

Methods and Data Analysis Paper

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Introduction

Patients in critical care tend to have several therapeutic connections of cords, cables and even tubes at their bedside because they are the fundamental aspect of daily health care for delivery of medications and fluids to patients (Haynes et al. 2015). Such connections can become disorganized and tangle and thus increase the risk of fall among the patients and nurses. It is a phenomenon that makes the caring of patients challenging (Watson, 2017). Falls from tangled cords, cables and tubes have the potential of causing deaths, permanent injury, and even life-threatening due to the confusions that arise whenever there is a physical hazard (Haynes et al. 2015). Solution to the issue requires the organization of the cords and tubes within the bedside of the patient. Such a move will not only reduce the instances of falls to both the healthcare personnel and patients but also will minimize risks associated with the connection errors and damages to the medical equipment.

While there are few cord control devices available for use, they vary in complexity and design. The study focuses on identifying a banding device for the management of the cords, tubes, and cables connected to the patients in critical condition to prevent occurrences of falls.

PICOT and Aim

The PICOT question under investigation is the: In-patient and staff at an extended care facility, how does the JanaBand medical device being used compared to one not being used affect the outcomes of falls rates on team and patients over a 6-month period. The particular aim of this project is to investigate the effect of JanaBand in the reduction of falls among the patients and nurses due to disorganization of the cords, cables and tubes corded to patient from their bedside.

Theoretical project framework

The theoretical framework for this project is the work of Jean Watson. It is in the philosophy and science of caring and will be critical in selecting the evidence that can assist in making the most informed decision as to whether to adopt the proposed tool. Her human caring model comprises of the conceptual elements of Carative factors, transpersonal caring and caring moment, all essential in promoting healing among the patients (Sitzman & Watson, 2013). Even though the argument appears as philosophical, it centers the work of nursing. It guides the nurses in facilitating the patient's safety such as through fall prevention. For instance, if the patient has high risks of falling, implementing new evidence-based practices would be in line with the argument of the model.

The proposed performance improvement model for the project is PDSA. The model comprises of four cycles as denoted by the initials (Calderwood, Mahoney & Jacobson, 2015). These are the plan, do, study and act. Using the approach, one has to plan a change or test how the new proposed tool works and then carry out the plan. After that, one has to look at the results to get the findings which are used to decide on the relevance of installing the new tools in the hospital to prevent patient falls (Calderwood, Mahoney & Jacobson, 2015).

Synthesis of evidence

One of the significant areas of concern for the patient safety is falling because of the reimbursements related to the patient safety. Loose cords and tubes are among the extrinsic factors which lead to falls in hospital (Ambrose, Paul & Hausdorff, 2013). Cords and tubing from medical equipment are contributing factors to falls experienced by the staff and patients in addition to the prevalence of objects such as stools and chairs. While the maintenance of clear

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pathways is part of the fall prevention program, securing of the tubes and cords is also an important measure (Ambrose, Paul & Hausdorff, 2013).

In most occasions, the treatment of a patient requires the use of tubes to transfer fluids such as serum, catheters among others. They also supply the patient with the gases such as oxygen while restricted to the beds. It means that there is the presence of cables, tubes, and cords present around the patient's bed at any time (James, 2015). While installing such items, the workers face the problem of getting reasonable ways of securing them to particular areas of the bed so that they do not fall on the ground or disorganized by the visitors or personnel taking care of the patient. The presence of loose cables and tubes presents hazards to the patient and the staffing giving care (James, 2015).

The falling risks from such cords and tubing may occur in multiple places such as nursing stations, operating rooms, patient rooms and any other location within the workstation. The appropriate benchmarks for this issue are to use cord organizers to bundle cords, covering cords on the floor, use of retractable cord holders, mounting cables underneath the desk and clearing walkways to allow free and safe movement of both the patient and employees. Others are through organizing the storage areas to eliminate, using wall-mounted storage hooks and spools (Bell et al. 2010).

Methods

The part describes the sample population, the setting of the project, the data collection plan and how the outcome will get measured.

Sample

The sample will be obtained from the hospital department that has higher instances of staff and patient falls arising from loose cords and tubing. I will identify the appropriate population by assessing the reports, accident review board, fall reports and notes from patient charts. In this way, I will have acquired the right representative that faces the high risk of falls and thus pre-testing the proposed tools would give accurate results.

Setting

The setting of the project is the care units handling eldercare, neurology, and rehabilitation where caregivers have to use numerous cords, cables and tubes to save the lives of patients.

Design

The project will use a case study design. It is important because of its comprehensiveness and ability to reduce bias. Case studies will facilitate a holistic review and thus creates space for building a more detailed understanding of the topic. In addition to that, they will create a sound platform essential for exploring the variables of the topic in details. Due to their ability to capture a wide range of perspectives, they will reduce chances of biasness by way of diluting the agenda of a single person. The cases will come from hospitals handling patients under critical conditions especially those receiving eldercare, neurology, and rehabilitation.

Intervention

As a method of improving performance, videos and flowcharts will be used to illustrate how to use proposed tools. A video is an essential instructional medium that compels and generates more significant amounts of interest on something. They will provide a sensory experience that promotes concepts and ideas to become experienced and part of the staff within

the healthcare institution. Apart from that their ability to start an rewind are invaluable when offering education on the way the new strategies will prevent patient and staff falls once adopted in the organization.

Data collection

The project will use primary data. Therefore, observation, surveys, and records will be used as sources of data. Observation will be covert or undisclosed. The researcher will keep their identity secret and act as a genuine member of the nursing group. Disclosing to the subjects that someone is observing them may inhibit them from exhibiting their normal behaviors while carrying out their activities and thus affecting the results. Surveys will be planned strategically and structured in the best way to facilitate the collection of accurate data. The overall goal of the surveys will uncover answers, evoke discussion, base decisions on objective information and further to compare results. Finally, the number of falls will be obtained from the quality improvement department for the period before implementation of the tools and after their installation to assess any difference.

Measuring outcomes

The following are the measurable clinical outcomes that will be used to evaluate the effectiveness of the project. The number for calculating the performance effectiveness will come from different sources. The use of multiple sources is essential so that the weakness of one source will obtain a reinforcement from another. There will be direct observation of care where a trained observer will determine whether the cords and tubes have been bundled together and that they pose any risk of fall to either the patient or staff. It will be one of the most accurate methods because it will involve assessing the vulnerable individuals within their operational context.

Surveys will be used in occasions where the staff members have to recall specific events for recollection of data. Apart from that, there will be medical reviewing which will focus on the documented records on the number of falls within a particular time to compare with previous figures.

Data analysis

The data analysis is the process of inspecting, transforming and modeling data to get the essential information, suggest conclusions and to support decision making. The procedure for analyzing the collected data will be as follows. The first step will be the removal of ambiguous elements such as capturing information from open-ended questions. The following will be data coding by way of assigning numerals or symbols to obtained responses to have a limited number of categories. Data presentation will follow in the form of figures and tables for analyses. The last step will be data interpretation and discussion drawing support from the available literature.

During interpretation, data will be presented using tables and graphs to enhance understandability. Each variable will be presented separately for comparison purposes to illustrate the effectiveness of the JanaBand in the management of cords, tubes, and cables to reduce falls.

Conclusion

While connections of cords, cables, and tubes in the treatment of patients under critical condition are inevitable, they pose a higher risk of fall to patients and health staff whenever they come disorganized and tangled. Organizing such instruments together and maintaining them in strategic areas where they can facilitate care delivery but without posing any risk of fall would be the most important solution to the problem. The incidences occur in multiple places such as

nursing stations, operating rooms, patient rooms and any other location within the workstation. Using cord organizers to bundle cords, covering cords on the floor, use of retractable cord holders, mounting cables underneath the desk and clearing walkways can allow free and safe movement of both the patient and employees. The project aims at investigating the effect of JanaBand in the reduction of falls among the patients and nurses due to disorganization of the cords, cables and tubes corded to patient from their bedside.

References

- Ambrose, A. F., Paul, G., & Hausdorff, J. M. (2013). Risk factors for falls among older adults: a review of the literature. *Maturitas*, *75*(1), 51-61.
- Bell, J., Collins, J. W., Dalsey, E., & Sublet, V. (2010). Slip, trip, and fall prevention for healthcare workers. Center for disease Control.
- Calderwood, A. H., Mahoney, E. M., & Jacobson, B. C. (2015). Sa1462 A "Plan-Do-Study-Act"(PDSA) Approach to Improving Bowel Preparation Quality. *Gastrointestinal Endoscopy*, *81*(5), AB225-AB226.
- Haynes, J., Bowers, K., Young, R., Sanders, T., & Schultz, K. E. (2015). Managing Spaghetti Syndrome in Critical Care With a Novel Device: A Nursing Perspective. *Critical care nurse*, *35*(6), 38-45.
- James, E.L., (2015). *Retaining device for holding items on a hospital bed frame*. U.S. Patent Application 14/802,891.
- Sitzman, K., & Watson, J. (2013). *Caring science, mindful practice: Implementing Watson's human caring theory*. Springer Publishing Company.
- Watson, B. J. (2017). Fall Prevention in an Acute Care Hospital: The Challenges Encountered by Patients, Staff and Administrators.