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Research Article**Impact of Fear of COVID-19 on Workplace Stress of Medical Staff:
Confounding Effect of Psychological Empowerment*****¹Zeeshan Ahmad |**

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ABSTRACT:

Background: In December 2019 COVID-19 was outbreak in Wuhan city of China. World Health Organization (WHO) declared emergency globally called it pandemic. Everybody was afraid of getting exposed to COVID-19. Especially medical staff who were front line workers and were at highest risk of getting exposed to this novel virus. There are fewer rescuers than victims and number of health workforce is limited in Pakistan especially during pandemic and health workers have to work under great pressure and stressful environment. There is immense need to provide them empowerment in these difficult times.

Aim: The purpose of the current study was to investigate the impact of fear of Covid-19 (C-19) on the workplace stress of medical staff with confounding influence of psychological empowerment.

Material & Methods: quantitative survey approach was used. Cross-sectional primary data was collected. Mean, standard deviation, Cronbach alpha, correlation and hierarchical multiple regression were used in SPSS to test the hypotheses.

Findings: Results revealed that psychological empowerment acts as confounding variable between fear of COVID-19 and workplace stress in medical staff. This implies that by empowering the medical staff there would be less fear of getting exposed to COVID-19 and low level of stress among the medical staff.

KEYWORDS

Fear of COVID-19, Workplace Stress, Psychological Empowerment, Medical Staff, SPSS.

1 | INTRODUCTION

Psychological empowerment is a dominant device utilized to ensure stand out staff performance.¹ As the nomenclature suggest, it is more logical to study the intangible nature of psychological empowerment, organizations always recognizes the multi facet role of it in a meaningful way. The four basic measures of psychological empowerment at workplace are; work significance, staff technical knowledge about a certain job, having some autonomous powers to make impactful performance in short and long run.² These four measures always keep staff more strong enough to meet routine as well as certain challenges, e.g. power shifting to juniors, careful listening to their work concepts and their implementation, lastly monitor and evaluate each activity.³ Many research studies are evident that employee psychological empowerment establishes a strong belief system³. Ease of doing business sense.⁴ and staff's promising behaviour towards their work.⁵ Staff with higher power force always believe in themselves by performing their work more professionally and be impactful within an organization.⁶ Technically nursing demands high level professionals to manage routine operations effectively; these technicalities sometimes make it more traumatic activity depends upon the nature of patient. The stressful work always demands more strong physical and mental ability of nursing staff to confront relevant problems and achieve goals.⁷ Each year businessmen employ financial resources to prevent staff brain drain due to workplace stress. The workplace stress may be due to immense workload pressure, adopting change, job security, and multiple reporting channels, lack of effective communication, poor working environment and ineffective management.⁸ Stress ruined the overall work structure when it comes to staff absenteeism; high inefficiency; low retention in same firm; waste of time and resources in work drills, sadness; anger; and violence".⁹

European Union organizational leaders most often gone through the basic issue their employees do face i.e. workplace stress.¹⁰ Since last mid-century, scholars established factual verification about harmful effects of workplace stress on employee's work efficiency.¹¹ Most of the time those workers who have routine work stress as compare to those who have high level of workplace stress are costlier to organization as well as to their own health; as they became less efficient hence directly surrender to different diseases like cardiac, fatness, hyper tension, nervousness, cancer, muscular skeletal disorder and sometimes diabetes.¹² According to time period, workplace stress can be short or long term, but remember if it lasts in a long run it can be more deadly to human body's physical structure and psychological health too.¹³ It is the utmost responsibility of every business leader to positively deal with workplace stress, as it charged up employees to work effectively, enhance staff retention, create healthy work environment, ensure employee job satisfaction, upsurge low cost production, portray good organizational image and develop a satisfactory performance measure.¹⁴ Corona virus badly ruined economic and social structure of many countries around the globe. In December. 2019 it first seen in China, later on it quickly spread in the world with its lethal effects on humans.¹⁵ The pandemic caused massive destruction and created a chaos globally, this natural crisis surge rapidly which came across as a huge milestone for all the communal centers.¹⁶ During pandemic management of health system was a big issue for every country, as it passed through massive patient's pressure; nurses are directly involved in patient care accompanied doctors, so they bear with maximum threat level. Hence the situation clearly enhanced their turnover intention, which really put negative impacts on nurses, patients and hospitals.¹⁷ During Covid-19 nurses couldn't deny workplace stress as it directly put their own health in danger, hence dilute their performance efficiency provides a solid reason to quit the job.¹⁸ Initially the factors which badly affected within an organization were work place satisfaction and on job commitment of workforce, the root cause of turnover. Everyone knew that nursing profession is not only technically difficult but also riskier when it comes to critical diseases ¹⁸.

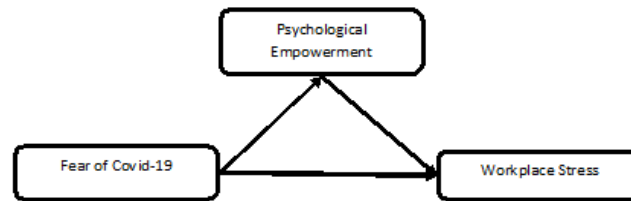


FIGURE 1: Vicious Cycle of Poverty

2 | MATERIAL AND METHODS

2.1 | Research Design

Nature of this existing study is quantitative in nature. In this study researcher has used self-administered questionnaire for survey. Primary data is collected. Nature of the data was cross-sectional. The questionnaires are the most common means of collecting the primary and quantitative data from big population in short time by saving cost.

2.2 | Population and Sampling

The population of this study includes doctors, nurses, paramedical staff, pharmacists, medical technicians, biomedical engineers from District Teaching Hospital (DHQ), Mufti Mahmood Hospital (MMH), Gomal Medical College (GMC), Khyber medical center (KMC) in district DIKhan, Pakistan. Non-probability purposive sampling and quota sampling was used. there are total 300 questionnaires distributed among respondents but 200 completed questionnaires were received and used in the analysis.

2.3 | Instrumentation/Measures

The questionnaire of COVID-19 was adopted from Ahorsu et al¹⁹ (2020), it has seven items. The questionnaire of psychological empowerment was adopted from Spreitzer² it has 10 items. The questionnaire of stress was adopted from Keller²¹ (1984) it has five items. All items were measured on five likert scale.

2.4 | Data Collection and Analysis Techniques

After getting ethical approval the respondents approached the respondents and explained to them the aim of the study. Three to four days were given to respondents to fill in the questionnaire. It was made assured to the respondents that data would be kept confidential and no harm would be given to organizational and individual reputation. SPSS was used to analyze the data. Frequency, percentages were calculated. Correlation and regression analysis was run to investigate the confounding effect of psychological empowerment on fear of C-19 and stress.

3 | RESULTS

Data from two hundred respondents was collected. Findings of the Table 1 revealed that majority of the respondents were females 107(53.5%) followed by male counterparts 93(46.5%). Further analysis of results explained that majority of the doctors participated in the study 112(56%), followed by nurses 50(25%), only 5 biomedical engineers, paramedical staff and 3 radiologists participated. Respondents were also inquired about sector it was

revealed that 145 belong to public sector and only 55 belong to private sector organization. Regarding the hospitals 115(57.5%) belong DHQ, 40(20%) belong to MMH, 30 belong to GMC and only 15 respondents belong to KMC i.e. 7.5% of the total sample size.

TABLE 1 Demographic Information

Variables	Characteristics	n	%
Gender	Male	93	46.5
	Female	107	53.5
Designation	Doctors	112	56
	Nurses	50	25
	Pharmacists	25	12.5
	Biomedical Engineers	5	2.5
	Paramedical Staff	5	2.5
	Radiologists	3	1.5
Sector	Public	145	72.5
	Private	55	27.5
Hospitals	DHQ	115	57.5
	MMH	40	20
	GMC	30	15
	KMC	15	7.5

TABLE 2 Mean Standard Deviation and Intercorrelations

Variables	Mean	S.D	α	1	2	3
Fear C-19	3.52	0.69	0.849	1		
PE	3.53	0.60	0.832	0.767**	1	
Stress	3.48	0.70	0.763	0.601**	0.701**	1

The highest mean score is recorded for psychological empowerment $M=3.53$, $S.D=0.60$ and lowest for Stress $M=3.48$, $S.D=0.70$, the reliability of all scales met threshold i.e. >0.70 (Field, 2013). The relationship between Fear C-19 and psychological empowerment is (0.767**, $p<0.01$); Fear C-19 and Stress (0.601**, $p<0.01$) and psychological empowerment and stress (0.701**, $p<0.01$). H_1 is accepted.

TABLE 3 Confounding Effects (Indirect Effects)

DV	UV	R	R^2	F	β	p
PE	Constant	0.767	0.588	529.41		0.000
	Fear C-19				0.6683	0.000
Stress	Constant	0.707	0.5006	184.92		0.000
	FC-19				0.1554	0.007
	PE				0.6758	0.000

Hierarchical multiple regression in process file is used for confounding effects. It was found that fear of Covid-19 explained 58.8% variance upon psychological empowerment goodness of fit $F=529.41$, $p<0.01$ was also found fit. Unit of change i.e. $\beta=0.6683$, $p<0.01$, explained that one percent change in fear of C-19 could possibly bring 66.83% change in psychological empowerment. In second model fear of C-19 and psychological empowerment together explained 50% variance on stress. Goodness of fit $F=184.92$, $p<0.01$, $\beta=0.1554$, $\beta=0.6758$, $p<0.01$ explained that by adding confounding variable i.e. psychological empowerment impact of fear of C-19 on stress was 15.54% while along with psychological empowerment it was 67.58% and was significant. Thus it is evident that by psychological empowerment stress could be better handled by healthcare professionals. Thus H_2 is accepted.

4 | DISCUSSION

The purpose of the current study was to investigate the impact of fear of Covid-19 (C-19) on the workplace stress of medical staff with confounding influence of psychological empowerment. It has been revealed in the findings that fear of C-19 has significant impact on workplace stress of medical staff as medical staff already work in stressful environment they have to deal with patients' lives in addition exposure to C-19 also increased the level of stress among medical staff and workforce. In this situation there is immense need of psychological empowerment by the management, and Ministry of Health (MoH) provided to health workforce. For medical staff it is essential to provide them necessary safety equipment especially during COVID-19 or dealing with corona patient so that they feel safe and become more productive. The study findings are in line with findings of other studies who also found psychological empowerment as significant confounding variable.²⁰⁻²⁵

5 | CONCLUSIONS

Psychological empowerment plays important indirect effect on relationship between fear of C-19 and workplace stress. It means that if hospitals' management empowers their health workforce they could possibly efficiently managed the level of stress up to 67%. Health workforce as we already know that there is shortage of health workers in Pakistan especially in pandemic. In order to retain the talented and hardworking medical staff management of hospitals should empower their employees so that they may be able to provide better health services i.e. preventive and curative care to general public.

6 | POLICY IMPLICATIONS

The findings of this study are significant for MoH, Hospitals, general and specialist hospitals, public and private sector hospitals, medical colleges, practitioners and scholars especially medical students. Policy makers and health practitioners should raise importance of psychological empowerment. The management of hospitals and MoH must consider the importance of psychological empowerment to reduce the fear of COVID-19 and stress level among medical staff. Moreover professional training programs about safety would also give hands on practice and experience to medical staff and the health worker can take benefits from the training programs.

7 | LIMITATIONS AND FUTURE DIRECTION FOR RESEARCH

In spite of several contributions this study has few limitations which are essential to address which would open the doors for future studies. This study has used only single method of data collection which might have issue of common method bias (CMB) it is recommended to use mix methods, in future so reduce the biasness. 2nd limitations this study has collected data from one district and four hospitals and medical college therefore one must be careful while generalizing the findings to other sectors. 3rd only one confounding variable is used it is recommended to use age and gender as confounding variables in future studies.

Conflict of Interest: There is no competing interest

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Appendix I

S#	Items
1	I am most afraid of coronavirus-19.
2	It makes me uncomfortable to think about coronavirus-19.
3	My hands become clammy when I think about coronavirus-19.
4	I am afraid of losing my life because of coronavirus-19.
5	When watching news and stories about coronavirus-19 on social media, I become nervous or anxious.
6	I cannot sleep because I'm worrying about getting coronavirus-19.
7	My heart races or palpitates when I think about getting coronavirus-19
Psychological Empowerment	
1	I am confident about my ability to do my job..
2	The work that I do is important to me.
3	I have significant autonomy in determining how I do my job.
4	My impact on what happens in my department is large. impact
5	My job activities are personally meaningful to me.
6	I have a great deal of control over what happens in my department. impact
7	I can decide on my own how to go about doing my own work.
8	I have considerable opportunity for independence and freedom in how I do my job.
9	I have mastered the skills necessary for my job.
10	The work I do is meaningful to me
Workplace Stress	
1	I frequently bring work home at night
2	Not enough hours in the day to do all the things that I must do
3	I deny or ignore problems in the hope that they will go away
4	I do the jobs myself to ensure they are done properly
5	I underestimate how long it takes to do things