EP007

IMPACT OF SHOULDER DISORDERS ON PROFESSIONAL DEDICATION: A BEHAVIOURAL ANALYSIS OF MEDICAL LABORATORY SERVICE DELIVERY



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Introduction

Medical Laboratory Technologists (MLTs) are foundational to medical service delivery. However, the high-precision tasks inherent in laboratory environments place immense physical demands on these professionals. Consequently, MLTs are highly vulnerable to Work-Related Musculoskeletal Disorders (WMSDs) [1]. While existing clinical care models heavily emphasize technical proficiency and laboratory throughput, they frequently overlook the holistic well-being of the workforce [2]. Specifically, the behavioral and psychological impact of WMSDs on staff engagement remains a critical research gap. Chronic pain extends far beyond physical discomfort; it actively degrades workplace dynamics, cognitive stamina, and overall morale [3].

Objective

This study investigates the critical intersection of physical health and psychological professional drive within the MLT workforce. We aim to bridge the gap between occupational hazards and behavioral outcomes by examining how shoulder pain influences the three core dimensions of work engagement:

1) **Vigor**: The physical energy, mental resilience, and willingness to invest effort during work.
2) **Dedication**: The level of enthusiasm, significance, inspiration, and pride derived from the profession.
3) **Absorption**: The state of being fully concentrated and deeply engrossed in high-precision tasks.

Materials and Methods

- Cross-sectional study among laboratory workers in a Malaysian medical research institute.
- Physical symptoms = Assessed by using Extended Nordic Musculoskeletal Questionnaire (NMQ-E) [4].
- Psychological engagement = Assessed by using Utrecht Work Engagement Scale (UWES-17) [5].
- Analysis: Independent samples t-tests to compare mean engagement scores between physical symptoms groups.



Results and Discussion

The analysis of 115 MLTs revealed a statistically significant decline in Dedication among participants suffering from shoulder pain compared to the pain-free group ($p<0.05$). Interestingly, no significant differences were observed in the domains of Vigor (physical energy) or Absorption (cognitive focus) ($p>0.05$). This suggests a dissociative engagement pattern: technologists maintain the energy and focus required for immediate clinical tasks, but their long-term emotional investment, sense of professional challenge, and pride are selectively eroded by chronic physical discomfort [3].

Conclusion

Within the framework of clinical service delivery, shoulder pain acts as a significant behavioural barrier to workforce sustainability. The erosion of Dedication, without a concomitant drop in Vigor and Absorption, indicates that workers may be physically present but are psychologically distancing themselves from their clinical roles due to physical strain. To ensure high-quality diagnostic services, healthcare administrators must integrate behavioural health strategies with ergonomic interventions.

Acknowledgement

The authors would like to thank the Director General of Health Malaysia for his permission in publishing this conference proceeding.

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