Implementing a Fall Prevention Protocol in Memory Care

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BACKGROUND

- An increased number of falls within the memory care settings has led to short-term rehab stays, long-term care transitions, and sometimes death.
- According to the U.S. Centers for Disease Control and Prevention (CDC), and other fall research, falls are among the highest causes of death and injury among older adults (Centers for Disease Control and Prevention, 2020).

- **The purpose of this capstone project is to identify a generalizable fall prevention program for memory care facilities to reduce the number of injuries post falls, educating staff and advocating for the need for continuous training, and quality intervention while improving the quality of life for residents.**

Evidence-Based Question

Does the implementation of a fall prevention program reduce the number of falls and injury in patients who reside in memory care?

SIGNIFICANCE

The distinct value of Occupational Therapy in relation to the proposed project highlights multifactorial interventions to reduce falls, structured occupational therapy assessments, and the implementation of programs that reduce the costly incidence of falls through targeted OT programs.

LITERATURE REVIEW

Exposure to working as an occupational therapist in the memory care setting has allowed therapists to witness numerous patient falls that have led to injury and sometimes even death. An increased number of falls within the memory care settings has led to short-term rehab stays, long-term care transitions, and sometimes death. According to the U.S. Centers for Disease Control and Prevention (CDC), and other fall research, falls are among the highest causes of death and injury among older adults (Centers for Disease Control and Prevention, 2020). With age as a risk factor, a decline in cognitive status also threatens an increased risk of falls (Centers for Disease Control, 2020). Throughout the literature, four common themes were identified as listed below :

- Exercise interventions
- Benefit of education among patients and staff
- Need for pre-screen assessments
- The benefit of cognitive-focused therapies

- Research has proven that exercise interventions that target balance, gait, and muscle strength effectively prevent falls in older adults (Sherington et al., 2020). However, clinical staff should consider economic conditions and the elderly's willingness when choosing exercise methods for intervention (Mingyu et al., 2021). Education among patients and staff, pre-screen assessments, and cognitive-focused therapies are also crucial in reducing fall risks. Guidelines recommend annual screening to identify patients at risk of falling, and comprehensive risk assessment and management of modifiable fall risk factors for high-risk patients (Phelan et al., 2015). Cognitive therapies can help manage or reduce the fear of falling among patients with dementia, leading to reduced falls (Muir et al., 2013).

METHODS

Setting
- The Montessori-based Memory Care Facility in Summerville, South Carolina. The environment has been modified to support functional independence such as contrasting colors of doors and Montessori-styled activities.

Participants
- 12 memory care residents
- 10 total clinical and non-clinical staff including 8 nursing staff and 2 supplementary staff members

Instrument
- Semi-structured interview to reflect conversational exchange between clinical and non-clinical staff
- Interviews were conducted pre and post-educational training

Data collection
- Data from clinical and non-clinical staff was collected through a pre-post-test survey **Figure 1.1 below**

Pre/Post-Survey Nursing Questions

- Are you aware of fall risk factors in the memory care setting?
- How do you identify a patient who is a high fall risk in the memory care setting?
- Do you feel supported with fall interventions in the memory care setting?
- Do you know the fall prevention protocol in place for the memory care setting?
- Do you know how to properly document a fall?

Data collected from **figure 1.2** displays the number of falls for each resident, admittance to outside facility, and timeframe of initiation of therapy services

Current Resident's Name	Number of falls	Was patient admitted to outside facility?	Timeframe of initiation of therapy services after 1st fall
Resident #1	5	yes	No therapy inititated
Resident #2	10	yes	Therapy initiated at 6th fal
Resident #3	8	yes	No therapy initiated
Resident #4	3	yes	Therapy initiated after 2nd fall
Resident #5	1	yes	No therapy initiated
Resident #6	0	no	No therapy initiated
Resident #7	7	yes	Therapy initiated after 5th fall
Resident #8	5	yes	No therapy initiated
Resident #9	4	yes	No therapy initiated
Resident #10	2	yes	No therapy initiated
Resident #11	0	no	No therapy initiated
Resident #12	3	yes	No therapy initiated

RESULTS

- On average, 50% of residents (r=.50) had less than two falls within 30 days after implementing the new fall prevention protocol. Figure 1.4
- Results from the pre-test/post-test survey showed an increased understanding of fall prevention after clinical and non-clinical staff received education on the topic. Figure 1.3
- Lack of support, education, and appropriate resources were the three most important themes identified through structured interviews with staff.
- 50% of residents had an increase in falls greater than five within 30 days. Figure 1.4
- In summary, the study highlights interesting differences between residents and the number of falls within 30 days after implementing the fall prevention program

RESULTS

Figure 1.3

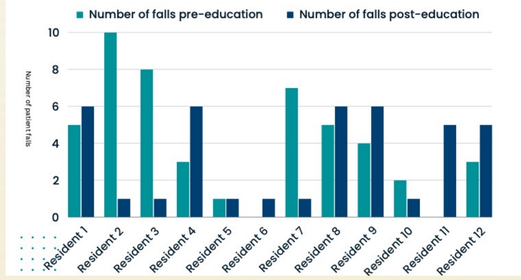

Figure 1.4

Limitations

Limitations for this project include:
- Small sample size
- Time Constraints
- High employee turn-over rate

SUMMARY

In conclusion, this study aimed to investigate the relationship between the implementation of a structured, fall prevention program and falls within the memory care setting. Findings suggest a significant association between fall prevention and the number of falls among residents. Continued research is needed to continue to assess the benefits of a fall prevention program along with the correlation between clinical education and carry-over.

REFERENCES

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Facts About Falls. Found on the internet at https://www.cdc.gov/falls/facts.html 2020
Muir SW, Beauchet O, Montero-Odasso M, Annweiler C, Fantino B, Speechley M. Association of executive function impairment, history of falls and physical performance in older adults: a cross-sectional population-based study in eastern France. J Nutr Health Aging. 2013;17:661–665. doi: 10.1007/s12603-013-0045-4.
Phelan, E. A., Mahoney, J. E., Voit, J. C., & Stevens, J. A. (2015). Assessment and management of fall risk in primary care settings. The Medical clinics of North America, 99(2), 281–293. https://doi.org/10.1016/j.mcna.2014.11.004
Sherrington C., Fairhall N., Wallbank G., Tiedemann A., Michaleff Z.A., Howard K., Clemson L., Hopewell S., Lamb S. Exercise for preventing falls in older people living in the community: An abridged Cochrane systematic Review. Br. J. Sports Med. 2020;54:885–891. doi: 10.1136/bjsports-2019-101512.