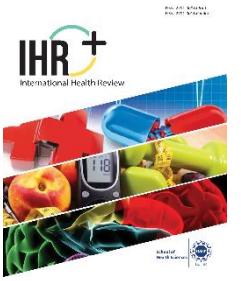
International Health Review (IHR)
Volume 4 Issue 1, 2024
ISSN$_{(P)}$: 2791-0008, ISSN$_{(E)}$: 2791-0016
Homepage: https://journals.umt.edu.pk/index.php/ihr

Article QR



Title: **Professional Quality of Life Among Healthcare Workers: A Case Study Conducted During the COVID-19 Pandemic**

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DOI: http://doi.org/10.32350/ihr.41.02

History: Received: October 06, 2023, Revised: November 07, 2023, Accepted: November 08, 2023, Published: June 30, 2024

Citation: Rashid HH, Hussain G, Rashid T, and Hussain S. Professional quality of life among healthcare workers: a case study conducted during the COVID-19 pandemic. *Int Health Rev.* 2024;4(1):14-28. http://doi.org/10.32350/ihr.41.02

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Conflict of Interest: Author(s) declared no conflict of interest

A publication of
The School of Health Science
University of Management and Technology, Lahore, Pakistan

Professional Quality of Life among Healthcare Workers: A Case Study Conducted during the COVID-19 Pandemic

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ABSTRACT

Coronavirus is an infectious respiratory disease. Following its outbreak in China, the virus spread rapidly throughout the world. Consequently, the WHO declared it as a serious international emergency concern. The healthcare workers (HCWs) fighting as active and critical frontline warriors during the COVID-19 pandemic were at a high risk of exhibiting psychosocial stress and mental health symptoms. The aim of this study was to evaluate the professional quality of life of healthcare workers during the COVID-19 pandemic. The population of this research consisted of 238 HCWs. The data was collected through online Google forms and participants were assessed by using professional quality of life tool (ProQOL-5). The results showed that the majority (84.2%) of HCWs had average compassion satisfaction (CS), while only 14.6% had high CS scores. For burnout, the majority had average scores whereas only 8.3% had a low count of burnout. Similarly, the majority of the participants had average secondary traumatic (ST) stress (88.3%), while 9.2% had low ST stress, and 2.5% had high ST stress. This study concluded that the healthcare workers (HCWs) had average CS, burnout, and ST stress.

Keywords: burnout, disease, pandemic, quality of life, stress, traumatic

1.INTRODUCTION

Coronavirus is a viral disease that causes acute breathing disorder. The virus spread throughout the world after its explosion from China and the World Health Organization (WHO) declared it as a pandemic. The virus is

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said to be transmitted through close contact with the effected person and in crowded areas in the form of small droplets produced by cough and wheezing. The WHO announced it as a global pandemic emergency on 30th January. Around 3.8 million people have been affected worldwide in 187 countries. The healthcare workers were at the frontline during this pandemic [1].

Keeping in view the protocols of preventive measures designed for COVID-19, it was very difficult for the HCWs to provide preventive care for everyone during the pandemic [2]. While dealing with working conditions and environment, healthcare workers were more susceptible to be affected by the virus as they had to monitor patients within close proximity. There was an underlying fear and stress among the HCWs due to continuous wearing of face masks, goggles, gowns, and gloves in order to sustain professional ethics [3].

Coronavirus principally targets the human lungs. Initially, the patients were admitted in the hospital under the impression of pneumonia caused by an unknown source. Epidemiologically, these patients were exposed to the seafood market in China. The impact of pandemic was reflected by the significant increase of patients afflicted by coronavirus [4].

The data from recent researches show that the healthcare workers who worked as frontline warriors during the pandemic were directly challenged in terms of health and wellbeing. As the HCWs were in direct contact with the affected population round the clock, they were continuously working under the threat of getting the infection. Due to the outbreak of pandemic, loss of relaxation, constant threat of contamination, and the extra work load, there was a constant negative impact on the quality of life of HCWs [5].

According to a systematic review conducted by Maryam Vizheh et al aiming the impact of SARS-covid 19 on mental health of health care workers, it was concluded that all over the world health care workers sustained major psychological strain leading to multiple mental health issues as they were in direct contact with effected people and their families. In consoling and treating Covid patients, medical staff also had to maintain the state of all consciousness and senses. It's advisable for all policymakers to implement supportive, encouraging and protective interventions for medical staff in order for better care and understanding for them [5].

A study was conduced at united states by Haley Ehlrich et al in 2020

highlighting the stressful conditions for healthcare workers in covid 19 and how it impacted their overall performance. As per reports of center of disease control, all ages are susceptible to coronavirus, considering this fact nurses and physicians spends maximum time in close proximity to Covid patients each time they tend to them. This contributes significantly to burnout among HCWs [6].

During the COVID-19 pandemic, the key workers especially HCWs, quality of life is affected by working under stressful conditions. Previous research recommends that health care workers should be instructed about the importance of protective equipment and its implementation before coming into contact with the contagious patients. High quality of education and awareness practice was necessary to enhance the worker's belief and faith [7]. The impression of this pandemic on the HCWs revealed that their families underwent the constant threat and pressure as they perceived and feared themselves to be the next probable victim. The revelation of this pandemic and its disaster increased the workload in all the fields of medical profession, whether they were associated to pathological testing or indoor and outdoor hospital and clinical setups [8]. Medical centers and healthcare organizations' working strategies to battle and win control over the COVID-19 pandemic contributed to additional mental health needs and morbidity [9].

The percentage of anxiety and depression during the pandemic were calculated as 23% and 22.8% among healthcare workers. The accurate values for each of them were as, 22.6% - 36.6% for anxiety and 16.5% - 48.3% for depression, this result showed how savagely coronavirus affected the population. Thus, it was proved that the high rates of anxiety and depression among the HCWs were present [10].

In all of the previous research studies, the effect of COVID-19 on the healthcare workers was barely addressed as the previous studies focused on specific effects of outbreak on HCWs [11].

The limited evidence about the impact of coronavirus on quality of life among healthcare workers, demanded a proper demonstration of risk factors associated with COVID-19. According to a study, the mental health of HCWs was highly affected which in return affected the patient management and care. This gave rise to a cycle of social imbalance and interferences with the responsibilities of a health practitioner [12].

The main objective of this study is to evaluate the quality of life of healthcare workers during the COVID-19 pandemic. Healthcare workers faced real time mental challenges, including both the mental and the emotional effects. According to a study, the risk of depression and anxiety is double in healthcare workers due to working under pressurized circumstances [13].

The current study indicates that the rate of anxiety disorder among the HCWs while performing duties during the COVID-19 pandemic increased greatly. The disturbance of sleep cycle of HCWs was highly prevalent and the sleep disorder scale was negatively correlated with the professional quality of life.

This study also helped in discovering the general quality of life. By establishing various designated quarantine centers along with the financial support regarding facilities and presence of experienced medical staff, the professional quality of life for healthcare workers can definitely be enhanced [14].

2. METHODOLOGY

2.1. Study Design

The research was based on a cross sectional-observational study.

2.2. Study Center

The data collection centers were Jinnah Hospital, Mayo Hospital, and Shalimar Hospital.

2.3. Population

Healthcare workers (HCWs) who were working at public and private settings during the pandemic.

2.4. Sample Size

A sample size of 238 HCWs were taken through online Google forms.

2.5. Sampling Technique

Convenient sampling technique was used to collect the data.

2.6. Inclusion Criteria

Healthcare workers who were working in health facilities and aged between 25 to 60 years were taken as the participants.

2.7. Exclusion Criteria

Participants more than 60 years of age or those who were out of practice. Notably, the participants below the age of 25 were excluded.

2.8. Data Collection Procedure

Responses from 238 participants were collected through the questionnaire. Moreover, the Professional Quality of Life Scale (proQOL-5) was used as a measurement tool. This scale was utilized to assess the standard status of HCWs' life.

Besides, the ethical and legal values of data collection were fulfilled.

3. RESULTS

The total number of participants and their ages are mentioned in the Table 1. The mean age of the 240 participants was 25.50 + 5.58, with the highest and lowest ages being 22 and 44 respectively. On the other hand, Table 2 shows the participants' employment status. Around 32.5% of the total participants were physiotherapists, 30% were doctors, 22.5% were allied health professionals, and 15% were nurses.

The participants' institutions are listed in the Table 3. The private sector made up the majority (82.5%) whereas, Table 4 is about the participants' Professional Quality of Life Scores (ProQOL). The mean score for compassion satisfaction was 35.3±5.7. According to the data, higher scores on this scale indicate that the participants were more satisfied with the capacity to provide quality care at work. The mean burnout score was 27.94±3.8. Higher ratings on this scale indicate a greater likelihood of burnout. The mean score for secondary traumatic stress was 31.58±6.2. Although the scales produce higher scores, they serve as a warning that the participants may want to reflect on how they feel about their jobs and workplaces. The participants may speak about this with their manager, a coworker, or a medical expert. The Table 5 indicates Chi Square associations between field of practice and Burnout Scale. The *p*-value indicates that there is a non-significant association between age and compassion satisfaction score. The Table 6 indicates Chi Square associations between Field of Practice and Secondary Traumatic Stress Scale. The *p*-value >0.001 indicates that there is a non-significant association between field of practice and secondary traumatic stress score. Majority were found having an average Secondary Traumatic Stress

(88.3%), 9.2% had low, and 2.5% reflected having high Secondary Traumatic Stress.

Table 1. Age of the Participants

	N	Minimum	Maximum	Mean	Std. Deviation
Age	240	22	44	25.50	5.583

Table 2. Field of Practice of the Participants

	Frequency	Percent
Physical Therapist	78	32.5
Medical Doctors	72	30.0
Allied Health Workers	54	22.5
Nursing	36	15.0

Table 3. Institution of the Participants

	Frequency	Percent
Public Sector	42	17.5
Private Sector	198	82.5

N=240

Table 4. Professional Quality of Life Scale (ProQOL-5) of the Participants

		Never	Rarely	Sometimes	Often	Very Often
I am happy.	N=240	7	14	81	119	19
	%age	2.9	5.8	33.8	49.6	7.9
I am preoccupied with more than one person I [help].	N=240	20	26	101	71	22
	%age	8.3	10.8	42.1	29.6	9.2
Helping people make me feel satisfied.	N=240	10	15	62	88	65
	%age	4.2	6.3	25.8	36.7	27.1
I feel connected to others.	N=240	18	20	84	77	41
	%age	7.5	8.3	35	32.1	17.1
I usually get startled by unexpected sounds and jump in fear.	N=240	30	25	101	57	27
	%age	12.5	10.4	42.1	23.8	11.3
I feel invigorated after working with those I[help].	N=240	23	33	95	66	23
	%age	9.6	13.8	39.6	27.5	9.6
I find it difficult to separate	N=240	33	35	82	67	23

		Never	Rarely	Sometimes	Often	Very Often
my personal life from my life as a [helper].	%age	13.8	14.6	34.2	27.9	9.6
I feel my productivity at work is causing sleep problems because of the past traumatic events[help].	N=240	32	29	98	61	20
	%age	13.3	12.1	40.8	25.4	8.3
I think that I might have been affected by the traumatic stress of those I [help].	N=240	20	33	97	58	32
	%age	8.3	13.8	40.4	24.2	13.3
I feel trapped by my job as a [helper].	N=240	51	36	82	51	20
	%age	21.3	15	34.2	21.3	8.3
Because of my [helping], I have felt "on edge" about various things.	N=240	25	18	102	73	22
	%age	10.4	7.5	42.5	30.4	9.2
I like my work as a [helper].	N=240	8	13	64	106	49
	%age	3.3	5.4	26.7	44.2	20.4
I feel depressed because of the traumatic experiences of the People I [help].	N=240	20	33	92	63	32
	%age	8.3	13.8	38.3	26.3	13.3
I feel as though I am experiencing the trauma of someone I have [Helped].	N=240	28	29	91	67	25
	%age	11.7	12.1	37.9	27.9	10.4
I have beliefs that sustain me.	N=240	16	22	86	86	30
	%age	6.7	9.2	35.8	35.8	12.5
I am pleased with how I am able to keep up with [helping] techniques and protocols.	N=240	12	14	106	82	26
	%age	5	5.8	44.2	34.2	10.8
I am the same person in nature that I always wanted to be.	N=240	12	22	72	101	33
	%age	5	9.2	30	42.1	13.8
My work makes me feel satisfied.	N=240	16	11	75	90	48
	%age	6.7	4.6	31.3	37.5	20
I feel worn out because of my work as a [helper].	N=240	19	28	98	68	27
	%age	7.9	11.7	40.8	28.3	11.3
I have happy thoughts and	N=240	15	19	71	97	38

		Never	Rarely	Sometimes	Often	Very Often
feelings about those I [help] and how I could help them.	%age	6.3	7.9	29.6	40.4	15.8
I feel overwhelmed because my case [work] load seems endless.	N=240	22	24	97	78	19
	%age	9.2	10	40.4	32.5	7.9
I have faith that through my work I can make a difference.	N=240	9	8	93	92	38
	%age	3.8	3.3	38.8	38.3	15.8
I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].	N=240	25	41	90	63	21
	%age	10.4	17.1	37.5	26.3	8.8
I am proud of what I can do to [help].	N=240	15	15	74	87	49
	%age	6.3	6.3	30.8	36.3	20.4
As a result of my [helping], I have intrusive, frightening thoughts.	N=24 0	23	24	93	80	20
	%age	9.6	10	38.8	33.3	8.3
I feel bogged down" by the system.	N=24 0	19	18	120	55	28
	%age	7.9	7.5	50	22.9	11.7
I have thoughts that I am a "success" as a [helper].	N=24 0	11	25	85	86	33
	%age	4.6	10.4	35.4	35.8	13.8
I cannot recall important parts of my work with trauma victims.	N=24 0	22	34	88	71	25
	%age	9.2	14.2	36.7	29.6	10.4
I am a very caring person.	N=24 0	8	17	69	89	57
	%age	3.3	7.1	28.8	37.1	23.8
I am happy that I chose to do this work.	N=24 0	14	18	70	89	49
	%age	5.8	7.5	29.2	37.1	20.4

N=240

Table 5. Chi Square Associations between Field of Practice and Burnout Scale

		Field of Practice			
		Physical Therapist	Medical Doctors	Allied Health Workers	Nursing
Burnout Scale	22 or less, 43 or less, Low	7	8	3	2
	Between 23 and 41, Around 50, Average	71	64	51	34

N=240. *p*-value 0.642

Table 6. Chi Square Associations between Field of Practice and Secondary Traumatic Stress Scale

		Field of Practice			
		Physical Therapist	Medical Doctors	Allied Health Workers	Nursing
Secondary Traumatic Stress Scale	22 or less, 43 or less, Low	11	6	5	0
	Between 23 and 41, Around 50, Average	64	64	48	36
	42 or more, 57 or more, High	3	2	1	0

N=240

Table 7. Pearson's Correlations of age with Compassion Satisfaction Score, BurnoutScore and Secondary Traumatic Stress Score

		Age	Compassion Satisfaction Score	Burnout Score	Secondary Traumatic Stress Score
Age	Pearson Correlation	1	-.092	.147*	.195**
	Sig. (2-tailed)		.156	.023	.002

	N	240	240	240	240
Compassion Satisfaction Score	Pearson Correlation	-.092	1	-.181**	.302**
	Sig. (2-tailed)	.156		.005	.000
	N	240	240	240	240
Burnout Score	Pearson Correlation	.147*	-.181**	1	.352**
	Sig. (2-tailed)	.023	.005		.000
	N	240	240	240	240
Secondary Traumatic Stress Score	Pearson Correlation	.195**	.302**	.352**	1
	Sig. (2-tailed)	.002	.000	.000	
	N	240	240	240	240

4. DISCUSSION

This descriptive study was carried out over the sample of HCWs, working in close vicinity with the victims of COVID-19 during the lockdown. This study investigated the quality of life of health professionals and the effect of depression and anxiety on them. The outcomes of this study are a proof in line with the solid reason [15]. In fact, it entails the reality that the healthcare workers have significant mental challenges as an outcome of the dilemma while battling and balancing between both positive and negative emotional effects at the same time. The results reflect positive satisfaction effects on workers who participated in the pandemic situations. The frontline staff and physicians may have felt more compassion satisfaction than those who were not in direct contact with the patients. A previously done study showed that this pandemic has laid more stress on nurses in the form of severe disturbances and disappointment [16]. According to a study, the overall prevalence of mental disorders across all the HCWs is not higher than the occurrence of workplace illnesses among the exposed employees. Anxiety and despair both carry a double risk. The absence of substantial levels of CF among the groups is consistent with the previous results [17]. Burnout and workload are positively correlated and both of these factors contribute to less frequent hand washing which is crucial for the prevention of the spread of disease. The ProQOL scale showed that the burnout has an impact on both the secondary traumatic stress and compassion satisfaction scores. Similarly, workload and mental health have a more tangential impact on this study as the burnout and hand

hygiene are also related. Burnout is usually linked to subpar communication, practice, quality of life, and safety in the healthcare industry. According to the earlier studies, burnout is a progressive predictor of nurses' self-reported adherence to the infection control measures. The ProQOL showed a relationship between workload and mental health as a clear influence of the increasing efforts on the mental health (sleep problems) can be seen. Promoting wellness is an excellent strategy to combat burnout and secondary traumatic stress, while also reducing compassion fatigue. Positive ProQOL characteristics (compassion satisfaction) were higher in the instructor who was in a better health [18].

In this study, higher levels of burnout are linked to more secondary traumatic stress and worse levels of compassion fulfilment. As evidenced by the earlier study, overburdening of work and inefficient working methods increase burnout, while decreasing compassion satisfaction. In summary, the goal of the intervention is to lessen the burnout, alleviate secondary traumatic stress, and heighten the compassion fulfilment. It is important to consider the impact of workplace stress on secondary traumatic stress because it has a strong relationship to burnout and focuses on the workplace.

Instructions and guidelines regarding the proper handling of the patient during the pandemic were given to the healthcare workers. They were supplied with the medical protective items which included face masks, goggles, and gowns. The stresses related to the work environments were high. As a result, moderate to severe anxiety and depression in the healthcare workers was on the rise [19].

Thus, the compassion satisfaction impacts positively as the findings of the study showed that working on the frontline and working in an ICU exhibit potential risk of anxiety. Significant clinical changes in depression and PTSD score are at the peak [20].

4.1. Conclusion

This study concluded that healthcare workers had average CS, burnout and ST stress. Non-significant association was found between CS Scale and field of practice whereas, significant association was found between institution and CS Scale. Non-significant association was found between the field of practice and burnout as well as between institute and burnout. In the same manner, non-significant association was found between Field

of Practice and ST stress scale. The current study further reflects non-significant association between institution and ST stress. It was found that there is a non-significant inverse correlation between age and CS score, while significant inverse correlation and direct correlation was concluded between age and burnout scale.

4.2. Limitations and Recommendations:

This study focused on observing and exploring the quality of life of healthcare workers. Furthermore, the research should be based on managing and minimizing the health hazards subjected to healthcare workers. Implementation of PPE and engineering administrative controls is vital for reducing psychological health issues of medical staff. Access to counseling services and peer support should be made feasible to address these challenges.

It is of crucial importance that the participation in extra activities causes the increase of infection across the country. Therefore, this study provides data for future investigations on the effects of workload in several other workplaces.

CONFLICT OF INTEREST

The author of the manuscript has no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

DATA AVAILABILITY STATEMENT

The data associated with this study will be provided by the corresponding author upon request.

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