

Spring 5-19-2016

# An Interdisciplinary Approach to Reducing Falls: Utilizing Team Huddles and Visual Aids to Increase Nursing Staff and Patient Knowledge on T.E.A.M. Fall Risk Interventions

Jennifer A. Viernes  
jenniferviernes@hotmail.com

Follow this and additional works at: <http://repository.usfca.edu/capstone>

 Part of the [Other Nursing Commons](#)

---

## Recommended Citation

Viernes, Jennifer A., "An Interdisciplinary Approach to Reducing Falls: Utilizing Team Huddles and Visual Aids to Increase Nursing Staff and Patient Knowledge on T.E.A.M. Fall Risk Interventions" (2016). *Master's Projects*. Paper 297.

This Project is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Master's Projects by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact [repository@usfca.edu](mailto:repository@usfca.edu).

An Interdisciplinary Approach to Reducing Falls: Utilizing Team Huddles and Visual Aids to  
Increase Nursing Staff and Patient Knowledge on TEAM Fall Risk Interventions

Jennifer Viernes RN

University of San Francisco

## Abstract

One of the most important aspects of patient safety is the prevention of patient falls (PFs). PFs are a never event and are preventable. The project addresses the ongoing increase in PFs on a medical-surgical oncology unit in an inpatient hospital setting. The increase in PFs created urgency to provide solutions to these preventable circumstances. This Clinical Nurse Leader (CNL) led the project and conducted a comprehensive microsystem assessment of the potential causes of PFs calling for further investigation of the unit's current fall policy. After conducting two surveys of both the nursing staff (NS) and patients' knowledge of fall interventions preventions (FPIs), it was known that only 40% of the NS had knowledge of the unit's policy T.E.A.M. (Toileting, Environment, Activity, and Medication) bundle FPIs. Moreover, only 20% of patients surveyed knew they were at high risk for falls. Utilizing Kotter's Eight-Step Process for Leading Change, the CNL performed a literature review revealing that to prevent PFs, evidence-based practices must be implemented and known by both the NS and patients. Visual aids, a flyer for NS and pamphlet for patients, were created to educate the NS during huddles on T.E.A.M. interventions and to educate their patients on admission regarding FPIs. By huddle four, 80% of the NS increased their knowledge of T.E.A.M. FPIs and again 20% of fall-risk patients knew the FPIs. Currently the educational pamphlet for patients is awaiting approval. Although there was no increase in measuring patient's knowledge of these FPIs, the staff continues to be aware that they are required to educate patients on admission about FPIs. Eighty-percent of the staff state that a pamphlet would help them educate patients on FPIs. This will continue this CNL's work through the next PDSA cycle aiming to increase patient knowledge on FPIs.

An Interdisciplinary Approach to Reducing Falls: Utilizing Team Huddles and Visual Aides to Increase Nursing Staff and Patient Knowledge on T.E.A.M Fall Risk Interventions

### **Clinical Leadership Theme and Global Aim Statement**

One of the six aims of the Institute of Medicine (IOM) that provides as the framework for this project is for patients to be *safe* from harm from the care they receive (IOM, 2001). In addition, the three primary clinical nurse leadership themes that will be utilized to strengthen the purpose of the project are critical components of the Clinical Nurse Leader (CNL) competency: “Essential 7: Interprofessional Collaboration for Improving Patient and Population Health Outcomes” (AACN, 2013, p. 17). The three CNL roles include: Systems Analyst, Team Manager, and Educator (AACN, 2013). As a Systems Analyst, I will conduct a comprehensive microsystem assessment to identify and analyze and bridge gaps in performance in regards to falls. As a Team Manager, I will work with the current Falls Committee (FC) team members in leading the project and delegate the appropriate tasks and obligations to the proper interdisciplinary members. Finally, as Educator, the goals are to develop an educational tool focused on evidence-based practices (EBPs) on fall prevention interventions (FPIs) and educate critical stakeholders: the nursing staff (NS) and patients.

The ongoing high incidence of PFs on the 5 West Medical-Surgical Oncology (5W) unit at Kaiser Permanente, Vallejo, CA (KPV) requires immediate intervention. The global aim is to reduce patient falls (PFs) on 5W at KPV. The process begins with the initial admission onto the unit and ends when the patient is safely discharged home after acute care treatment. By working on this process, we expect an (1) increase in knowledge of the NS and patients on current EBPs to reduce the incidence of falls, (2) improve communication between leadership, staff, and patients, (3) increase nursing satisfaction during huddles, (4) increase patient satisfaction scores,

and (4) reduction in injuries related to falls. This project is important to work on this now as it will concentrate on enhancing interdisciplinary team communication and collaboration by initially increasing the knowledge of the NS on current fall prevention EBP education during team huddles. In addition, patients will be educated on these falls prevention EBPs with a pamphlet to increase their knowledge. This project will aid the microsystem to implement these measures and finally sustain changes to reducing falls.

### **Statement of the Problem**

Defined by the Joint Commission [JC] (2015) and the Agency for Healthcare Research and Quality [AHRQ] (2013), the most important aspect of this issue is ensuring continuous patient safety from falls as this is a “never event.” Preventing potential injuries and detrimental costs to 5W NS, patients, and the hospital organization itself is critical. Falls in the older adult population cause severe injuries, prolonged hospital stays, and even death. The AHRQ (2013) asserts one-third of falls can be prevented if evidence-based tools are implemented. However, these tools will work if they are communicated to the NS and patients (Haines, Hill, Hill, McPhail, Oliver, Bruer, Hoffman & Beer, 2011). At KPV, current best practice policies are in place to prevent falls, yet they are still occurring. According to a run chart of 2015 KPV patient fall data, 5W remains the second highest fall rate in the organization. In fact, in January 2016, the facility itself experienced seventeen falls and 5W was a major contributor. To find the culprits of the problem, a fishbone diagram (RCA) of the potential causes of PFs (Appendix A) revealed that two recent falls possibly occurred because FPIs were not successfully executed by the staff due to lack of knowledge of current FPIs and lack of communication of implementing these interventions between staff members and patients.

Since the global aim is to reduce falls throughout KPV, the primary focus is to improve the lack of knowledge and lack of communication of FPIs by the NS and patients on 5W. The NS require comprehensive education on the T.E.A.M. (TEAM) bundle FPIs that are currently from KPV's fall policy and procedures statement. These include (1) **T**oileting, (2) **E**nvironment, (3) **A**ctivity, and (4) **M**edication. Each component of the bundle includes specific interventions to help reduce the incidence of falls (Appendix B). Patients will also need education in the form of pamphlets with clear pictures of what they must do to help reduce the risk of falls. As soon as patients are admitted and assessed for a high-risk for falls, they should receive and comprehend the pamphlet of these FPIs: (1) wearing red non-skid socks, (2) fall leaf flyer on the door indicating their risk for falls to all NS, (3) bed and/or chair exit alarm turned on at all times, (4) they must wear a fall risk yellow arm band, (5) two upper side rails of beds must be elevated, (6) call light and belongings in reach, and (7) bed must be in the lowest positions in height. Increasing the knowledge of these FPIs that are EBPs for both NS and patients is an essential solution to increased falls and to obtain the goal of reduced falls.

### **Project Overview**

First and foremost, the primary goal of the project is the global aim of reducing PFs on 5W and eventually throughout the KPV organization. In attaining this goal, the 5W interdisciplinary team will help to improve patient and NS safety, reduce the potential for injuries, prevent unwarranted costs from falls, and overall increase morale, communication, and teamwork. The 5W NS must be diligent in complying with KPV's fall TEAM bundle FPIs. Most importantly, patients must understand the rationale of knowing what these FPIs are and why they must be implemented into their plan of care.

While it is important for NS to be compliant in FPIs, this does not clearly measure if there are improvements in the global aim of the reduction of falls. According to my assessments and knowledge surveys, it is apparent that not all nurses and patients have any knowledge of what and why FPIs are put in place. In order to be focused on the global aim, the specific objective of initiating education to improve knowledge of both NS and patients on FPIs is best to sustain the reduction of falls. Therefore, the specific aim statement is: By May 1, 2016, I aim to increase the knowledge of FPIs from the NS on 5 West by 5-10% and increase fall risk patients' understanding of NS demonstrating FPIs by 10%. According to my literature review, educating, communicating, and distributing evidence-based practices and knowledge with nurses and patients regarding FPIs by utilizing team huddles, and educational tools such as pamphlets, has a positive correlation to improving patient outcomes such as the reduction in falls.

After establishing the specific aim statement, there are barriers that I must address when planning this project. One important barrier is the ability for patients to clearly understand the information due to potential learning disabilities or if the patient speaks a different language. Ensuring nurses are able to explain the information while utilizing verbal and tactile educational methods such as interpreters and pictures would be helpful. A solution for this issue is to include pictures in the pamphlet to illustrate exact FPIs that are needed. In regards to educating the NS, confirming all staff are present for education in huddles is important in order to update each member on the TEAM bundle. This will require me to work with the unit's interdisciplinary Fall Committee to help educate fall interventions at each huddle. As a CNL, it is dire to use "horizontal leadership" (AACN, 2007, p. 26) to not only maximize the chances of reaching the specific aim but to enhance buy-in from the staff and hopefully standardize these evidence-based teaching practices.

### **Rationale**

According to a run chart of 2015 fall data, 5W remains the second highest fall rate microsystem with twenty-eight PFs. However, in January 2016, KPV experienced seventeen with 5W contributing a significant amount of these falls. Results of a RCA disclose that due to lack of knowledge of current KPV policy and protocols by the staff and patients and miscommunication between staff members were possible causes of the falls. Furthermore, more data was acquired: (1) microsystem assessment data, (2) a strengths, weaknesses, opportunities, and threats analysis of 5W and KPV (Appendix C), a stakeholder analysis of key players and roles on 5W in reducing falls (Appendix D), and finally a process map of an ideal implementation of FPIs (Appendix E). From the findings in these assessments of the microsystem, reviewing the current falls policy and procedure was completed to understand the gaps between patient safety and the high incidence of falls.

An RCA analysis was conducted to find gaps in current practices of fall preventions. This assessment portrayed the possible causes of falls with the categories of personnel, leadership, process, procedures, patients, microsystem, equipment, and communication. The NS (personnel) and leadership lacked communication in alerting the high-risk for falls patients and most importantly the knowledge of interventions to prevent falls. Streamlined processes and procedures of implementing fall interventions were impeded because of lack of time, lack of communication, and lack of knowledge of procedures. Limitations were also found with the microsystem, equipment, and communication categories involving the lack of knowledge of FPIs.

The SWOT analysis resulted in multiple strengths, weaknesses, opportunities, and threats in preventing falls. Two important strengths include improving communication between NS and



patients and the availability of multiple resources for patients and NS. This led me to realize that there is currently a falls prevention pamphlet that is readily available for the patients but is not currently utilized. Upon further investigation, the current pamphlet is not always readily available to the NS, the NS are unable to locate the pamphlets, and the NS has mentioned the pamphlets do not have any pictures of the important FPIs. I plan to still use this pamphlet and create awareness to its existence as an important tool for patients in reducing falls. One important weakness identified was that education for patients will be challenging depending on language barriers or learning disabilities that would impede successful learning opportunities. In these cases, a picture pamphlet will be developed and utilized as well to illustrate FPIs to patients who may be visual learners or unable to comprehend KPV's pamphlet. One important opportunity is the global aim of the reduction of falls throughout the facility. In reducing the amount of falls, the microsystem will abide by the ethical principles of beneficence and non-maleficence (ANA, 2011) and have the reputation of a continuous safe environment. Falls with injuries are a never event and if are reported will decrease any potential reimbursement from the Centers of Medicare and Medicaid [CMS] (AHRQ, 2013). If there are no falls, the organization would receive reimbursement sustaining the Institute of Medicine's important aim for safe patient care (IOM, 2001). In turn, Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores could increase and enhance the organization's reputation among competitors especially during this time when the Affordable Care Act allows individuals to choose their health care utilizing websites such as Hospital Compare (Nickitas, Middaugh, & Aries, 2014, 2lea015). However, there are threats to this project. If falls continue without intervention, injuries will increase and threaten reimbursement from CMS. The reputation of not only the microsystem but the organization will suffer. Low staffing and increased utilizing of

travel nurses pose threats. Travel nurses are a definite confounder in that they are not always familiar with the current policies and may or may not know what fall interventions to implement. Low morale due to understaffed shifts may decrease buy-in and the ability to put all fall interventions in place. Lastly, since a significant drive in performance improvement lies with senior leadership approvals, sporadic changes in leadership unbalances the progress of current committees dedicated to reducing falls.

The stakeholder analysis revealed key players to promote ongoing safety and sustainment of current best practices in reducing falls. The analysis identifies the multidisciplinary collaboration need to implement this project and sustain the change. Prior to the stakeholder analysis, the FC and safety team were not involved. However, after conducting this assessment, I realized the important influence of these committees to the implementation of the project. Overall, the collaborative effort present in these committees are crucial to implementing and sustaining change since the members of the committees have a variety of roles, expertise, and influence on other stakeholders.

Although the needs assessment provided a comprehensive overview of the microsystem, as a CNL I retrieved more data from the most important stakeholders in preventing falls: the NS and patients. To do this, three surveys were conducted. The fifth floor Unit Council initiated this by conducting a survey of the NS's perception of current team huddles (Appendix F). This data shows that 90% of the NS surveyed stated huddles should be focused on safety issues such as knowing the highest fall risk patients in order to prevent falls. Furthermore, pre-knowledge surveys of FPIs were conducted to test the current knowledge of the 5W NS and patients by myself (Appendix G and Appendix H). Results from the NS survey revealed that only 40% of registered nurses and 40% nurse's aides and unit assistants knew what the acronym TEAM

meant and what each category states for fall interventions (Appendix I). The results from the pre-knowledge true-false questionnaire survey for the patients resulted in only 20% of twenty patients who participated in the survey answered all questions correctly on FPIs (Appendix J).

After analyzing all assessments and surveys, the project was clearly a priority and is a necessity to improve the current state of increased falls in the microsystem. A process map of an ideal fall intervention implementation was created to showcase what the microsystem is lacking in preventing falls. Providing a safe environment for both the patient and NS is a priority. Not only will patients experience satisfaction in knowing they are safe during a hospital stay but the NS will potentially experience increased morale, teamwork, and comradery. With the ever-changing climate of 5W in regards to leadership and staffing, the success of this project is needed to create change on the unit that the NS can feel they have contributed to and can make their own.

### **Cost Analysis**

Falls are financially devastating to budget goals and overall reputation of 5W and KPV. The CDC (2015) estimates that the average cost per fall is “35,000” (p. 1) with or without injuries. If a patient fall occurs, the length of stay (LOS) may increase, heightening costs of 5W. According to Dunne, Gaboury, and Ashe (2014), the average LOS was 37.2 days with or without injuries. The Kaiser Family Foundation [KFF] (2014) states that California’s estimated hospital adjusted expenses per patient day is “\$3,146” (p. 1). Most importantly, CMS does not reimburse for preventable conditions such as falls with injuries (McNair, Luft, & Bindman, 2009). This microsystem and the KPV suffers for each fall that is documented and in just 2015, 5W had 28 falls which the facility had a loss of \$4,162,713 in net benefits in one year. In the month of January, there were five falls from 5W and KPV had a detrimental total of \$650,996 spent on

just five falls. The cost analysis (Appendix K) shows costs for both LOS and per fall. In 2015, KPV spent an estimated \$4,256,873 on the total estimated cost of LOS and the cost per fall. However, the cost analysis also shows the potential benefits of the falls team committee implementing this project, the costs the project is estimated to use, and what KPV can potentially save if falls are reduced by utilizing this team. For the projected year of 2017, the potential savings for KPV would be \$114,060 and for 2018, \$139,000.

Reducing falls is my global aim and if this is sustained, KPV will gain more revenue in preventing injuries with falls from CMS reimbursement, reduced LOS, and prevention of injuries. However, one cannot forget the magnitude of potential improvements in establishing a culture of safety throughout KPV. Patient satisfaction will increase and reflect in better HCAHPS scores with communication and safety; a current ongoing initiative of KPV. Improved teamwork and collaboration through huddles and an increase in staff satisfaction and morale on 5W are potential benefits. Most importantly, the reputation of 5W will better with having no falls and the organization improves as a whole with the community and its competing hospitals, abiding by its mission statement and goals prioritizing patient safety all around.

### **Methodology**

After attending a team meeting with the FC, we noted that a majority of the NS on both the fifth and fourth floor was unaware of the ongoing high incidence of falls throughout KPV. Due to the lack of awareness the specific and global aim would be a challenge to obtain. To create immediate awareness of this issue, Kotter's Eight-Step Process for Leading Change (Appendix L) was chosen as the appropriate change theory to guide the planning and implementation of this project (Kotter, 2016).

The first five steps in the change theory were utilized after I teamed with the in\ Committee that shares the same global vision of reducing falls. Our coalition's immediate objective was to create "urgency" (Kotter, 2016, p. 1) of the increase in falls. Since being unaware of the high incidence of falls was a major barrier to achieving the global aim, core unit NS, two physicians, and a few members of leadership volunteered to create awareness and urgency in team huddles.

As the CNL and manager of the project, I conducted a needs assessment was done with a RCA analysis, stakeholder analysis, SWOT analysis, and potential process map of the ideal fall intervention implementation process. These assessments revealed broken lines of communication and unawareness of current evidenced-based policies for fall interventions. I conducted a pre-knowledge check of falls interventions from thirty Registered Nurses on 5W, three unit assistants, seven patient care technicians, and twenty alert and oriented fall-risk patients. Results were 40% of the staff knew KPV's TEAM FPIs and some interventions were incorrectly stated. Moreover, only 10% of the patients knew all correct and current FPIs. After performing a comprehensive literature review, the primary methods to achieve the specific aim is to educate NS in their team huddles and create pamphlets with pictures of FPIs for patients. I plan to attend several team huddles in order to educate as many of the NS in the microsystem. In the huddles, I will give the staff flyers and create a poster board for the 5W NS break room to illustrate these FPIs. This education will also include a short segment on how to educate high-risk to fall patients with the new pamphlets. Once they receive the education, I will have the NS sign a roster stating they comprehend the education, are aware of the urgency of the falls issue, and are compliant in giving the pamphlets to the patients. During the implementation, the NS should also participate in actively educating high-risk to fall patients while using the pamphlets.

This implementation should take two weeks of the project. After this implementation, I plan to take an additional two weeks to measure an improvement by conducting a brief post-implementation survey of the NS and patients to calculate if there is an increase in knowledge and if the specific aims have been reached. Successfully achieving the specific aim is the sixth step in Kotter's process of "generating short term wins" (Kotter, 2016, p. 1).

Steps seven and eight of Kotter's process include "sustaining acceleration [and] instituting change" (Kotter, 2016, p. 1). If the results show an increase, I plan to present this information to SL, the FC, the quality department, and most importantly the NS. In showcasing our success, we can help to sustain and continue this change to eventually reach the global aim of reducing falls.

### **Data Source**

The unit of 5WMS has thirty-two beds caring for diagnoses related to but not limited to sepsis, pneumonia, renal failure, anemia, liver disease, and diabetes mellitus. General routine surgeries and orthopedic surgery patients are also admitted. Due to the NS's wide range of skills, patients who have suffered a stroke or oncology patients receiving inpatient chemotherapy regimens are also admitted to this unit. The average length of stay of general surgery and orthopedic patients are two to three days, while general medical patients can stay for five days and beyond. Oncology patients receiving chemotherapy can stay five days to three weeks, depending on chemotherapy toleration and regimen orders.

The 5WMS unit floor is "H-shaped" with two identical nursing stations on each side (north and south). Both sides contain four rooms with a ceiling lift, and two airborne isolation rooms on the north side. Currently most of the patient rooms are private but there are two rooms

with double occupancy. One clean and dirty utility room, one storage room, and one linen cart are provided for the supplies on the unit.

Multiple skill mixes are present but all licensed NS are registered nurses (RNs) and patient care technicians (PCTs). There is also a unit assistant (UA). Since there has been a current shortage of staff, the unit is staffed with per-diem nurses, travel nurses, and seasoned NS. Most of the NS have their Bachelor's degree in nursing but there is a large number of nurses with Associate's degrees. The seasoned staff are stroke and chemotherapy certified as well.

The NS consists of people who come from a variety of cultures and backgrounds, but the majority of the staff are Caucasian, African-American, and Filipino. The patient population also consists of similar ethnicities, cultural backgrounds, religious views, and morals. Sharing these same characteristics helps NS individualize and support patients' decisions in their care and are empathetic in these circumstances.

Communication on 5WMS is efficient but there were some issues that were noted in my assessment. Nurses and physician collaborate using effective communication about patient care through morning rounds. Between staff and management, staff is open to express concerns about safety and assignments and senior leadership (SL) is responsive to concerns a majority of the time. One of the inconsistencies in communication was during handoff. Nurse Knowledge Exchange, an evidence-based practice way of reporting at the bedside during shift change is not always utilized. Another issue with communication is the noise on the unit and personal gossip. Often the staff walks down the hallway and yells out personal information to another staff member in front of patient rooms. In turn, patients complained to SL that they heard the unit was "short staffed" or there are medical supplies "missing." These are levels of communication that need to be addressed with SL.

Leadership consists of three direct-to-staff assistant nurse managers (ANMs), one manager, and an interim Director of Nursing. There is also a Clinical Nurse Specialist to provide support and guidance to the unit especially in oncological services. The ANMs cover all shifts (days, evenings, nights), and are visible to the staff throughout the shift. However, since the ANMs may have to cover two units, being present on the unit can be challenging. Depending on the leader, receptiveness of information provided by the ANM is not always heard by the staff but at the same time, concerns of the staff are sometimes fallen on “deaf ears.”

The assessment helped analyze the trends and patterns related to the inconsistencies in the knowledge of FPIs and decreased buy-in from the staff during huddles. Shortages in staff consistently caused multiple issues. Nurses from other departments were floated to work on this unit posing challenges to understanding the unit’s routine and expectations. In these inconsistencies, continuity of care was impeded, which in turn may have potentially led to the decreased HCAHPS (CMS, 2015) scores in the past few months. Patient dissatisfaction complaints to SL have increased in the past few months due to inefficient call light responsiveness, increased PFs, and medication errors.

In response to these multiple issues, as the CNL I decided to take action on helping 5W reduce the number of falls and promote a culture of safety. Not only focusing on the lack of knowledge of FPIs is important but establishing streamlined communication between leadership and the NS is significant in making and sustaining changes at KPV. This is primarily the rationale of utilizing huddles to educate the NS. For patients, as part of their plan of care, they must also be educated and communicated about FPIs. When care is patient-centered, patients will feel safe that preventative measures are taken to prevent injuries and prevent a longer stay in



the hospital. In this light, patient satisfaction and NS satisfaction is ideal and we can then create sustainment of positive change that all of KPV desires.

### **Literature Review**

The following two PICO questions were used during the comprehensive literature review:

1. To reduce in-hospital adult PFs, will education in safety huddles as compared to no education increase NS knowledge of fall interventions?
2. To reduce in-hospital adult PFs, will patient education in the form of a pamphlet as compared to no education increase patient knowledge of fall interventions?

Therefore, the PICO formula used to search for multiple evidence-based articles was:

P – in-hospital adult patients

I – safety huddles and patient education; pamphlets

C – no education

O – increase staff/patient knowledge of fall interventions; reduce falls

Several articles pertaining to in-patient adult falls and EBP and interventions to reduce the incidence of falls were found. For the second question, there were less articles but they were very specific to my PICO statement. My search however was limited when trying to find if knowledge of fall interventions would increase due to huddles. Since one of my primary goals is to enhance effective communication between the staff and leadership regarding the promotion of a culture of safety, I had to reformulate my question and use the key word “communication” instead of “education” in question 1. It was after this search that I was able to locate several significant articles regarding communication in huddles and positive patient outcomes when communication was effectively done during huddles. The search also yielded safety culture articles explaining how huddles promote a culture of safety and issues such as falls should be

focused on in team huddles. Databases to search for these articles included the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and PubMed. Several recent articles were found that supports the project's rationale, methodology, and need for its implementation. Furthermore, relevant literature such as websites and supportive articles were found to support the project's objectives and goals.

Initially, a literature review was conducted in solidifying the need and purpose of this project. Many of these sources included KPV's policy and the Leapfrog website (2015). According to KPV's vision of the reduction of falls noted on their policy, KPV focuses on providing EBPs to continue and initiate an ongoing culture of safety for patients who are at high-risk for falls (KP, 2015). KPV was found to be one of the "Top Hospitals" in the country meeting standards ranked by surveys and consumer data (Leapfrog, 2015-b). KPV's initiatives in patient safety are also reflected on their current progress on the Leapfrog (2015-a) website stating that KPV is on "track [to] reduce risk to patients" (p. 1). This data shows that the staff is willing to practice beneficence continuously in the organization and there is substantial potential for sustainable EBPs in fall prevention. Since the passing of the Patient Protection and Affordable Care Act (PPACA), patients are able to freely choose their health care provider and through the policy, health care facility information is provided through websites such Leapfrog in order to make an informative decision. It shows the impact and importance of how microsystems in health care facilities must be diligent in safe and EBPs to enhance communication, team work, and promoting leadership to continue providing effective healthcare that consumers can publicly see.

The JC (2015) states in their article, "Preventing Falls and Fall-related Injuries in Health Care Facilities," that falls are on the "Top 10 sentinel events reported, which has 465 reports of

falls with injuries since 2009, with the majority of these falls occurring in hospitals” (p. 1).

Some of the factors involved in these falls were “communication failures, lack of adherence to protocols and safety practices, inadequate staff orientation, and lack of leadership” (JC, 2015, p. 1). This article provides hard data and facts regarding falls and injuries across the United States. This benefits the development of the cost-analysis of implementing interventions to reduce falls and shows the impact of how detrimental falls can be to budget, patient outcomes, and overall reputation of the hospital organization. The JC (2015) defines falls with injuries as a “never event.” For this project, this data shows that there is a specific need to reduce falls in any hospital organization because of the impact and costs of these preventable circumstances.

Next, literature was researched to show that falls can be prevented through increased knowledge and education of FPIs. The AHRQ (2013) asserts that falls can lead to severe injuries and death but one third of falls can be prevented if EBPs and prevention tools are put in place. The AHRQ’s (2013) website provides a multitude of resources for those interested in promoting a culture of safety and desire to perform as change agents to implement new solutions to current healthcare issues. EBPs and tools are presented by the AHRQ which offer tactics and current practices that help health care facilities reduce and prevent falls and injuries. The AHRQ (2013) provides substantial information that KPV has taken account into their own policies and procedures such as the utilization of the TEAM bundle. This shows the relevance that KPV has implemented EBPs into their organization and serves to help the CNL with educating the NS and patients on current EBPs.

Karlsson, Karlsson, Coster, Magnusson, and Rosengen (2013) affirm that there are several multifactorial strategies and interventions to reduce falls in the adult population. KPV’s TEAM bundle encompass many of the strategies the authors review in their article. The article’s

strategies include regularly toileting patients with frequency and urgency, scheduling activity out of the bed for patients, providing a safe environment for mobility, and reviewing medications that place patients at risk for falls. The authors also prove that implementing these FPIs can reduce falls by 40%.

In their study, “Perceived Top 10 Highly Effective Interventions to Prevent Adult Inpatient Fall Injuries by Specialty Area: A Multi Hospital Nurse Survey,” Tzeng and Yin (2015), confirm fall prevention compliance and knowledge increases fall prevention. The authors in this article sought to understand what are the most effective interventions certain specialties of health care implement in order to prevent falls and injuries in the adult population. Their surveys in the medical-surgical units were helpful in understanding the perceptions of the staff in their top interventions of what it is need to prevent falls. The top five interventions revealed by the authors mirrors the TEAM bundle interventions KPV’s falls interventions policy. These top five include: (1) keep floor surfaces dry and clean, (2) hospital brakes locked, (3) toileting support, (4) non-slip socks on at all times, and (5) call light within reach. This evidence shows the importance of KPV’s current TEAM bundle and that it must be implemented to help reduce falls. Promoting buy-in from NS of these interventions includes knowing what TEAM means and educating patients on the same FPIs.

The following two articles shows how patient education, when received immediately prior to intervention or procedure, can have positive correlations in reducing falls in the hospital setting. In the article “Patient Education to Prevent Falls Among Older Hospital Inpatients,” Haines et al. (2011) assert in their randomized controlled trial (RCT) that ongoing patient education is a priority to preventing adult falls. In the intervention program group, written materials were given to the patient with a follow-up with an occupational therapist while the

control group had basic information and education. There was a significant 50% reduction of falls in adults with cognitive impairment. This study shows that education through written materials such as pamphlets can help in the awareness of fall risks and educate patients on FPIs to reduce the incidence of falls. Clark, Timm, Goldberg, and Hatstrup (2011), in their article “Preoperative Patient Education Reduces In-Hospital Falls After Total Knee Arthroplasty,” conclude from their study that preoperative education for patients undergoing total-knee replacements decreased the incidence of hospital falls to 0% out of 72 patients who received education. More falls occurred in the control group ( $p=0.03$ , 95% CI). The research also shows the importance of utilizing education to high-risk for falls patients to help prevent injuries from falls.

Literature on the written educational materials such as pamphlets was done to show their effectiveness in promoting safety and the prevention of falls. Pěrula, Vara-Fabra, Rodriguez, Ruiz-Moral, Fernández, González and...de Dios (2012) assert in their randomized controlled trial, "Effectiveness of a Multifactorial Intervention Program to Reduce Falls Incidence Among Community-Living Older Adults," that multifactorial interventions which included leaflets and in the intervention group are just as effective in the reduction in falls as basic information and knowledge interventions. The authors found that the incidence of falls were decreased by 50% versus the control group. In this project, interdisciplinary approaches are used to educate both NS and patients. Meharry and Stiller (2013), in their article, “Maternal Influenza Vaccination: Evaluation of a Patient-Centered Pamphlet Designed to Increase Uptake in Pregnancy,” also asserts the importance of utilizing written informative tools to promote knowledge. In their study, their aim was to empower decision making of pregnant mothers indifferent to the influenza vaccine. The study shows that since mothers were not aware of the benefits of the

vaccine without the right information, they were not able to make any decisions on whether to receive the vaccine or not. Perceptions of the benefits significantly improved in the mothers who received the intervention of the pamphlet. Through written materials, knowledge was obtained and overall improved patient's perceptions of the benefits of their care resulted in a positive outcome. Pamphlets "significantly increased the pregnant women's perceptions of the safety and benefit of the vaccine ( $p < .01$ )" (p. 1205).

A literature review on safety huddles was also conducted and shows the significance of enhanced communication between NS, leadership, and patients to building and sustaining a culture of safety. The Institute of Medicine [IOM] (2012) establishes that huddles are an EBP of TeamSTEPPS, an evidence-based way of streamlining communication lines to ensure patient safety. The IOM (2012) provides impressive sources, tools, and EBPs on reducing falls in the health care setting. Boushon, Nielsen, Rutherford, Taylor, Shannon, and Rita (2012), authors featured by the IOM, provide recommendations from their study, "How-to Guide: Reducing Patient Injuries from Falls," on how to utilize team huddles in the reduction and preventions of falls. This was very useful while researching current best practices that could be translated into the microsystem through the huddle process. Another article by Tibbs and Moss (2014) entitled, "Promoting Teamwork and Surgical Optimization: Combining TeamSTEPPS with a Specialty Team Protocol," found that using team huddles is an essential component of TeamSTEPPS during surgeries, finding a statistically significant "increase in the number of team members present for each procedure...and in the final time-out" (p. 477). This enhanced communication and team work in the surgical room. This quantitative study asserts that using the TeamSTEPPS algorithm promoted more membership on the surgical team, compliance with safety procedures such as time-out, and a "decreased turnover time between procedures" (p. 486). Huddles are a

TeamSTEPPS component and using this tool can optimize staff satisfaction and patient outcomes.

Three quantitative studies were also found in showing the positive perceptions of team huddles with patient safety. In their article, “Huddling for High Reliability and Situation Awareness,” Goldenhar, Brady, Sutcliffe, and Mouthing (2012) used focus groups and interviews to analyze the reliability and effectiveness of establishing awareness of issues within health care settings. Five themes emerged and highlights that huddles are an effective tool for optimal learning opportunities, shared governance, and promotes a culture of safety through collaboration of ideas and solutions. This article mirrors the wanted perceptions of huddles as resulted by the 5W survey conducted by the Unit Council. It will aid in the development of learning opportunities through the huddles process and promote open communication.

O’Malley, Gourevitch, Draper, Bond, and Tirodkar (2015), in their study, “Overcoming Challenges to Teamwork in Patient-Centered Medical Homes: A Qualitative Study,” analyzed the practices of teamwork in solving issues within the microsystem. Again, the theme of communication was established as a challenge to promoting patient outcomes. Huddles were suggested as solutions to the issues of not having “real-time and structured communication” (O’Malley et al., 2015, p. 187). Huddles must follow these suggested improvements in communication lines by avoiding insignificant blame on NS but promoting an interdisciplinary safety culture. These qualitative studies show that huddles “help reduce failures and eliminate patient harm” (Goldenhar et al., 2012, p. 899) and increase “structured communication” (O’Malley et al., 2014, p. 183) between staff members especially those of ancillary staff that are not perceived as usual members of the direct ongoing patient care health care team. Lastly, an article entitled, “Characterizing a Culture of Training and Safety: A Qualitative Case Study in

Radiation Oncology,” by Garza Lozano (2013) aimed to interpret the impact of a culture of safety in providing optimal patient care and improving outcomes. Interviews of the staff in the radiation oncology department was performed. Results show that communication was an essential component to providing safe care to patients. If no communication was established, staff and patients had negative outcomes in regards to safety. This shows how patient safety should be communicated with team members continuously through tools such as huddles and improvement in patient outcomes involves placing the patient at the center of care. This mirrors the perceptions of the nurses on what they would like huddles to be versus the current processes.

The literature review presents comprehensive evidence-based research and practices that pertain to the improving PFs rate. Adult falls can cause detriments to patients, NS, organizations, and society as a whole. However, as the literature shows, first hand education and an increase in knowledge of preventative measures is an initial priority to achieving the global aim of reducing falls.

### **Timeline**

The project was initiated in early February of 2016 and will conclude in the end of April 2016. Appendix M shows an overview timeline of the goals.

During the month of February, specifically in the first two weeks, a meeting was held with the FC in response to the severe increase in falls in January 2016. During these two weeks, immediate action was required by the committee. As the CNL, reviewing the current regional fall prevention policy and procedure was a priority. In the next two weeks, from the fourteenth to the twenty-eighth day of February, a comprehensive microsystem assessment was done of 5W. This included a microsystem assessment, cause and effect diagram, SWOT analysis, and stakeholder analysis. Analyzing the findings revealed knowledge gaps in the current FPIs from



both patients and NS of 5W. Finally, at the end of February, an extensive literature review and research on current EBPs of falls prevention protocols and solutions to increase knowledge for both NS and patients was conducted.

The first two weeks of March was dedicated to developing an assessment to understand the baseline knowledge of the NS and patients on FPIs. A pre-knowledge survey for the NS in the form of a questionnaire was given to the staff during team huddles prior to the start of the shift. Surveys were done via interviews as well if the questionnaire was unable to be filled out for emergent reasons. A pre-knowledge survey of patient was also conducted in a true/false questionnaire. This survey took one to two weeks to complete with twenty patients participating. These patients were alert and oriented and able to comprehend basic English language. As the team leader, I conducted the survey and rounded on the twenty patients. The last two weeks of March included assessing and analyzing the data from the surveys. Based on the surveys, it was noted that a significant number of the NS did not know the TEAM intervention bundle and the patients were not knowledgeable of the fall interventions as well. In order to correct this, the clinical nurse leadership themes, global aim, and specific aim was established by the CNL. In addition, education development for both the NS and patients are still an ongoing process and will be completed by the end of this month. I plan to include the current pamphlet that KPV is utilizing for patient education and adding the pictures to a separate pamphlet as an additional educational tool. For the NS, a poster illustrating current falls data, TEAM bundle interventions, and results from the survey will be placed in the NS break room as a reminder and educational tool. During huddles, this poster will be shown and explained to the staff regarding TEAM bundle interventions to increase the awareness of the current education. In addition, I plan to

walk the units and form small team huddles to educate the NS on TEAM interventions, hand out flyers, and create awareness of the poster in the breakroom for additional information.

The first two weeks of April will start the implementation of the education in team huddles for NS and includes the pamphlets with pictures the NS must give and explain to patients upon admission if deemed high-risk for falls. By April 16, implementation should be completed. The week of April 17-23 will have final post-implementation surveys for both NS and patients. An analysis of the results will be done in the following week and communicated to the staff by May 1, 2016. Finally, follow-up of the reviews and results will be communicated to leadership in the month of May during the FC meeting. Here is where the team will collaborate to see if the implementation was a success, if a second PDSA cycle should be done, and if there are other barriers to sustaining the changes.

### **Expected Results**

There are several outcomes expected at the end of the implementation of this project. The most important one is being able to successfully obtain the specific aims and objectives. The specific aim of establishing an increase in the knowledge of the TEAM fall intervention bundle by 5-10% from the NS and an increase in knowledge of fall interventions by 10% from 5W patients who are at high-risk for falls and able to comprehend the educational implementations are expected.

After this first implementation cycle is completed and successful, I expect to continue to be the project manager working with the interdisciplinary FC team to focus on the global aim of reducing falls on 5W. Eventually, the knowledge of fall risk prevention interventions by the staff can spread beyond the 5W microsystem and onto other units that also have issues with PFs. As an organization, it is important to not only include the NS and patients of this knowledge but

ancillary staff, upper management, and physicians throughout the facility. It is my expectation that with the continuance collaboration with the FC, I will be able to reach more microsystems and provide ongoing education through multiple huddles and entities within KPV.

Evidence shows that immediate patient education is helpful in preventing complications and injuries in the hospital. My hope with the updated pictorial pamphlet on fall interventions for high-risk fall patients is that it will be a universal educational tool through KPV. With this pamphlet, my expectation is that the pamphlet will provide an overview of what patients must do to prevent falls, enabling them to understand the purpose of this education, and hopefully sustain safety through the course of their hospital stay. My ultimate expectation is to prevent patients from falling and ensuring they know that they are part of the plan of patient-centered care.

### **Nursing Relevance**

Patient falls are preventable and should never happen. It is essential to promote a culture of safety that involves teamwork, open and effective communication, and strong supportive leadership. Sustaining this environment requires crucial conversations between NS, patients, physicians, and other supportive stakeholders to implement EBPs in preventing falls from occurring. Diligence in accountability, continuance of patient advocacy, and most importantly continuously educating NS and patients are important components in the reduction of falls and promotion of safety.

This project aims to help the microsystem improve in the knowledge of FPIs from both the NS and patients. These two stakeholders play a crucial role in making changes to the microsystem and sustaining the changes. If they are not knowledgeable on EBPs that reduce and prevent falls, falls are inevitable. Bedside NS are the primary caregivers of high-risk to fall patients and must be compliant of these interventions. However, as nurses, educating patients on

these interventions is just as significant in creating patient-centered care and continuing safety. It is my hope that by successfully attaining the specific aim and objectives of this project that spreading knowledge becomes the initial core essential implementation to initiating a plan to reduce falls.

### **Summary**

The microsystem of 5W at KPV is a medical-surgical oncological inpatient unit that specializes in treating patients with various medical and surgical acute diseases placing patients at high-risk for falls. This requires NS and leadership to promote a culture of safety that is free from preventable PFs. It was found in the last few months that there has been an increase in PFs, especially on the medical-surgical units including 5W, causing immediate urgency from leadership to develop solutions to these circumstances. As a staff member and CNL of this project, I chose to work with my preceptor, leadership, and the FC in developing a way to help reduce falls on 5W.

The project's global aim is to reduce falls on 5W that will initiate and continue the effort in creating a continuous culture of open communication and safety. Sharing this vision with the FC, there was a lack of awareness of this issue by the NS. Urgency of the issue needed to be raised on the units and through the help from the FC members as champions of their units and leaders within the committee, urgency was created through utilization of team huddles. However, after conducting a comprehensive microsystem assessment including a fishbone diagram analysis, process mapping of global aim, and an overview of the current falls policy of the microsystem, there seemed to be a connection between the knowledge of FPIs and implementing FPIs. Two surveys were conducted by the CNL measuring the NS and patient pre-knowledge of FPIs. It was found that 40% of the NS on 5W knew the T.E.A.M. (toileting,

environment, activity, and medication) FPIs that are found on the current falls policy of the unit. Most importantly, twenty fall risk patients on 5W were surveyed revealing that only two of the patients knew they were at risk to fall and knew the FPIs that were placed to prevent them from falling. Additionally, a survey was conducted regarding the perception of team huddles of the NS and it was found that 90% of the NS wanted patient safety to be the goal of team huddles. Overall, a knowledge deficit of FPIs in both NS and patients was noted and the CNL was challenged to understand and implement ways to improve this process. Thus, the specific aims were increase both patient and NS knowledge of FPIs by 10% by May 1, 2016.

A literature review was conducted to investigate EBPs that would help increase knowledge of FPIs. Evidence-based educational tools such as pamphlets and flyers were the best solutions to improve the knowledge deficits found on 5W. Most importantly, team huddles were reviewed as one of the EBPs in aiding communication between NS and leadership in order to promote a culture of safety and provide education regarding FPIs. As the CNL team and outcomes manager, visual tools were created to provide education to the NS and patients. a flyer with the T.E.A.M. interventions and a pamphlet including all FPIs relating to patients (use of call light, non-skid socks, bed and chair exit alarm, side rails elevated, bed in low position, fall risk yellow band, and fall leaf on door) were developed (Appendix N and Appendix O). Utilizing four team huddles, each huddle was attended by the CNL to educate the NS on the current falls policy, on the FPIs, and to give the flyer to all members of the 5W NS. In addition, this CNL educated the NS to also provide FPIs education to patients upon admission to the unit using the developed pamphlet. However, the pamphlet required approval from the Health Educational management and department in order to implement it on the unit. In addition, regional management suggested to not physically give the pamphlet for patients but to help NS educate

patients on admission until approval. Although the pamphlet is currently in the process of approval, the NS still are required as part of the T.E.A.M. FPI bundle to educate patients and this was mentioned in the education given by the CNL during the huddles.

After four solid huddles were attended on three different shift times, thirty of the 5W NS was again surveyed through the form of individual interviews during the shift. It was noted that 80% of the 5W NS increased their knowledge of the FPIs of the T.E.A.M. bundle (Appendix P). The first specific aim was reached. After interviewing twenty fall risk patients with the same pre-knowledge true/false survey, the same results occurred as 20% of the patients (two patients out of twenty) knew they were at risk to fall and knew the FPIs on place to prevent them from falling (Appendix Q). The second specific aim was not reached in this timeframe. However, when the NS was surveyed if a pamphlet would help them educate patients on FPIs, 80% responded with “Agree” versus “Disagree” (Appendix R).

During the first PDSA cycle of this project, I worked with unit champions as the CNL role of Advocate and Team Manager (AACN, 2007) from the FC to increase the influence of sustainability. After my initial PDSA cycle of increasing knowledge of fall risk interventions from the NS, the next aim will be to increase the knowledge of the patients’ understanding of these interventions since the specific aim was not reached. However, this will need NS cooperation in educating their patients with the expectation of initiating education on admission to the unit and hopefully with the approval of the pamphlet, this can help aid the NS in educating patients on 5W. This aligns with one of the organization’s mission of promoting an ongoing culture of safety for patients and the NS. Patients and NS are two of the most important stakeholders to sustain this intervention and practice change. If they do not have the knowledge

of the fall intervention prevention bundle and important implementations to reduce falls, there can be no decrease in our falls on the unit.

The expectation of the unit champions for all microsystems is to be the point person if there are questions to be asked, concerns to be listened to, or suggestions to be heard from the stakeholders. These champions would be designated unit safety champions that act as role models to the staff and are knowledgeable on fall intervention prevention. According to the IHI (2015), “having a designated safety champion in every department and patient care unit demonstrates the organization’s commitment to safety and my make other staff members feel more comfortable about sharing and asking questions” (p. 1). This is why the champions are needed to sustain this change in order to motivate the NS and patients to reduce falls. Unit champions would be there on the unit to watch for barriers to the changes as well as if the changes are improving nursing practices (AACN, 2013). Two unit champions from other units in the hospital were chosen from the FC since they are aware of the urgency to help reduce falls and share the same vision as the CNL. This CNL, who is also a staff member of 5W, has also requested to be included as a member of the FC to continue further PDSA cycles in efforts to reach the global aim of reducing falls and eventually through several other units. Leadership champions, the manager and quality liaison of the microsystem, has also taken the challenge to continue this project’s specific aims into the next PDSA cycles. Using the approved pamphlet will be focal implementation in the PDSA cycle.

Using the data and findings from this project will help this CNL sustain the role and promote an ongoing culture of safety within the microsystem and eventually through other units in the organization. Now, as a member of the FC, this CNL intends to utilize the skills to

increase patients' knowledge of FPIs in the next PDSA cycle, continue to enforce and sustain the knowledge and implementation of T.E.A.M. interventions by the NS, and finally make substantial contributions as a member of the FC and NS to the efforts in reducing falls and promoting a safe microsystem.



## References

- American Association of Colleges of Nursing [AACN]. (2013). *Competencies and curricular expectations for clinical nurse leader education and practice*. Retrieved from:  
<http://www.aacn.nche.edu/cnl/CNL-Competencies-October-2013.pdf>
- American Association of Colleges of Nursing [AACN]. (2007). White paper on the education and role of the clinical nurse leader. Retrieved from  
<http://www.aacn.nche.edu/publications/white-papers/cnl>
- American Nurses Association [ANA]. (2011). *Short definitions of ethical principles and theories familiar words, what do they mean?* Retrieved  
from <http://www.nursingworld.org/mainmenucategories/ethicsstandards/resources/ethics-definitions.pdf>
- Agency for Healthcare Research and Quality [AHRQ]. (2013). Preventing falls in hospitals: A toolkit for improving quality of care. In *Hospital Resources*. Retrieved from:  
<http://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html>
- Boushon, B., Nielsen, G., Quigley, P., Rutherford, P., Taylor, J., Shannon, D., & Rita, S. (2012). *How-to Guide: Reducing Patient Injuries from Falls*. Cambridge, MA: Institute for Healthcare Improvement. Retrieved from <http://www.ihl.org>
- Centers for Disease Control and Prevention [CDC]. (2015). Costs of falls among older adults. In *Older Adult Falls*. Retrieved from:  
<http://www.cdc.gov/homeandrecreationalafety/falls/fallcost.html>
- Centers for Medicare & Medicaid Services [CMS]. (2015). Hospital consumer assessment of healthcare providers and systems (HCAHPS). Retrieved from:  
<http://www.hcahpsonline.org/home.aspx>

- Clarke, H.D., Timm, V. L., Goldberg, B. R., & Hattrup, S. J. (2011). Preoperative patient education reduces in-hospital falls after total knee arthroplasty. *Journal of Clinical Orthopedic Related Research*, 470, 244-249. doi:10.1007/s11999-011-1951-6
- Dunne, T. J., Gaboury, I., & Ashe, M. C. (2014). Falls in hospital increase length of stay regardless of degree of harm. *Journal of Evaluation in Clinical Practice*, 20(4), 396-400. doi:10.1111/jep.12144
- Garza Lozano, R. (2013). Characterizing a culture of training and safety: A Qualitative case study in radiation oncology. *Radiation Therapist*, 22(2), 139-153.
- Goldenhar, L. M., Brady, P. W., Sutcliffe, K. M., & Mouthing, S. E. (2013). Huddling for high reliability and situation awareness. *BMJ Quality & Safety*, 22(11), 899-906. doi:10.1136/bmjqs-2012-001467
- Haines, T. P., Hill, A. M., Hill, K. D., McPhail, S., Oliver, D., Breuer, S. Hoffman, T., & Beer, B. (2011). Patient education to prevent falls among older hospital inpatients. *Journal of the American Medical Association*, 171(6), 516-524. doi: 10.1001/archinternmed.2010.444. Retrieved from: <http://archinte.jamanetwork.com/article.aspx?articleID=226901>
- Institute of Healthcare Improvement [IHI]. (2015). Appoint a safety champion for every unit. In Changes. Retrieved from: <http://www.ihl.org/resources/Pages/Changes/AppointaSafetyChampionforEveryUnit.aspx>
- Institute of Medicine [IOM]. 2001. *Crossing the Quality Chasm. Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, D.C: National Academy Press. Retrieved from:

<https://iom.nationalacademies.org/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf>

Karlsson, M. K., Karlsson, C., Coster, M., Magnusson, H., & Rosengen, B. E. (2013).

Prevention of falls in old people – a review. *Reviews in Clinical Gerontology*, 23, 206-222. doi:10.1017/S0959259813000051

Kotter. (2016). The 8-step process for leading change. In Home. Retrieved from:

<http://www.kotterinternational.com/the-8-step-process-for-leading-change/>

Kaiser Permanente [KP]. (2014). Fall prevention policy. Oakland, CA: Author.

McNair, P. D., Luft, H. S., & Bindman, A. B. (2009). Medicare's policy not to pay for treating

hospital-acquired conditions: The impact. *Health Affairs*, 28(5), 1485-1493. doi:

10.1377/hlthaff.29.5.1485. Retrieved from:

<http://content.healthaffairs.org/content/28/5/1485.full>

Meharry, P. M., Cusson, R. M., Stiller, R. & Vasquez, M. (2013). Maternal influenza

vaccination: Evaluation of a patient-centered pamphlet designed to increase uptake in

pregnancy. *Journal of Maternal Child Health*, 18, 1205-1214. doi:10.1007/s10995-013-

1352-4

Nickitas, D. M., Middaugh, D. J., & Aries, N. (2016). *Policy and politics for nurses and other*

*health professionals Advocacy and action* (2<sup>nd</sup> ed.). Burlington, MA: Jones & Bartlett Learning.

O'Malley, A. S., Gourevitch, R., Draper, K., Bond, A., & Tirodkar, M. A. (2015).

Overcoming challenges to teamwork in patient-centered medical homes: a qualitative

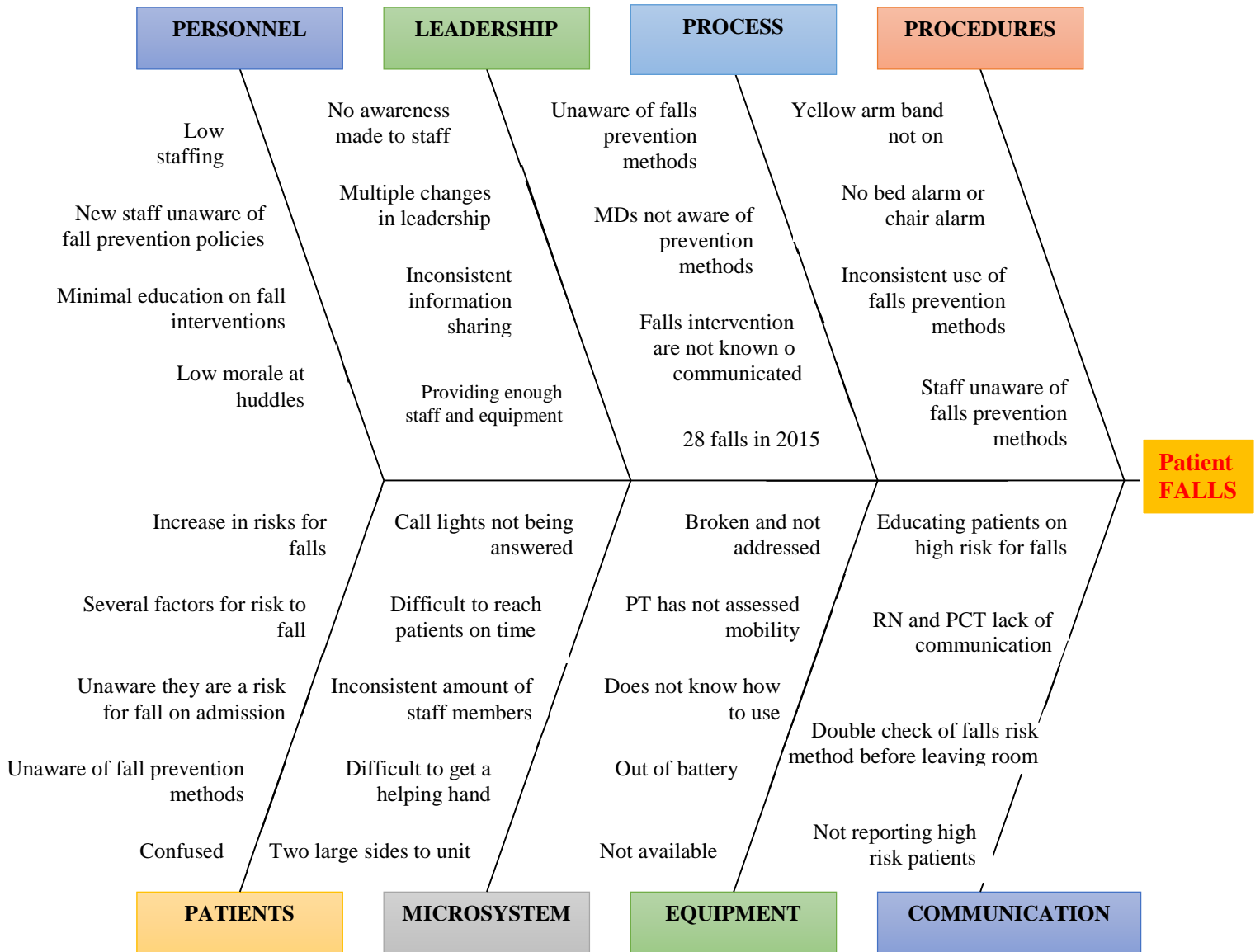
study. *JGIM: Journal of General Internal Medicine*, 30(2), 183-192. doi:10.1007/s11606-

014-3065-9

- Pérula, L. A., Varas-Fabra, F., Rodríguez, V., Ruiz-Moral, R., Fernández, J. A., González, J., & ... de Dios, C. (2012). Effectiveness of a multifactorial intervention program to reduce falls incidence among community-living older adults: A randomized controlled trial. *Archives of Physical Medicine & Rehabilitation*, 93(10), 1677-1684 8p. doi: 10.1016/j.apmr.2012.03.035
- The Joint Commission [JC]. (2015, September). Preventing falls and fall-related injuries in health care facilities. In *Sentinel Event Alert*. Retrieved from: [http://www.jointcommission.org/assets/1/18/SEA\\_55.pdf](http://www.jointcommission.org/assets/1/18/SEA_55.pdf)
- The Henry J. Kaiser Family Foundation [KFF]. (2014). Hospital adjusted expenses per inpatient day. In Hospital Inpatient Day Expenses. Retrieved from: <http://kff.org/other/state-indicator/expenses-per-inpatient-day/>
- The Leapfrog Group. (2015-a). Leapfrog hospital ratings: Kaiser Foundation Hospital, Vallejo CA. In *2015 Leapfrog Hospital Survey Results Now Available*. Retrieved from: [http://www.leapfroggroup.org/cp?frmbmd=cp\\_listings&find\\_by=city&city=vallejo&state=CA](http://www.leapfroggroup.org/cp?frmbmd=cp_listings&find_by=city&city=vallejo&state=CA)
- The Leapfrog Group. (2015-b). Top hospitals. In *For Hospitals*. Retrieved from: <http://www.leapfroggroup.org/tophospitals>
- Tibbs, S. M., & Moss, J. (2014). Promoting teamwork and surgical optimization: Combining TeamSTEPPS with a specialty team protocol. *AORN Journal*, 100(5), 477-488. doi: 10.1016/j.aorn.2014.01.028
- Tzeng, H. M., & Yin, C. Y. (2015). Perceived top 10 highly effective interventions to prevent adult inpatient fall injuries by specialty area: A multi hospital nurse survey. *Applied Nursing Research*, 28, 10-17.

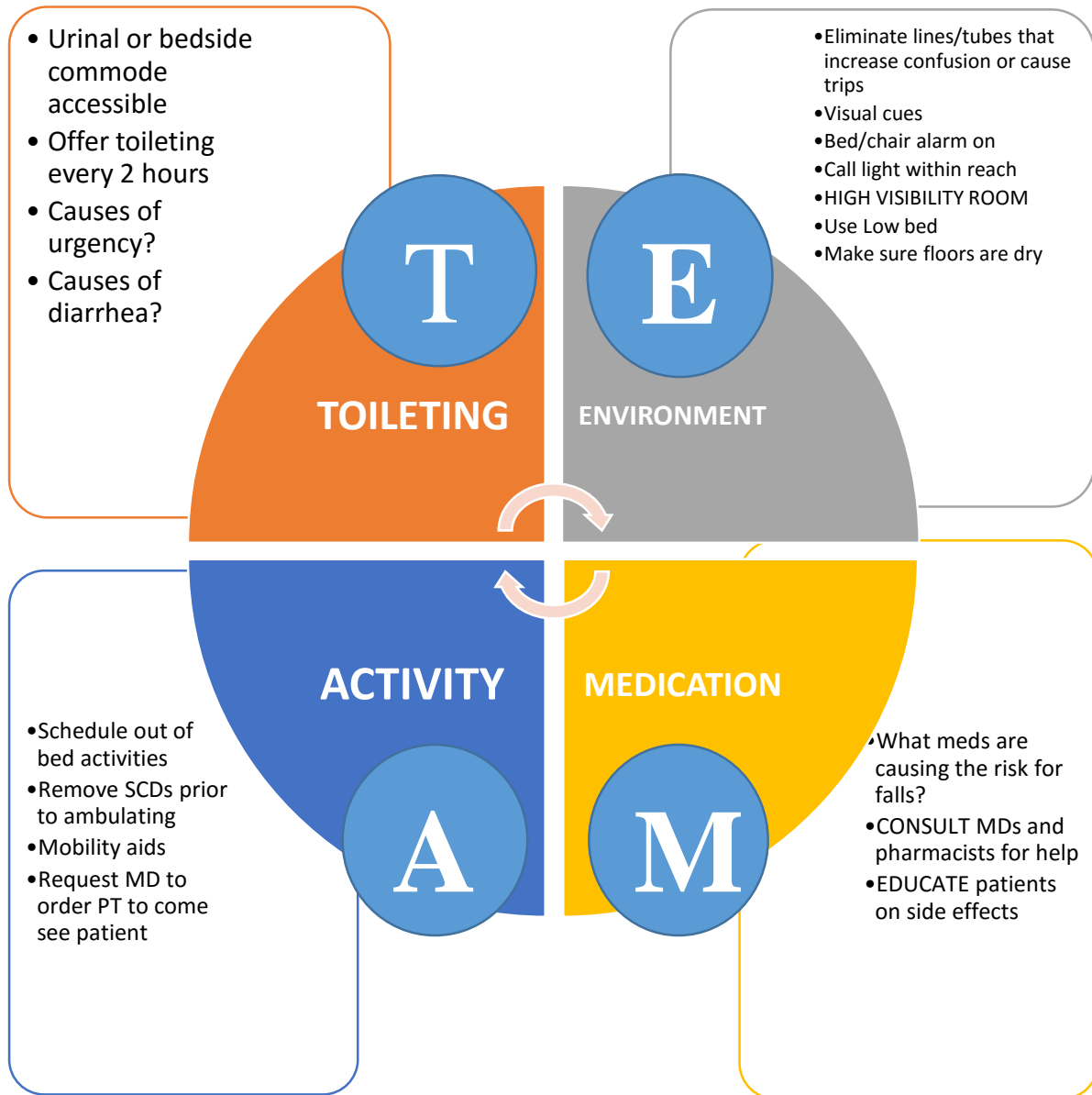
Appendix A

Fishbone Diagram of Events That May Lead to Patient Falls



Appendix B

TEAM Interventions Per KPV Policy



Appendix C

SWOT Analysis



## Appendix D

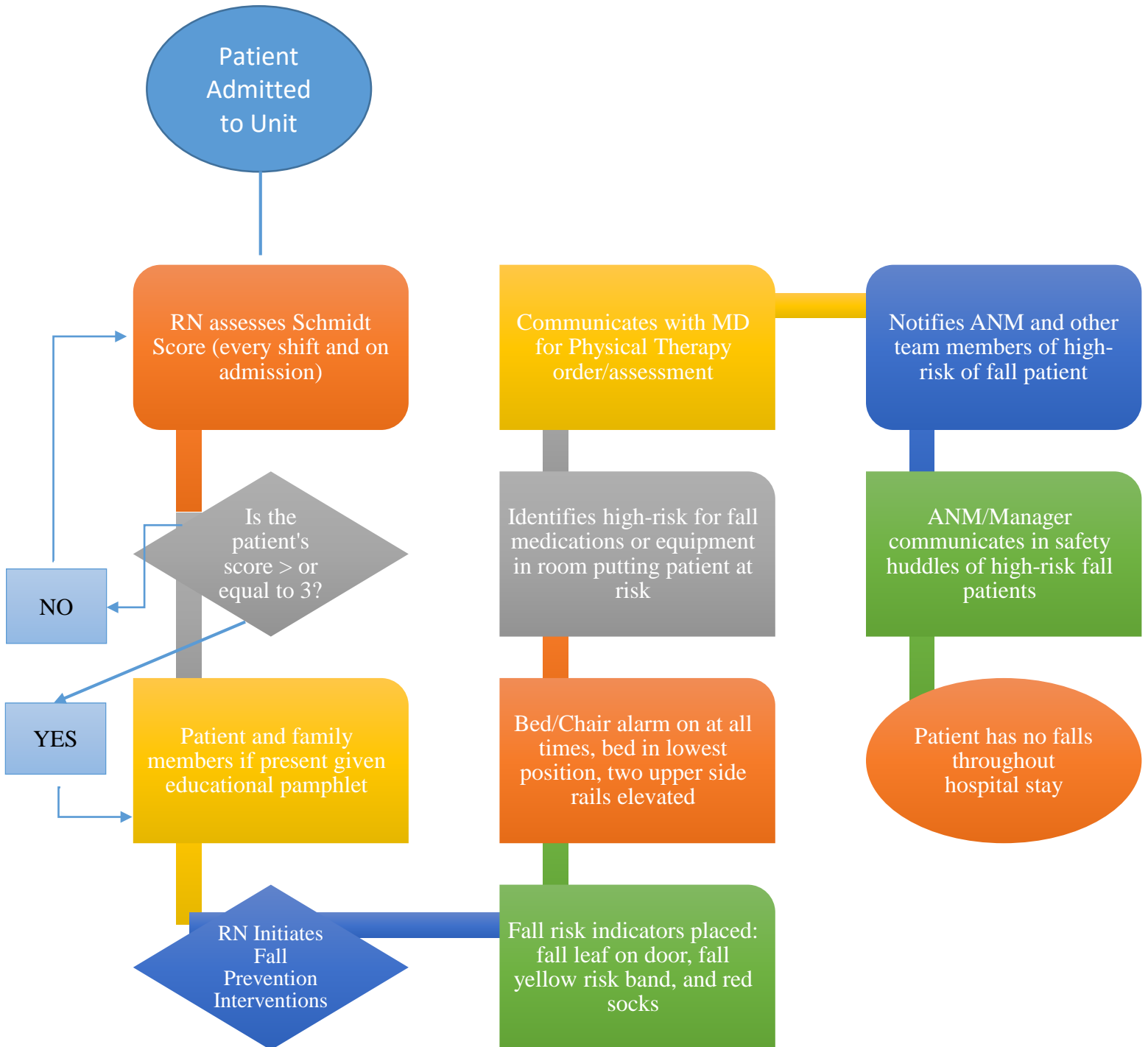
## Stakeholder Analysis

<b>Stakeholder</b>	<b>Impact Level</b>	<b>Influence</b>	<b>What is Important for the Stakeholder?</b>	<b>Potential Contributions to Project</b>	<b>Concerns</b>	<b>How to Engage Stakeholder</b>
<b>Nursing staff</b>	High	High	Safety of patient care, communication of new interventions, support from leadership	Bedside leaders, prevent falls, provide safe care, educate patients/families first-hand	Staffing issues, inconsistent time management	Team huddles, walking rounds, ongoing communication, celebrate successes
<b>Patients and family members</b>	High	High	Effective and safe care, no injuries, short admission, being informed in plan of care	Participate in fall risk interventions, openness to learn and prevent falls	Barriers to learning, refusal to learn	Hourly rounding, teaching to start on admission, participate in plan of care
<b>Falls Committee members</b>	High	High	Ongoing patient safety, no falls, sustainment of interventions	Interdisciplinary members to sustain change, expertise, role modeling	Meetings are inconsistent, meets only 1 time a month	Follow-up with members with meetings, consistency in specific aims and goals
<b>Quality Department</b>	Med	High	Improvement in processes on unit, quality improvement	Providing statistics, information on falls data, promoting sustainment of change	Not always present at meetings, goal setting interferes with timeline	Invite members to meetings, attend quality dept meetings, email
<b>Unit Leaders</b>	High	High	Staff satisfaction, patient safety, streamlined process of procedures, budget control	Role model, liaison to upper mgmt communicating falls interventions in huddles	Various changes in leadership	Email, participate in unit leader meetings, request assistance for approval
<b>Safety Committee</b>	High	Med	Patient safety, staff safety, sustaining changes	Sustaining change, role models for new implementations	Meetings only 1 time a month	Attend monthly meetings, speak with members during shift
<b>CNS/Clinical Educators</b>	High	High	Provide ongoing support/education to staff on new procedures/policies	Education, support, point person on policies/procedures	Staff training interferes with current project, not enough time	CNS is project's preceptor, keep in loop



Appendix E

Process Map of Global Aim to Prevent Falls



## Appendix F

## Unit Council Survey of Perception of Huddles

**5<sup>th</sup> Floor Unit Council Asks You...**

*Mission Statement: The 5<sup>th</sup> floor council is for the **floor nurse**. It started to address the specialty concerns as well as general issues of **nurses**.*

We do have management support however we will be working to address floor nursing issues independently from them to fulfill your goals. Please help us fill out this survey to help us get started.

1. What do you think the fifth floor unit council team name should be? (The name we choose gets a prize!)
2. How do you feel about the huddle process as of now? Please circle how you feel.



3. Our first project is modifying huddles to focus on nurses' patient care and safety issues. What do YOU want from huddles? What concerns you most that you would like mentioned in huddles?
4. Any quick suggestions for other future projects? What most concerns you about our unit that you would like the unit council to address?



## Appendix G

## Staff Survey &amp; Questionnaire: Fall Prevention Protocol Interventions

8. How do you add fall risk prevention interventions to your plan of care? What dot phrase do you use?
  
9. Do you know what T.E.A.M stands for in regards to fall interventions?  
  
T –  
E –  
A –  
M –
  
10. What suggestions do you have that would help remind you of the fall risk interventions we have on the unit? (using a poster in the break rooms, information during huddles, a badge reminder, flyers, team huddles...etc.?)

Thank you so much for your time and input. I hope that I could help the staff prevent falls and keep patients and yourself safe.

Jennifer Viernes RN, USF MSN-CNL Student

## Appendix H

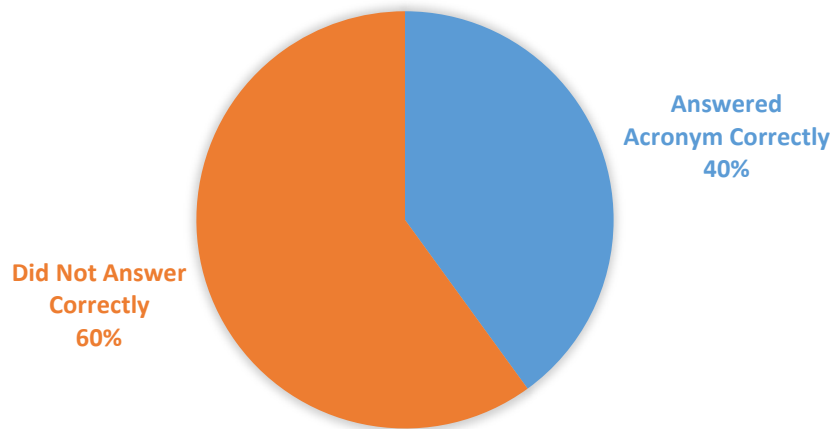
Patient Pre and Post Education Survey: T.E.A.M. Fall Interventions Knowledge  
True or False?

1. I am at risk to fall down.
2. The fall leaf on the door indicates to nursing staff that I am at risk for falls.
3. The yellow arm band is because I have an allergy.
4. I need to wear brown non-skid socks because I am risk for falls.
5. I need to use my call light to let the nursing staff know if I need help to get out of bed.
6. My bed and chair has an alarm that needs to be turned on to indicate if I am trying to get out of bed or chair by myself.
7. My bed needs to stay in the highest position at all times.

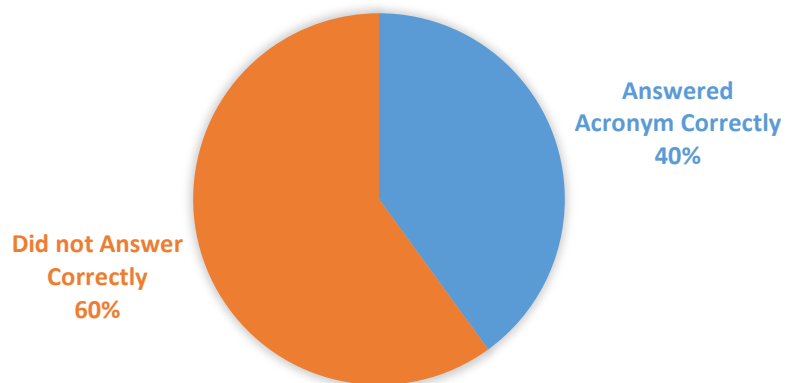
Appendix I

NS Results of TEAM Bundle Knowledge

**DO YOU KNOW WHAT T.E.A.M. STANDS FOR?  
(30 5W REGISTERED NURSES SURVEYED)**

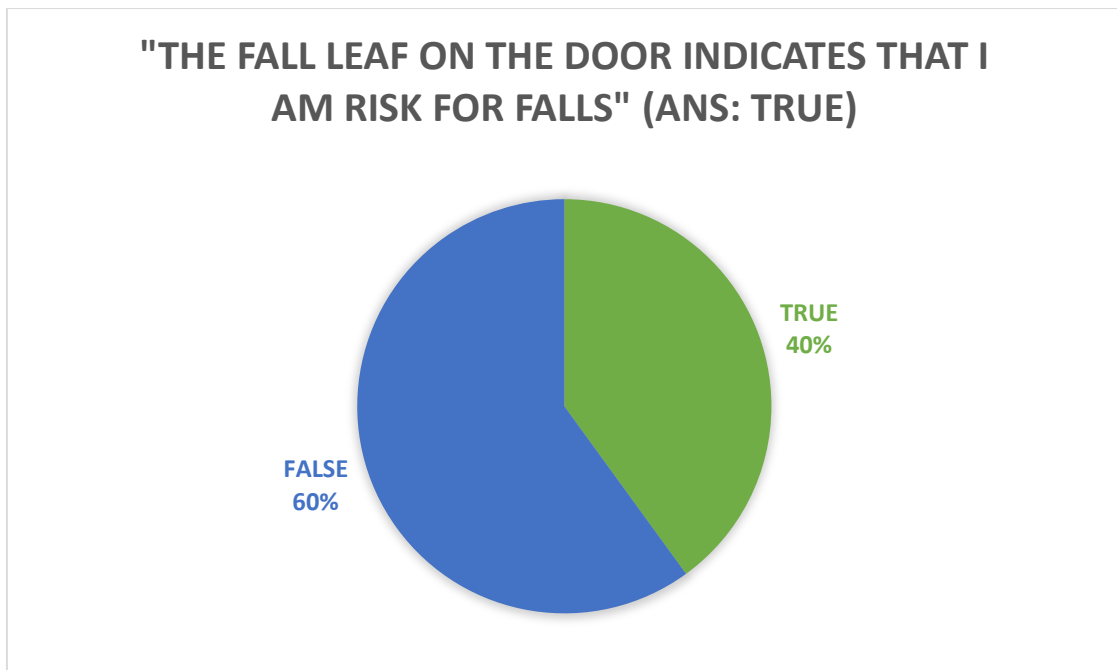
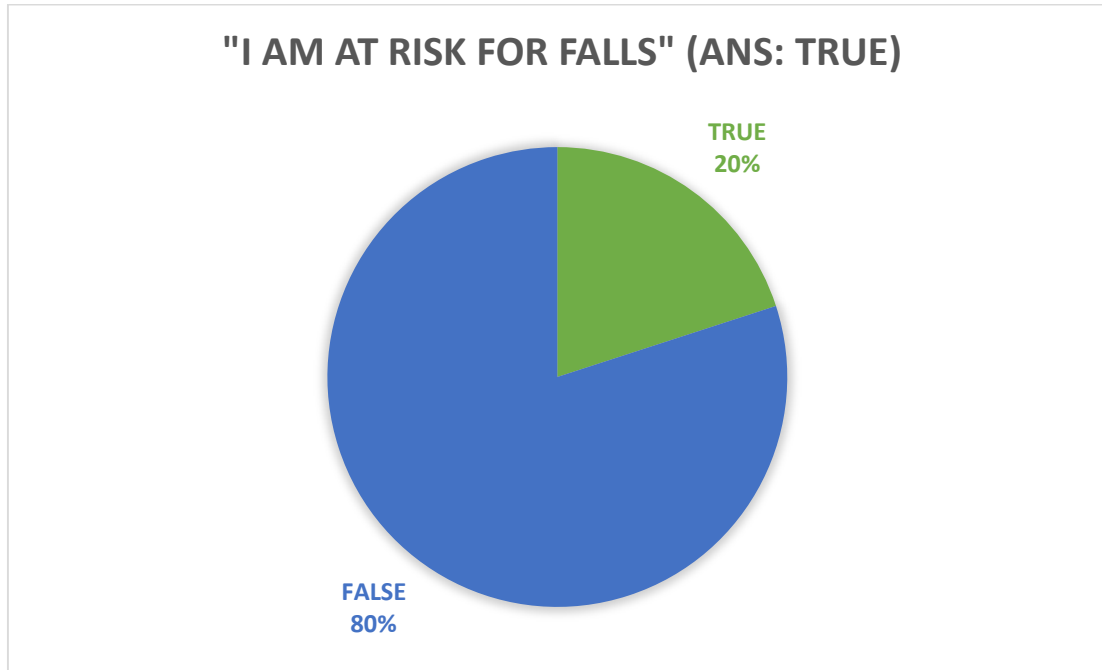


**DO YOU KNOW WHAT T.E.A.M. STANDS FOR?  
NURSES' AIDES AND UNIT CLERKS FOR 5W  
(7 NURSES' AIDES AND 3 UNIT CLERKS SURVEYED)**



Appendix J

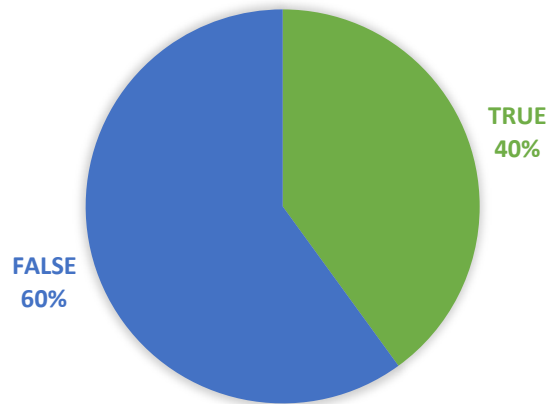
Patient Pre-Education Survey Results True-False Questions



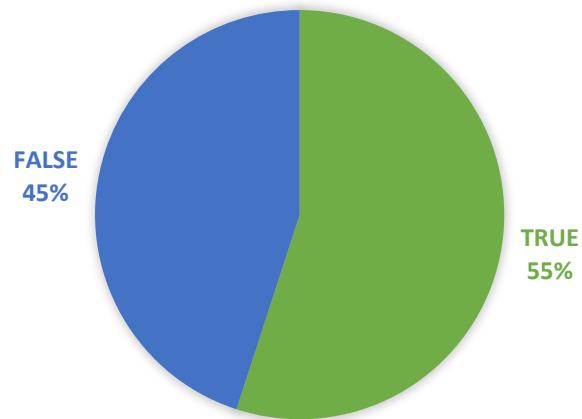
Appendix J

Patient Pre-Education Survey Results True-False Questions

**"THE YELLOW ARM BAND IS BECAUSE I HAVE AN ALLERGY" (ANS: FALSE)**



**"I NEED TO WEAR BROWN NON-SKID SOCKS BECAUSE I AM RISK FOR FALLS" (ANS: FALSE)**

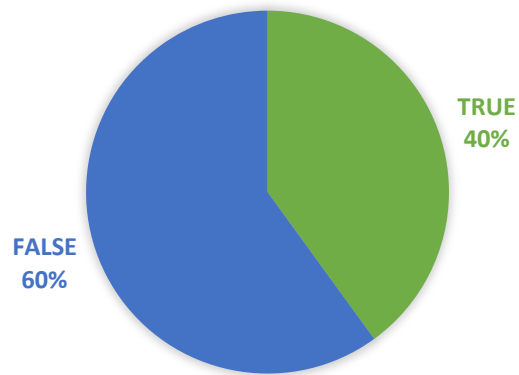




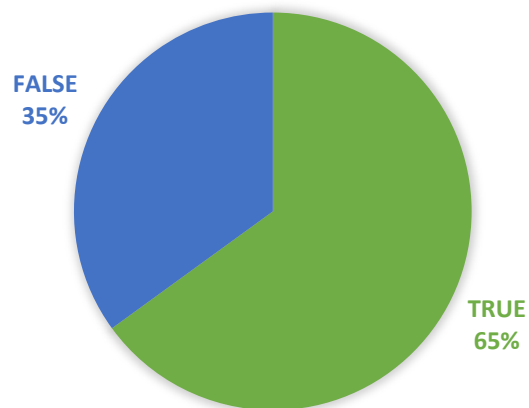
Appendix J

Patient Pre-Education Survey Results True-False Questions

**"MY BED AND CHAIR HAS AN ALARM THAT NEEDS TO BE TURNED ON IF I AM RISK FOR FALLS" (ANS: TRUE)**



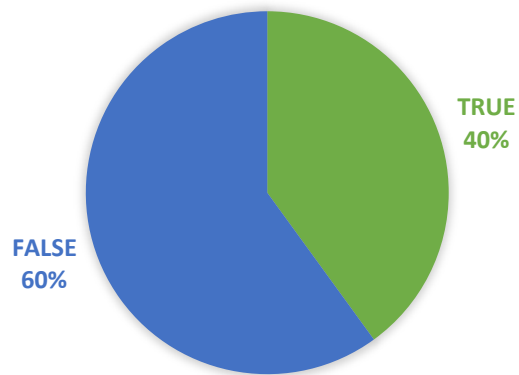
**"I NEED TO USE MY CALL LIGHT TO LET NURSING STAFF KNOW THAT I NEED TO GET OUT OF BED" (ANS: TRUE)**



Appendix J

Patient Pre-Education Survey Results True-False Questions

**"MY BED AND CHAIR HAS AN ALARM THAT NEEDS TO BE TURNED ON IF I AM RISK FOR FALLS" (ANS: TRUE)**



**"MY BED MUST BE SET AT THE LOWEST LEVEL AT ALL TIMES" (ANS: TRUE)**



\

Appendix K  
Cost Savings Analysis

All numbers based on estimates from CDC (2015) (2016), Dunne et al. (2014), and KFF (2014)	Year: 2015	Year 2016 (from January to February)	Year 2017 – during first year of implementation	Year 2018 (sustaining changes)
Average LOS per fall (Dunne et al., 2014)	37.2	37.2	37.2	37.2
Average cost per hospital day (KFF, 2014)	\$3,146	\$3146	\$3146	\$3146
Average cost per fall (CDC, 2015)	\$35,000	\$35,000	\$35,000	\$35,000
No. of Falls	28	5	0	0
Cost Per Fall	\$980,000	\$160,000	0	0
Total number of days (LOS) for Fall Patients	1,041.6 days	186 days	0	0
Average normal LOS for hospital patients without falls (CDC, 2016)	4.8	4.8	4.8	4.8
Total estimated cost of LOS	\$3,276,873	\$585,156	\$15,100	\$15,100
Total estimated cost of LOS and cost per fall	\$4,256,873	\$745,156	\$15,100	\$15,100
No. of team members on project (RNs and CNL)	8	8	8	4 (CNL and a few team members to sustain)
Average salary for each team member	\$60/hour	\$60/hour	\$60/hour	\$60/hour

Appendix K  
Cost Savings Analysis

Hours spent on project implementation (16 hours per month)	192	192	192	96
Total Cost for each member spent on project	\$92,160	\$92,160	\$92,160	\$23,040
Supplies used for educating patients and nurses	\$2000	\$2000	\$2000	\$2000
Net Benefit (potential savings for year 2015 if implemented)	\$4,162,713	\$650,996	\$114,060	\$139,000

Appendix L

Kotter's 8-Step Process for Leading Change (Kotter, 2016)



Appendix M

Gantt Chart

	<b>Feb 2016</b>	<b>Mar 2016</b>	<b>Apr 2016</b>	<b>May 2016</b>
<b><u>Action Items</u></b>				
Falls reports obtained by Falls Committee members				
Meeting with Falls Committee to address falls issues				
Review current falls policy and procedures				
Microsystem Assessment:				
Pre-Knowledge survey of NS				
Pre-Knowledge survey from patients on fall interventions				
Theme, Global aim, and Specific Aim established				
Literature Review and Research				
Develop education for team huddles				
Pamphlet for patients to be developed				
Project approval from manager/director				
Implementation into huddles/walking huddles				
Patient education on pamphlets				
Post-survey from staff and patients				
Survey reviews				
Follow-up/Present reviews and results				

Appendix N

Educational Visual Aid Flyer for Nursing Staff on T.E.A.M. Interventions

# PREVENTING FALLS...

## Is a **T.E.A.M.** effort!

<p><b>TOILETING</b></p> <ul style="list-style-type: none"> <li>·Urinal or bedside commode accessible</li> <li>·Offer toileting every 2 hours</li> <li>·Identify causes of urgency, frequency, or diarrhea</li> </ul>	<p><b>ENVIRONMENT</b></p> <ul style="list-style-type: none"> <li>·Remove lines/tubes that cause confusion or trips</li> <li>·Bed/chair alarm on</li> <li>·Ensure floors are dry</li> <li>·Use low bed, call light</li> <li>·Use high visibility room</li> </ul>
<p><b>T.E.A.M.</b></p>	
<p><b>ACTIVITY</b></p> <ul style="list-style-type: none"> <li>·Schedule out of bed activities</li> <li>·Remove SCDs before ambulating</li> <li>·Mobility aids/visual cues</li> <li>·Request MD to order a PT consult</li> </ul>	<p><b>MEDICATION</b></p> <ul style="list-style-type: none"> <li>·What meds are causing the risk for falls?</li> <li>·Consult MDs and pharmacists for help</li> <li>·Educate patients on side effects</li> </ul>

**Be a T.E.A.M. player:** Preventing falls is possible but it takes all of us to do our part in knowing our policy's evidence-based fall prevention interventions.

**KNOWLEDGE IS POWER!**  
**Learn and use the T.E.A.M. interventions to prevent falls!**



### ***DID YOU KNOW?***

**IN 2015, 5W, 5E, 4E, & 4W had a total of 98 falls.**  
**In January 2016, a total of 15.**

**Only 2 patients out of 20 surveyed know our fall risk prevention interventions**

**Only 40% of the staff surveyed know what T.E.A.M means**

**Falls are preventable!**

### **EDUCATE!**

*Patients need education too! Use the fall risk cart to locate the fall risk brochures to help you educate our patients.*

Appendix O

Educational Pamphlet for 5W Patients on Fall Prevention Interventions


**Falls can cause serious injuries leading to longer stays in the hospital.**

*Did you Know ...?*

- 1 in 5 falls cause broken bones or head injuries.
- Falls are the most common cause of traumatic brain injuries.
- 1 in 3 older people fall each year but less than half tell their doctor.
- Falling once doubles the chance of falling again.
- **FALLS ARE PREVENTABLE!**


**Preventing Falls in the Hospital**

Your safety is our priority. Learn what you can do to decrease the incidence of falling and **THRIVE** in the hospital.




**What do I need to do while I am in the hospital to prevent falls?**


- Use your **CALL LIGHT** to let your nurse or PCT know if you need to get out of bed.




- Please wear your **NON-SKID SOCKS** whenever you are on your feet & use the bathroom.



- Wear your fall risk **YELLOW ARM BAND** at all times.




- The **LEAF** on your room door let your visitors and staff know you are at risk to fall. This must be on



Your **BED/CHAIR ALARM** should be on at all times to alert the staff if you need help getting up.

BED ALARM CHAIR ALARM

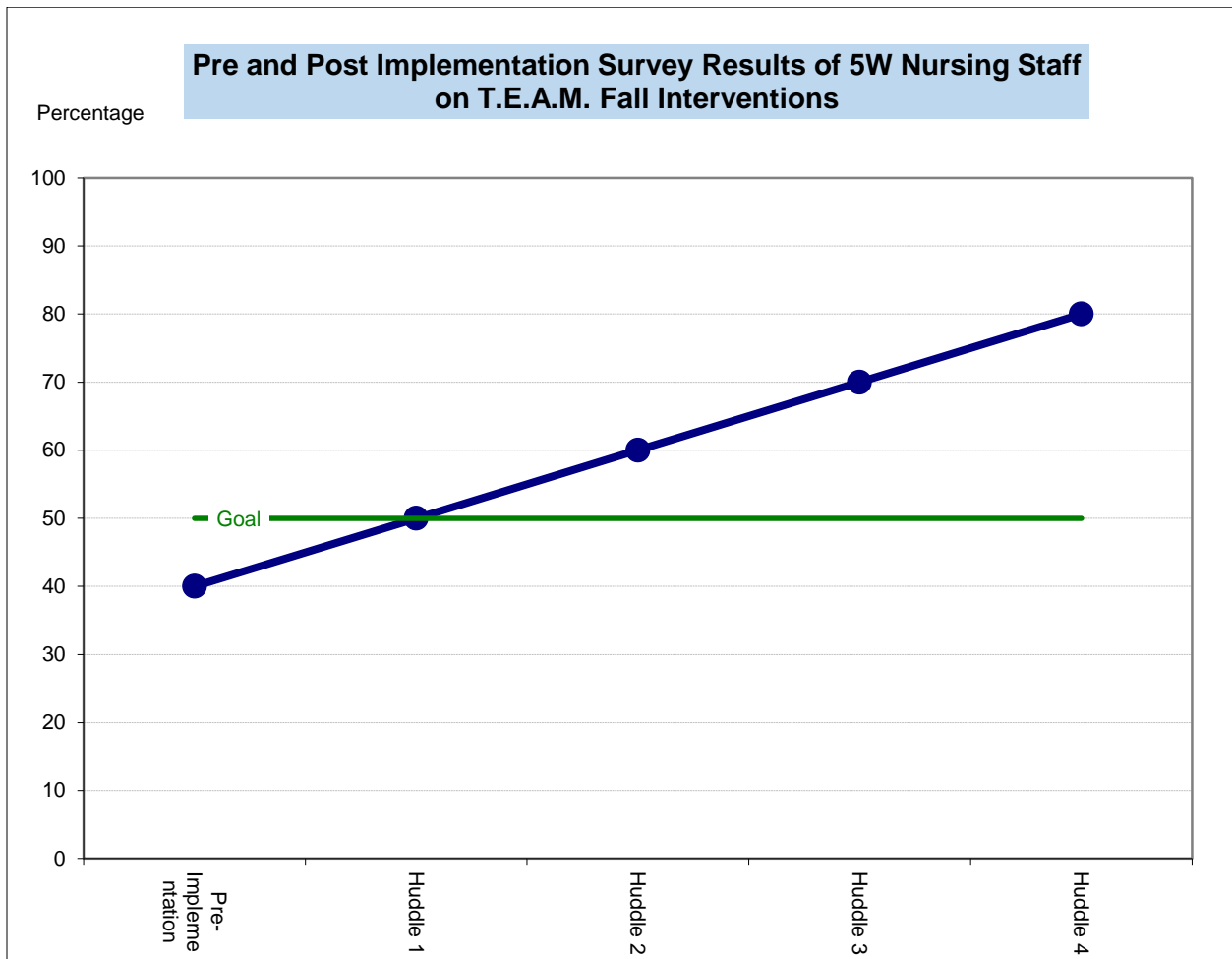


- Your **BED SIDE RAILS** near your head should be up, the bed should always be in the **LOWEST POSITION** in height, and the **BRAKES** should be **ON AT ALL TIMES**.

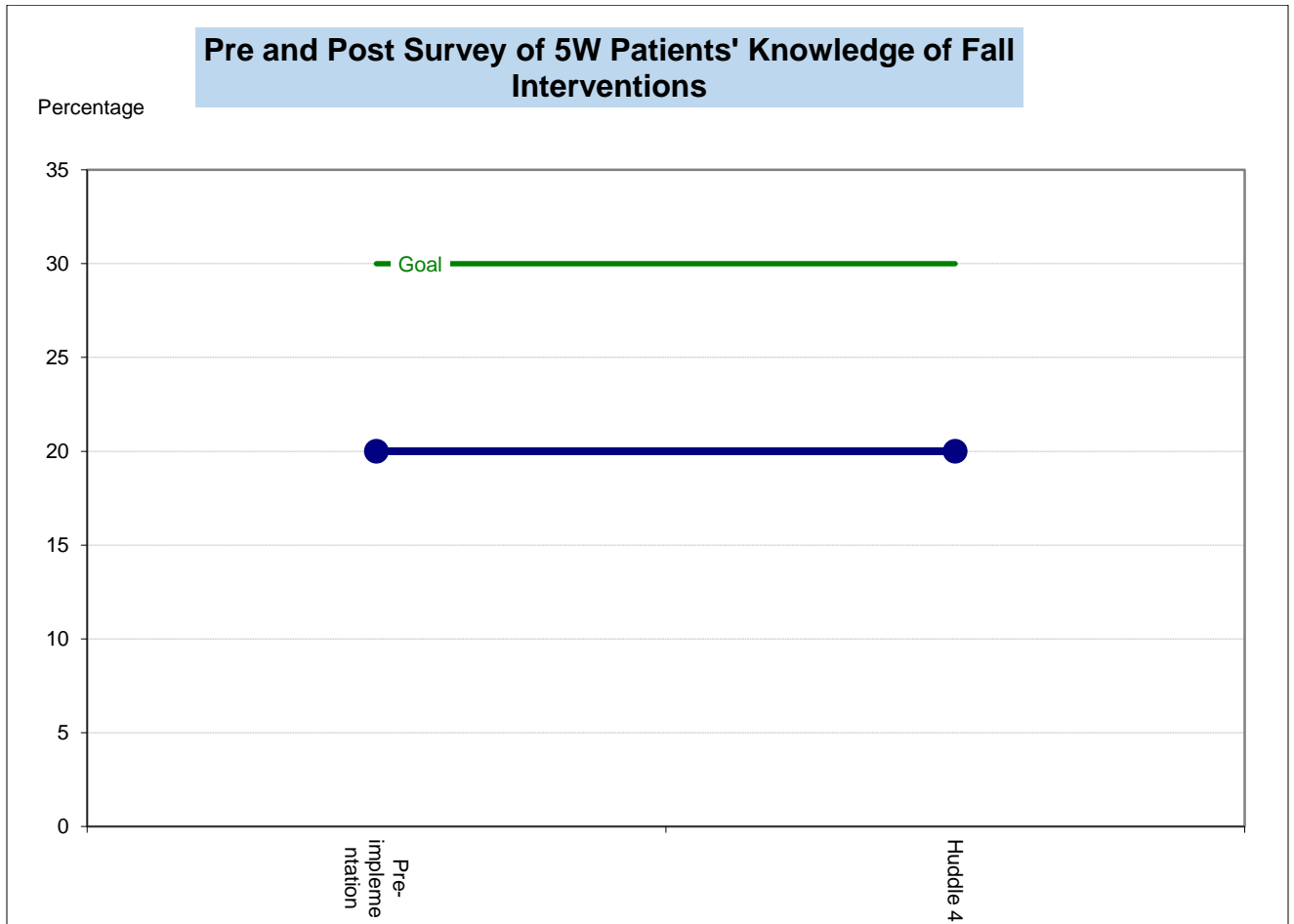
*If you need more information, please refer to your **FALLS BROCHURE**.*



Appendix P



Appendix Q



Appendix R

Post-Implementation Survey/Interview Questions for Nursing Staff

1. Do you know what T.E.A.M. means in regards to our fall intervention preventions policy?
2. Can you name one intervention from each category of T.E.A.M.?
3. Did the flyer help you remember the T.E.A.M. interventions? Yes or No?
4. Would a pictorial pamphlet help you educate your patients on fall intervention preventions, agree or disagree?