COGNITIVE FUNCTIONS, PSYCHOLOGICAL DISTRESS AND RESILIENCE; A DIFFERENTIAL STUDY BETWEEN DAY AND NIGHT SHIFT EMPLOYEES OF ELECTRICAL INDUSTRIES

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Dedication

This work is dedicated to my beloved father, Syed Mahdi Hussain Naqvi, whose unwavering support, encouragement, and sacrifices have been the cornerstone of my educational journey. His belief in my potential has been my greatest source of motivation. My father devoted his energy and efforts to securing a bright future for his children, and he took immense pride when I was accepted into the MS program at Bahria University. Tragically, he passed away in an accident during my first semester. I hope he is witnessing the completion of this achievement from Jannah, as it was always his dream to see me succeed.

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ABSTRACT

The electrical industries comprise a wide range of corporations that are essential to today's society. Operations including energy production, distribution, transmission, and application are covered in this sector, as well as the manufacturing of appliances, cables, and equipment for both home and commercial use. The electrical industries rely on having workers available around-the-clock. Workers who work shifts are subject to working hours that are not the typical 9 to 5 workday. Working at night or in shifts that alternate between day and night can be difficult for most individuals to manage their circadian rhythm, which can lead to sleep deprivation, difficulties performing duties at work and at home, and mental health issues for them. The aim of current study was to differentiate between day and night shift workers on cognitive functions, psychological distress and resilience. The main objective was to check which group has low cognitive functioning, high stress and low resilience level and to establish the associations between variables among the shift workers. A quantitative cross-sectional design was applied in which standardized tools gathered data from (Day shift employee=150; Night shift employee=150; N=300) workers from age range (18-35 years) working multiple electrical industries. A survey method with purposive sampling was applied for data collection. Meanwhile, cognitive functions were measured using Montreal Cognitive Assessment (MoCA) Urdu version 7.1 (Nasreddine, 2021). The psychological distress was accounted using Work Stress Screener Scale-13 (Sweetman, et al. 2022). The resilience of employees was assessed using Work Resilience Scale-24

(Sweetman, et al. 2022). These two scales were translated into native language by using Forward-Backward translation method and validation was done (Brislin, 2001). Following data collection, t-test, chi-square test, and correlation analysis were used to analyze the data and provide results of the study. Major outcomes pointed out that workers of night shifts scored a significantly lower level of cognitive functioning and greater psychological distress than their corresponding counterparts in day shifts. Additionally, night workers also scored a lower level of individual and team resilience. These findings are theoretically important in trying to understand resilience and stress in high- demand work environments and have great practical implications for improving work schedules, employee wellness programs, and policies aimed at mitigating the cognitive and psychological impacts of shift work.

Keywords: shift work, cognitive functions, psychological distress, resilience, electrical industry, circadian misalignment.

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LIST OF ABBREVIATIONS USED

Full Composition	Abbreviations
Montreal Cognitive Assessment	**MoCA**
Work Stress Screener	**WoSS**
Positive Stress	**PS**
Negative Stress	**NS**
Work Resilience Scale	**ReWoS**
Individual Resilience	**IR**
Team Resilience	**TR**

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Appendices	Titles
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D	Montreal Cognitive Assessment (MoCA)
E	MoCA Training Certificate
F	Work Stress Scale (WoSS-13)
G	Work Resilience Scale (ReWoS-24)
H	Urdu Translated Versions of Scales
I	Authors Permissions
J	Plagiarism & AI Report