19 Scale: Its association with psychological distress and life satisfaction in Turkey. *International journal of mental health and addiction, 19*, 1980-1988.

Shigemi, J., Mino, Y., Tsuda, T., Babazono, A., & Aoyama, H. (1997). The relationship between job stress and mental health at work. *Industrial health, 35*(1), 29-35.

Van der Klink, J., Blonk, R., Schene, A. H., & Van Dijk, F. (2001). The benefits of interventions for work-related stress. *American journal of public health, 91*(2), 270.

Yıldırım, M., Arslan, G., & Özaslan, A. (2020). Perceived risk and mental health problems among medical staffs during COVID-19 pandemic: Exploring the mediating effects of resilience and coronavirus fear. *International journal of mental health and addiction*, 11(11), 233-258.