



The Impact of Work Stress on Emotional Intelligence and Life Satisfaction in Nurses: A Study during the Second Wave of Covid-19

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ABSTRACT

Nurses face a multitude of stressful circumstances, such as long hours, the weight of patient care, overnight shifts, fast-paced work, emotional demands, interaction with suffering individuals, and dealing with aggressive patient behavior. The ongoing pandemic further intensifies the demands of this already challenging profession. Therefore, this current research aimed to evaluate the connection between work-related stress, emotional intelligence, and the overall life satisfaction of nurses during the COVID-19 pandemic, as well as to examine any differences between male and female nurses. The study enrolled 200 male and female nurses employed in public hospitals. Data was gathered using a demographic questionnaire, the workplace stress scale, emotional intelligence scale, and the satisfaction with life scale. Statistical analyses including frequency distributions, means, standard deviations, linear regression, Pearson correlation, and t-test were performed using the Statistical Package for Social Sciences (SPSS) to draw conclusions. The results indicated a significant negative relationship between the variables, notably the association between work stress and emotional intelligence and life satisfaction. Furthermore, it was revealed that work stress is a significant predictor of life satisfaction for nurses during the COVID-19 pandemic. The findings of the study indicated that both male and female nurses equally experienced job-related stress in their workplace, with no significant difference in the average values of work stress and life satisfaction between male and female nurses during the pandemic. Since this was a situational study, further exploration is necessary to comprehend stress, emotional intelligence, and life satisfaction among doctors and other healthcare staff.



Introduction

Throughout history, humanity has faced numerous pandemics that rapidly spread among people, posing significant threats to life. Some pandemics have been so contagious that they overwhelmed the entire healthcare system, leaving governments unable to effectively respond to such emergencies. The social impact of these pandemics is profound, as they lead to the complete shutdown of travel, markets, schools, and sports activities, thereby jeopardizing global security and presenting challenges to economic constancy and public health (Rewar, Mirdha & Rewar, 2015; World Health Organization, 2011; Maurice, 2016). In earlier periods, pandemics have resulted in widespread illness and claimed the lives of millions within a short period, causing immense damage to economies (Ross, Olveda & Yuesheng, 2014). Over the centuries, various pandemics have occurred intermittently, and the current COVID-19 pandemic is disrupting both the healthcare system and the economy. This pandemic scenario highlights the psychological effects of living alone and being away from family, which might be more distressing than the fear of contracting an infection. The detrimental effects of epidemic worries on the healthcare sector, society, the economy, and national security pose a danger to the worldwide community (Barbisch et al., 2015).

The pandemic has led to an increase in the workload of nurses, resulting in heightened psychological distress among healthcare workers (Lu, Shu, & Chang, 2006; McAlonan et al., 2007; Goulia et al., 2010; Lee et al., 2018). COVID-19 not only claims life but also negatively impacts the physical and mental well-being of healthy individuals. Numerous studies have examined psychological symptoms like stress, worry, and depression in common public as well as frontline healthcare workers, particularly those who had close contact with infected patients, during the COVID-19 epidemic (Moccia et al., 2020; Ueda et al., 2020; Huang & Zhao, 2020). Frontline healthcare providers, due to their direct exposure to infected individuals, face a higher risk of contracting COVID-19 and experiencing greater psychological distress compared to the general population (Tan et al., 2020; Du et al., 2020; Ran et al., 2020; Nemati et al., 2020). In the same way, mental health challenges have been documented among frontier nurses and survivors during precedent pandemics in history (Lu, Shu, & Chang, 2006; McAlonan et al., 2007). The provision of adequate personal protective equipment (PPE) is essential to safeguard frontline health workers from infection; however, at the onset of the pandemic and with global PPE shortages, Pakistan faced challenges in ensuring an adequate supply, forcing frontline health workers to operate without it. The absence of PPEs not only led to fatalities but also increased stress levels among frontline nurses. The pandemic's severe consequences on the public, economic institutions and particularly nurses' physical and emotional health rank among the century's greatest socioeconomic difficulties (Campion et al., 2020).

Everyone experiences stress, but each person has the capacity to manage it. People are happier with their lives when they sense less stress. Thus, stress and life happiness have a conflicting relationship. Emotional intelligence also plays a significant role in human life. People with emotional intelligence can better comprehend their own and other people's feelings and utilize that knowledge to inform their thoughts and behavior. People are grateful for the positive connection between emotional intelligence and life pleasure. A person's high level of life happiness is an automatic indicator of their emotional intelligence. One of the biggest causes of stress in the job is the workplace itself (Moustaka & Constantinidis, 2010). A lot of stress is dealt with in the nursing profession (Saini, Kaur & Das, 2011). All occupations experience workplace stress, but compared to other professions, nursing is a particularly demanding one. Stress at work lowers nurses' productivity and causes mental health issues, which directly affects patient care (Olayinka,

Osamudiamen, & Ojo, 2013). People's attitudes about their jobs may deteriorate when they are unable to comprehend the demands of their jobs due to invisible and unwelcome pressure. One significant factor that has a clear protective impact against stress is emotional intelligence. A person's ability to manage stress is solely dependent on their emotional intelligence. Nurses' well-being and capacity to handle work-related stress can both benefit from favorable indicators of emotional intelligence. Positive emotional practices improve people's mental and intellectual capacities and their overall sense of life happiness (Karimi et al., 2015). The effect of work-related stress aligns with the belief that workers may or may not be able to adjust their own emotions as well as those of others. For instance, employees' well-being will enhance if they are able to comprehend and manage both their own and other employees' emotions. This will also lessen their stress levels at work. Despite the obvious nature of this relationship, stress lowers employees' well-being, including their level of happiness and life satisfaction (Asiegbu, 2016; Shafiq et al., 2023). According to Shaheen and Shaheen (2016), emotional intelligence is considered a powerful pointer of mental health and well-being and can be crucial in balancing a professional's mental faculties, interpersonal and social interactions, workplace performance & psychological well-being. Even when feeling both happy and negative emotions, people with emotional intelligence are able to better comprehend, communicate, and express their feelings by using the right approaches (Koubova & Buchko, 2013).

Life satisfaction is a process of evaluation and thought that represents a personal and worldwide appraisal of human viability (Szczygieł & Mikolajczak, 2017). Numerous mental diseases that reduce life satisfaction are linked to stress. Emotionally intelligent people are less stressed in difficult situations, which make them happier (Fergusson et al., 2015). Every person has "something" called emotional intelligence that is comparatively mild and unimportant. How someone controls their conduct, handles social issues, and makes decisions that result in favorable outcomes are all determined by their emotional intelligence (Asri et al., 2017). Furthermore, there was a connection between professional practice, emotional work, and emotional well-being. In healthcare facilities, emotional intelligence acting a significant role in the competence of medical staff and the caliber of services the business offers. Work-life balance & job satisfaction, in addition to emotional intelligence, are critical factors in enhancing healthcare productivity and lowering errors (Rose & Glass, 2010). According to a Taiwanese study, emotional intelligence was positively correlated with quality of life, and negatively correlated with work-related stress, while work stress and quality of life were found to be negatively correlated (Min, 2014). Numerous researchers found a strong positive association between EI and life satisfaction and work-life balance. According to Karim and Weisz (2011), EI is a reliable indicator of both life satisfaction and mental distress. Furthermore, it has been shown that work-related stress is frequently associated with job satisfaction. In Pakistan, work-related stress was also found to be negatively correlated with job satisfaction and loyalty to the company (Usman et al., 2011). In order to manage the issues related to the health care industry, emotional intelligence is crucial. Thus, the goal of the current study was to assess healthcare workers' work-related stress, emotional intelligence, and life satisfaction.

Hypotheses

1. There will be a significant relationship between work stress, emotional intelligence, and life satisfaction in nurses.
2. Work stress would be significant predictor of life satisfaction among nurses.
3. There will be significant gender differences in work stress and life satisfaction among nurses.

Methods

Research Design

The variables in this study were examined using a correlational research design.

Sample and Sampling Technique

A sample of N=200 (100 male and 100 female) nurses was selected through purposive sampling technique from public and private hospitals of district Faisalabad.

Inclusion & Exclusion Criteria

The nurses on duty, having age 20-40 years, and more than six months work experience was included in this study. The retired nurses, having age below 20 and above 40 years, less than 6 months' work experience and with any psychological disorder were excluded from study.

Instruments

The following scales were used in this research to measure the variables.

Workplace Stress Scale (WSS)

The American Institute of Stress and Marlin Company created the workplace stress scale (2001). The WSS is a 5-point Likert scale with eight items that measure a person's feelings regarding their work. Items six, seven, and eight are reverse-scored on the scale. Responses on the scale fall between 1 (never) and 5 (very often). A high score denotes a high amount of stress at work. The respondents' scores were interpreted as follows: a score of 15 or lower indicates a very calm level, a score of 16–20 show a very low level, a score of 21–25 show a moderate level of stress, a score of 26–30 indicates severe work stress, and a score of 31–40 indicates a probable degree of work stress. The job stress scale's chronbach's alpha reliability was 0.80.

Emotional Intelligence Scale (WLEIS)

The Emotional intelligence measure was created by Wong & Law (2002). It is a well-known tool for assessing a person's emotional intelligence. The WLEIS was created with self-reporting in mind. Self-emotional appraisal (SEA), other's emotion appraisal (OEA), use of emotion (UOE), and regulation of emotion (ROE) are the four subscales that make up its 16 items. Each subscale is measured by four items. Additionally, WLEIS scores demonstrate the predictability of work happiness, academic success, health satisfaction, and achievement. The reliability of this scale was .89.

Satisfaction with Life Scale (SWLS)

The Satisfaction with Life Scale (SWLS) was created in 1985 by Diener, Emmons, Larsen, and Griffin. It is a five-item scale that measures people's overall satisfaction; it does not measure positive or negative impact. The participants show how much they agree or disagree with each of the five components using a seven-point scale, where 7 denotes strongly agree and 1 denotes strongly disagree. The alpha reliability level is .76.

Procedure

Firstly, the study topic was approved by the departmental and university research committees and then permission was obtained from concerned hospitals where the data was collated from participants. The data collection was done through specified questionnaires by following the all necessary ethical considerations. The collected data was analyzed through Statistical Package for Social Sciences (SPSS). The descriptive statistics used to find out the mean, standard deviation and frequencies of the sample. In inferential statistics the Pearson correlation, independent sample t-test and regression analyses were used to test the hypotheses of this study. After that the findings of demographics and other variables were incorporated in tabular form according to each hypothesis.

Ethical Considerations

Participants' rights and dignity were protected throughout the study's execution. This comprises participant information regarding the study's goal and confidentiality confirmation. In addition to being offered the option to remain anonymous during the study, participants are guaranteed that no information will be shared without their permission and that absolute confidentiality will be maintained. Additionally, respondents were made aware that their involvement in the study was entirely voluntary and that they might withdraw at any moment. The participants were given the consent form, which contained all the necessary details. The volunteers in this study were shielded from any possible danger to themselves, the community, or both. By adhering to all other ethical guidelines, it guaranteed that their data would be kept private (American Psychological Association, 2010).

Results & Discussion

Table 1: Frequencies, Percentages, Mean, and Standard Deviation of Demographic Variables (N=200)

	<i>f</i>	%	<i>M (SD)</i>
Age (20-40 years)			26.78 (2.65)
Gender			
Male	101	50.5	
Female	99	49.5	
Education			
Intermediate	102	51.0	
Graduation	57	28.5	
Master	41	20.5	
Living Status			
Rural	41	20.5	
Urban	159	79.5	
Marital Status			
Unmarried	75	37.5	
Married	117	58.5	
Divorced	8	4.0	

In table 1, you can find the frequencies, percentages, mean and standard deviation of demographic variables. This investigation involved participants within the age range of 20-40 years with a mean age of 26.78 (2.65). Of the participants, 101 (50.5%) were male nurses and 99 (49.5%) were

female nurses. Regarding education, 102 (51.0%) had intermediate qualifications, 57 (28.5%) were graduates, and 41 (20.5%) held master's degrees. Furthermore, 41 (20.5%) nurses were from rural areas, while 159 (79.5%) were from urban locations. In terms of marital status, 75 (37.5%) nurses were unmarried, 117 (58.5%) were married, and only 8 (4.0%) were divorced.

Table 2: Number of Items and Alpha Values of the Scales (N=200)

Scale	Items	Cronbach's Alpha
Workplace Stress Scale	8	.76
Emotional Intelligence Scale	16	.86
Satisfaction with Life Scale	5	.71

Table 2 shows the Cronbach's Alpha values of the Workplace Stress Scale, Emotional Intelligence Scale, and Satisfaction with Life Scale, which were .76, .86, and .71, respectively. These values indicate the satisfactory internal consistency of all measures.

Table 3: Pearson's Correlation of All Research Variables (N=200)

Variables	1	2	3
1-Work stress	--	-.50**	-.27**
2-Emotional Intelligence		--	.08
3-Life Satisfaction			--

Note: ** $p < .01$

The findings in Table No. 3 show a significant negative relationship between the variables: work stress is negatively associated with emotional intelligence at $r = -.50^{**}$, $p < .01$, and with life satisfaction at $r = -.27^{**}$, $p < .01$. Furthermore, there was no significant correlation between nurses' emotional intelligence & life satisfaction during the COVID-19 pandemic ($r = .08$, $p = ns$).

Table 4: Linear Regression Analysis of Work Stress as a Predictor of Life Satisfaction in Nurses (N=200)

Variable	B	SE	95% CI		B	R ²	ΔR^2	F(1,198)
			LL	UL				
Constant	17.91**	1.150	26.39	31.82		.078**	.073**	16.73
Work Stress	-.19**	.047	-.60	-.21	-.27**			

Note: ** $p \leq .01$ level; Dependent Variable = Life Satisfaction.

The results of the linear regression analysis revealed that the overall model was statistically significant, $F(1, 198) = 16.73$, $p < .01$. Work stress significantly predicted life satisfaction, ($\beta = -0.27$, $p = .01$). This indicates a moderate negative relationship between work stress and life satisfaction. This suggests that as work stress increases, life satisfaction decreases.

Table 5: T-Test Analysis for Measuring Male and Female Nurses' Differences in Work Stress, Emotional Intelligence, and Life Satisfaction (N=200)

Variables	Male (n=100)		Female (n=100)		t	P	95% CI		Cohen' d
	M	SD	M	SD			LL	UL	
Work Stress	23.33	6.02	24.10	5.71	-.93	.35	-2.41	.86	0.131
Emotional Intelligence	69.10	10.52	67.52	12.00	.99	.32	1.56	4.73	0.140
Life Satisfaction	13.34	3.94	13.35	4.17	-.29	.97	1.15	1.11	0.002

In Table 5, it is evident that there are no substantial variances in the average scores of males and females in terms of work stress ($t = -.93$, $p = ns$), emotional intelligence ($t = .99$, $p = ns$), and life satisfaction ($t = -.29$, $p = ns$) among nurses during the pandemic.

Discussion

The section above discusses the results of the current study, which looked at the connection between nurses' work-related stress, emotional intelligence & life satisfaction during the second wave of COVID-19 pandemic. The correlation study revealed a strong inverse connection between work stress, emotional intelligence, and life happiness, which is consistent with previous research. The unprecedented COVID-19 pandemic has had intense mental health impacts on the general public and healthcare professionals, including nurses. During infectious outbreaks like SARS, MERS, and Ebola, both the general population and healthcare workers have experienced emotional distress, leading to symptoms of PTSD, anxiety, exhaustion, depression, and burnout. Healthcare workers, particularly nurses, have faced an increased risk of COVID-19 exposure, resulting in adverse psychological effects such as fear, frustration, burnout, depression, isolation, and anxiety. Amid the global COVID-19 outbreak, the WHO has collected data on various indicators, including the duties of healthcare staff, health and economic effects, travel and business restrictions, and the social responsibilities of welfare organizations (Lee et al., 2018). The findings of this study have concentrated on combining fresh data gathered from various subjects with earlier research. The research indicates that a number of stressors in the nursing profession are important causes of social and mental health problems. The results of this study have examined a number of variables, including life satisfaction, emotional intelligence and work stress in nurses working at hospitals in Faisalabad, Pakistan. Understanding these factors in detail is important for assessing employees' productivity and dedication to duty, as recognized by human resource experts working in hospital environments. So, the study focuses on analyzing the connections between work stress, emotional intelligence, and life satisfaction (Enns et al., 2018).

The study's initial hypothesis was accepted, and the statistical findings indicated a substantial inverse relationship between nurses' life satisfaction, emotional intelligence, and work stress. The results of the current study agree with those of earlier studies. According to a study, emotional intelligence and professional stress are negatively correlated. Some data suggest that these factors have varying effects on an individual's "bio- and psychosocial well-being"(Enns et al., 2018). For instance, a number of researchers have found a link between nurses' stress and emotional intelligence in medicine, nursing, and education (Kikanloo et al., 2017; Por et al., 2011). This problem is not addressed by business and management studies, nevertheless. Similarly, this study is the first to look at how stress affects medical personnel in emergency situations, which is important given the high stress levels nurses faced during the COVID-19. Therefore, the purpose of the current study is to examine the association between nurses' length of stay (LS) during COVID-19 in several hospitals in Faisalabad, Pakistan, and their emotional intelligence (EI), as well as workplace stress. According to Arentz et al. (2020), nurses' health and well-being (life satisfaction) can be impacted by the amount of stress they experienced during the COVID-19 pandemic. To have a beneficial impact on both ourselves and other people, we must successfully manage our emotions during any crisis. As a practical construct in nature, emotional intelligence is crucial (Tamta & Rao, 2017). Emotional intelligence has been observed to act as "a stress buffer," which explains why those with higher EI exhibit adaptable behavior and bounce back fast from stressful situations (Pool & Qualter, 2018; Lea et al., 2019). According to a research, people with higher emotional intelligence (EI) are more adaptable at work than those with lower EI, and their poor behavior eventually results in less successful lives. By probing an individual's emotions

and cognitive elements (beliefs, attitudes, and values), these principles can be evaluated. Any anthropoid learning process can be substantially enhanced by the relationship between the two elements. People who experience less stress can be more satisfied with their lives. A person with a high level of emotional intelligence is known to have a greater level of life satisfaction (Landa et al., 2008).

The second hypothesis of the study was approved. Linear regression was utilized to identify the work stress is predictor of life satisfaction. The results demonstrated how work-related stress affects life satisfaction. The findings of the present research agree with those of previous research. Chronic stress can also result from family stress, conflict at work, understaffing, poor teamwork, insufficient training, and inadequate supervision. Nurses who are under stress experience emotional exhaustion and unpleasant emotions. According to a telecommunications industry study, employees' happiness and level of life satisfaction are negatively impacted by high levels of stress during periods of high consumer intake. These workers put themselves under a lot of strain to meet the enormous customer demand. Nonetheless, they can control their own emotions and comprehend those of their clients by using their emotional intelligence (Asiegbu, 2016). According to Warraich et al. (2014), a contradictory work environment, an excessive workload & inadequate remuneration are the main causes of job stress in employees, which also affects their productivity. In their study, Shah et al. (2020) observed that teaching profession performance had a detrimental impact on organizational structure and employee efficiency, but they also found that rewards systems improved staff efficiency. According to a study, stress and job performance are negatively correlated. According to Garg (2010), a misalignment between personal skills and occupational requirements leads to stress at work. Researchers also looked into the possibility that a person's psychological well-being may not be the cause of their lack of stress. Instead, we may claim that happiness and good health are indicators of high psychological well-being. It has been determined that those with high psychological well-being are gifted, content, and lead fulfilling lives (Huppert, 2009). Experts have predicted that those with higher psychological well-being will live longer and in better health. People who have access to all of life's necessities experience psychological well-being since they can meet their basic wants (Kubzansky, 2018).

The study used a t-test to investigate the disparity in work-related stress between male and female nurses during COVID-19 to understand the factors contributing to low emotional intelligence and low LS. This study's results do not align with previous research, which did not consider these distinctions between boys and girls. Many previous studies have highlighted that female healthcare employees experienced higher level of stress, anxiety, and depression compared to males. However, during the 1st wave of the pandemic, this study found no significant gender-based differences in occupational stress levels. One potential explanation could be that some respondents may not have completed the survey accurately (Shah et al., 2012).

Conclusions

The study examined how work stress, emotional intelligence (EI), and life satisfaction were impacted in nurses during the COVID-19 pandemic. It was found that work stress, EI, and life satisfaction showed a significant negative correlation among nurses during the pandemic. Work stress had a notable impact on the emotional intelligence & satisfaction with life of nurses, particularly in stressful circumstances. The findings also highlighted the substantial influence of work stress on EI and life satisfaction. The results indicated that both male and female nurses experienced job stress, with no significant difference in work stress and life satisfaction between the genders. The study's findings offer important insights into stress, EI & life satisfaction in

nurses, with a majority of nurses across all age groups acknowledging the impact of job stress on their daily routines. To mitigate job stress, the study suggests providing counseling, meditation programs, and additional incentives to improve nurses' performance.

Limitations & Recommendations

The information was gathered solely from various hospitals in the city of Faisalabad. In the future, it is suggested that researchers collect data from other cities in Pakistan, particularly major cities, to ensure the generalizability of the results. Additionally, it is recommended to conduct multi-center studies for a better understanding and to facilitate effective interventions. To assess job stress, it is important to implement counseling programs and provide more incentives to enhance nurses' performance. Moreover, stress management strategies should be implemented to reduce nurses' stress levels. This study was specific to the situation at hand, and further exploration is required to comprehend workplace stress, improve emotional intelligence, and overall life satisfaction.

Implications

This research provides valuable insights for therapists, psychologists, and healthcare professionals by increasing awareness of the psychological impact of stress. It also offers potential benefits for hospital medical staff in managing and overcoming stress, enabling them to better serve patients. Additionally, the study can be a useful resource for research students and researchers in Pakistan and around the world who are interested in studying nurses' stress, emotional intelligence, and well-being during the pandemics.

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