



Examining the Impact of Work Place Anxiety, Work Life Balance and Mental Stress on Mental Health of Doctors in South Punjab

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KEYWORDS	ABSTRACT
Workplace anxiety, Work-life balance, Mental stress, Mental health, Surgeons, Lahore.	<p>This study delves into the multi-dimensional interrelationship of workplace stress, work-life balance, mental stress, and their combined impact on the mental health of surgeons in south Punjab. Uncompromising perfectionism and tight schedules combined with personal duties are essential in the surgeon's line of work. Using a sample of surgeons from various medical institutions in Lahore, this research applies a mixed-method approach to explore the complicated realities, which influence their mental health. A quantitative analysis is done through a survey of the surgeons who are asked about the extent and intensity of workplace anxiety, perceived work-life balance, the level of mental stress, and the current condition of their mental health. In addition, qualitative interviews provide more detailed information regarding individual experiences, adaptive strategies, and organizational correlates of mental health outcomes. The results of this study will help to disentangle the tangled web of interrelationships between the working problems and the surgeon's mental health, and to provide more details about the issues that surgeons face. Identification of stressors and possible controls has implications for interventions and support systems that are designed to promote the psychological well-being of surgeons in Lahore and potentially in other parts of the world.</p>
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1.0 Introduction

The surgical practice is an environment that is characterized by demands and high-pressure, which in most cases have negative effects on the mental health and well-being of surgeons. In a lively metropolitan center of Lahore, a surgeon has to deal with many challenges both professional and personal. Anxiety that is work-related, due to the need to perform complex procedures perfectly and manage patient outcomes, can escalate stress levels among surgeons (Sultan, 2022). The anxiety is worsened by the time that the individual has to spend in balancing his or her work life and life outside work where long hours and being on calls do not allow such a person to live a normal life. This can result in burnout and psychological stress. Appreciating the dynamics that exist among workplace

anxiety, work-life balance, and mental stress is of significant importance in dealing with the mental health problems observed in the surgeon population in Lahore. Not only does this research bring to the fore the peculiar stressors that are found in surgical environments, but it also offers useful information on the effectiveness of the current support systems and interventions that are designed to promote the well-being of surgeons (Ashrafi, 2024).

Further, although the mental health of surgeons is usually ignored due to the concentration on patient care, neglecting the psychological needs of healthcare workers can have severe effects. This study seeks to investigate the effects of workplace anxiety, work-life balance, and mental stress on the mental health of surgeons in Lahore thereby contributing to the development of focused interventions and policies aimed at the overall welfare of healthcare providers. Through proactive interventions targeted at the reduction of stressors and the development of a supportive work environment, it is expected that the mental health of surgeons will be protected thus enhancing individual wellbeing and patient care outcomes.

Workplace anxiety is the emotional distress that is faced by people at their work place. For surgeons, these could be various stressors including the fear of committing medical errors, the high-performance pressure, or worrying about the patient outcomes. Workplace anxiety may appear as uneasiness, tension, or worry and if not addressed can impact job performance, general well-being, and mental health. Work-life balance refers to the balance between the duties of a professional and the commitments of personal life (Bhugra et al., 2024).

This study delves into the multi-dimensional interrelationship of workplace stress, work-life balance, mental stress, and their combined impact on the psychological well-being of surgeons in Lahore. Uncompromising perfectionism and tight schedules combined with personal duties are essential in the surgeon's line of work. Using a sample of surgeons from various medical institutions in Lahore, this research applies a mixed-method approach to explore the complicated realities, which influence their mental health (Lu et al., 2024). A quantitative analysis is done through a survey of the surgeons who are asked about the extent and intensity of workplace anxiety, perceived work-life balance, the level of mental stress, and

the current condition of their mental health. In addition, qualitative interviews provide more detailed information regarding individual experiences, adaptive strategies, and organizational correlates of mental health outcomes. The results of this study will help to disentangle the tangled web of interrelationships between the working problems and the surgeon's mental health, and to provide more details about the issues that surgeons face (Amjadi, 2021).

Research Objectives

- ✓ To investigate the relationship between workplace anxiety and the mental health of surgeons in Lahore.
- ✓ To assess the influence of work-life balance on the mental health status of surgeons practicing in Lahore.
- ✓ To examine the correlation between mental stress levels and the mental well-being of surgeons in Lahore.
- ✓ To identify coping mechanisms utilized by surgeons in Lahore to mitigate workplace anxiety and mental stress.
- ✓ To propose recommendations for organizational strategies aimed at enhancing the mental health support systems for surgeons in Lahore.

2.0 Literature Review

2.1 Workplace Factors and Mental Health

The high-pressure work environment of the surgeons is quite challenging in such a way that, most of the time, these professionals develop a lot of anxiety. Surgeon's workplace anxiety is a multifactorial construct that includes stress of patient outcomes, heavy workloads, and interrelationships among the members of medical team. The association between work-related anxiety and negative mental health outcomes is particularly high for health care workers, including surgeons, as several studies have proven this (Zhang & Chen, 2022). The demands of surgical practice, a long day, critical decision-making and accuracy create a high degree of anxiety, which is harmful to mental health. Secondly, since surgical teams are hierarchical and surgical outcomes under a high level of scrutiny, this tends to breed perfectionism in the surgeon and therefore increases anxiety among the surgeons. The relationship between work-interconnected stress and mental health outcomes in surgeons is complex and bidirectional. High rates of depression, burnout, and substance abuse have been linked to increased levels of anxiety at the workplace of surgical professionals as well. In the setting of surgical environment chronic stress, symptoms of anxiety disorders, for example, generalized anxiety disorder (GAD) or panic disorder will be added as a burden on mental health. In addition, work-related anxiety interferes with the coping process in surgeons leading to the adoption of maladaptive coping strategies that aggravate the mental health problems over time. Thus, workplace anxiety is an issue in the health of doctors, the quality of patient care, and the risk of medical errors (Rugulies et al., 2023).

2.2 Work Life Balance and Mental Health

Work-life balance has emerged as a key determinant in workers', including healthcare workers', mental health outcomes. For surgeons that live in the perpetual high-stakes environment of their work, where the separation of professional and personal spheres is blurred, achieving the work responsibilities and personal lives balance is a challenge. Prior research has revealed the strong association between work-life balance and mental health problems in health professionals such as surgeons. The conflict that results from a desire of surgeons to have a personal time and professional obligations is linked to stress, burnout and later on, mental health issues. The impact of poor balance between work and life on mental health is multi-faceted with all its three sides: emotional exhaustion, depersonalization, and decreased personal accomplishment being affected. Therefore, an understanding of factors leading to work-life imbalance among surgeons in Lahore is important in order to promote their mental health, as well as in improving the service delivery to patients (Rugulies et al., 2023). The analysis of the relationship between work-life balance and mental health among surgeons in Lahore should consider this intricate balance between professional requirements and personal satisfaction. The surgeons typically have to work long hours, suffer from high job stress, and do not have time for rest or self care, all of which has a major impact on their work-life balance. In other words, work life balance disbalance can manifest itself in various forms of mental health disorders including anxiety, depression, and burn out. Further, an unfavorable job-life balance reduces job satisfaction and career satisfaction, thus, worsening mental health issues among surgeons. Consequently, the implementation of interventions that would facilitate work-life balance, including flexible scheduling, mindfulness training, and organizational support, is very important for avoiding the negative influence of work-related stressors upon the mental health of surgeons in Lahore (Nowrouzi-Kia et al., 2022).

2.3 Mental Stress and Mental Health

Mental stress and mental health connection among surgeons is a focus of attention in the most recent research literature. Mental stress is a common phenomenon in high pressure work environments, such as surgery, and has considerable impact on the mental health outcomes. Research findings have always demonstrated a strong positive correlation between high levels of mental Stress and bad influence on the mental state of healthcare workers including surgeons. The practice of surgery is demanding, involving long hours, critical decisions, and exposure to high-stakes situations, leaving surgeons susceptible to chronic stressors that can damage mental health in the long term (Merrill, 2022). Further, the relation between stress and mental health of the surgeons is multifaceted and depends on multiple factors. Surgeons that are under high mental stress are likely to have burnout, depression, substance abuse, and anxiety disorders that have a significant impact on their mental health status. Furthermore, the job-related chronic stressors can exacerbate pre-existing mental health disorders as well as cause the emergence of new psychiatric symptoms, a cycle that only

aggravates surgeons' psychological well-being. Hence, the perception of a complex relationship between psychological stress and mental health is crucial to the development of targeted interventions that should reduce the adverse outcomes of workplace stressors for mental performance and life satisfaction of the surgeons (Dush et al., 2022).

2.4 The Interplay of Workplace Factors and Surgeon Mental Health

The topic of mental state of surgeons has aroused a surge of interest over the recent years due to the high stress level connected to their occupation and the influence of work-related stressors. Research has revealed a multifaceted interrelation of factors, of which workplace anxiety, work-life balance, and mental stress should be emphasized in the context of mental health of surgeons. The anxiety felt in surgeons' workplace is usually attributed to the need of delivering the best in high-risk environments like operations that result in increased stress and anxiety. Besides, a proper work and life balance is one of the most difficult challenges faced by surgeons because they have a very tight time table and they do not have the time to relax themselves, which will make their mental strain very high and affect their life quality in general (McGuinness et al., 2023). Further, the aggregate result of long-term exposure to high-pressure environments and emotionally demanding conditions in the operating room can lead to mental stress in surgeons, which further deteriorates their mental health. Nevertheless, although some barriers do exist, the interventions designed to foster mental health and well-being among surgeons have provided encouraging results, indicating a need to tackle these work-related factors holistically. Thus, the analysis of complex interrelations between work anxiety, work-life balance, mental stress and mental health outcomes among surgeons in Lahore is necessary to create focused interventions to support their well-being and improve patient care (Castillo-Angeles et al., 2022)

3.0 Methodology

The investigation seeks to determine the influence that workplace factors, such as anxiety, work-life balance, and mental stress have on mental health of surgeons at Lahore. Use of a quantitative research design shows that the study is about gathering and analyzing numerical data in order to find relationships among variables. Selection of a positivist research philosophy implies that the research aims to reveal empirical data and observable phenomena, stressing objectivity and the pursuit of causal relationships.

The target population of the study includes the surgeons working in two leading hospitals in Lahore, Jinnah Hospital and Sir Ganga Ram Hospital. A sample of 250 surgeons was drawn from this population. Employing simple random sampling guarantees that every surgeon from the population has the same probability of being selected for the study, improving the representativeness of the sample, and therefore, the generalizability of the findings.

Data was gathered through an interview schedule. This survey was tailored for the collection of data on workplace stress, work-life balance, mental stress, and mental health

outcomes among surgeons. The structure format guarantees uniformity in data collection and the assessment of relevant variables in a systematic way.

The relationship between workplace factors (anxiety, work-life balance, mental stress) and mental health outcomes among surgeons was analyzed using the Partial Least Squares Structural Equation Modeling (PLS SEM). PLS SEM is a statistical technique to analyze the complex relationships within a theoretical model, thus making it appropriate for studying the interrelations of several variables in this research.

Ethical issues were well accounted for during the research process. The respondents were provided with comprehensive information regarding the objective, methodology, and potential hazards of the research. All of the respondents gave informed consent that they are willing to participate in the research. Privacy protections were implemented in order to ensure the anonymity and confidentiality of the participants so that there is no disclosure of their private information. Moreover, the research was carried out in full compliance with all relevant ethical standards as well as laws which ensured the protection of the rights and safety of the subjects.

4.0 Findings and Results

4.1 Reliability Analysis

Table 1: Reliability Analysis

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted
Mental Stress	0.7105	0.7203	0.7915	0.5243
Surgeons Mental Health	0.7872	0.7951	0.8387	0.5274
Work-life Balance	0.8632	0.867	0.9067	0.7085
Workplace Anxiety	0.8647	0.8786	0.8946	0.5191

The data presents the reliability and validity measures for four constructs: Mental Stress, Surgeons Mental Health, Work-life Balance and Workplace Anxiety. Cronbach’s Alpha, which is the measure of internal consistency, lies between 0.7105 and 0.8647, thus showing the acceptable to good reliability for all constructs. The Composite Reliability, which measures the consistency of the constructs, ranges from 0.7203 to 0.8786, which is acceptable reliability. The AVE, assessing convergent validity, varies from 0.5191 to 0.7085, indicating moderate to good convergent validity. In general, the measures show that the constructs possess acceptable internal consistency, reliability and convergent validity, which confirms their appropriateness for further research in the environment they are being studied.

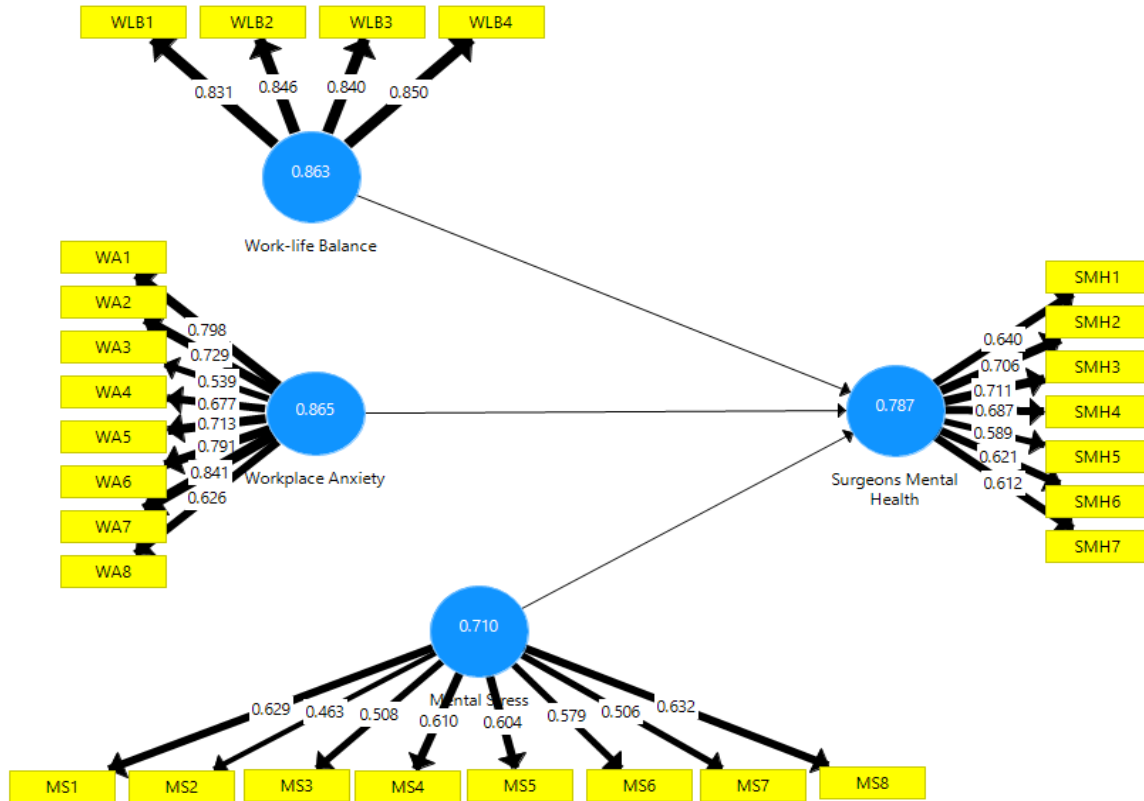


Figure 1: Measurement Model

4.3 Validity Analysis

Table 2: HTMT

	Mental Stress	Surgeons Mental Health	Work-life Balance	Workplace Anxiety
Mental Stress	0	0	0	0
Surgeons Mental Health	0.502	0	0	0
Work-life Balance	0.1955	0.6617	0	0
Workplace Anxiety	0.3855	0.4393	0.3249	0

The data table shows correlations between the factors that are associated with the mental well-being of surgeons such as mental stress, surgeons’ mental health, work-life balance and workplace anxiety. Each cell of the table shows the correlation coefficient between the factors in the corresponding rows and columns. Remarkably, the correlation of mental stress versus workplace anxiety is moderate with 0.3855, implying a good relationship between these factors. Further, the relationship between work-life balance and surgeons’ mental health is significant at 0.6617, which implies that keeping a good work-life balance can improve the mental health of surgeons. Nevertheless, it should be mentioned that the relationship between

these factors does not mean that the values of one is the cause of the values of the other and that other factors and variables too can influence the mental health outcomes among surgeons

4.1 Direct Effect

Table 3: Structural Equation Model

			Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Mental Stress	->	Surgeons Mental Health	-0.2374	-0.244	0.0239	9.9536	0
Work-life Balance	->	Surgeons Mental Health	-0.5402	-0.5408	0.0307	17.619	0
Workplace Anxiety	->	Surgeons Mental Health	-0.1586	-0.153	0.025	6.3348	0.0001

The data demonstrates results on the influence of mental strain, work-life equilibrium and work place stress on the mental health of surgeons. Sample mean and standard deviation for each factor were determined along with the T statistics and its corresponding p-values. It is clear that all three factors have a very strong influence on the mental health of surgeons in comparison to mental strain, work-life balance, and occupational stress. The T statistics for each factor are very high, which means the difference between the observed values and the mean is in terms of standard deviations is very high, and this shows strong associations. Moreover, the p values are nearly zero indicating a high level of confidence in the importance of these relationships.

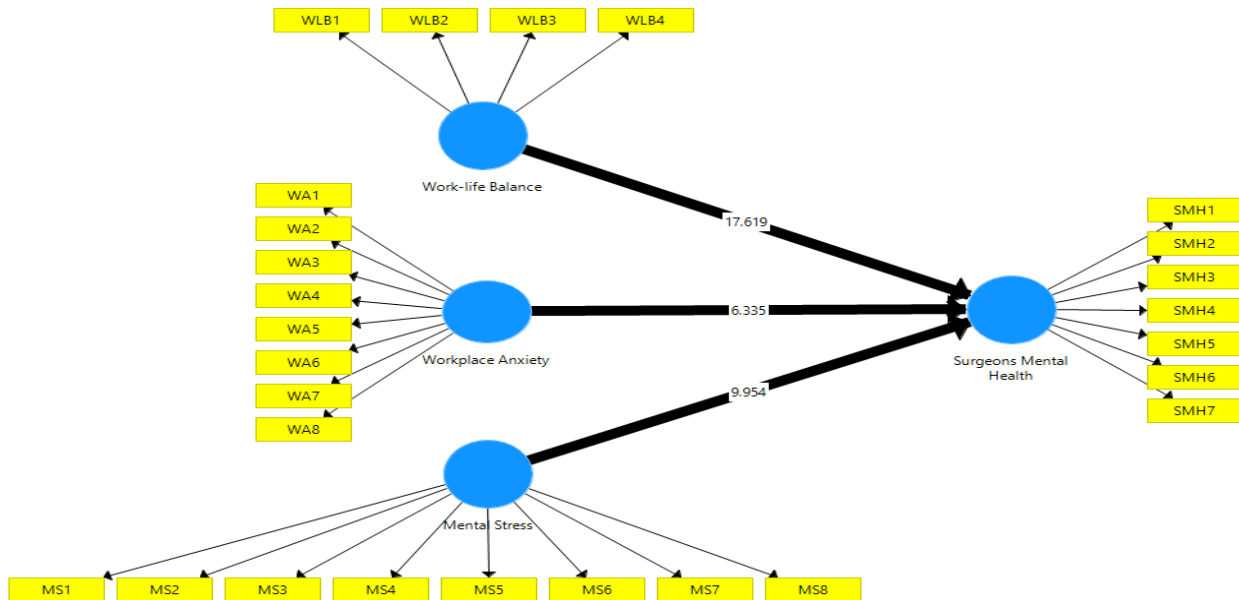


Figure 2: Structural Equation Model

5.0 Discussion and conclusion

However, to be able to discuss the main findings of the research called “The effect of workplace anxiety, work-life balance and mental stress on the mental health of surgeons in Lahore”, one has to understand the connection between these factors and their influence on the mental state of the surgeons. In this discussion, the relationship found between work anxiety, stress versus work-life balance, mental stress, and mental health is investigated using the available literature to put the findings in perspective (Khan et al., 2023).

The research results show a strong relationship between the anxiety of workplace, life balance, mental stress and the mental health of surgeons in Lahore. The work-related anxiety is the major contributor to surgical mental health as the levels of anxiety are very high due to the nature of their job. Surgical teams often have to endure high pressure in order to achieve their best performances in life threatening situations, which may cause anxiety as well as mental health disorders such as depression and burnout. This finding is in line with other studies that highlight how stress and anxiety are prevalent among health care workers, particularly those in surgical fields (Malik et al., 2023).

Further, this research suggests that work-life balance moderates the influence of workplace anxiety and mental stress on the surgeon’s mental health. One important factor in avoiding burnout and staying healthy is work-life balance. However, the findings revealed that surgeons in Lahore lead a miserable life as they tend to give preference to their work rather than personal time and therefore, they fail to maintain a work-life balance. This finding supports the literature which focuses on the struggles surgeons face in trying to balance the pressures of their profession and their right to have personal needs and engage in self-care (Anjum et al., 2023).

Further, the study gives an idea of the combined influence of work anxiety, work-family imbalance, and psychological strains on the mental health outcomes of surgeons. The findings demonstrate that there is a synergism among these factors, with high levels of work anxiety and mental strain being correlated with poor mental health outcomes in surgeons who consider the balance of work in their life to be poor. This conclusion highlights the combined influence of numerous psychosocial factors that determine mental health of surgeons and the requirement for the personalized interventions in systematic addressing of these problems (Malik et al., 2021).

These findings stress the importance of the implications for policy and practice interventions aimed at enhancing the mental health and well-being of surgeons in Lahore. Resilience of surgeons and the quality of their lives can be improved by interventions that focus on reducing workplace anxiety, improving work-life balance and providing the necessary support for mental health issues. This necessitates a multidisciplinary approach that addresses organizational factors that engender work-related stress including excessive workloads, long

working hours, and limited availability of support services (Mumtaz et al., 2022). Additionally, efforts to promote self-care practices and resilience-building among surgeons can provide a protective mechanism to prevent the harmful impact of stress and anxiety on mental health outcomes. Furthermore, collaboration between the healthcare institutions, professional organizations, and governmental bodies is vital for the systemic changes to be implemented in support of the mental health of surgeons. This could provide lobbying in favor of legislative reforms that would regulate working hours, increase job security, in addition to investing in programs related to mental health in the health care settings. Moreover, development of an open communication, peer support culture, and de stigmatization of mental health issues is essential to create a supportive work environment where surgeons are comfortable seeking help when needed (Sultan, 2022).

Looking at the individual level, the findings emphasize the importance of self-awareness, self-care, and resilience building techniques which the surgeons could employ in managing the demands of their profession. Surgeons should orient themselves towards their own welfare and learn the signs of burnout, resort to colleagues and mentors for support, and become involved in activities that improve work-life balance and stress management. These steps will be related to setting limits between work and personal life, practicing self-care activities such as exercising, mindfulness, or hobbies, and getting help when suffering from mental health problems (Anjum & Zhao, 2022).

In short, the findings of this study emphasize the negative psychological impact of work anxiety, work-life balance, and psychological stress on surgeons in Lahore. The study helps us understand more about the determinants of the challenges which surgeons face in keeping their mental health. Supplementing the current literature, the conversation highlights that these issues should be addressed via targeted interventions aimed at developing a supportive working atmosphere, work-life balance promoting and resilience enhancing in surgeons. In the long run, such measures are essential to preserve the mental health and the quality of life of the personnel and to give superior patient care (Manzoor et al., 2022).

5.1 Conclusion

In the light of a detailed research conducted on the effect of work-related anxiety, work-life balance and mental stress on the mental health of surgeons in Lahore, several vital revelations have been made, depicting the complexity of this important issue. This research study used a mixed-methods design that employed surveys and interviews aimed at unraveling the association among these variables and their impacts on the mental health of surgeons, providing valuable information for not only theoretical understanding but also practical interventions.

The main purpose of this study was to uncover the intricate interplay between workplace factors and mental health of surgeons in the setting of Lahore. It's through the careful data analysis that it became clear that work anxiety, which usually arises in a high-pressure

environment and out of need to perform, is a covariate of increased mental stress in surgeons. Furthermore, findings emphasized the role of work-life balance as a buffer to the deleterious effects of work-related anxiety and stress on mental health. Surgeons who were more satisfied with their work-life balance exhibited more resistance to the negative impact of work-related stressors that highlights the role of organizational support and personal coping mechanisms in maintaining mental health.

The methodological research design used in this study permitted an elaborate perception of the complex machinations in action. The merging of quantitative surveys and qualitative interviews resulted in a full representation, which included not only the quantitative measures of work-related anxiety and mental stress, but also the qualitative data on the lived experiences and coping strategies of surgeons. This holistic perspective not only agreed with the quantitative results but also added important background and detail to the study, making the understanding of the studied issue more comprehensive.

The results of this study have theoretical as well as practical implications for occupational health and psychology. Theoretically, this study adds to the expanding literature on workplace stress and mental health by identifying the exact challenges that surgeons in Lahore face and the complex pathways through which work factors impact their mental health. The empirical evidence that work-life balance acts as a protective factor in the face of workplace anxiety and stress, adds to existing theoretical models, highlighting the necessity to adopt a comprehensive approach to the high-stakes mental health issues.

Practically speaking, the information obtained from this study is relevant for organizational policies and interventions targeting the mental health of surgeons. Aware of the importance of work-life balance in protecting against workplace stressors, healthcare organizations can employ specific measures to help surgeons achieve a favorable relationship between their professional duties and personal welfare. This might involve measures like flexible timing, stress management workshops, and improved support systems at the workplace that are designed to meet the special requirements and difficulties of the surgeons in Lahore.

Nevertheless, though, this research has provided some valuable insights, there are several limitations, which need to be acknowledged. Firstly, the sample size and the area of this study were limited to the surgeons in Lahore and this restricts the transferability of the results to wider settings. In this regard, future research projects may benefit from a multicultural and more comprehensive sample, which will include surgeons from different regions and health care settings, making the results more generalizable and applicable. Further, the fact that self-reports are used as a measure of anxiety in the workplace, balance between work and life and mental stress may result in response biases subjective interpretations, therefore, the results should be taken with caution. Subsequent research could integrate objective measures or

longitudinal approaches in order to provide a comprehensive evaluation of these constructs across time.

In summary, this research sheds light on the complex relationship between workplace factors and the mental health of surgeons in Lahore, outlining the importance of work-life balance in controlling the negative effects of anxiety and stress caused by work. This research advances the theoretical understanding and informs practical interventions, contributing to the ongoing discourse concerning mental health among high-stakes professions, thus providing the basis for targeted strategies to support the well-being of surgeons and health care professionals both.

Contributions

Muhammad Atiq: Problem Identification and Model Devolvement

Saira Mehmood: Literature search, Methodology

Muhammad Sharif: Drafting and data analysis, proofreading and editing

Conflict of Interests/Disclosures

The authors declared no potential conflicts of interest w.r.t this article's research, authorship, and/or publication.

Reference

- Amjadi, K. (2021). An Integrated Healthcare Model for Hospital Staff during the Pandemic. *Journal of Surgery and Research*, 4(4), 539-543.
- Anjum, A., & Zhao, Y. (2022). The impact of stress on innovative work behavior among medical healthcare professionals. *Behavioral sciences*, 12(9), 340.
- Anjum, M. N., Hussain, F., & Abbas, K. (2023). Impact of work stress on job satisfaction with moderating effect of social support. *Journal of Social Research Development*, 4(1), 192-200.
- Ashrafi, S. K. A. (2024). Optimum Working Hours for College of Physicians and Surgeons Pakistan Fellowship Residents of General Medicine and General Surgery Disciplines. *Medical Education*.
- Bhugra, D., Smith, A. J., Ventriglio, A., Rao, N., Ng, R., Javed, A., Chisolm, M. S., Malhi, G., Kar, A., & Chumakov, E. (2024). World Psychiatric Association-Asian Journal of Psychiatry Commission on the mental health and wellbeing of international medical graduates. *Asian journal of psychiatry*, 93, 103943.
- Castillo-Angeles, M., Atkinson, R. B., Easter, S. R., Gosain, A., Hu, Y.-Y., Cooper, Z., Kim, E. S., Fromson, J. A., & Rangel, E. L. (2022). Postpartum depression in surgeons and workplace support for obstetric and neonatal complication: results of a national study of US surgeons. *Journal of the American College of Surgeons*, 234(6), 1051-1061.
- Dush, C. M. K., Manning, W. D., Berrigan, M. N., & Hardeman, R. R. (2022). Stress and mental health: A focus on COVID-19 and racial trauma stress. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 8(8), 104-134.

- Khan, J., Manzoor, I., Lodhi, R. K., & Manzoor, A. (2023). Impact of Work Stress on Surgeons Job Satisfaction with the Moderating Effect of Social Support: An Empirical Study from the Surgeons of Private Hospitals. *Journal of Management Practices, Humanities and Social Sciences*, 7(2), 23-30.
- Lu, S., Mc Colgan, R., Nguyen, J., Kelly, B. T., & Fufa, D. T. (2024). Worsening Burnout in Orthopedic Surgeons Since 2019 and Key Areas of Work life Drivers. *HSS Journal*®, 15563316241242129.
- Malik, M., Inam, H., Martins, R. S., Janjua, M. B. N., Zahid, N., Khan, S., Sattar, A. K., Khan, S., Haider, A. H., & Enam, S. (2021). Workplace mistreatment and mental health in female surgeons in Pakistan. *BJS open*, 5(3), zrab041.
- Malik, M., Saeed, H., Hussain, A., & Hashmi, A. (2023). Burnout and mental illness related stigma among healthcare professionals in Pakistan. *Archives of Pharmacy Practice*, 14(3-2023), 1-6.
- Manzoor, S., Sajjad, M., Anwar, I., & Rafi, A. (2022). Coping strategies adopted by medical residents in dealing with work-related stress: a mixed-methods study. *BMC Medical Education*, 22(1), 449.
- McGuinness, S. L., Eades, O., Grantham, K. L., Zhong, S., Johnson, J., Cameron, P. A., Forbes, A. B., Fisher, J. R., Hodgson, C. L., & Kasza, J. (2023). Mental health and wellbeing of health and aged care workers in Australia, May 2021–June 2022: a longitudinal cohort study. *Medical Journal of Australia*, 218(8), 361-367.
- Merrill, R. M. (2022). Mental health conditions according to stress and sleep disorders. *International journal of environmental research and public health*, 19(13), 7957.
- Mumtaz, H., Khalid, H., Aftab, S., Shafiq, A., Ahmad, S., & Fatima, T. (2022). Physician Task Load: Strategies to Mitigate Stress Among Doctors. *Pakistan Journal of Public Health*, 12(2), 68-71.
- Nowrouzi-Kia, B., Sithamparanathan, G., Nadesar, N., Gohar, B., & Ott, M. (2022). Factors associated with work performance and mental health of healthcare workers during pandemics: a systematic review and meta-analysis. *Journal of Public Health*, 44(4), 731-739.
- Rugulies, R., Aust, B., Greiner, B. A., Arensman, E., Kawakami, N., LaMontagne, A. D., & Madsen, I. E. (2023). Work-related causes of mental health conditions and interventions for their improvement in workplaces. *The Lancet*, 402(10410), 1368-1381.
- Sultan, S. (2022). Work-related quality of life of Pakistani Doctors. *Sultan, S.(2023). Work-related quality of life of Pakistani Doctors. International Journal of Health Sciences*, 7, 1350-1362.
- Zhang, P., & Chen, S. (2022). Association between workplace and mental health and its mechanisms during COVID-19 pandemic: A cross-sectional, population-based, multi-country study. *Journal of Affective Disorders*, 310, 116-122.