Well-Being of Healthcare Professionals: A Post-Pandemic Analysis

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Abstract

Besides employees' performance, workplace conditions, compensation and employees' overall well-being are a significant concern in all types of organizational settings. Alongside other health, social and economic consequences, the COVID-19 pandemic has also affected frontline healthcare workers. Collecting cross-sectional data from employees from healthcare workers, employing a quota sampling method, this study attempts to evaluate the level of the overall well-being of healthcare employees. For this purpose, the PERMA-Profiler model of overall well-being is used. Among the seven dimensions of the measure, the scores on meaningfulness, relationships, and accomplishment were relatively higher. Moreover, no significant variation is noted among the different healthcare worker groups (doctors, nurses, technicians). The results suggest that the overall well-being of the healthcare professionals is satisfactory and that the perceived meaningfulness in life and sense of relationships is higher in the post-pandemic scenario.

Keywords: *employees' well-being, healthcare, PERMA, PERMA-Profiler, meaningfulness, post-COVID*

Introduction and Background

Employees' energy is depleted by excessive emotional and psychological pressures at work, resulting in emotional weariness (Mäkikangas et al., 2021). On the other hand, organizational management's well-being actions portray how people gain success and promotions. As indicated by the recent amendment of the International Classification of Diseases (WHO, 2019) to include 'burnout', employee well-being has become a primary concern in contemporary society. Job stress alone significantly contributes to a company's costs owing to decreased productivity, absenteeism, and health issues (Goh et al., 2021). Furthermore, according to Park et al. (2021), required job tasks can cause individuals to experience anxious sensations, leading to emotional dissonance. The COVID-19 epidemic has significantly influenced the

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procedures and activities of enterprises in every industry and across all types of organizations (Charoensukmongkol & Phungsoonthorn, 2020; McKibben & Fernando, 2021). Healthcare workers are among the most vulnerable populations to the COVID-19 epidemic (Azizkhani et al., 2022). Inquiries from prior epidemics and new evidence from the COVID-19 epidemic show that the disease significantly influences physicians' mental health (Badahdah et al., 2020). During pandemics, healthcare practitioners can be negatively impacted, with previously reported consequences including exhaustion, distress (Williamson et al., 2020), and secondary traumatic stress (Preti et al., 2020). During the COVID-19 epidemic, the significant hazards and changes in the workplace have exacerbated the physical and mental strain on employees, lowering their well-being (Agius, 2020; Mongey et al., 2021). According to Ahmad et al. (2022b), burnout is prevalent among healthcare professionals who provide clinical care to non-COVID-19 patients, significantly varying across Pakistan's provinces. The pandemic's long-term physical and mental effects have been mentioned as possible antecedents.

Moreover, assessing psychological reactions and stress during a perilous occurrence is critical for responding to disasters and future planning (Arslan & Allen, 2022). Researchers have struggled to resolve the dimensionality of well-being, and many have created models to describe and define it (Ryan & Deci, 2001). Seligman's PERMA (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment) model of well-being was proposed in 2011. Butler and Kern (2016) developed the PERMA-Profiler model that includes 23 items, 15 of which assess the PERMA pillars, using Seligman's theory as a guide. As a second-order construct, the five dimensions of the PERMA model constitute total well-being, whereby each dimension can be defined and quantified individually (Coffey et al., 2016; Seligman, 2011). Furthermore, past research has revealed that the dimensions of PERMA and aggregate PERMA scores are connected positively with hope, resilience, optimism, and flourishing and inversely related to anxiety, functional impairment, and depression (Tansey et al., 2018; Umucu et al., 2019; Umucu, Moser & Bezyak, 2020a; Umucu et al., 2020b) evidenced the concurrent validity of PERMA construct. According to Seligman (2018), PERMA not only measures well-being but also identifies the building components of general happiness. Therefore, this study employed Butler and Kern's (2016) PERMA-Profiler model to appraise the overall well-being of healthcare professionals in the post-covid period.

Covid-19 Pandemic

The World Health Organization (WHO) reported on March 11, 2020, that a global disease known as COVID-19 had been identified in Wuhan, China, in December 2019. Since 2020, COVID-19 has spread over the world, widening the physical and mental distance between individuals and changing the nature of employment. In occupations requiring close contact with people, the risk of infection increases despite infection protection techniques. The COVID-19 pandemic has had a substantial bearing on the procedures and activities of enterprises in every industry and across all types of organizations (Charoensukmongkol & Phungsoonthorn, 2020; McKibbin & Fernando, 2021). As a result, this pandemic has produced financial difficulties for modern organizations and substantially influenced their work routines and the psychological well-being of their personnel (Hamouche, 2020). The pandemic of COVID-19 has changed the working environment and job demands, as well as affected the healthcare system. Healthcare workers are among the most vulnerable populations to the COVID-19 epidemic (Azizkhani et al., 2022). According to academics, the epidemic increased uncertainty (Mortensen et al., 2022). In the face of crises, employees have embraced significant and rapid changes in their work. Organizations are considering new tactics to enhance attributes like wellness, psychological empowerment, and work engagement, which are precursors of patient care quality and job satisfaction (Karimi et al., 2020). Quick adaptation, infection concerns, remote working, unexpressed demand, decreased head-on patient care, and vaccination delivery has posed significant issues for primary care doctors worldwide due to the pandemic. Research from previous epidemics and new evidence from the COVID-19 pandemic show that the disease significantly influences physicians' mental health (Badahdah et al., 2020). Crises exert pressure on work environments and present various issues for healthcare staff. Physicians had to quickly adapt their working habits and manage changing standards in the face of uncertainty and personal danger.

Effects of Pandemic on Well-being of Healthcare Professionals

Disasters, such as pandemics, are becoming more common worldwide. Healthcare workers are more affected than other occupational groups because they are often at the forefront of pandemic response. According to Cullen et al. (2020), in pandemics, healthcare personnel are at an elevated risk in terms of their physical and emotional well-being. During pandemics, healthcare staff might be negatively impacted, with weariness and distress (Williamson et al., 2020) and secondary traumatic stress (Preti et al., 2020) being previously observed effects. During the

COVID-19 outbreak, the severe threats and changes in the workplace have escalated the physical and mental strain on employees, diminishing their well-being (Agius, 2020; Mongey et al., 2021). The unforeseen situations that were generated and the need to boost critical care surge capacity necessitated enormous modifications, causing unease and frustration among healthcare personnel (Mortensen et al., 2022). As a result, the danger of physical and psychological injury has increased (Shaukat et al., 2020). Excessive workload due to increased infection rates, faulty personal protective equipment, and poor access to hospital beds were among the variables contributing to workers' mental health degradation. Lack of planning and preparedness and emotional discomfort brought on by fear of illness are other contributing causes. Through the COVID-19 epidemic, prior studies found that healthcare workers experienced an elevated degree of perceived stress, higher depression and burnout, and lower job satisfaction (Badahdah et al., 2020). Health personnel had acute depression and burnout, according to Emhan et al. (2022), since they were afraid of illness and traumatized by the pain and death they witnessed. A review of international literature by Jefferson et al. (2022) also highlighted that work-related stress and burnout were common among healthcare practitioners during the pandemic. Migraines and headaches, fatigue and exhaustion, and sleep disturbances, among other physical issues, were also documented in studies. A person's overall good adaptation and happiness in life are referred to as well-being (Matud et al., 2019). Happiness, excitement, optimism, confidence, and sagacity of purpose in life are all constituents of an individual's well-being (Kubzansky et al., 2018). Moreover, it has been discovered that stress and happiness are inversely connected (Bell et al., 2012).

Furthermore, Ahmad et al. (2022b) found a high level of burnout among healthcare professionals who provided clinical care to non-COVID-19 patients, with significant variation across Pakistan's provinces. The pandemic's long-term physical and mental effects have been mentioned as possible antecedents. In addition, a study conducted in ten hospitals in KP, Pakistan, Khattak, Saeed, Rehman, and Fayaz (2021) discovered that fear of COVID-19 significantly impacts nurses' secondary trauma, psychological distress, and intention to leave. The authors found no significant difference between those who worked directly with COVID-19 patients and those who worked in other departments. While researching COVID-19's impacts in Punjab, Pakistan, Salman et al. (2022), in addition to depression, discovered signs of suicidal ideation among healthcare professionals handling COVID-19 patients directly. As a result, frontline healthcare personnel who provided direct patient care

were severely impaired in their ability to operate in social, occupational, or other crucial areas.

PERMA-Profiler Model

Seligman's PERMA (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment) model of overall well-being was proposed in 2011. Butler and Kern (2016) developed the PERMA-Profiler model, consisting of 23 items, 15 of which assess the dimension of PERMA, using Seligman's theory as a guide. According to Watson (2002), the inclination to experience happiness is referred to as positive emotions. An 'affective-cognitive state' characterized by vitality, devotion, and immersion is referred to as engagement (Bakker et al. 2008). An employee's idiosyncratic view of the significance of the job is characterized by Meaning at work (Pratt & Ashforth, 2003). The connections and links that one has with others are referred to as positive relationships (Kun et al., 2017). The term "accomplishment" relates to one's assessment of performance and accomplishments (Kun et al., 2017). This conjectural model of happiness has prompted proposals for reforms in the workplace (Sauberer et al., 2017, Slavin et al., 2012). Slavin et al. (2012) presented a PERMA-based intervention to enable healthcare personnel to reach their full potential. Sauberer et al. (2017) have contended to introduce PERMA in software development teams to improve employees' well-being in an organizational setting.

Methods

Because the study data was employed for a single point in time, it used a cross-sectional approach in conjunction with a quantitative strategy. The study is descriptive in nature and used statistical analysis to report the state of overall well-being. Individual personnel operating in Peshawar's health sectors serve as the research's unit of analysis. The information was gathered using a quota sampling technique and a closed-ended questionnaire based on Butler and Kern's work (2016). As a sample, relative numbers of doctors, nurses, and technicians were selected based on the numbers of employed workers in three hospitals. The following formula was used to compute the sample,

$$Quota_{ProfGroup} = \frac{Sample\ Size}{Total\ Population}\ x\ Size_{profGroup}$$

Finally, 450 employees were asked to respond, but the total sample size was 383 (n=383), with a response rate of over 85%. Moreover, the responses were recorded on a five-point Likert scale. Furthermore, the participants' consent was obtained before delivering the questionnaires to assure their voluntary involvement. Finally, SPSS and MS Excel were

used to evaluate the data. The demographic characteristics of the sample are presented in Table 1.

Table 1
Sample Demographics

Demographic Variables	Category	Frequency	Percent
Gender	Male	235	61.4
	Female	148	38.6
Age	22-30	142	37
	31-40	175	46
	41-50	34	9
	51-60	32	8
Experience	1-10	324	84.6
	11-20	37	9.7
	21-30	22	5.7
Education	College	11	2.9
	Bachelor/MBBS/BS	342	89.3
	Masters/FCPS	23	6.0
	MS/M. Phil	6	1.6
	PhD	1	0.3
Professional Groups	Doctors	218	56.9
	Nurses	96	25.1
	Technicians	69	18.0

Data Analysis and Results

Data collected through survey instruments using quota sampling were analyzed through SPSS and MS Excel. Table 2 presents the results for each dimension of well-being (as defined by the PERMA-Profiler model) for healthcare professionals (doctors (n=218), nurses (n=96), and technicians (n=69)). For all the professional groups, scores were above average for all the dimensions except negative emotions, where scores were below average. The highest scores for all the professional groups were recorded for the 'Meaning' dimension of PERMA. In contrast, the second-highest scores were for the 'Relationship' dimension.

Table 2
PERMA Scores for groups of professionals

	P	E	R	M	A	N	H	OWB

Doctors	3.63	3.67	3.84	***3.89***	3.79	2.26	3.69	3.75
Nurses	3.64	3.74	3.75	***3.94***	3.85	2.20	3.74	3.78
Technicians	3.64	3.71	3.77	***3.94***	3.80	2.24	3.63	3.75
Over All	3.64	3.69	3.81	***3.91***	3.81	2.24	3.69	3.76

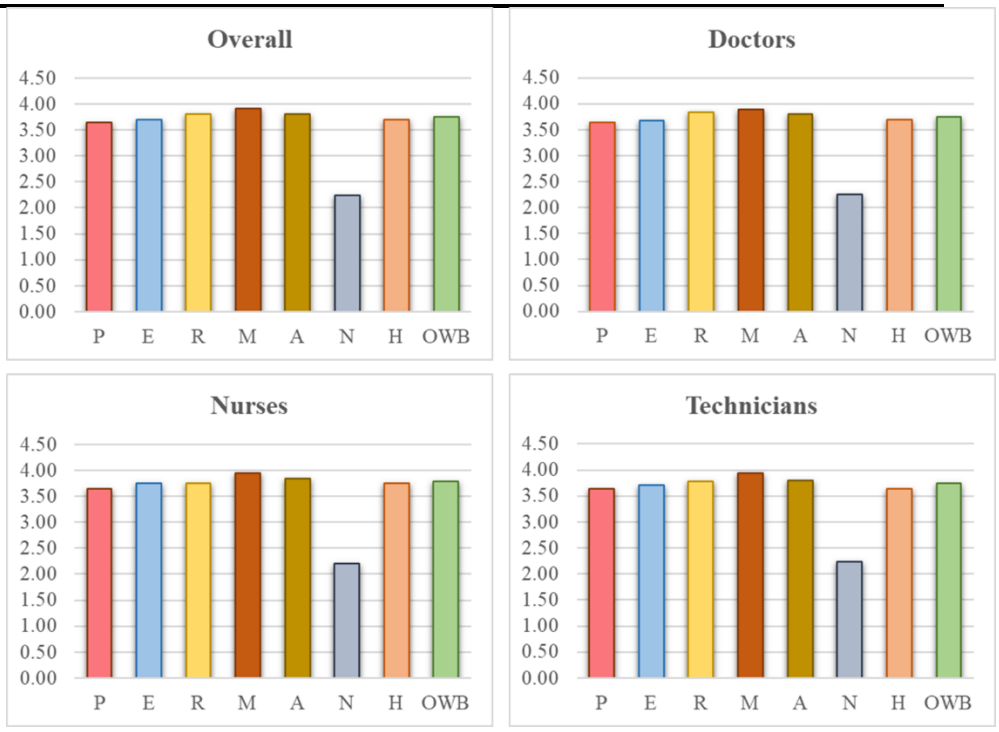

Figure 1: PERMA Scores for professional groups

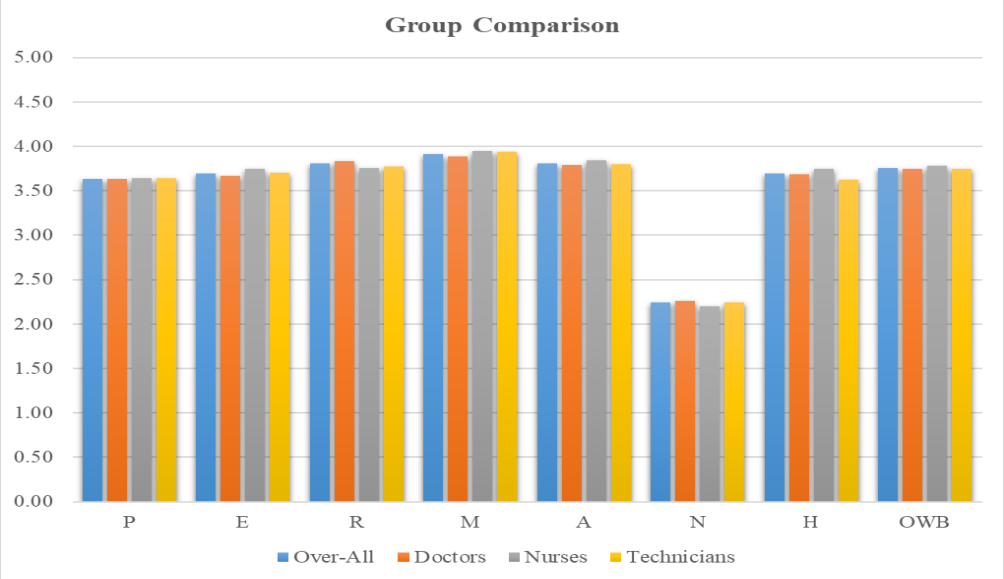

Figure 2: Group comparison of PERMA Scores

Figure 1 graphically depicts the overall and functional group-wise scores for all the functional groups, whereas, Figure 2 presents the group-wise comparison.

Table 3
ANOVA for functional Groups

	Sum of Squares	Mean Square	F	Sig.
PEM	0.008	0.004	0.008	0.992
ENG	0.402	0.201	0.527	0.591
REL	0.562	0.281	0.627	0.535
MEA	0.237	0.118	0.211	0.810
ACC	0.206	0.103	0.281	0.755
NEM	0.228	0.114	0.263	0.769
HEA	0.534	0.267	0.518	0.596
OWB	0.071	0.036	0.162	0.850

Finally, a one-way ANOVA test was conducted (Table 3) to assess group-specific differences for healthcare professionals. However, no significant differences in any dimension of well-being were noted.

Therefore, the results could be generalized to all the study participants irrespective of their functional group.

Discussion

This research study analyzed the level of post-pandemic well-being of healthcare professionals employed in tertiary care hospitals in a major province of Pakistan. The outcomes presented that the degree of the overall well-being of healthcare professionals is satisfactory, and for all the professional's level of 'Meaning in life' and 'Relationships' is higher. Prior research has reported stress to be a significant aspect of overall well-being and mental health (Brooks et al., 2020; Garbarino et al., 2013), and Meaning in life as substantial to protecting and fostering well-being and mental health in the course of adversative periods (Arslan et al., 2020; Hicks & Routledge, 2013). In addition, Park and Gutierrez (2012) discovered that Meaning had a critical yet nuanced influence on how individuals coped with traumatic life events. Goh et al. (2021) argued that fostering positive emotions in the workplace results in enhanced Meaning.

Moreover, individuals with a strong sense of purpose in life have higher psychological and subjective well-being, optimism, and quality of life (Braaten et al., 2019; Minkkinen et al., 2020) and less psychological anguish (Korte et al., 2012). Therefore, it can be concluded that treating patients suffering from COVID-19 or other diseases during the pandemic enabled healthcare professionals to foster Meaning and purpose in life in general and their profession in particular. They resort to founding meaningfulness in their profession.

Furthermore, according to Fredrickson's (2013) Broaden-and-Build theory, positive effects may be argued to widen one's thought-action repertoires, allowing one to adopt a more global perspective on life and facilitating the discovery or production of Meaning (King et al. 2006). In a study of the same population, Ahmad et al. (2022a) also reported that higher coordination and collaboration lead to employees' well-being. Also, meaning in life enables individuals to cope with pressures and improve their well-being and mental health by assisting them in moving beyond survival to a different and higher degree of resilience (Wong & McDonald, 2002). When faced with risk or adversity, resilience is defined as the ability to successfully locate and employ external and internal resources to cope with the situation (Cesana et al., 2018; Giordano et al., 2019; Giordano & Ferrari, 2018; Ungar, 2008). Individual assets like coping skills, self-efficacy, and mastery (Ostafin & Proulx, 2020) and external resources like professional and personal connectedness (Giordano et al., 2020; Pipe et al., 2012) are all protective factors. Individuals with intrinsic work-value orientation develop meaningful and pleasant relationships

with coworkers and aid people in need, according to Vansteenkiste et al. (2007). Existing literature claims the pandemic has resulted in a stronger sense of community (Mortensen et al., 2022). However, the findings contradict Ahmad et al.'s findings (2022b). They reported a higher level of burnout among healthcare employees in Pakistan compared to other Asian countries.

Thus, it can be inferred that higher perceived Meaning in the workplace and satisfying relationships led the healthcare professionals to enhance job perseverance and overall well-being. Accordingly, the results suggest that Meaning in life and developing satisfying relationships is a significant contrivance for stimulating workers' well-being in adverse situations like pandemics.

Limitations and Future Research Directions

This research study does have several limitations, which future research may address. First and foremost, the study's cross-sectional nature limits the generalizability of the findings. Also, the differences in rates of depression and anxiety among different settings, and the lack of 'pre-pandemic' comparators, make drawing firm conclusions difficult. Future research might use longitudinal and experimental designs as this research used a cross-sectional design. Second, despite using a quota sampling approach, a non-random sampling procedure was utilized to choose samples from within the quotas, limiting the generalizability of the results. To improve generalizability, future research is recommended to use probability sampling techniques. Third, this research collected data from healthcare professionals only. Future research may extend the study to other settings. Fourth, this research focused on the core PERMA dimension. However, recent research has proposed four superfluous dimensions of PERMA (Physical Health, Environment, Mindset, and Economic Security). By employing PERMA, future research may also include these dimensions for assessing overall well-being. Fifth overall well-being is linked to job perseverance and turnover. However, such variables could not be included in the study due to limited scope. Future studies, particularly in healthcare, can further understand PERMA factors. Finally, in recent studies, positive psychology models, such as PERMA, have been proven to be responsive to culture, gender, and social class (Disabato et al., 2016; Mirehie & Gibson, 2020). Therefore, future research may add such variables as control variables in PERMA-based studies.

Implications and Conclusions

This research endeavored to assess the level of the overall well-being of healthcare workers in the post-pandemic period. The outcomes of the study acclaim that the overall well-being of the healthcare professionals is satisfactory and that the perceived meaningfulness in life and sense of accomplishment is higher in the post-pandemic scenario. Findings imply that promoting satisfying working relationships and Meaning in life in general and in the profession, in particular, can enhance workers' overall well-being. Results have important implications for theory and practice. Findings suggest to the managers and leaders at healthcare institutions that even performing their job in adverse and uncertain circumstances, healthcare professionals' well-being can be improved. Striving to build positive relationships at the workplace and instilling meaningfulness in the profession can result in an enhanced level of overall well-being. This can enable healthcare professionals to build resilience and cope with stressful and uncertain situations. Despite being satisfactorily higher overall well-being, smaller adjustments to job designs and/or business processes can result in a heightened level of professionals' well-being.

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