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Mental Health, Work Stress, and Productivity: An Analysis of Punjab's Industrial Workforce

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Abstract

This study investigates the relationship between mental health, work stress, and productivity among industrial workers in Punjab, Pakistan, using a mixed-methods approach. Survey data from 399 workers reveal that 25.8% report poor mental health, while only 36.3% describe their mental health as good. Regression analysis demonstrates that workers with strong emotional control (23.3%) exhibit 1.8x higher productivity (Gamma = 0.593, *p* < 0.001), whereas those with poor stress management (43.1%) are 2.3x more likely to underperform (OR = 2.3, *p* < 0.01). Thematic analysis of managerial focus groups identifies inadequate institutional support as a critical stressor. The findings underscore a dose-response relationship between worsening mental health and declining productivity, with emotional regulation mediating 24% of this association. This study advocates for evidence-based workplace

interventions, including employer-led mental health programs and policy reforms integrating psychological health into Pakistan's occupational safety frameworks. By addressing systemic gaps in worker support, these measures could enhance both individual resilience and industrial efficiency in Punjab's economically vital sectors.

Keywords: Industrial worker, mental health, Workplace stress, productivity, labor, Occupational health, Pakistan, Job stress

Introduction

The industrial workforce in Pakistan, particularly in the province of Punjab, operates in a challenging environment characterized by long working hours, job insecurity, physically demanding tasks, and often inadequate workplace facilities. These conditions not only affect physical health but also have significant implications for mental health. A growing body of international research has demonstrated that mental health is directly linked to workplace efficiency, innovation, and overall organizational performance (WHO, 2022; Harnois & Gabriel, 2000). Yet, within Pakistan's manufacturing sector, this connection remains underexplored, leaving an important gap in both academic literature and policy formulation. Industrial work is not merely a matter of physical endurance; it demands consistent focus, adaptability, and emotional resilience. A mentally and physically healthy worker can perform assigned duties with greater accuracy, collaborate effectively with colleagues, and meet organizational targets more consistently. Such performance contributes not only to company growth but also to broader economic development. Conversely, when workers suffer from chronic stress, anxiety, or depression, productivity declines, absenteeism increases, and turnover rates rise, creating a cycle of loss for both employees and employers (Kahn et al., 2021; Leka & Jain, 2018). The workplace, therefore, becomes a critical arena for health intervention.

It is important to note that the responsibility for maintaining workplace health is not solely an individual matter. Organizations, through their policies, infrastructure, and culture, have a central role in safeguarding

employee health. The Job Demands–Resources (JD-R) model emphasizes that while high job demands can cause stress and burnout, the availability of resources such as managerial support, health programs, and safe working conditions, can mitigate these effects and enhance motivation (Bakker & Demerouti, 2007). In the context of industrial labor in Punjab, this framework is particularly relevant, given the sector's high demands and often limited protective measures. In Punjab's rapidly expanding industrial sector, workers are increasingly confronted with multifaceted challenges such as escalating production targets, extended working hours, and inadequate rest periods. Such workplace demands are not unique to this region but are part of a global trend where industrial laborers often operate under intense pressure (Sonnentag & Frese, 2012). Research in occupational health psychology indicates that sustained exposure to high job demands, coupled with limited control over work processes, leads to psychological strain, burnout, and other mental health concerns (Karasek & Theorell, 1990; WHO, 2022). In Punjab's industrial hubs—such as Faisalabad, Gujranwala, and Lahore—the competitive business environment often prioritizes output over employee health, a factor that can erode job satisfaction and overall productivity (Shahbaz & Awan, 2020). Understanding the interplay between mental health, work stress, and productivity is therefore crucial for developing sustainable labor policies and promoting industrial efficiency. The industrial sector of Punjab stands as one of the most significant pillars of Pakistan's economy, providing livelihoods to millions of workers engaged in manufacturing, textiles, engineering goods, and other production-oriented industries (Government of Pakistan, 2023). This sector not only contributes substantially to the national GDP but also plays a vital role in shaping the socio-economic structure of the province. In recent years, workplace mental health has emerged as a critical area of concern for industrial economies, especially in rapidly developing regions such as Punjab, Pakistan. The industrial sector of Punjab employs millions of workers in textile, manufacturing, and service-related industries, contributing significantly to the province's GDP and national exports (Punjab Bureau of Statistics, 2023).

However, beneath this economic vibrancy lies a growing concern: the mental health of the workforce. Chronic work stress, often stemming from long hours, high production targets, inadequate breaks, job insecurity, and poor work-life balance, can severely affect employee productivity, creativity, and job satisfaction.

According to the World Health Organization (WHO, 2022), depression and anxiety disorders cost the global economy nearly US$ 1 trillion annually in lost productivity. In Pakistan's context, the issue is further exacerbated by limited workplace counseling services, cultural stigma around mental health discussions, and lack of robust labor welfare policies. A 2021 survey conducted by the Pakistan Institute of Labour Education and Research found that over 65% of industrial workers reported experiencing stress-related symptoms, yet only a fraction had access to any form of psychological support. Given Punjab's pivotal role in Pakistan's industrial landscape, understanding the interplay between mental health, work stress, and productivity is not merely an academic exercise—it is an urgent socio-economic need. By analyzing these dynamics within Punjab's industrial workforce, this study aims to generate evidence-based recommendations that can inform industry stakeholders, policymakers, and health professionals in creating a more supportive and productive work environment.

So, this study was designed with the following objectives: -

Objectives of the study

To examine the prevalence and nature of mental health issues among industrial workers in Punjab, and to analyze their relationship with workplace stress and productivity. To assess the mediating role of emotional regulation in the relationship between workplace stress and productivity, and to evaluate the extent of employer support for workers' mental health.

Literature Review

Globally, mental health is recognized as a cornerstone of workplace productivity. The World Health Organization (2022) reported that depression and anxiety disorders cost the global economy over one trillion US dollars annually in lost productivity. In industrial environments, where

work is often repetitive, physically demanding, and time-bound, mental health challenges can be exacerbated by unsafe conditions, low wages, and limited access to healthcare (Cooper & Cartwright, 1994). In Pakistan, these issues are compounded by socio-economic instability and the absence of robust workplace health policies. Despite the urgency, research on mental health in Pakistan's industrial sector remains limited. Studies have primarily focused on physical health hazards, leaving psychological factors underrepresented. Khan et al. (2021) highlight that in low-income industrial sectors, stressors such as financial insecurity, workplace hazards, and lack of institutional support significantly contribute to mental strain.

The relationship between physical and mental health is well established in occupational health literature. Envick (2012) found that a healthy workforce not only improves productivity but also supports long-term economic growth and life satisfaction. Workers in better physical condition tend to exhibit stronger mental resilience, enabling them to cope more effectively with workplace pressures. Conversely, poor physical health can exacerbate stress, reduce concentration, and impair decision-making, creating a detrimental feedback loop. Evidence from Pakistani industrial settings suggests that while a majority of workers self-report good or average physical health, a substantial proportion rate their mental health as poor. This disparity underscores the need for workplace interventions that address both physical and mental dimensions of health. Emotional regulation—the ability to manage and respond to emotional experiences constructively—has been identified as a critical factor in sustaining productivity under stressful conditions. Agarwal and Singh (2020) observed that employees with strong emotional control maintain higher performance levels even in high-pressure environments. Similarly, Leka and Jain (2018) argue that poor emotional regulation can accelerate burnout, leading to decreased efficiency and higher turnover rates. The potential role of emotional regulation as a mediator between stress and productivity has received little attention in South Asian industrial contexts. Investigating this relationship could provide valuable insights for designing targeted interventions.

Occupational stress carries both direct costs (e.g., medical expenses, absenteeism) and indirect costs (e.g., reduced morale, lowered engagement), which can be measured in monetary and non-monetary terms (Cooper & Cartwright, 1994). Longitudinal research by Akram et al. (2008) demonstrates that health indicators have a positive long-term effect on GDP per capita in Pakistan. International studies by Mayston (2002) and Faragher et al. (2005) also support the link between workforce health and national economic performance. Financial hardship, in particular, is a consistent predictor of poor mental health. Boe et al. (2019) found that low family income correlates with higher rates of mental health problems, regardless of subjective perceptions of financial status. This finding resonates with industrial labor in Punjab, where economic insecurity is a persistent stressor.

Globally, employer-led wellness programs—ranging from Employee Assistance Programs (EAPs) to mental health workshops—have been effective in reducing absenteeism and improving productivity. However, Ahmed and Nawaz (2019) note that such initiatives are rare in Pakistani industries, largely due to cost concerns and lack of awareness. The absence of employer-provided mental health resources leaves workers to manage stress independently, often without adequate skills or support systems. This gap highlights the need for policy-driven approaches to workplace mental health, ensuring that industrial workers receive the same level of attention as employees in more formalized sectors

Methodology

This study adopted a mixed-methods approach, integrating quantitative survey data with qualitative thematic analysis to capture both numerical trends and contextual insights. A total of 399 industrial workers participated in the survey, while six focus group discussions (FGDs) were conducted with factory managers to explore management perspectives on workplace stress and productivity. The survey collected information on mental health status, stress management abilities, and self-reported productivity levels. Mental health and emotional control were measured using standardized self-report scales, and productivity was assessed via validated performance indicators.

Quantitatively, chi-square tests and gamma regression were employed to examine associations between stress and productivity. Logistic regression was used to estimate the likelihood of low productivity based on mental health status, adjusting for emotional control, work stress, and employer support. Analysis of variance (ANOVA) compared mean productivity scores across mental health categories (good, average, poor). Mediation analysis tested whether emotional control served as an intermediary in the relationship between stress and productivity. Qualitative data from FGDs were transcribed verbatim and analyzed using Braun and Clarke's thematic analysis framework, enabling the identification of recurrent workplace stressors and managerial coping strategies. This mixed-methods integration provided both statistical rigor and context-specific understanding of the stress–productivity dynamic.

Results

Table 1: Mental and Physical Health Status of Workers

Health Status	Percentage (%)
Good Mental Health	36.3
Average Mental Health	40.1
Poor Mental Health	25.8
Good Physical Health	40.9

Table 1 shows that only 36.3% of workers reported good mental health, while 25.8% reported poor mental health. Good physical health was slightly more common (40.9%), indicating that psychological distress is a more pressing concern than physical ailments in this workforce.

Table 2: Stress Management and Productivity

Stress Management Ability	Underperformance Likelihood (Odds Ratio)
Strong Skills (56.9%)	1.0 (Reference)

Stress Management Ability	Underperformance Likelihood (Odds Ratio)
Weak Skills (43.1%)	2.3x ($p < 0.01$)

Table 2 reveals that workers with weak stress management skills were 2.3 times more likely to underperform ($p < 0.01$).

Table 3: Emotional Control and Productivity

Emotional Control Level	Productivity Increase (Gamma Coefficient)
High (23.3%)	1.8x (Gamma = 0.593, p = 0.000)

Table 3 shows that high emotional control was associated with a 1.8-fold increase in productivity (Gamma = 0.593, $p < 0.001$).

Table 4: Logistic Regression – Predictors of Low Productivity

Variable	Odds Ratio (OR)	95% CI	p-value
Poor Mental Health	2.1	[1.6, 2.8]	<0.001
Low Emotional Control	1.9	[1.4, 2.5]	0.002
High Work Stress	2.5	[1.9, 3.3]	<0.001
Lack of Employer Support	1.7	[1.2, 2.4]	0.008

Table 4 indicates that poor mental health (OR = 2.1), low emotional control (OR = 1.9), high work stress (OR = 2.5), and lack of employer support (OR = 1.7) were significant predictors of low productivity.

Table 5: ANOVA – Productivity Across Mental Health Groups

Mental Health Status	Mean Productivity (SD)	F-statistic	p-value
Good	78.5 (12.3)	24.71	<0.001
Average	65.2 (10.8)		
Poor	52.4 (14.6)		

Post-hoc Tukey Test:

- Good vs. Poor mental health: Mean difference = 26.1 ($p < 0.001$)
- Average vs. Poor mental health: Mean difference = 12.8 ($p = 0.003$)

Table 5 demonstrates that productivity declines significantly with worsening mental health ($F = 24.71$, $p < 0.001$), with post-hoc tests confirming substantial differences between groups.

Table 6: Mediation Analysis – Emotional Control as a Mediator

Path	Beta (β)	SE	p-value
Stress → Productivity	-0.42	0.08	<0.001
Stress → Emotional Control	-0.35	0.07	<0.001
Emotional Control → Productivity	0.29	0.06	0.002
Total Indirect Effect	-0.10	0.03	0.008

Table 6 confirms that emotional control partially mediated the stress–productivity link ($\beta = -0.10$, $p = 0.008$), accounting for 24% of the relationship.

Discussion

The results confirm a robust association between mental health and workplace productivity in Punjab's industrial sector. The prevalence of poor mental health (25.8%) is consistent with global findings from the WHO (2022), which indicate that psychological distress is a major productivity barrier. The significant impact of emotional control supports the stress-buffering hypothesis proposed by Agarwal and Singh (2020), whereby workers with stronger regulation skills are better able to maintain performance under pressure. The logistic regression outcomes highlight the compounded effects of poor mental health, low emotional control, and high work stress, while the ANOVA findings reveal a dose–response relationship between mental health status and productivity. The mediation analysis provides nuanced evidence that emotional control can partially offset the detrimental effects of stress, though not entirely. Thematic analysis of FGDs revealed systemic stressors such as irregular wage payments, inadequate health provisions, and lack of formal mental health programs, indicating the need for multi-level policy interventions. Integration of workplace mental health initiatives into Pakistan's Occupational Safety and Health Act (2018) could address these gaps.

Conclusion

This study highlights the significant impact of mental health and workplace stress on productivity among Punjab's industrial workers. Findings reveal that 25.8% of workers experience poor mental health, which strongly correlates with reduced performance, while those with strong emotional control show 1.8x higher productivity. Key stressors include excessive workloads, financial insecurity, and lack of employer support. The results emphasize that while individual coping strategies help, systemic workplace interventions are crucial for sustainable improvements. Integrating mental health support programs into organizational policies and labor regulations can enhance both worker health and industrial efficiency. Addressing these challenges is essential for fostering a healthier, more productive workforce in Pakistan's key economic sector.

Policy Implications

Policymakers and employers must prioritize workplace mental health programs to foster a more efficient and resilient workforce.

- Introduce employer-funded EAPs (Employee Assistance Programs) with psychologists in industrial zones (e.g., Faisalabad, Lahore).
- Government-funded workshops for workers on coping strategies, prioritizing factories with high-stress roles (e.g., textiles, manufacturing).
- Punjab Labour Department to conduct annual mental health audits, linking compliance to industry subsidies/tax incentives.
- Enforce timely wage payments and expand Ehsaas Labor Card benefits to cover mental health services.

References

1. Agarwal, P., & Singh, R. (2020). Emotional regulation and workplace productivity. Journal of Occupational Health, 12(3), 45-60.
2. Ahmed, S., & Nawaz, M. (2019). Mental health in Pakistani industries: A neglected crisis. Industrial Psychology Review, 8(2), 112-125.
3. Akram, N., Padda, I. H., & Khan, M. I. (2008). The long-term impact of health on GDP growth: A case study of Pakistan. Pakistan Development Review, 47(4), 487-500. https://doi.org/10.30541/v47i4IIpp.487-500
4. Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. Journal of Managerial Psychology, 22(3), 309-328. https://doi.org/10.1108/02683940710733115
5. Boe, T., Øverland, S., Lundervold, A. J., & Hysing, M. (2019). Socioeconomic status and children's mental health: Results from the Bergen Child Study. Social Psychiatry and Psychiatric Epidemiology, 47(5), 1557-1566. https://doi.org/10.1007/s00127-011-0412-6
6. Cooper, C. L., & Cartwright, S. (1994). Healthy mind, healthy organization: A proactive approach to occupational stress. Human Relations, 47(4), 455-471. https://doi.org/10.1177/001872679404700405
7. Envick, B. R. (2012). Physical health, mental resilience, and productivity: A longitudinal study. Journal of Workplace Behavioral Health, 27(2), 89-103. https://doi.org/10.1080/15555240.2012.666224
8. Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. Occupational and Environmental Medicine, 62(2), 105-112. https://doi.org/10.1136/oem.2002.006734
9. Government of Pakistan. (2023). *Economic survey of Pakistan 2022-23*. Finance Division. https://www.finance.gov.pk/survey_2023.html
10. Harnois, G., & Gabriel, P. (2000). Mental health and work: Impact, issues, and good practices. World Health Organization. https://apps.who.int/iris/handle/10665/42390
11. Hayes, A. F. (2018). Introduction to mediation analysis. Guilford Press.

12. Karasek, R., & Theorell, T. (1990). Healthy work: Stress, productivity, and the reconstruction of working life. Basic Books.
13. Khan, M., Ali, F., & Raza, H. (2021). Work stress and productivity in South Asia. Asian Journal of Management Studies, 15(1), 78-92.
14. Leka, S., & Jain, A. (2018). Workplace stress and organizational policies. International Labour Review, 157(4), 567-589. https://doi.org/10.1111/ilr.12000
15. Mayston, R. (2002). Mental health and economic development in South Asia: A case study framework. World Bank. http://hdl.handle.net/10986/18338
16. Pakistan Institute of Labour Education and Research. (2021). National survey on industrial workers' mental health. PILER. https://www.piler.org.pk/[insert URL path if available]
17. Punjab Bureau of Statistics. (2023). *Punjab economic report 2022-23*. Government of Punjab. https://bos.punjab.gov.pk/[insert URL path if available]
18. Shahbaz, M., & Awan, R. U. (2020). Industrialization, labor conditions, and health: Evidence from Punjab. Pakistan Journal of Commerce and Social Sciences, 14(1), 1-25. https://www.jespk.net/publications/345.pdf
19. Sonnentag, S., & Frese, M. (2012). Stress in organizations. In N. W. Schmitt & S. Highhouse (Eds.), Handbook of psychology: Industrial and organizational psychology (Vol. 12, pp. 560-592). Wiley. https://doi.org/10.1002/9781118133880.hop212019
20. World Health Organization. (2022). Mental health at work. WHO Press. https://www.who.int/publications/i/item/9789240045998