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# Reducing the Use of Physical Restraints of the Elderly in the Acute Care Setting

Rachael Malone

*Gardner-Webb University*, [rsutton1@gardner-webb.edu](mailto:rsutton1@gardner-webb.edu)

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# Reducing the Use of Physical Restraints of the Elderly in the Acute Care Setting

by

Rachael S. Malone

A project submitted to the faculty of  
Gardner-Webb University Hunt School of Nursing  
in partial fulfillment of the requirements for the  
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Submitted by:

*Rachael S. Malone*  
Rachael S. Malone

*July 11, 2022*  
Date

Approved by:

*Kathy Williams, DNP, RN*  
Kathy Williams, DNP, RN

*July 11, 2022*  
Date

### **Abstract**

The aim of this MSN project is to identify and improve the gaps in education regarding physical restraint use in the acute care setting for the elderly patient population. When admitted into hospitals, elderly patients are at much greater risk of being placed in physical restraints due to little education regarding alternative measures to physical restraints and inappropriate assessments. The purpose of this project is to implement education about the detrimental factors and consequences patients may suffer once placed in physical restraints and improve the use of alternative measures to physical restraints. This project will be evaluated by acute care registered nurses and then by collecting data directly from the setting in which the project is implemented. The significance of this project is to improve nursing care for the elderly patient population by reducing physical restraint use during hospital stays.

*Keywords:* physical restraints, alternative measures, assessment, registered nurse, elderly, acute care

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## **CHAPTER I**

### **Introduction**

The number of hospitalizations amongst the elderly population continues to increase over the years. With this increase, nursing staff continues to be limited in education on the appropriate use of physical restraints. The misuse of physical restraints in the elderly population too often results in physical and mental consequences along with the increased length of hospital stay. Sharifi et al. (2021) discuss more than 80% of healthcare workers are limited in knowledge of how to appropriately use physical restraints on hospitalized patients. They go on to mention how the use of physical restraints have been used in cases of staff shortages, staff convenience, and punishments. The use of physical restraints is a complex and high-risk measure of care. Physicians, nurses, and all health care team members should be adequately trained on the appropriate use of physical restraints.

### **Problem Statement**

Elderly patients admitted into the hospital are suffering from a great increase in the misuse of physical restraints due to inadequate education resulting in physical and mental consequences that prolong the length of hospitalization. Sharifi et al. (2021) discuss elderly patients are placed in physical restraints three times more than other patient populations during their hospitalization. This has resulted in a 33-68% chance of an elder patient receiving physical restraints (Sharifi et al. 2021). Health care staff are often not being adequately educated and trained on the use of physical restraints and this is causing a challenge in ethical dilemmas, patient autonomy, and patient cost of hospitalization.



## Significance

Elderly patients admitted into the hospital are experiencing significant increases in physical restraint use (Sharifi et al., 2021). Research has shown this increase is due to several different factors including limited education on physical restraint appropriate use and limited education on caring for elderly patients. This lack of education is resulting in ethical dilemmas, compromised patient autonomy, lengthier hospital stays, and an increased risk of mental and physical harm to patients (Backes et al. 2019). Sharifi et al. (2021) point out that many nurses and healthcare team members are limited in their knowledge of the appropriate use of physical restraints. The elderly population is at significant risk for misuse of restraints due to a lack of education on alternative methods (Sharifi et al., 2021). Patients are being placed in restraints too often without a proper physical and mental assessment conducted by the nurse and physician. Further education must be implemented for nursing staff for alternative methods to be used prior to placing physical restraints.

Sharifi et al. (2021) discuss the use of physical restraints on the elder population has shown an increase in violence against healthcare workers from 4.5% to 28%. Physical restraints are often used on elder patients due to confusion, agitation, delirium, and combativeness. These symptoms and behaviors are commonly associated with a diagnosis of urinary tract infection (UTI). The elderly population is at high risk for contracting UTIs during hospital stays which can cause an increase in the development of confusion and agitation. Without adequate education and training, nursing staff may not understand this diagnosis and its severity on the patient. Another cause for misuse of restraints is a diagnosis of dementia. There have also been reports of physical restraints

being used without physician knowledge (Sharifi et al., 2021). To improve this misuse of physical restraints on elderly patients, hospitals are implementing education on appropriate restraint use and alternative measures. Akbas et al. (2019) discuss that a revision of the curriculum is necessary regarding physical restraint use in the hospital setting.

### **Purpose**

The purpose of this project is to highlight the importance of further education regarding the physical restraint use of elderly patients in the hospital setting. Some nursing staff continues to lack proper education on applying and removing physical restraints. Eskandari et al. (2018) discuss how nurses are a central role in decision-making when it comes to placing restraints. The nursing staff advises physicians for placing an order to apply the physical restraints. For many years, physical restraints were seen as a common method for patients with agitation, combativeness, and disruptive behavior. In today's healthcare, physical restraints are too often related to negative outcomes of patient death. This increases the need for and importance of necessary improved education. Eskandari et al. (2018) discuss that many hospitals are striving to reduce the number of physical restraints placed due to negative outcomes, violence against staff, and compromised autonomy for patients. Nursing knowledge regarding the appropriate use of physical restraints has been seen as unsatisfactory (Eskandari et al., 2018). To improve this negative outcome related to physical restraints, nurses and all health care team members should be educated and assessed as competent in performing the skill. Education should include proper mental and physical assessment of patients, alternative methods to use beforehand, appropriate placement of restraints, adequate

documentation on restraints, methods to remove restraints, the final removal of restraints, and methods to maintain discontinuation of restraints. The education should be completed upon the hiring of healthcare team members during the orientation and then yearly.

Schmidtke and Iverson (2018) mention the importance of focused education on physical restraints as well as maintaining visual information in strategic areas of key points about restraints and alternative measures. After nurses had taken focused education on restraints and alternatives, in Schmidtke and Iverson's (2018) study, they were more confident in using alternative measures versus placing the restraints.

### **Theoretical/Conceptual Framework**

Virginia Henderson, a nursing theorist, developed the Nursing Need Theory.

Henderson's research described the importance of patient independence and focused on nurses emphasizing assistance on patient independence to improve their progress in the hospital and after discharge (Nursing Theory, n.d.). Ahtisham and Jacoline (2015) discuss how many medical professionals have less integration of theoretical concepts in their clinical practice. "When nurses use theory and theory-based evidence to structure their practice, it improves the quality of care" (Ahtisham & Jacoline, 2015, p.443). Nurses should increase the implementation of nursing theories to provide a high quality of care to patients.

Applying Henderson's theory to the care of the elderly population would allow nurses to maintain care, rapidly recover, and improve independence amongst patients. Henderson's theory describes the nurse as being substitutive, supplementary, and complementary (Ahtisham & Jacoline, 2015). The nurse begins the process by doing for the patient, then helping the patient, then finally working with the patient to achieve a

goal of independence. Henderson's theory consists of 14 components that are psychological, spiritual, and moral. The use and misuse of restraints constrict the development of independence. As mentioned previously, the placement of physical restraints on elderly patients can result in physical and emotional harm (Eskandari et al., 2018). Patients may become fearful, agitated, and bedbound. Medical practices must recognize the lack of a theoretical framework in nursing care. The nurse and physician should work together to assess the patient and produce a well-developed care plan for the patient that will improve health and independence. Sharifi et al. (2021) point out how inadequate assessments are being performed on elderly patients which has increased the number of restraints being placed in hospitals. Implementing Virginia Henderson's Nursing Need Theory will further educate nurses on how to improve the quality of care amongst elderly patients by providing essential nursing care without constricting their independence.

## **CHAPTER II**

### **Literature Review**

A literature review was conducted by searching a variety of databases. These databases include the Cumulative Index to Nursing and Allied Health Literature (CINAHL), ProQuest, and the search engine Google Scholar. Key terms for the search of the literature included the elderly patient population, physical and medicinal restraints, alternative measures, and education materials.

#### **Literature Related to Statement of Purpose**

Mubashir et al. (2020) performed a pilot study on elderly patients regarding elder-friendly care practices in the acute care setting. Their research proposed alternative measures to restraints, antipsychotic medications, and patient seclusion that would result in a positive practice change improving patient outcomes. Mubashir et al. (2020) found in their research that patients who are over the age of 80 experience unnecessary physical restraint use that leads to deconditioning and extended length of stay. The Elder-Friendly Care (EFC) implementation is an age-related improvement to the care, experiences, and outcomes of elderly patients. The EFC focuses on a “4 M” criteria based on matters most, mobility, medications, and mentation (Mubashir et al., 2020). Elder-Friendly Care educates direct care staff on responsive behaviors, resources for delirium prevention, and meaningful activities that address mentation. Multiple workshops were completed to assess the new implementation of the EFC. At the end of the study, Mubashir et al. (2020) concluded participants of the study agreed or strongly agreed the EFC project improved patient experience and quality of life. Physical and medicinal restraints use, hospital readmission, and patient dependency all decreased while performing EFC.

Backes et al. (2019) conducted a study that investigated several nursing care facilities and their patient containment data. Backes et al. (2019) began their study by defining containment as practices understood to hold, maintain, tie, and prevent elderly patients from removing medical tubes and or lines, control agitation, and prevent falls. These methods have all been linked to negative repercussions. Backes et al. (2019) found in their study, that restraints were used and justified by characteristics of the elderly patients including aggressiveness and agitation, insufficient staffing, and safety measures. The results showed patients who were female and 85 and older were highly likely to be placed in restraints. Backes et al. (2019) also indicated that no patient evaluation occurred after initiating the restraints resulting in imminent ethical issues. Along with the failure to provide appropriate assessments, faults in documentation were also found. A multitude of patients developed pressure injuries, reduction of muscle strength, psychological suffering, poor nutrition, aggression, and incontinence (Backes et al. 2019). To reduce these ethical and detrimental issues, alternative strategies and educational programs were designed and proposed.

Balci and Arslan (2018) concluded in their study that restraints were most used on patients over 65 years old. The majority of those patients had histories of falls, declining mental function, and delirium. In Balci and Arslan's (2018) results, they found multiple patients who had been restrained developed hospital-acquired infections, and some patients suffered death. They go on to discuss many hospitals across the world are implementing physical restraints without proper assessment and orders by the physician. "The information level of nurses related to physical restraint was found to be lower, and nurses were also detected to be deprived of satisfactory information about its

complications” (Balci & Arslan, 2018, pg. 75). To improve this misuse and misinformation on physical restraints, Balci and Arslan (2018) proposed many alternatives including raising two bed rails, lowering the bed, bed alarms, positioning patients closer to the nurse’s station, frequent rounding, involving the family in the current treatment plan, and regular in-service training for nurses and the healthcare team.

The Convention on the Rights of Persons with Disabilities is an international human rights treaty that was adopted in December of 2006 (Neto 2020). The purpose of this convention is to promote, protect, and ensure full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities. This convention requires all patients to be treated equally despite any medical disabilities they may have. Patients who have delirium, dementia, and neurocognitive disorders should be protected and treated with high-quality care respecting their dignity and promoting their independence (Neto 2020).

Chou et al. (2020) emphasize in their study the significance of physical restraint alternatives to promote patient independence. They found patients placed in physical restraints may develop lengthier hospital stays, higher readmission rates, institutionalization, and greater risk for death (Chou et al., 2020). Effective preventative strategies should be used to reduce physical restraint use.

In a study conducted by Bauer and Weust (2017), they observed and researched doctors' and nurses' knowledge of physical restraints and their documentation requirements. Bauer and Weust (2017) found that many nurses have little, to no knowledge of evidence-based practice research regarding physical restraints and often feel pressured to apply physical restraints by patient family members and other health

care team members. Bauer and Weust (2017) discuss that even doctors do not feel adequately trained on physical restraints and express sadness, guilt, and fear when involved in the situation. The American Nurses Association (ANA), (2012) recommends the nursing practice focus on active reduction of restraint and seclusion. The American Psychiatric Nurses Association (APNA), (2014) state in some cases physical restraints may be appropriate when the implementation of professional standards and quality care is used. The APNA encourages “evidence-based practice based on research related to prevention and management of behavioral emergencies” (APNA, 2014, p. 353). The APNA (2014) discusses all other options must have been exhausted and considered prior to placement of physical restraints. Bauer and Weust (2017) used evidence-based practice research along with guidelines from the ANA (2012) and the APNA (2014) to point out necessities needed in documentation once physical restraints have been placed.

### **Strengths of the Literature**

The use of restraints presents a high risk for patient safety and overall well-being. The literature is strong in addressing these issues. The literature contained an abundance of research and information that promotes the reduction and cessation of restraint use. This evidence-based practice may be used to provide improved outcomes for patients.



## **CHAPTER III**

### **Needs Assessment**

#### **Target Population**

The target population for this project is a group of registered nurses at a trauma level one teaching hospital. These registered nurses care for medical, surgical, progressive care units, critical care, and emergency patients. These nurses provide bedside care on the hospital unit floors and have up to six patients each on any given shift.

#### **Target Setting**

The target setting for this project is a trauma level one teaching hospital with medical-surgical, critical care step down, critical care, and emergency floors. This hospital provides acute patient care in all areas. The project setting is the third-largest trauma center in its state with over 800 patient beds in a 12-story building.

#### **Stakeholders**

One stakeholder in this project is the hospital itself. Reducing the number of applied physical restraints allows hospitals to acquire more money. These grants and awards come from organizations that recognize reducing harm and promoting alternatives to physical restraints. Hospitals will also benefit financially by reducing readmission rates by reducing physical restraint use. Medicaid and Medicare most often will not pay for a readmission hospital stay within a certain time frame from the original discharge date. Another major stakeholder in this project is the patients the hospital is serving. Patients are receiving higher quality care with a reduction of physical restraints. Nurses are also benefiting from this project. They are going to receive much-needed education regarding

physical restraints and alternatives which will reduce the number of applied physical restraints.

### SWOT Analysis

A Strength, Weakness, Opportunity, and Threat (SWOT) analysis is a strategic technique to identify the strengths, weaknesses, opportunities, and threats related to this quality improvement project. Table 1 reflects a SWOT Analysis for this project.

**Table 1**

*SWOT Analysis*

SWOT Analysis	
<b>Strengths:</b> <ul style="list-style-type: none"> <li>• Increased healthcare staff knowledge regarding physical restraints.</li> <li>• Reduced readmission and length of stay rates.</li> </ul>	<b>Opportunities:</b> <ul style="list-style-type: none"> <li>• Hospital awards for reduced physical restraint use.</li> <li>• Higher patient satisfaction ratings.</li> </ul>
<b>Weaknesses:</b> <ul style="list-style-type: none"> <li>• Willingness of nurses and physicians.</li> <li>• Situations that escalate past being able to use alternatives to physical restraints.</li> </ul>	<b>Threats:</b> <ul style="list-style-type: none"> <li>• Amount of time available for implementing new education.</li> <li>• Timeliness of reduced physical restraint use.</li> </ul>

### Resources

The available resources for this project will include several members of the healthcare staff, the hospital itself, designed documentation, and education materials. Physicians and nurses will need to be involved in the production of this project. Nursing educators will conduct in-services and teaching regarding the project. The hospital will provide the room and space for such teachings to be performed. Using the documentation

collected and provided by the facility, the project will be able to track success. Education materials for the project include an information poster and a PowerPoint that will be presented in an education course through the facility's online in-services.

### **Desired Outcomes**

The desired and expected outcome of this project is to reduce the number of applied restraints on elderly patients who are admitted into the acute care setting. The aim of this project is to improve and increase nurses' knowledge regarding physical restraints, alternatives, and diagnoses of the elder population.

### **Team Members**

For this project, there are three team members. The first team member is the project leader. The project leader is responsible for gathering evidence-based practice that will be used in the development and design of this project. The project leader will develop project materials and design the class and flow of the project presentation. The second team member is the project chair. This member supports and helps coordinate the proposed project. The project chair oversees and guides the project leader with the development of the project. The third and last team member is the project practice partner. This member will be the nursing educator who assists in access to the presentation setting. The project practice partner will provide feedback, guidance, and assistance at the project site.

### **Cost-Benefit Analysis**

There are several cost-effective and beneficial results when reducing the use of physical restraints. Benefits may include receiving awards and grants by becoming physically restraint-free or reduced physical restraint use. Patients will receive high-

quality nursing care and produce higher satisfaction rates. Overall patient outcomes may be improved. Nurses and physicians can benefit from reduced physical restraint use by lowering and eliminating the detailed charting that is required once physical restraints are applied. Health care team members will also benefit from improved education regarding physical restraints. Reducing the number of physical restraints being applied will lessen the cost incurred due to untoward issues related to the use of physical restraints.

## **CHAPTER IV**

### **Project Design**

#### **Goals and Objectives**

The goals of this project are to reduce the amount of misuse and application of physical restraints in the acute care setting and to improve patient care by providing alternatives to physical restraints that promote independence and successful discharge. One objective of the project is to reduce the misuse and application of physical restraints on patients in the acute care setting by 20% in 6 months after training and education have been implemented among health care team members. Another objective of the project is to improve patient satisfaction during hospital stay by implementing and conducting alternatives to physical restraints which will be monitored for 6 months after training and education have been provided to health care staff.

#### **Plan and Material Development**

To accomplish the goal of this project, an informative power point and poster will be developed outlining project information, objectives, interventions, and processes to achieve the overall goal. The PowerPoint will discuss the alternative measures to physical restraints and the assessment process that will be used to track data. The project will be presented to a group of acute care registered nurses who are working directly with patients. After education has been provided, feedback will be collected regarding the project proposal and data will begin being collected at the hospital. Data will be collected for 6 months post-project proposal and initiation.

## Timeline

The development of this project proposal followed five phases. Identification of the problem was completed during phase one. After the problem was identified a search of the literature was conducted to identify evidence-based practices that may be used to address and improve outcomes related to the problem. Phase three consisted of establishing the population and setting for the project proposal as well as identifying resources, costs, and benefits of the project. During phase four materials were developed that will be included in the project proposal. During phase five the project proposal will be disseminated through a presentation at the project site in order to gain feedback that will be used to improve or adjust the project proposal. Table 2 is a timeline of the project proposal.

**Table 2**

*Project Proposal Timeline for Restraint Reduction of the Elderly in the Acute Care*

*Setting*

Project Phases	
Phase One	Identify the problem
Phase Two	Investigate the problem in evidence-based practice and literature.
Phase Three	Conduct a needs assessment regarding population, project setting, resources, and cost/benefits.
Phase Four	Develop materials to implement project proposal.
Phase Five	Present project proposal and gather feedback from project proposal participants.

### **Evaluation Plan**

After presenting the project and providing education, the project's success will need to be evaluated. The first evaluation process will begin with the participants involved in the education. This will include the nursing staff who are going to receive education regarding reduction in restraint use. After providing education, a survey will be used to ask the staff several questions to gather feedback data. After implementing the project education, the next step will be analyzing and collecting data from the project setting regarding the application of physical restraints. This data collection will involve comparing restraint use data from 6 months before education has been implemented to 6 months after completion of the education.

## **CHAPTER V**

### **Dissemination**

#### **Dissemination Activity**

The proposal of this project was presented via zoom to a group of acute care registered nurses working in a trauma level one hospital. The project was presented in an informative PowerPoint. The PowerPoint provides evidence-based practice information regarding physical restraints and the negative effects elderly patients in hospitals undergo once physical restraints are placed. The project presentation includes the project goal, objectives, alternative measures to physical restraints, and assessment processes that will be used to track the success of the project. After the project proposal was presented, feedback was provided by the registered nurses who attended the zoom session. This feedback was used to make recommendations and adjustments to the project.

#### **Recommendations**

To further the study of physical restraints in the acute care setting, evidence-based practice research should continue to be performed regarding education and the use of physical restraints. Health care staff should routinely have in-services with current, up-to-date, information about physical restraints and the processes needing to be performed before and after the application of physical restraints. Registered nurses should be evaluated for their confidence and experience with physical restraints. Physician and nursing assessments should be accurately and precisely performed on patients that have exhausted alternative measures and are requiring safe placement of physical restraints. Patient data should be collected following education and in-services to assess the hopeful success trend of reduced physical restraint placement.



After presenting the project proposal via zoom with registered nurses working in the acute care setting, feedback was provided. The nurses discussed their past experiences with physical restraints and explained how the project proposal will accurately describe the improvement needed for education regarding physical restraints. The nurses highlighted the idea for in-services to be performed throughout the year so health care team members can stay skilled and knowledgeable about physical restraints and alternative measures.

### **Implication for Nursing**

The significance of this project directly relates to the future of care for patients admitted into the hospital. This project identifies the need for further education to health care staff regarding physical restraints. The goal of this project is to present the major issue of misuse of physical restraints being used on elderly patients admitted into the hospital that suffer negative outcomes because of being restrained. In the future, further research and development should be designed concerning physical restraints and the effect they have on patients. Also, an emphasis on the use of alternative measures instead of restraints may reduce the use of restraints and lead to improved patient outcomes.

### **Conclusion**

Physical restraints in the health care setting are increasingly becoming an ethical and moral issue. Registered nurses who work directly with patients may lack essential education regarding alternative measures to physical restraints, the application of physical restraints, and the importance of reducing physical restraints. Elderly patients admitted into the hospital may suffer from negative outcomes due to physical restraints being placed. These patients may become more ill, develop lengthier hospital stays, lose

their independence, experience higher readmission rates, and sometimes, even die. The aim of this project is to provide essential education about physical restraints to registered nursing staff working directly with these elderly patients. The goal of this project is to reduce the use of physical restraints, improve and increase the use of alternative measures to physical restraints, and achieve the highest quality of life for patients during and after their hospital stay.

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