

Research Summary

Student's Name

Institution

## Research Summary

### **Scope and Purpose of the Research**

Fall of patients from beds has been widely experienced in hospitals more especially in the cognitively impaired patients. The patient falls usually intensify pain among patients through the development of serious injuries. As a remedy to such a tragedy among patients, various interventions have been recommended to decrease cases of fall-related injuries. Previously, most medical professionals have used physical restraints such as side rails to manage highly aggressive patients by restraining their movements from their respective beds. However, it has been observed that physical restraints are associated with various negativities such as causing direct and indirect injuries in patients. As such, there has been an increased attention on studies meant to ascertain, alternative methodologies of preventing bed falls among patients. The installation of alarms has been recommended as one of the suitable alternatives. The alarms are set in all beds and designed in such a way that they detect and alert the nurses when a patient tries to leave their bed (Wong Shee et al., 2014). The research, therefore, sought to determine the effectiveness of electronic sensor alarms installed in the beds with the aim of reducing falls in cognitively impaired patients.

### **Involved Stakeholders**

The study was carried out by professional researchers with the required credibility. The researchers are qualified as well as contain a good reputation in the nursing field. For instance, Anna Wong Shee is a qualified physiotherapist working with the Ballarat Health Services and Australian Center for Research into Injury in Sport and its Prevention. It is explicit that the authors are well experienced thereby employing suitable methodologies in the study. The study that was carried out in a subacute ward in a large regional health facility in Australia involved

researchers, technicians from the alarm manufacturers, nurses, and patients. The research was well planned for as it was carried out in various phases. The technicians first, educated the nurses on the operation of the bed alarms before carrying out the study. The researchers target population included nurses and patients in a large regional health service in Australia. The study involved 23 patients and 19 nurses. Upon completion, the study was meant to aid patients by reducing injuries as a result of bed falls as well as make the nurses' work easier.

### **Critique**

#### *Statement of the Problem*

The study starts by emphasizing the noting the negativities of bed falls more especially in cognitively impaired patients within a subacute setting. The study further outlines the shortfalls of physical restraints as a method of reducing the incidences of bed falls among patients. It then addresses the significance of bed alarms as a suitable alternative of physical restraints.

Considering the research's development, it is clear that the statement of the problem is executed in the introductory part of the study although being specifically addressed after the hypotheses.

The indicated, statements are in alignment with the title of the article and are of great clinical significance. However, the statement of the problem cannot be easily identified without the dedication of special attention (Wong Shee et al., 2014). Considering the researcher's resources and abilities, the problem statement has been broadly defined.

#### *Review of Literature*

The study is based on sixteen sources that were recently published making them credible and relevant. The study offers a brief literature on the title that compares various prior findings on the title. It utilizes common themes that do not divulge the content of the sources. However, it would have been more significant if the authors provided deeper information and an explanation

of how the referenced researchers obtained their data (Wong Shee et al., 2014). In a general point of view, the literature review content highly contributes to the understanding the need to reduce bed falls through ascertaining the effectiveness of the bed alarms.

### *Hypothesis*

The study explores a variety of testable variables that are closely related to bed exit alarms. The variables are correlated to the acceptability and effectiveness of the intervention in reducing the number of patient falls within a subacute setting. The study mainly considered the acceptability of these alarms among the involved nursing staff, thereby emphasizing its significance in health care. Considering researchers' resource capabilities, the study is comprehensive.

### *Objectives*

The study was carried out to determine the effectiveness of electronic sensor bed exit alarm in regard to control falls in cognitively impaired patients within a subacute setting whereby the risks of falling is high. The study further sought to determine the acceptability of these devices among the nursing staff. Considering the development of the research, its objectives were testable, answerable, and acted towards facilitating the definition and explanation of the problem. However, the researcher fails to identify the specific hypothesis that they chose to put under test.

### *Methodology*

The research utilizes an experimental approach coming up with answers to the already established questions as well as to test the formulated hypotheses. It further uses thematic analysis that is based on sample transcripts as well as feedback survey, qualitative comments that were independently carried out (Wong Shee et al., 2014). The methodology was suitable in

determining the results of the research considering their descriptive statistical nature. The significance and relevance of the study were observed through the use of TNH-STRATIFY in the definition of the risk of fall in the patients involved in the study. Consequently, the study methodology was comprehensive in the sense that it used a twin study approach whereby the first part utilized a cohort design as the other utilized descriptive and qualitative analysis (Graham, 2014). The study approach facilitates the study towards ascertaining an accurate conclusion.

### **Key Recommendations**

The research findings were positive, implying that the electronic sensor bed/chair alarm is effective in reducing bed-fall among cognitively impaired patients in a subacute setting. According to the first part findings, the pre-intervention period, participants had fewer falls compared to those obtained in the intervention and post-intervention period. Besides, most nurses involved in the survey believed that the electronic sensor bed/chair alarm was important in monitoring patients getting out of bed. Therefore, there is a need to implement the electronic alarm system as an alternative of physical restraints. Further, there is a need for research involving an extended study period, more participants, and the use of randomization to bed-exit alarm type to be carried out to ensure variation control. The research will further include a detailed evaluation of the alarm system's cost effectiveness, sustainability, and accuracy through comparison to other systems.

### **Facilitators, Barriers, Costs, and Outcome Measurement for Application of the Research**

The participants of the research and more especially the involved nurses highly facilitated the research. Precisely, it is the nurses' cooperation that facilitated the attainment of the research results. Besides, the availability of the required resources such as finances and skills highly

boosted the study. However, the researchers underwent various limitations in the course of the project. For instance, they faced a lot of challenges in integrating the alarm system with the nurse call system. It was hard to differentiate the bed alarm from the regular electronic bell as well as to specifically differentiate the tone from specific beds. The cost of the study was to be catered for by the researchers considering that they are experts in the sector. The researchers were to measure the outcomes of the study through observing the impact of the number of bed falls experienced within the period of the study and henceforth.

### **Clarity and Presentation of the Recommendations**

The study was detailed and clear more especially in outlining the recommendations. It was well written as well as formatted with clear, strong points. Besides recommending the application of the electronic sensor alarms in reducing bed falls among cognitively impaired patients, it also proposed for further research to increase effectiveness (Scarparo, 2011). However, the study fails out in its organization format as it does not highlight the sub-topic for recommendations. It will take an average reader a lot of time in trying to ascertain the recommendations as opposed to when the subtopic was clearly highlighted.

### **Conflict of Interest of Group Members**

In any given project that is meant to aid a group of people, conflict of interest may arise. In regard to this study, it was observed that there were a conflict of interest between the researchers and other control bodies (Scarparo, 2011). For instance, at first the nurses were not willing to participate in the study as they feared they could lose their jobs. However, it is a common issue for individuals to tend to resist to any given change in their area of operation.

### **Summary on the Relevance and Importance of the Study**

The study has provided a detailed explanation for its findings by clearly illustrating how its results are different from other prior studies. The study has demonstrated the presence of a positive correlation between decreased patient falls and the use of electronic bed-exit alarms. Despite having a relatively low acceptance among the nurses, the study recommends adoption of the methodology as a remedy to curb the increased injuries. The researchers further offers the limitations of the study and recommends for more research to ensure effectiveness is attained. The study is highly useful to medical practitioners in the sense that it will provide a guideline upon which to execute their duties. The study tends to aid practitioner in understanding the essence and the right way of handling patients. It will always act as a reference for medical practitioners as it offers the guidelines for execution of their duties.

## References

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