One in every four older adult fall annually (CDC 2015). Fall-related injuries cost > $30,000,000/year (Lee, 2017). Falls cause considerable burden & rapid decline in quality of life (Lukaszyk et al., 2016).

Project site serves Community dwelling adults of DFW metroplex with mean age 74.6. 53.9% of patients have history of fall; 39.3% have polypharmacy; 95.38% are at fall risk as per MFRA.

"Among the healthcare workers of a home health agency in Dallas Fort Worth metroplex (P) does the implementation of the fall prevention interventions of Stopping Elderly Accidents, Death & Injuries (STEADI) toolkit, (I) reduce the number of falls and falls with injury for the home care clients (O) over eight to 10 weeks (T)?"

Design : Quantitative study design
- Pre and post data collection of 10 weeks
- Electronic health record (EHR) chart auditing
- FRQ (Week 1), TUG score (Week 1-10)
- 30-second chair stand (Week 1-10)
- 4-stage balance test (Week 1-10)
- Chair rise exercise (Week 1-10)

Data Summary of all variables
Patients age, FRQ score, TUG score, 30-second chair stand, 4-stage balance test & chair-rise exercise

Frequency distribution of:
- Gender, fall history, & pre and post fall rate
- Wilcoxon signed rank test (to compare week 1 & week 10)
- Mann-Whitney U test (gender variation of variables)
- McNemar test of symmetry (to analyze yes/no response)

The frequency of TUG score from week 1 to week 10 (Chart 1) demonstrate improvement in mobility through reduction in number of seconds to perform the task.

Chart 2 shows increase in the number of stages completed by patients by week 10 that indicates improvement in static balance.

Chart 3 shows an increase in the number of 30 second chair stands performance by week 10 which indicates improvement of muscle strength.

The results demonstrated a statistically significant improvement in the balance, mobility, and muscle strength which indicates a reduction of fall risk. The reduction in number of fall was close to show a statistical significance. A larger sample would have demonstrated a statistically significant reduction in the number of fall. STEADI toolkit implementation demonstrated improvement in the quality of life by reducing the fall risk.

References


