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A Multi-Prong Fall Awareness Program to Reduce the Occurrence of Falls in a Skilled Nursing Unit

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Clinical Leadership Theme

Every second of every day in the United States an older adult falls. There are 10,000 people turning 65 every day in the United States (CDC, 2016). There is a need to produce more nurses, including nurses who are prepared for clinical leadership in all health care settings. The Clinical Nurse Leader (CNL) is a master's prepared nurse who has been trained to have the skills and knowledge to take on the challenge. One of the many roles that a CNL may take on is that of the clinician. The clinician provides coordination of care to individuals in a microsystem and manages patient outcomes through collaboration and evidence-based practice. The CNL understands the complexity of care delivery and that the pace of change and innovations make it difficult for nurses to stay current (AACN, 2007).

Falls are the number one cause of injuries and deaths from injuries in elderly adults in the United States. In 2014, older adults experienced 29 million falls causing seven million injuries and costing an estimated $31 billion in annual Medicare costs (CDC, 2016). Reducing falls for the elderly has become a major focus for the Center for Medicare & Medicaid Services (CMS). It has been added to the quality measures used to rate skilled nursing units in the United States. According to CMS, 75% of nursing facility residents fall at least once a year. This is twice the rate of their counterparts in the community (CMS, 2016). Patient safety is a priority for any healthcare facility and the elderly population of a skilled nursing unit is especially at risk. One way that the CNL is positioned to take on the task of ensuring patient safety is by working with an interdisciplinary team to perform a thorough assessment using advanced communication skills, information technology and evidence-based practices, to develop a fall awareness program.

Statement of the problem

Healdsburg Senior Living's skilled nursing unit has a population of older adults with an average age of 90 years old. The mobility of residents varies from completely dependent on staff assistance to the ability to ambulate independently without a walker. During the months of July, August, and September there have been a total 30 patient falls. The average fall rate for those three months was 10.3 in every 1000 patient days. That rate is considered high in a small unit with an average daily census of 32 patients and is a cause for concern. There is an increased risk of injury that could result in a fracture or a head wound causing a significant decline in function, cognition, and mobility. A patient injury would increase the cost of care from diagnostic testing, hospitalization, increased length of stay, nursing care, and staff assistance in addition to the cost of fines.

The project goal is to reduce the fall rate of patients by providing a comprehensive fall awareness program to all clinical staff members.

Project overview

A comprehensive fall awareness program was implemented to educate direct care staff on the risk factors that lead to patient falls and some strategies to prevent falls. The objective of the fall awareness project is to reduce the fall rate on the skilled unit. There were several prongs to the fall awareness program. The primary intervention is an education program for clinical staff. Another part of the program includes assigning a colored marker outside each resident's room based on their fall assessment score upon admission. Certified nursing aides (CNAs) were involved in an interactive discussion that encouraged their input. Licensed nurses were given a power point presentation that elicited a discussion of risks and strategies for fall prevention. All of the staff was educated on the colored markers during the first training session. The colored

markers were used to help focus the direct care staff on the residents who are at highest risk for falls.

It is estimated that 10% to 25% of nursing facility falls result in fractures and/or hospitalization (CMS, 2015). Falls threaten the independence and safety of the elderly in the United States and generate enormous economic and personal costs that affect everyone (CDC, 2016). The goal of this project is that the skilled nursing unit fall rate of patients will be reduced by 20% by the end of November. The safety of elderly adults relies on the staff's skills, knowledge, and a culture of safety. Staff understand the risk factors that contribute to falls and have simple strategies reinforced that prevent patient falls. The knowledge and confidence of clinical staff was measured by identical surveys given before and after the fall awareness program, demonstrating they gained knowledge and confidence in their ability to prevent falls. The reduction of fall rates in the older population will ensure that residents maintain their current level of function and mobility. Many rehabilitation patients will be returning to the community which will require them to attain their highest level of strength and balance to prevent future falls. The prevention of falls will also save lives, prevent costly hospitalizations, and reduce morbidity and mortality (Naqvi et al, 2009).

Rationale

The Center for Medicare & Medicaid Services (CMS) uses quality measures to address the incidence of falls in skilled nursing facilities, long term care facilities, and inpatient acute rehabilitation facilities (CMS, 2016). Fall prevention is one of the 10 leading health indicators in the Healthy People 2020 initiative (Healthy People, 2010) and represents a significant cost burden to the entire health care system. There were 25 falls prior to the enactment of the fall awareness program (Appendix A) at this skilled nursing home. There have been no serious

injuries this year, however, research indicates that fall-related injuries are the most common

cause of accidental death in older people, responsible for approximately 41% of accidental

deaths annually. Rates increase to 70% of accidental deaths among individuals aged 75 and older

(CMS, 2016). The average age of the skilled nursing unit population is 90 years old, meaning

that the facility population experiences a higher risk for serious injury or death from a fall. The

estimated cost to monitor a patient for 24 hours after a fall is $319.00 per incident. The facility

had 24 patient falls in the previous 3 months that cost the facility an estimated $7,656.00. This

estimated cost is for additional monitoring of patients after a fall. These figures do not include

the cost of injuries/hospitalization, and increased length of stay for the patient or a survey

citation and fine from the department of health (Appendix B). The facility's current fall

prevention program has not been successful in reducing the fall rate. A more comprehensive fall

awareness campaign was implemented using evidence-based practices to help engage the direct

care staff on fall prevention (Appendix C). The education incorporated facility specific data and

the risk factors that contribute to patient falls. Interactive strategies on how to prevent patients

from falling was included.

Methodology

Lippitt's change theory is similar to the nursing process. It is a scientific method used to

ensure quality patient care. The five steps of the nursing process are assessment, diagnosing,

planning, implementation, and evaluation. Lippitt's change theory adds two more phases that

include assessing the capacity for change and choosing change agents. During the assessment

phase, a thorough investigation of the problem is done. Data is gathered using observation,

medical records and interviews. The information and data gathered is evaluated and a specific

problem is identified. Once the problem is diagnosed, then an objective is set with a specific

goal.

The problem identified in the skilled nursing unit was the high fall rate of patients. A goal

has been set to educate the clinical staff on fall prevention and reduce the fall rate by 20%. The

implementation of this plan required a fall management team that consisted of the Director of

Nursing (DON), the student CNL, the Minimum Data Set (MDS) coordinator, the Social

Services Director, the Director of Physical Therapy, and the Restorative Nursing aide (RNA).

The team met weekly to exchange information and monitor the progress of the plan. The plan for

reducing the fall rates had several prongs. A survey was developed for the clinical staff to

determine their knowledge and attitudes of the current fall prevention program.

The first part of the fall awareness program involved a pre-survey before educating the

direct care staff. After the pre-survey, the educational piece consisted of an interactive

component using giant Post-it notes for the CNAs. The education involved asking the clinical

staff to contribute ideas about risk factors that lead to falls based on their knowledge of the

residents. They were then asked to provide solutions on how to prevent patient falls. The staff

contributions were written on giant Post-it notes and hung on the wall for review. The CNL

student identified any risk factors or strategies not identified by staff were filled in by the clinical

nurse leader student. The licensed nurses were given a Power Point presentation and asked to

discuss the various risk factors and strategies used to prevent patient falls. The pre- and post-

surveys provided a way to evaluate the understanding of the information shared with the staff.

The second prong of the plan was to rate the patients according to their fall risk scores

and assign them a colored dot. This was taken from the "Catch a Falling Star Program" initiated

in 1997 (Ungar, 2001). The highest risk patients were assigned a red dot on the outside of their

room. The residents with a moderate risk have yellow dots and the residents with a low risk were assigned a green dot. This gives the staff visual cues of who are the high risk patients for a fall, or who have already had one or more falls. The original falling star program was successful because of the continued staff education and the visual cues used to identify the patients at high-risk of falling. The program served to alert clinical staff to observe residents closely and intervene if the resident displayed any unsafe behaviors, for example, getting up from his/her wheelchair without assistance.

At the end of the fall awareness campaign, the fall management team analyzed the data and determined if the goal of increasing the knowledge and confidence of the staff on the prevention of falls has been met. The fall rate was monitored with the expected decrease of 20%.

Data Source/Literature Review

The articles included in this literature review describe how to reduce the fall rate in the elderly population of a skilled nursing unit by using a team approach and vetted patient assessment tools. A search of CINHAL, PUBMED, the Center for Disease Control (CDC), National Institute for Health (NIH), and Agency for Healthcare Research and Quality (AHRQ) database was conducted using the PICO search strategy of elder population, falls, and skilled nursing or long-term care. There were over 200,000 articles with dates that range from 2001 to 2016 found. Only Journal articles that were in English and from the United States were used that included criteria for elderly patient falls in a long-term care or skilled nursing facility. Thirteen articles were used that fit the criteria.

The CDC provided statistics for fall rates on the elderly population and educational materials with a program called STEADI, Stopping Elderly Accidents, Deaths & Injuries (CDC, 2016). The information provided identified patients at high, medium, and low risk for falls and

offers effective interventions. Boushon, et al (2012), Ferris, M. (2008), Gray-Micelli, D. &

Quigley, P. (2012), A., Naqvi, F. & Field, S. D. (2009), and Taylor, Parmelee, Brown, &

Ouslander (2005) provided guidelines and programs designed to reduce fall rates of the elderly in

healthcare facilities. The fall prevention programs included a team approach and the use of

assessments to determine which patients were at the highest risk for falling. Individual risk

factors were identified for each patient and care plans were developed with interventions. The

success of the programs depended on the knowledge and skill of the staff providing the care. The

nurses' ability to do an accurate and complete assessment and the other care provider's ability to

provide patient specific care ensured the success of the program. Staff communication and

customized patient interventions are essential to reduce the fall rate in a facility according to

Boushon, et al (2012) at the Institute for Healthcare Improvement. Once a patient has fallen, a

good post-fall assessment tool will help to determine the cause and will lead to patient specific

interventions (Ferris, 2008).

The literature supports the need for a fall prevention program that involves the

management team and direct care staff. The success of the program requires a multi-prong

approach using an admission fall assessment score and interventions that are carried out by

knowledgeable and engaged care staff. A fall prevention program that was implemented in 2000

had a focus on literature reviews, internal falls data analysis and reporting, and sentinel event

analysis. The program was revisited in 2003 that included a new fall risk screening tool (Sulla &

McMyler (2007). The clinical nurse leader can analyze the data and design a program that

educates staff while working with other team members to facilitate communication and

collaboration to ensure patient safety. An aspect of the licensed nurses' training was re-educating

them on the post fall assessment tool. An audit of the post-fall assessment tools previously

completed by nurses found that they were incomplete. The lack of completed information on the

patient falls made it difficult to do an adequate root cause analysis (RCA). An accurate root

cause analysis can provide information that would allow the clinical nurse leader to determine

the cause of the fall and provide a patient specific intervention that will be care planned.

Timeline

The initial part of this project began with a survey of the staff to determine their

knowledge and attitudes on falls and awareness of risks and the role they play in fall prevention.

This survey was administered before the actual training of the direct care staff. After the pre-

survey, an interactive educational program was given to staff that described the statistics of

facility fall rates, the risk factors that contribute to falls, strategies for preventing falls were

discussed. The training took approximately one week to complete in order to reach all the staff

members working different shifts. Part of the training for nurses included how to complete a

post-fall assessment tool and how the tool will be used to provide information for a root cause

analysis after a patient falls. After the educational program a colored dot was assigned to each

resident based upon his or her admission fall assessment score. The dots were placed outside the

patient rooms to inform the staff of their risk for falls. This was completed the first day of the

week on Monday, October 16th, 2017 The portion of the project concluded with a post-survey to

determine if the education and awareness campaign was successful in educating the staff by an

increase in level of agreement on a seven step Likert scale. A review of the data in mid-

November was done to see if there was a reduction in falls. See appendix D for timeline.

Expected Results

The expected results from the project were a more knowledgeable, confident and engaged

staff and a decline in the number of falls. The licensed nurses and certified nursing aides were

empowered and encouraged to communicate any changes in patient condition to the fall

committee and management staff by using Point Click Care, the facility's electronic health

records. Point Click Care is used to document all aspects of patient care, including changes in

condition and monitoring, the fall committee reviews any patient changes during the weekly

meeting. Nurses are required to act upon any alerts sent to their dashboard by the CNAs by

performing an assessment of the patient and documenting interventions taken, better staff

communication will directly affect patient care. Staff feeling knowledgeable and more confident

in their role to prevent patient falls with a subsequent decrease in facility fall rates will be an

expected outcome of the project.

Nursing Relevance

With the increase in the elderly population there will be an increase in the number of

patients in skilled nursing facilities and the potential for increased falls and injuries. This project

will help to put a spotlight on the growing problem of patient falls in this skilled nursing facility.

Patient safety is a nursing priority and part of the quality measures used by Center for Medicare

and Medicaid Services to rate skilled nursing facilities. Many of the patients come to the facility

because of a fall and are at high risk for another fall. Quality patient care involves preventing any

further harm during the rehabilitation process and ensuring the best possible patient outcomes.

Among the roles a CNL assumes are system analyst, team manager and outcomes manager. All

of these roles are critical in achieving the necessary support for the skilled nursing patient.

Summary

Falls are the number one cause of injuries and deaths from injuries in older Americans

(CDC, 2016). The clinical nurse leader takes on the role of clinician to provide coordinated care

to individuals in a microsystem and manages patient outcomes through collaboration and

evidence-based practice (AACN, 2007). The skilled nursing facilities' older adult population has

an average age of 90 years old. Increased age, decreased strength and mobility, plus residents'

comorbidities puts them at a higher risk for falls. It is estimated that 10% to 25% of nursing

facility patient falls result in fractures and/or hospitalization (CMS, 2015). Fall prevention is of

major concern for the Center for Medicare & Medicaid Services and the Healthy People 2020

initiative (Healthy People, 2010). In 2014, the estimated annual cost of falls for Medicare was

$31 billion (CDC, 2016).

The facility's current fall prevention program was not successful in reducing the fall rate.

In the previous months of August, September, and October of 2017, there were 25 falls or a fall

rate of 9.5 per 1000 patient days. The ideal fall rate would be 5 per 1000 patient days for the

skilled unit (Quigley, Neily, Watson, Wright, & Strobel, 2007). The fall committee set a goal of

reducing the fall rate by 20% by the end of November. This goal would be achieved by

implementing a comprehensive fall awareness program for the clinical staff. The educational

component for the staff was interactive requiring their input and participation based on their

knowledge of the patients. The discussions generated help to engage the staff in the fall

prevention program and elicit their ideas for prevention strategies. Another aspect was to assign

a colored dot marker to identify patients based on their admission fall assessment scores. The

colored dots would be a visual indicator on the outside of patient rooms for staff identifying

those most at risk for falling and therefore requiring more monitoring. Clinical staff knowledge

and communication systems were key to implement a culture of safety and ensure the best

patient outcomes.

With an increase in the elderly population there will be an increase in the number of

patients in skilled nursing facilities and the potential for increased falls and injuries. Many

patients come to the skilled nursing unit because of a fall and are recovering from a fracture. Quality patient care requires the clinical nurse leader ensures an accurate fall assessment upon admission and prevents any further harm during the rehabilitation process for the best possible patient outcomes. The CNL assumes the role of clinician, systems analyst, team manager, and outcomes manager to achieve the necessary fall prevention results.

The fall awareness program began with a pre-survey to determine clinical staff knowledge regarding the current fall prevention program. The educational piece was interactive with the staff and required their input and discussion on risk factors that contribute to falls. Any risk factors not mentioned by clinical staff was provided by the clinical nurse leader student using evidenced-based research. Staff were asked to provide some simple strategies to help prevent patient falls based upon their knowledge of the patients. The information was written on large Post-it notes and hung on the walls during training for review. The final component was a discussion about the colored dots on the outside of patient rooms to identify which patients were at the highest risk for falling. The post survey revealed an increased knowledge of risk factors from 60% that agree to 96% that strongly agree using the Likert scale to the statement "I can name three risk factors that contribute to patient falls." There was also an increase in awareness for strategies to prevent falls from 50% that agree to 96% that strongly agree. The last question on the survey stated "My participation in the fall prevention program makes a difference." The Likert scale increased from 55% that agree to 96% that strongly agree to that statement (Appendices D & E). Overall there was an increase in knowledge and confidence in the clinical staff on their ability to prevent falls in the skilled nursing unit. The patient fall-rate one month after the training decreased from 9.5 per 1000 patient days to 8.27 per 1000 patient days. This is a 13% decrease in the fall rate for November. Although the 20% decrease in patient falls was not

met, there was a measureable decrease in the fall rate. None of the patient falls during the fall

awareness campaign had injuries or required hospitalization.

      A significant barrier to any fall prevention program is lack of qualified staff. The skilled

nursing unit experienced a staffing challenge by having to use registry nurses and CNAs during

this last month due to the wild fires in Sonoma and Napa County. Another barrier was the fact

that most falls happen on the evening shift. The evening shift is typically less experienced staff

and fewer staff members to care for patients. As the training for evening shift continues and they

become more experienced, patient safety will be expected to increase. Staff education is an

ongoing process and will continue indefinitely. The clinical nurse leader is an educator and

continues to foster communication and collaboration with all team members. Nurses help to

ensure patient safety, which includes preventing falls and fall related injuries (Quigley, Neily,

Watson, Wright & Strobel, 2007). The CNL makes a major contribution to patient safety by

implementing a fall prevention program that includes fall risk upon admission and designing a

staff education and awareness program that leads to decreased number of falls and fall related

injuries.

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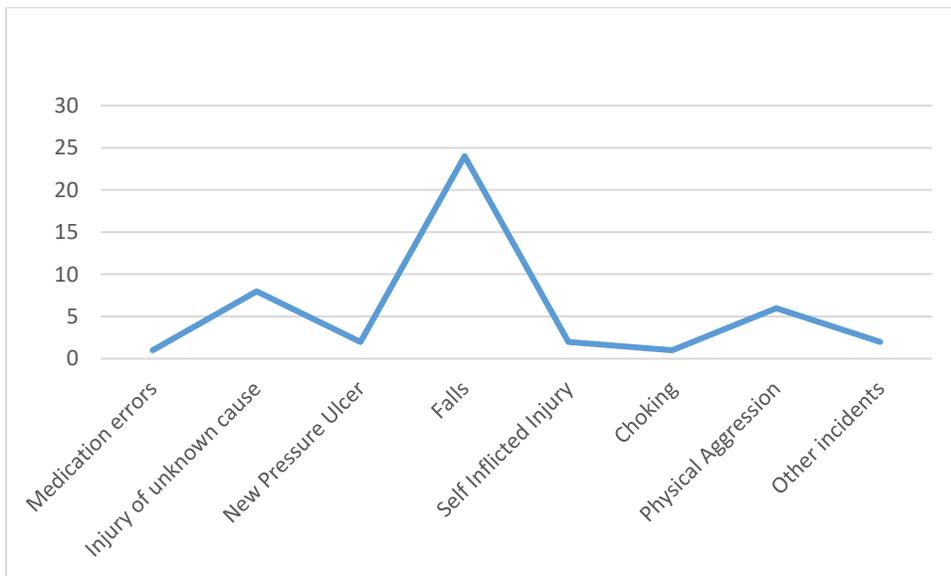
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Appendix A

Incident Trending Chart for the last 3 months

Medication errors	1
Injury of unknown cause	8
New Pressure Ulcer	2
Falls	24
Self-Inflicted Injury	2
Choking	1
Physical Aggression	6
Other incidents	2

Appendix B

Cost Analysis

Estimated cost of developing a Fall Awareness Campaign.

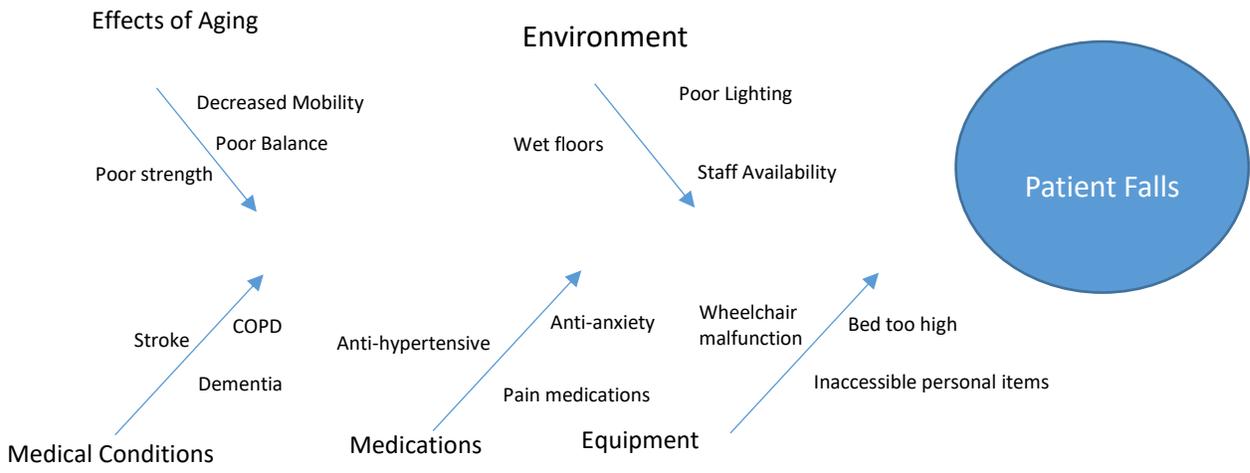|	
CNL time of 40 hours X $41.00/hour =	$1,640.00
1 hour of training for 20 Certified nursing aids X $17.50/hour =	$350.00
1 hour of training for 10 Licensed nurses X $40.00/hour =	$400.00
4 hours of Director of Nursing Time $44.00 =	$176.00
Total for class preparation and training of staff =	**$2,566.00**

Estimated cost of monitoring a patient for 24 hours after a fall.

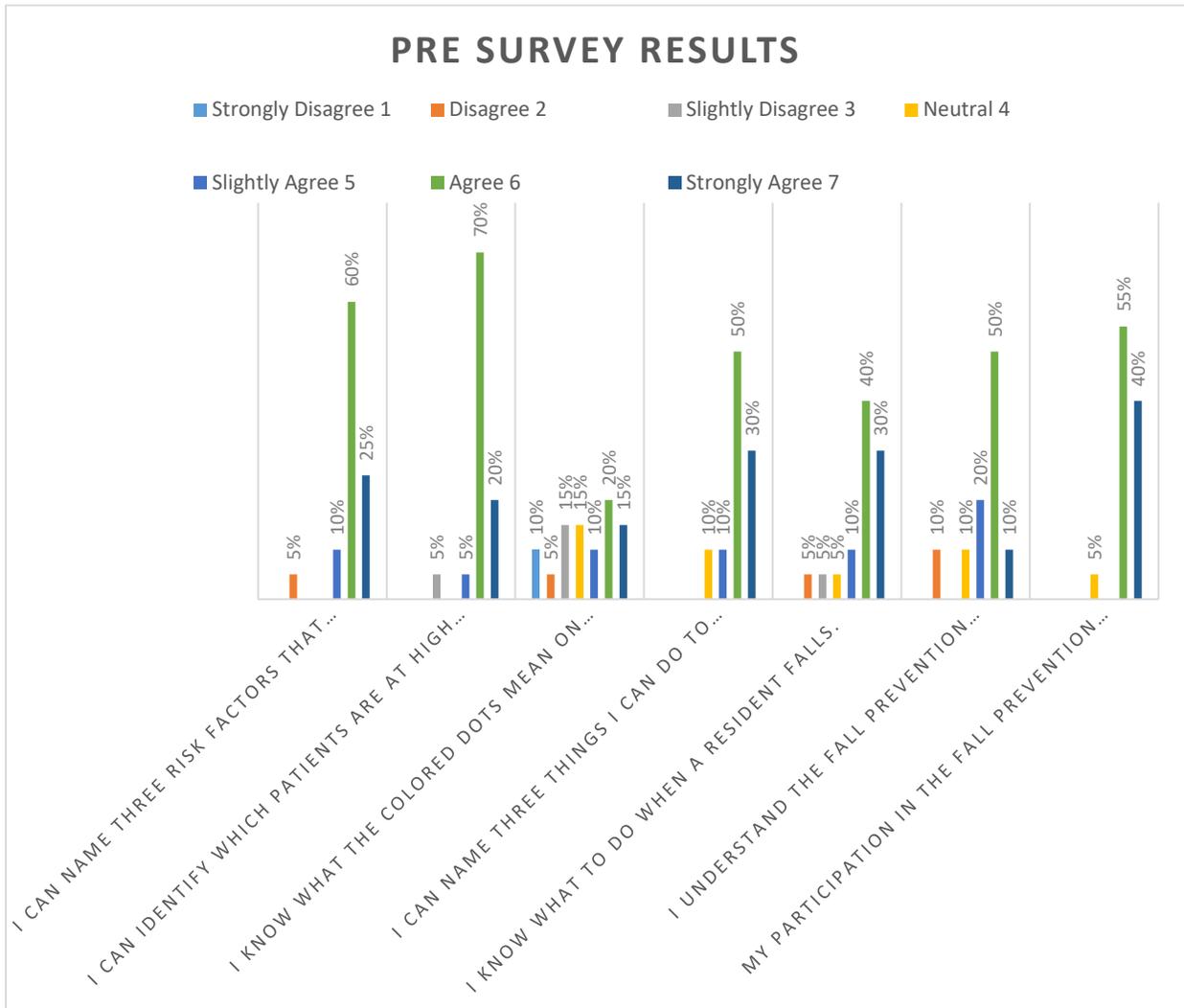|	
Licensed nurse at $40.00/hour X 3.3 hours =	$132.00
Certified nursing aid at $17.50/hour for 6 hours =	$105.00
Root cause analysis done by CNL at $41.00/hour X 2 hours =	$82.00
Total hours for 1 patient fall =	$319.00
Facility had 30 falls in the last 3 months =	**$9570.00**

These estimates do not include the cost of a Department of Health survey fine of $20,000.00 or

the cost of injuries/hospitalization and extended length of stay by the patient.

Appendix C

Fishbone Diagram:

Effects of Aging

Decreased Mobility

Poor Balance

Poor strength

Environment

Poor Lighting

Wet floors

Staff Availability

Patient Falls

Stroke   COPD

Dementia

Anti-hypertensive

Anti-anxiety

Pain medications

Wheelchair
malfunction

Bed too high

Inaccessible personal items

Medical Conditions

Medications

Equipment

Appendix D

PRE SURVEY RESULTS

Appendix E

Post Survey Results