Chapter 12

Preventive Strategies to Reduce Musculoskeletal Disorders of Nursing Personnel; A Systematic Review:
Musculoskeletal Disorders of Nursing Personnel

Narayanage Jayantha Dewasiri
https://orcid.org/0000-0002-5908-8890
Sabaragamuwa University of Sri Lanka, Sri Lanka

W.S.R. Kulasinghe
Base Hospital, Matara, Sri Lanka

Duminda Iresh Kumara Sarambage
Base Hospital, Matara, Sri Lanka

B. Sunil S. De Silva
https://orcid.org/0000-0002-8824-9833
The Open University of Sri Lanka, Sri Lanka

ABSTRACT

The purpose of this study is to investigate the preventive strategies to reduce musculoskeletal disorders of nursing personnel. The findings of this study stated that there are three key themes of strategies to handle the research puzzle. Physical facilities such as lifts, equipment, electric beds, footwear, and other equipment provide physical infrastructure to deal with the issue. Moreover, the findings revealed that the physical facilities alone may not be effective in the long run. The second theme focuses on guidelines, procedures, or principles such as education, staffing, no lift policy, a healthy lifestyle, the culture of safety, training on manual handling, workflow management, need analysis, and stories which provide the supportive structure in addressing the issue. We argue that physical facilities, procedures, guidelines, and principles alone may not work effectively in reducing the musculoskeletal disorders of nurses and there should be a simultaneous implementation of themes one and two. We introduce the Musculoskeletal Prevention Model to deal with the research issue.

INTRODUCTION

There are different ways of patient handling, out of which manually handling of patients is a difficult task. The ways and means of patient handling has received a special attention in research since early 1990s in the United States of America. For instance, National Institute for Occupational Safety (NIOS) and Department of Veterans Affairs (DVA) support the researchers to investigate the seriousness of this issue and to find modern solutions for the same. NIOS and DVA are government institutions that focusses on employees' safety as one of their objectives. Hence, they support the researchers to find solutions for this critical issue. Waters et al. (2006) emphasized that unsafe patient handling as the main reason for musculoskeletal injuries among nurses. It is reported that more than 10,000 nurses in the USA face musculoskeletal disorders in each year resulting an inefficient and ineffective work environment (Bureau of Labor Statistics, 2010).

Manual handling is associated with some negative consequences for nursing personal in the long run. For instance, it is generally argued that more than 80% of nursing personal are incapacitated in their career path since there is no safe mechanism to move patients without having a machine assistance. Hence, injuries like musculoskeletal disorders may have a negative impact on the recruiting, retention, and development of nursing personal in the long run. Lagerström et al. (1998), Myers et al. (2002), Hegmann and Garg, (2004), Waters et al. (2006), and Bureau of Labor Statistics (2009) identified that back and shoulder injuries as a major issue for nursing personnel in the long run. Various research studies have focused on preventive strategies to reduce musculoskeletal disorders (MSDs) of nurses across the world. For instance, edification and exercises in physique mechanics and invigorating and transmitting techniques were employed to diminish MSDs in nursing personnel (Videman et al., 1989; Garg & Owen, 1992; Lagerström & Hagberg, 1997). Moreover, Garg and Kapellusch (2012) emphasized that the introduction of patient-handling devices along with a comprehensive program could be effectively used in reducing MSDs amongst nursing personnel. Furthermore, Collins et al. (2004) emphasized four strategies namely, best practices intervention, equipment intervention, training, and written zero-lift policy in reducing MSDs among nursing personnel.

The contrasting views of aforesaid previous studies and lack of comprehensive reviews of effective prevention strategies in patient handling are the main justification for this study. Further, there is a scarcity of research studies conducted in South Asia, investigating the same research issue. Hence, this study will add a definitive value for Sri Lankan nursing personnel and government authorities to implement the most effective preventive strategies in the South Asian context. Accordingly, the research problem of this study has been identified as "what are the most effective preventive strategies in reducing musculoskeletal disorders of nurses?"

Addressing the aforementioned gaps in the literature, the researchers of this study focus on evaluating all available mechanisms or methods to reduce musculoskeletal disorders through a systematic literature review approach. Here, the aim of the study is to identify a possibly most effective method of patient handling, and to develop a new model to deal with this serious issue. The researchers have identified a major question to achieve the research aim; what are the most effective strategies of patient handling in reducing musculoskeletal disorders of nurses? Accordingly, the general research objective of this study has been identified as to identify the most effective strategies of patient handling in reducing musculoskeletal disorders of nursing personnel. The specific research objective has been identified as to develop a Musculoskeletal Prevention Model to deal with the research problem.

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/preventive-strategies-to-reduce-musculoskeletal-disorders-of-nursing-personnel-a-systematic-review/317208

Related Content

ISO/IEEE11073 Family of Standards: Trends and Applications on E-Health Monitoring
Ignacio Martínez Ruiz, David Sancho Cohenand Álvaro Marco Marco (2016). *Encyclopedia of E-Health and Telemedicine (pp. 646-660).*
www.irma-international.org/chapter/isoieee11073-family-of-standards/151992

A Review on Existing Health Technology Assessment (HTA) Methodologies
Dewan Sabbir Ahammed Rayhan (2022). *International Journal of Health Systems and Translational Medicine (pp. 1-27).*
www.irma-international.org/article/a-review-on-existing-health-technology-assessment-hta-methodologies/306690

Racially Motivated Police Brutality Is a Community Public Health Issue in the United States
Darrell Norman Burrell, Sharon L. Burtonand Grace E. McGrath (2023). *International Journal of Health Systems and Translational Medicine (pp. 1-15).*
www.irma-international.org/article/racially-motivated-police-brutality-is-a-community-public-health-issue-in-the-united-states/315296

Developing More Effective and Adaptive U.S. Governmental Healthcare Leaders
Amalisha Sabie Aridi (2022). *International Journal of Health Systems and Translational Medicine (pp. 1-25).*
www.irma-international.org/article/developing-more-effective-and-adaptive-us-governmental-healthcare-leaders/314579

The Urine Drug Screen in the Emergency Department: Overuse, Technical Pitfalls, and a Call for Informed Consent
Megan Yuand Charles Desmond Donohoe (2022). *International Journal of Health Systems and Translational Medicine (pp. 1-11).*
www.irma-international.org/article/the-urine-drug-screen-in-the-emergency-department/282703