

Effects Of Manual Handling Devices To Prevent Back Injury Among Nurses In Nursing Homes

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Abstract

Background

This proposal: Back injury is one of the most common occupation disorders affecting the nursing profession throughout the world. It is characterized by back pain. The pain is either chronic or acute and lowers the productivity and efficiency of nurses. If left unmanaged, it can lead to disability. This research proposal reviews how back pain in nursing occupations caused by the use of manual devices can be prevented to increase their capacity to work. It constitutes a literature review to find out more about what has been done on this issue. Data analysis on previous research done on nurses in healthcare facilities on the occurrence of back injuries in the course of their duties will be used.

The Aim Of The Research

This research is aimed at addressing the effect of manual handling devices in reducing back pain and injury in nurses working in nursing homes. This is because previously done research has only concentrated in other sectors of healthcare, such as hospitals and clinics, or was not comprehensive in their approach.

Methods

The practical use of manual handling devices will be used to help nurses to be able to carry out their daily work effectively to control injuries on their backs. Appropriate training should also be done to inform them about available devices and how to use exercises and other methods to control back injuries and back pain.

Measures

The research will measure the effectiveness of manual devices in the control of back injuries when used by nurses working in nursing care homes. This study will involve the management responsible

for training the nurses and the nurses who will use manual devices for manipulating the patients.

Expected Outcomes

Incidents of back injuries among nurses working in nursing home care should be effectively reduced by the use of manual devices. Additionally, the management should successfully reduce the number of lawsuits against injured employees, and the cost of compensation should be reduced.

Conclusion

This project will be a major breakthrough in solving a persistent problem that is reducing the productivity of nurses and can, therefore, be adopted by other health practitioners in controlling back injuries in nurses. It will also redirect important funds used in these injuries to better use. Patients will also receive adequate, high-quality care.

Introduction

Medical research so far has not been able to differentiate between back injury caused by occupation and injury caused by non-work related causes. Also, research has suggested that back pain in nursing workers can result from nonphysical psychosocial risk factors such as Perceived high workload, Monotonous work, Lack of decision-making authority, and Job dissatisfaction. This emphasizes the fact that there is a need to carry out further research to help alleviate back pain occurrence in nurses working in nursing homes and other healthcare facilities. According to the research done by (Ovayolu, Ovayolu, Genc and, Col-Araz 2015 p,70), Nurses have determined that more than 80 %of nurses experienced lower back pain. Determination of those nursing employees who got training on lower back pain management remained on their feet for an extended duration, repositioned patients, and bent for long periods without using any manual devices had an increased rate of lower back aches. Nursing employees in intensive care units had more incidences as their work called for more bending and shifting patients and frequent body movements such as clasping onto patients' limbs to support them, hugging them, or even reaching up and other bodily movements. It is estimated that two-thirds to four-fifths of the population are negatively affected in their productivity by a back injury at some point in their lives. Many people do not report back pain or even take time off from work.

The Aim, Rationale, And Significance Of The Project

This research will, therefore, aim to:

1. determine the number of back injuries to nurses whose manual handling devices in a hospital setting
2. determine the number of injuries to nurses while using handling devices in a hospital setting
3. Comparing the number of nurses getting back injuries while handling devices with those who acquire them while not using manual handling devices

The aim of the project is to reduce the incidences of back injury in nursing patients during their care on patients in nursing care homes. The rationale for selecting this topic is to ensure that nurses in nursing homes take care of the patients without getting back injuries. The significance of this is that back pain is common to most people during their lifetime. Previous medical science research suggests that back pain is caused by heavy vibrational impact on the body when operating heavy machines, driving and lifting, pulling, or pushing heavy loads (Otaibi, 2015, pg,73-77). The risk factors need to be properly identified and may include; when spinal nerves are pinched by a slipped disk, sudden unfamiliar movements leading to muscular back pain, and lack of exercise. There is a need for causes of back pain to be properly quantified so as to arrive at a long-term solution to the problem as this will help in improving the productivity of nurses in providing quality service to nursing home patients. Manual handling has been described as an engagement that calls for the use of physical power to manipulate an individual, leading to the risk of injury to the person carrying out these activities. It is therefore important to determine what devices are available to nurses to facilitate manual handling of patients both in hospitals and in nursing homes and old age care. Nursing home patients require to be lifted, their position changed and supported during their care. Extended bending when attending to these patients who have unique needs due to their poor health may lead to serious back pains for the nurses offering care to them. The research will, therefore, focus on the effect of the manual handling devices that are available in these nursing homes. The picot question for this study will be: Is the issue of manual handling devices(I) compared to hand handling(C) of patients and equipment by nurses(P) more effective in reducing back injuries(o) among nurses working in hospitals (S)

P-Nurses, I-Use of manual handling devices, C-hand handling, O-Reduced back injuries, T-two months
S- Hospital,

Context And The Setting Of The Project

The project will take place in a nursing home acre set up where the nurses will be the population. The nurses will be under a health facility manager in charge of the nursing home. The research will be done in the normal daily activities of the nursing home to avoid disruption and stress to the patients and the nurses under investigation.

Brief Literature Review

. Research shows that nurses are at higher risk of suffering from low back pain and other

musculoskeletal disorders in health professionals due to the nature of their work around the world. Although not life-threatening, low back pain requires long-term treatment and compensation and additional insurance costs from the nurses affected. (Shieh, Sung, Su, Tsai and Hsieh, 2016 pg.525-529) Research investigating measurable effectiveness in reducing and or controlling back aches or injuries in nursing employees showed that stretching as a form of exercising the body was preferable instead of normal duties only without intervention (Van et al., 2018 pg. 222-231) combined manual handling training and exercise had even better results than physiotherapy as an intervention. According to Yassi and Lockhart, the prevalence of back injuries among health workers is a global problem that has been researched without adequate conclusions on the interventions. They argue that multiple interventions are necessary for an effective program to bear desirable results (Yassi, A. and Lockhart, K., 2013, pg. 223-224).

Associated the existence of lower backache in nursing employees with physical violence; hence, their research was not conclusive and left unanswered questions as the definition and interpretation of physical violence were not clear. (Rezaee and Ghasemi, 2014(19)4) Duffy claims that the introduction of mechanical lifts reduces the prevalence of back pains when compared to raising awareness about the problem both with the healthcare management and the nurses. The study recommends training, and installation of mechanical devices to assist in handling heavy loads (Duffy 2017, pg 20. Research done by Budhrani et al. indicated other interventions that have been conducted to alleviate and manage back pain, including muscle relaxants, education, counseling, physical therapy, and directed exercises. (Budhrani-Shani, Berry, Arcari, Langevin, and Wayne, 2016) There was dissatisfaction from both the patients and the physicians on the treatment methods over time, and therefore, it's important to carry out further research to determine a better solution to the problem. Turn assist is a bedside mechanism that has been used in the ICU facilities of hospitals to reduce the stress of turning patients. Research carried out reveals that the device helps rotate the patient and ensure comfort during the maneuver for both the patient and the nurse operating it. (Wiggermann., 2016. pp.748-757.) The use of sliding sheets and mechanical lifts was also recommended to be used to avoid back pain or back injury on nurses and the discomfort of patients. The turning space needs to be adequate for the nurse to manipulate the manual turning assisting device when turning a patient to avoid injury. (Wiggermann, Smith, and Kumpar, 2017 p.483.) the following

Project Design And Methods

The research will involve an interventional design where all the nurses in the nursing home will be involved in the use of manual manipulation devices to move or rotate patients in the course of their daily duties. The focus of the research will be to avoid back injury as they carry out their activities. The team will collect results as to the number of injuries during the use of these devices as compared to the past when manual manipulation devices have not been used.

Proposed Time Frame

Table 1: Timeline of the Proposed Project Activities

Project Activity	Timeframe
Project Initiation and planning	25-27 March
Budgeting for the resources	25-31 March
Education of the nurses	02-09 April
Pre-intervention test	10-011 April
Rollout phase	11-17 April
Post-intervention evaluation	19-21 April
Report writing	22-30 April

Expected Outcomes

It has been found that the causes of back injury done in previous research were not comprehensive and only concentrated on certain factors, while others were ignored. Most of the research was carried out for hospital setup and not for other health-providing institutions such as nursing homes and old age care homes on which this research will focus. This research will, therefore, give adequate answers as to the effect of manual handling devices in nursing care, old age care, and other similar healthcare facilities. The expected results are the identification of the best interventions for reducing and managing back pain in nurses working in nursing homes. The recommended manual devices will be identified, and the necessary combination of interventions will be identified and implemented.

Conclusion

This project proposal will help determine the effect of using manual devices in manipulating patients in the nursing home to avoid back injury to the nurses. Backache and injury among nurses are expensive in terms of hours not worked, the cost of the health facility on insurance coverage of

employees, and the compensation of those employees that get injured.d

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Appendix

Survey questionnaire for outcome analysis

Have you ever used a manual manipulating device? Yes No
On a scale of 0-10, how do you rate your level of effectiveness in protecting your back at work? (Where 0 means effective and 10 is extremely Ineffective) _____
How difficult is it when using a manual manipulating device on a patient? Easy Very easy Difficult Very difficult
Are manual manipulation devices effective in back injury protection? yes No May be
What is the frequency of back injuries throughout the month when using the manual manipulating device? Extremely frequent Very frequent Frequent Rare Extremely rare
Do you experience back injuries due to your workload when not using manual manipulation devices? Yes No
? What is the frequency of back injuries throughout the month when not using the manual manipulating device? None Less than thrice Less than five times More than five times

Have you experienced self-injury or near self-injury since you started using manual manipulation devices?

Yes

No

How long are you willing to stay in the nursing profession in your current placement after your training and using manual manipulation devices?

Very long period

Long period

Short period

Very short period

Can you recommend training on due care of your back and body against injuries and the use of manual manipulation devices in your work to other nurses?

Yes

No