

## **45th Biennial Convention (16-20 November 2019)**

### **Implementation of STEADI Toolkit of CDC for Preventing Falls Among Community Dwelling Older Adults**

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The study was focused on implementing an evidence-based fall prevention strategy for home healthcare clients receiving care from the healthcare workers of a home health agency in the Dallas–Fort Worth metroplex. The quantitative study design was planned to implement the evidence-based change project as part of the practicum requirement of the DNP program. After identifying the current practice of fall prevention strategy through detailed charts and extensive literature review, the Stopping Elderly Accidents, Death, and Injuries (STEADI) initiative of the Centers for Disease Control and Prevention (CDC) was identified for implementation. The STEADI toolkit consists of multiple fall prevention assessment tools that are proven for reliability and validity. The STEADI guideline toolkit includes STEADI fall risk screening algorithm; Stay independent checklist; Timed Up and Go (TUG) test; 30-second chair stand test; four-stage balance test; and Chair rise exercise guideline. The TUG test assesses for patient's mobility. The 30-second chair stand test assesses the patients muscle strength and endurance. The four-stage balance test evaluates the static balance of an individual. Appropriate guidance, supervision, and support were given to the staff by the project leader throughout the implementation period to ensure accuracy and sustainability. The staff assessed the patients using all the STEADI tools during weekly home visits. The staff also implemented appropriate interventions as per the STEADI algorithm. A statistical analysis of the chart review results was conducted after implementation using Wilcoxon signed rank test, Mann-Whiney U test, and McNemar test of Symmetry for appropriate variables. The results did not demonstrate a statistical significance in the reduction of the number of fall and fall-related injuries due to the small sample size ( $P=0.070$ ). There was a statistically significant improvement in the mobility, muscle strength, and static balance of patients, evidenced by the analysis of the results of the STEADI toolkit ( $P<0.001$ ). The literature review concludes that the enhancement of the mobility, balance, and muscle strength will reduce the risk of fall. The project was concluded with evidence of the successful reduction of fall risk. The project site decided to incorporate the implementation as a practice guideline.

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**Title:**

Implementation of STEADI Toolkit of CDC for Preventing Falls Among Community Dwelling Older Adults

**Keywords:**

Community dwelling older adults, Fall prevention and STEADI toolkit

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### **Abstract Summary:**

Implementation of the Stopping Elderly Accidents, Death and Injury guidelines of Center for Disease Control to prevent falls and falls related injuries among community dwelling adults under the care of home health services.

## **Content Outline:**

Community-Based Fall Prevention: Implementation of Stopping Elderly Accidents, Death, and Injury (STEADI) guideline of CDC

The STEADI guideline consists of STEADI algorithm, implementation guidelines, and multiple tools that are tested for validity and reliability (CDC, 2015). The STEADI tools includes the following: STEADI fall risk assessment algorithm; Multi-factorial fall risk assessment questioner (FRQ) (12 questions assess risk for fall); timed up and go test (TUG) to assess the mobility; 30-second chair stand test to assess the endurance and muscle strength; Four-stage balance test to assess the static balance; and chair raise exercise (An exercise to improve muscle strength). Each tool assesses the risk of fall. Implementation of all tools will take less than five minutes. Implementing the STEADI guideline during each home visit will reduce the risk of fall by increasing mobility.

### **Purpose**

The purpose of the practicum project was to reduce the number of fall and fall-related injury among the community-dwelling adults receiving services through the selected practicum site. The goal was to implement an evidence-based fall prevention strategy that is feasible for the selected practicum site. The project also aimed to enhance the fall prevention related knowledge base of the healthcare workers of the selected practicum site.

### **PICOT Question**

“Among the healthcare workers of the home health agency in the Dallas–Fort Worth metroplex (P), does the implementation of the fall prevention interventions of STEADI toolkit (I) reduce the number of falls and falls with injuries (O) over eight to ten weeks (T)?”

### **Project Description**

The nurses of the selected practicum site assessed the patients using the STEADI toolkit during each visit. Staff also taught and encouraged the patients to perform chair rise exercise daily. The staff received education, guideline and continuous support from the project leader throughout the project. The staff documented the findings on electronic health record from week one to ten. The project leader conducted a chart review to ensure consistency and accuracy of the project implementation.

### **Project Evaluation**

The project leader collected the pre-implementation data of some fall and fall risk status of each patient and compared with the post-implementation fall and fall risk data. The results of the TUG score, 30-second chair- stand test, and four stage balance were also compared from week to week 10. The results of these variables demonstrated a statistically significant reduction in the risk of fall. However, a comparison of pre and post intervention did not demonstrate statistical significance in the reduction of some falls.

### **Implications to Nursing and Healthcare**

The implementation of STEADI guidelines for fall prevention allows the active involvement of patients. The active involvement improves the mobility of the patients. Improvement in mobility reduces the risk of fall. Any level of reduction of fall will lead to a reduction of healthcare cost and improvement of the quality of life.

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**Author Summary:** Dr. Varughese has been a nurse for 23 years. Currently working as an adjunct faculty at Mountain view community college, Dallas, TX. She Worked in multiple clinical areas as a nurse, nurse supervisor, clinical coordinator, nurse educator, and Assistant Dean of Nursing. Jiji varughese completed her doctoral degree from chamberlain college of Nursing in December 2018. prof. Varughese was a very instrumental team member in establishing a school of nursing in a tribal village of India.