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Review Article

An Overview of the Prevalence and Effects of Back Pain among Nurses in Zambia

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Abstract: Topic: This mini-review addresses the critical issue of back pain among nurses in Zambia, highlighting the occupational health challenges they face within a resource-limited healthcare system. ***Type of Review*:** This is a literature mini-review synthesizing recent research findings and theoretical frameworks relevant to back pain in nursing. ***Main Focus*:** The review focuses on the prevalence, causes, and potential interventions for back pain among Zambian nurses, emphasizing the need for culturally relevant health messaging and systemic changes within the healthcare environment. ***Gaps Identified*:** While existing literature outlines various factors contributing to back pain, there is a notable lack of longitudinal studies assessing the long-term effectiveness of proposed interventions, as well as limited exploration of broader systemic issues within the Zambian healthcare infrastructure. ***Conclusions*:** Addressing back pain among Zambian nurses requires a comprehensive approach that includes tailored educational initiatives, effective workload management, and improvements in ergonomic support within healthcare settings. ***Practical Implications*:** The findings suggest actionable strategies for healthcare institutions to enhance nurse well-being, which in turn can improve patient care quality. ***Policy Implications*:** Policymakers are encouraged to implement systemic changes that address staffing shortages and improve workplace ergonomics, thereby fostering a healthier work environment for healthcare professionals. ***Relevance*:** This mini-review contributes to the ongoing discourse on occupational health in resource-limited settings, offering insights that are valuable for researchers, healthcare practitioners, and policymakers striving to enhance the working conditions and health outcomes for nurses worldwide.
Keywords: Back Pain, Nursing Professionals, Zambia, Self-Management, Occupational Health, Interventions.

1. INTRODUCTION

Back pain is a significant occupational health issue affecting healthcare workers globally, with particularly acute challenges for nurses in Zambia. These professionals operate on the front lines of patient care within a healthcare system that struggles with severe resource limitations and increasingly demanding environments. Recent studies indicate that up to 68.9% of Zambian nurses experience lower back pain at some point in their careers (Nkhata *et al.*, 2020b). This alarming prevalence is especially concerning given the critical shortages in Zambia's healthcare workforce, where the physical and mental strain on nurses heightens their risk of injury. The Zambian healthcare system is characterized by inadequate staffing, prolonged periods of standing, and manual patient handling without sufficient ergonomic support (Nkhata *et al.*, 2021). This introductory section lays the groundwork for a discussion on the implications of back pain for both nurse well-being and patient care quality, highlighting the urgent need for effective interventions.

2. Context

The work of scholars such as Nkhata *et al.*, (2016-2024) is crucial within the current discourse on occupational health in healthcare settings. Their research contributes to a broader conversation about the well-being of healthcare professionals, illuminating systemic issues that lead to high rates of back pain. By focusing on the Zambian nursing context, scholars provide insights that can inform policy and practice, demonstrating that the challenges faced by Zambian nurses reflect global trends where healthcare workers contend with significant physical demands.

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Understanding this context is vital for addressing the root causes of back pain and formulating effective, locally resonant interventions.

3. Rationale

Focusing on this scholar's work serves multiple important purposes. It addresses a pressing health issue that impacts not only nurses' well-being but also the quality of care they deliver. Historically, back pain has often been overlooked in discussions about occupational health in low-resource settings. However, recent findings underscore its critical importance. The contributions of Nkhata and colleagues provide a comprehensive overview of the prevalence, causes, and potential interventions for back pain among Zambian nurses. Their synthesis of insights serves as a foundation for developing strategies that are both culturally relevant and practical, particularly given Zambia's healthcare challenges. As healthcare systems evolve, the relevance of their research grows, offering valuable lessons for similar resource-limited environments worldwide.

4. Understanding Back Pain among Zambian Nurses

In exploring the main themes of their work, a structured approach reveals three pivotal areas for understanding back pain among Zambian nurses (table 1). The first theme addresses the prevalence and causes of back pain. Research highlights how factors such as chronic staff shortages and high patient-to-nurse ratios significantly contribute to back pain incidence. Extended working hours and inadequate equipment force nurses into awkward postures, heightening their injury risk. The findings stress the necessity of addressing both environmental and organizational issues to alleviate the strain on nursing staff.

The second theme centers on interventions and the importance of cultural adaptation. Nkhata *et al.*, emphasize multi-faceted approaches, including workload management and ergonomic improvements. They advocate for culturally tailored health messaging that resonates with local beliefs and practices, ensuring that health interventions are effective and well-received. For instance, adapting health campaigns to reflect local contexts has shown promise in increasing awareness and promoting preventive measures.

The third theme discusses theoretical frameworks, particularly the Health Belief Model (HBM), which serves as a foundation for designing effective interventions. Nkhata and colleagues apply this model to understand how nurses perceive their susceptibility to back pain and the barriers they face in adopting preventive measures. By integrating cultural beliefs into the HBM framework, they demonstrate that addressing local health concerns enhances the acceptance and sustainability of health programs.

Table 1: Table 1: Key Themes in Understanding Back Pain among Zambian Nurses

Theme	Key Points	Implications
Prevalence and Causes	- Chronic staff shortages and high patient-to-nurse ratios contribute to back pain.	Addressing environmental and organizational factors is necessary to reduce strain on nursing staff.
	- Extended working hours and inadequate equipment lead to awkward postures and increased injury risk.	
Interventions and Cultural Adaptation	- Multi-faceted approaches, including workload management and ergonomic improvements, are essential.	Culturally tailored health messaging enhances effectiveness and acceptance of health interventions.
	- Adapting health campaigns to local contexts increases awareness and promotes preventive measures.	
Theoretical Frameworks	- The Health Belief Model (HBM) informs intervention design by understanding nurses' perceptions.	Integrating cultural beliefs into the HBM framework increases acceptance and sustainability of health programs.
	- Recognizing barriers to adopting preventive measures is crucial for effective intervention.	

5. Gaps

This scholar's work illuminates essential lessons about the necessity of context-specific strategies that address the unique challenges faced by healthcare workers. Their research identifies significant gaps in existing literature, particularly regarding culturally relevant interventions tailored to the Zambian context. While their ideas about culturally adapted health messaging and systemic changes are well-articulated, there remains a need for further exploration into the long-term impacts of these interventions. The ongoing relevance of their findings emphasizes the importance of continuous research and adaptation to meet the evolving healthcare landscape.

6. CONCLUSION

The insights provided by Nkhata *et al.*, underscore the critical importance of addressing back pain among Zambian nurses through a comprehensive approach. This approach combines tailored educational

initiatives, effective workload management, and significant improvements in the physical work environment. By prioritizing ergonomic practices and injury prevention, healthcare institutions can equip nurses with the knowledge and tools necessary to minimize their risk of back injuries. Furthermore, analyzing staffing levels and patient-to-nurse ratios can identify areas where excessive strain is placed on nursing staff, ultimately leading to improved healthcare delivery.

7. Pitfalls and Limitations

Despite the valuable contributions of this work, it does have its limitations. The absence of longitudinal studies means there is limited insight into the long-term effectiveness of the proposed interventions on nurses' health outcomes. Additionally, while the focus on specific cultural factors is beneficial, it may overlook broader systemic issues within Zambia's healthcare infrastructure that also contribute to back pain among nurses. These aspects are critical for developing a comprehensive understanding of the challenges healthcare workers face.

8. Relevance

The research conducted by Nkhata and colleagues holds relevance across various sectors, including academia, healthcare practice, and policy-making. Scholars studying occupational health can draw from these findings to deepen their understanding of the interplay between work environments and health outcomes. For practitioners, insights gleaned from this work can guide the implementation of effective health interventions tailored to local needs. Policymakers can leverage this research to advocate for systemic changes within the healthcare system, ultimately leading to improved working conditions and health outcomes for nurses. By emphasizing the interconnectedness of healthcare worker well-being and patient care quality, this work serves as a critical reference point for ongoing discussions about occupational health in resource-limited settings.

Author's Contribution

All authors played a role in bringing this work to completion. The initial draft of the article was crafted by Loveness A. Nkhata and Quinette A. Louw, while Yolandi Brink and Dawn Ernstzen were responsible for its conceptualization and planning. The final manuscript was reviewed and approved by all authors.

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