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Fall Prevention in Acute Psychiatric Patients

Jeannette Deano

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Abstract

Patient falls have been an issue in hospital settings for many years. Patient falls not only lead to increased costs for the hospital, but affects the safety and care for patients. Many studies have assessed potential, contributable factors leading to falls, fall risk assessment tools, and fall prevention interventions in different settings. However, there are limited studies done in inpatient psychiatric settings. The acute-psychiatric unit at a large metropolitan hospital has seen an increase in falls in the last year, yet current interventions have not addressed this issue.

The purpose of this project is to conduct an assessment of the unit's current fall risk assessment tool, interventions, and processes, while collecting and analyzing data of each fall and patients who have fallen. The results will help determine potential causes to the increased falls and help lead to solutions that can prevent future falls. Data was collected from patients' chart reviews, Unusual Occurrence Reports, and RN interviews. Analysis of data show that many patients were not identified as a fall risk at the time of his or her fall, while nurses on the unit had differing definitions of the current falls protocol and policy on the unit.

The following interventions are recommended: education on the use of a fall risk assessment tool that is appropriate for the acute-psychiatric population, instead of the current Schmid Fall Risk Assessment Tool that is used for all departments of the hospital and training for nurses on the unit to provide a clearer understanding of the unit's falls protocol and policy and fall prevention interventions.

Problem

In the hospital setting, falls continue to be the top adverse event (Spoelstra, Given, & Given, 2012). Not only can falls lead to serious injuries, but also increases the costs for the organization. Psychiatric inpatients who had recurrent falls had a significantly longer lengths of hospital stay compared with other inpatient populations (Greene et al., 2001). Many studies on acute inpatient psychiatric units have focused on behavioral management, patient safety, and on the threat of harm to self or others including suicide. Fewer studies have focused on fall prevention and the need for a different approach to fall prevention compared to other inpatient hospital units.

In one of the psychiatric units (7B) of the large metropolitan hospital, an increase in falls occurred in the past year. The hospital's quality improvement team questions whether the increase in falls are related to the improper use of the current, fall risk assessment tool, the lack of validity of the assessment tool, or the lack of nursing interventions for patients who are considered fall risks. Currently, 7B uses a standard fall risk assessment tool called the Schmid Fall Risk Assessment Tool, which assesses the patient's mobility, mentation, elimination patterns, history of falls, and current medications. Questions arise whether a different assessment tool that is more applicable to the psychiatric population is needed to appropriately determine whether a patient is a fall risk.

Furthermore, we question whether interventions provided by staff is adequate and whether staff are aware of interventions for patients who are fall risks. Nurses currently follow interventions in the Nursing Plan of Care (NPOC) when a patient is considered a Falls Risk. The intervention listed in the NPOC can be checked off, but may not be implemented appropriately.

Rationale

Literature Review

The literature review was conducted using CINHAL Complete database. Boolean operators and MESH terms search criteria were used to expand and restrict the search. In CINHAL's advanced search, using the keywords "psychiatric AND fall prevention," while limiting it to reviews published in the last 10 years, 36 articles were retrieved. These included primary studies, meta-analyses, retrospective analysis, and systematic reviews.

A fall is defined as a "an unplanned descent to the floor with or without injury to the patient" (AHRQ, 2013). Different types of falls can occur in a psychiatric unit, including environmental, physical, physiological, or intentional. Environmental falls include falls caused by wet floors or unstable furniture. Physiological fall can include falls related to the patient's mobility, balance, gait problems, sensory impairment, disorientation, confusion, effects of medication, substance use, orthostasis, or dizziness. Physical falls are falls related to the patient's use of assistive devices, ill-fitting shoes, or personal safety issues (Poster, Pelletier, & Kay, 1991). An intentional fall is when a patient intentionally descends to the floor and can occur as a way of acting out or gaining attention (Staggs et al., 2015). According to the Agency for Healthcare Research and Quality in 2013, between 700,000 and 1 million patients suffer a fall in United States hospitals per year, with between 30 and 51 percent of falls result in an injury.

Studies on fall prevention in psychiatric units are limited compared to fall prevention studies in other units. Studies have investigated the effectiveness of nursing fall risk assessment tools, interventions that reduce fall rates or minimize the risk of falling, and common fall risk factors in adult psychiatric patients. The combination of having proper assessment tools,

interventions, and awareness of risk factors seem to be the most successful in preventing falls for psychiatric patients.

Abraham conducted a review of possible fall risk assessment tools in 2016 and reviewed 7 risk assessment tools to determine the best instrument for psychiatric inpatients, since proper identification and precise assessment of individuals at risk are important components of fall prevention programs. The study found that the Wilson Sims Fall Risk Assessment Tool and the Edmonson Psychiatric Fall Risk Assessment Tool had the highest sensitivity and specificity scores. Wilson Sims had a sensitivity score of 100% and a specificity score of 63%. Edmonson had a sensitivity score of 63%. The major difference between the two tools is that the WSFRT included a column for the clinical judgment of the nurse, which offers an important factor for predicting a potential fall risk.

Quigley, Barnett, and Friedman studied psychiatric units of 5 hospitals in similar metropolitan cities in 2014. An operational strategic plan to address each falls prevention program element and improve program infrastructure and capacity was conducted using expert faculty lectures, coaching, and mentoring. Three projects were implemented simultaneously including a fall prevention program customized for inpatient psychiatry, a unit peer leader program for falls, and a customization of hip protectors and floor mats in psychiatry settings. Results were analyzed using quantitative and qualitative methods. Data analysis showed that improvements were evident in fall injury risk assessment and discharge education, with the largest positive change reported for environmental safety to reduce the severity of injury. Quantitative results showed the average fall rates decreased from 16% to 9%. However, the average fall related injury rates remained the same and average percentage falls with serious injury increased.

A systematic review conducted by Xu et al. included eleven studies with three before-and-after studies, four descriptive studies, two case control studies and two cohort studies (2012). One before-and-after exploratory study by Irwin between 1996 to 1997 implemented a modified fall risk assessment tool that was revised using literature findings and retrospective chart review of fall and non-fall patients, in addition to introducing a fall protocol. The study's results showed that in 1997, 85% of patients who fell and 28% of non-fallers obtained a positive score, compared to 53% and 57% of patients respectively in 1996. These results suggest that the modified fall risk assessment tool could be more predictive of falls in psychiatric patients.

Three of the studies included in the systematic review all implemented fall prevention programs by primarily including observation by nursing staff, ambulating exercises for patients, physiotherapist and occupational therapist involvement, modification of extrinsic factors, education for both patients and nursing staff, medication profile review by doctors or pharmacists, and consistent monitoring of changes in patients' standing and lying blood pressure (Xu et al., 2012). Murdock et al. implemented a mandatory blood pressure taking policy in order for staff to be aware of side effects of psychotropic medications, allow stricter documentation of each patient's blood pressure and review of medications upon assessment of blood pressure after falls (1998). The study found that the rate of falls increased after the intervention, but the rate of repeated falls decreased from 50.9% to 32.5%. The authors attributed the decrease in repeat falls from adjustments of medications related to postural hypotension and increased awareness of this problem, but probably to a lesser extent due to an increase in first fall. Yates and Tart studied the effects of an intervention that included a new type of nonskid slipper sock footwear, a Fall Prevention and Awareness Education Brochure for patients upon their admission, and a medical

profile review by pharmacy and annual staff education (2010). After a two-year study, results showed that fall rates decreased by 32% after including the new intervention.

Other hospitals in the bay area have implemented its own fall prevention interventions. Stanford Hospital had implemented an intervention that included fall focused rounds for bathroom assistance and patient teach back, post fall debriefings to adjust care plans and prevent repeated falls, and medication monitoring and education of frequently used medications for patients and staff (Varquez, 2009). Before the study started, a thorough assessment was done for one year to determine characteristics of the psychiatric population and their relation to falls. Results showed that repeat falls dropped to 0, while the falls rate remained the same.

The current data has shown the importance and effectiveness of having an assessment tool that is appropriate to patient population. Standard assessment tools such as the Wilson Sims Fall Risk Assessment Tool and the Edmonson Psychiatric Fall Risk Assessment Tool have shown to be able to appropriately identify patients who are considered fall risks. Other studies have assessed the unit's specific population to make adjustments to the current assessment tool, which has also lead to the development of a more effective assessment tool. Interventions for fall risk patients have focused on the effects of taking a combination of psychotropic medications on the risks of falls. Interventions that allow staff to monitor side effects of psychotropic medications and provide more opportunities to adjust medications appropriately in response to falls seem to be effective interventions to prevent repeat falls in the psychiatric population. A combination of interventions that addresses environmental, physical, and physiological falls can be effective in decreasing overall falls.

Cost Analysis

According to the Centers of Disease Control and Prevention (2016), costs for falls to Medicare alone totaled over \$31 billion in the United States. Adjusted to 2010 dollars, one fall without serious injury costs hospitals an additional \$3,500, while patients with more than 2 falls without serious injury have increased costs of \$16,500. Falls with serious injury are the costliest with additional costs to hospitals of \$27,000 (Wu, Keeler, Rubenstein, Maglione, & Shekelle, 2010).

On 7B, a reported 45 falls occurred amongst 31 patients within the last fiscal year. Six of the thirty-one patients had fallen repeatedly on the unit, with 3 patients who fell more than twice. With 3 patients who have more than 2 falls, the costs of falls without serious injuries is \$49,500. With thirty-one patients who have fallen without injuries, the costs would be \$108,500. If all thirty-one patients had fallen with serious injuries, the potential costs would be \$837,000 in just one year.

Through proposed interventions described in later sections, these costs can be reduced. The costs of implementing a new assessment tool and providing training and education to staff regarding fall prevention interventions and protocol is \$17,889.00, assuming that the amount of training and education will not exceed 300 hours and the standard Wilson Sims Fall Risk Assessment Tool is implemented as a replacement to the Schmid Fall Risk Assessment Tool. The amount is just a small fraction of what can potentially be saved from patient falls. Assuming that none of the falls led to any serious injuries this last fiscal year, the proposed interventions can save up to \$158,000 per year. Even more can be saved if injuries were associated with any one of these falls.

Project Overview and Methodology

Data Source

Data was obtained from patients' chart reviews, Unusual Occurrence Reports and interviews of Registered Nurses in 7B. Patients who have fallen during the fiscal year were identified by data from a member of the quality improvement team, while Unusual Occurrence Reports were obtained by a member of the falls committee for the psychiatric unit. After identifying the patient's name and date of fall during the last fiscal year, charts were requested from the medical records department. Records were delivered after two days, which were then reviewed and data was transferred onto an excel sheet that included twenty different characteristics for each patient. Each patient was assigned a numerical value to maintain confidentiality. Data for each patient included gender, age, presence of bone disease or osteoporosis, coagulopathy, recent surgeries, primary diagnosis, psychological diagnosis, comorbidities, medications, current drug or alcohol use, history of drug or alcohol use, housing situation, date of fall, time of fall, identification of fall risk prior to fall, Schmid score at admission, repeated fall on unit, type of fall, fall prevention plan, and witnessed or non-witnessed fall. Data for the latest fall was recorded for patients who had repeated falls on the unit.

Fourteen interviews of Registered Nurses on the unit were conducted. Interviews were conducted during AM shifts (7:00am-3:30pm) and PM shifts (3:00pm-11:30pm). Experience of nurses ranged from five months to twelve years. Initial interviews contained six questions, but after one initial session, two additional questions were asked (See Appendix A). Interviews were conducted to determine the current knowledge of nurses on the unit in relation to fall risk assessment and fall prevention interventions in 7B. Interviews were focused on the use of the Schmid Fall Risk Assessment Tool, the current Falls protocol, and interventions when a patient is labeled as a fall risk.

Expected Outcomes

The purpose of the project was to obtain detailed information about patient demographics, registered nurses, unit processes, and current fall risk assessment and fall prevention tools to determine potential reasons for increase of falls on the unit. Information is gathered in order to assess and identify possible issues that lead to falls. These issues can be related to a possible lack of knowledge of registered nurses regarding assessing fall risk patients and activating appropriate post falls interventions. The project also looks at the validity and reliability of the current Schmid Fall Risk Assessment Tool to determine whether it is appropriate for 7B's patient population. Lastly, the project aims to assess patient demographics and descriptions of the incident to develop a clear understanding of additional factors that could have caused the fall.

After analyzing data, recommended interventions can be made to prevent future falls. Depending on the results of the data, a new fall risk assessment tool can be recommended that is more appropriate for assessing the patient population. If nurses are utilizing the current, Schmid Fall Risk Assessment Tool incorrectly or not following appropriate protocols, further education or training can be provided. If current fall precaution practices are inadequate, new interventions should be discussed in order to address possible reasons of falls developed from data gathered by this project.

Nursing Relevance

It is important to promote patient safety as a nurse. Understanding the reasons for falls on the unit can allow nurses to assess and monitor patients with a gained awareness of contributable factors for falls. Being aware of these factors can lead nurses to more accurately identify patients who are a fall risk at admission and recognize signs early enough to prevent a potential fall. The

nurse's role as an educator becomes important, as he or she can educate patients and other staff members on how to prevent future falls. In order to create improvements for patient care, the nurse's skills as a leader and care manager is important in taking the initiative to find the cause of the issue and involve others in finding solutions to the problem.

The vision of this hospital is to “advance community wellness by aligning care, discovery, and education,” while its values and commitments include clinical quality, health equity, safety and accountability. 7B can meet this vision as nurses continue to obtain and analyze data to improve care and provide clinical quality care. Nurses can promote safety through education and providing appropriate care through new knowledge gained from data. As a nurse, he or she is dedicated to the safety of patients and have a responsibility to ensure their safety through the values of the organization.

Summary Report

Root Cause Analysis

After gathering information from chart reviews, Unusual Occurrence reports and interviews with Registered Nurses on 7B, data suggests that there is a lack of knowledge amongst nursing staff regarding falls protocol and poor fall risk assessments that led to missed identifications of fall risk patients. Although, registered nurses were aware of how to assess for different characteristics listed on the Schmid Fall Risk Assessment Tool, many patients who have fallen received a score that did not consider the patient as a fall risk at admission, which can suggest the possibility of the unit not having an appropriate assessment tool for the psychiatric patient population.

Furthermore, many nurses were unclear of what the exact Falls Protocol on the unit entailed. Nurses had differing answers with some who were unaware that a protocol existed.

With nurses unsure of actions to take after a fall occurs, preventative measures and appropriate patient care cannot be provided optimally. Preventative measures include appropriately documenting and activating the Fall Risk section in the patient's NPOC and assessing side effects from taking a combination psychotropic medications. This suggests that further education is needed for nurses to have a clear understanding of what actions should be taken after a fall to prevent a repeat fall and provide care for a patient to address possible injuries from the fall.

Redesign of Process

Initially, a thorough assessment and an intervention was to be implemented to address issues identified from data. However, due to time constraints, only an assessment was conducted. Additional characteristics were included into the assessment including orthostatic hypotension/drowsiness side effects of medications and types of fall prevention interventions. An additional *behavioral* type of fall was added to describe falls involved in aggression towards staff or self, leading to the fall. *Intentional* type of fall was not used. Interviews with patients were not completed due to the risk of not obtaining credible responses as a result of the patient's psychiatric diagnosis and altered mental status.

Interviews and observations of fall risk assessments with nurses were to be conducted, as the fall risk assessment was done for a patient during each shift. However, the fall risk assessment was only done during the initial patient admission into the unit so planning observations was not possible. Interviews were planned at three different shifts and days. Initially, six questions were included in the interview, but two additional questions were then added to obtain nurses' opinions on the unit's fall protocol's adequacy and recommendations for improving the current protocol.

Implementation

Due to the uncontrollable time constraints of this project, interventions were not implemented, but recommendations are proposed for future projects. After analyzing the data, it is recommended that a pilot study of at least one of the two recommended interventions is started in the near future. Since many patients who have fallen received a score that determined him or her as a non-fall risk during the initial admission, it can be suggested that a different assessment tool should be used to provide a more accurate assessment. The Wilson Sims Fall Risk Assessment Tool is recommended, because it has produced results with high sensitivity and specificity for the psychiatric population, while allowing nurses to add his or her own clinical judgment. The nurse's clinical judgment can have a significant impact on the assessment, especially if the nurse has many years of experience with the psychiatric population. The new assessment tool would replace the Schmid Fall Risk Assessment at admission to evaluate the effects on patient falls for a duration of one year.

Another recommendation is to provide more education and training for nursing staff regarding the current Falls Protocol. Data from interviews show that nurses are unsure about what the Falls Protocol entails. Further training and education can make it clear for nurses of what exact actions should be taken in response to a fall and when a patient is considered fall risk. Instructions to completing Unusual Occurrence reports should also be included in order to provide detailed data on each fall that can be used to create a more accurate root cause analysis. This can be provided for at least 30 hours per week for a duration of one to two months. Four 30-minute sessions would be done during each shift for 4 to 5 days/week or until every nurse assigned to 7B is seen. Questions can be answered to provide clarity and nurses' knowledge can be re-assessed after training and education.

Results

Since no interventions were implemented for this project, results from data collection will be described in this section. Data was recorded onto an excel sheet and was further analyzed (See Appendix B). Results show that 17 of patients who fell were male, with 11 of patients who were female. The average age was around 50 years old with a range from 22 years old to 69 years old. No patients had a bone disease or Osteoporosis. Seven patients had coagulopathies, 19 patient had no coagulopathies, and 2 were unknown. Three patients had recent surgeries, 1 had a history of surgeries with unknown dates, and 24 had no recent surgeries. Eighteen patients were diagnosed with Schizophrenia or Schizoaffective Disorder, 4 patients were diagnosed with Bipolar disorder, 2 with Anxiety Disorder, 2 with Cognitive Deficits, 1 with Major Depression, and 1 unknown. Twenty-eight patients were taking at least one psychotropic medication that has a side effect of orthostatic hypotension or drowsiness and 3 patients had unknown medication orders. Twenty-four patients had comorbidities, 2 patients had no comorbidities, and 2 were unknown. Sixteen patients denied current drug use, 7 patients admitted to current drug use, and 5 were unknown. Fourteen patients had a history of drug use, 7 denied a history of drug use, and 7 had unknown histories. Sixteen patients were *not* identified as fall risks at the time of their fall, 8 patients were identified as fall risks at the time of their fall, and 4 had unknown identifications. Sixteen patients received a Schmid score below 3, 5 patients received a score of 3 or above, and 7 patients had unknown scores. Ten patients were homeless, 14 patients were housed, and 4 had unknown, housing situations.

Dates of falls ranged from July 1st, 2015 to September, 18, 2016 from the last fiscal year. Ten falls occurred during NOC shifts, 12 falls occurred during AM shifts, 4 falls occurred during PM shifts, and 2 were unknown. Twenty-one percent were repeat falls, 64.3% were not repeat falls, and 14.3% were unknown. Five falls were determined to be behavioral, 4 falls were

medical/physiological, 12 falls were accidental, 2 were environmental, and 5 had unknown types. Nineteen had a subsequent fall prevention plan, 2 had no fall prevention plan activated, and 7 were unknown. Interventions included in the fall prevention plan included post huddle, daily assessment of falls status, providing assistive devices, establishing toileting routine, adding a yellow star on chart, Kardex, and patient door, activating “Falls Precautions”, keeping bedside area dry and clutter free, providing safe footwear, moving patient to room close to nursing station, and adjusting medications. Thirty percent of the interventions from the fall prevention plan included implementing “falls precautions” and 23.3% included assessing fall status daily. “Falls Precautions” however, was not described so specific actions for this intervention is unknown. Nine of the falls were not witnessed, 5 falls were witnessed, and 14 were unknown.

Responses of 7B Registered Nurses were recorded during the interview and subsequently categorized and analyzed (See Appendix C). Nine nurses were interviewed during AM shifts and 5 nurses were interviewed during PM shifts. The first 4 questions were asked to find how characteristics that can determine whether a patient is a fall risk are assessed. To assess orientation and neurological status, 65% of nurses report that they ask the patient, 31.6% observe the patient, and 5.3% will look at the chart or Kardex. Questions include asking person, place, date, and situation. When assessing patient mobility, 47.6% observes the patient, 23.8% finds data from chart or Kardex, 14.3% finds data in shift report, and 14.3% asks the patient. When assessing elimination patterns, 50% asks the patient about his or her elimination patterns, 22.2% observes the patient when toileting, 16.7% looks at the patient’s chart or Kardex, and 11.1% obtains data from shift report. When assessing the patient’s history of falls, 54.2% looks at the patient’s chart or Kardex, 29.2% asks the patient if he or she has fallen in the past, 12.5% will gain information from shift report, and 4.2% will observe the patient.

Nurses were also asked about interventions for fall risk patients and the unit's Falls Protocol. Responses varied among all nurses. Responses for Fall Risk interventions include one to one order for patient, closer observation, education for patients, notification of MD for Falls Precautions order, documenting and notifying staff, clearing away clutter, wearing a band, moving room close to nursing station, assessing medications and side effects, and providing non-skid socks. One nurse was unsure about interventions for fall risk patients. Responses for the meaning of Falls Protocol were similar to fall risk interventions, but with different proportions. The most common response for what the nurse should do when a patient is considered a fall risk, is to notify the MD to obtain a Falls Precautions order. When nurses were asked what it meant when the Falls Protocol is activated, 28.6% of the nurses were unclear about it meant, while 28.6% of nurses state that it meant that the incident should be documented and staff should be notified. When asked if he or she thought the falls policy and protocol was adequate, 6 thought it was adequate, 2 thought it was inadequate, while one could not answer because she was not aware that there was a Falls Policy and Protocol in place.

Evaluation

As stated previously, due to time constraints, an evaluation of the intervention was not completed. To determine any improvement from using the new assessment tool for future projects, data would be collected after a year to determine whether the number of falls decreased or not. Furthermore, data would be collected to determine whether patients were correctly labeled as a fall risk at admission and throughout the patient's stay. To determine nurses' knowledge after the in-service training, a post-test will be given to assess their understanding of the unit's fall risk protocol, how to complete more thorough UO reports, and fall risk interventions.

Conclusion

This project has shown a bigger picture of the unit's current approach to reduce falls, which has its strengths and weaknesses. It was surprising to find that many of the patients who have fallen were not identified as a fall risk on assessment, which prevented appropriate, fall prevention interventions to be implemented. It was also surprising to see how the staff's approach to fall risk patients differed and some lacked knowledge about the current protocol and policy. Conducting more interviews with the nursing staff could have provided a more accurate picture of their overall view of the unit's fall risk prevention practices. The majority of the time was spent reviewing chart reviews and Unusual Occurrence Reports, transferring data onto an excel sheet, and analyzing the data. With limited time, more interviews were not conducted. Future efforts should involve more training for nursing staff to ensure that proper actions are taken for patients who are fall risks and are aligned with the unit's fall risk protocol and policy. Also, it is recommended to utilize a fall risk assessment tool that can better identify those who are fall risks at admission.

It is also important to add that it was difficult to determine the actual type of fall when reviewing Unusual Occurrence reports. The reports had little information regarding the fall or the patient. With the provided description, some falls that were labeled *accidental*, can potentially be *physiological*, as some reports contained statements such as "sitting in shower chair and fell to the floor," "fell during urination," and "pt was walking and started to run, so he tripped and fell." Higher quality data could have been retrieved with more available UO reports and better descriptions of factors surrounding the fall. Therefore, additional training on completing UO reports was recommended so that further interventions that address the common type or types of falls can be addressed, as well.

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Appendix A

RN Interview Questions

1. How do you assess orientation and neuro status?
2. How do you identify the level of patient mobility?
3. How do you identify patient elimination patterns?
4. How do you come to know the patient's history of previous falls?
5. When you identify a patient who is a fall risk, what do you do next?
6. If one says to activate *Falls Protocol*, what does that mean?
7. Do you think the unit's falls policy and protocol is adequate for your unit? If not, do you have any recommendations?

Appendix B

Patient Demographics, Falls, and Interventions

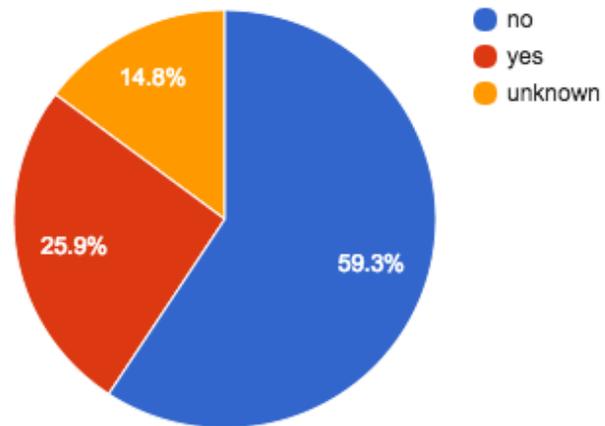
Chart Review/UO Reports Data - Patient Demographics

| Name | Gender | Age | Bone disease/o | Coagulopathy: | Recent Sx | Primary Dx/Psy | Comorbidities | Medications | Orthostatic Hyp | Current Drug/Al | Hx Drug/Alcohol | Housed or Homeless |
|------|--------|-----|----------------|---------------|-----------|-------------------|--------------------|---------------------|-----------------|-----------------|-----------------|--------------------|
| 2 | M | 48 | unknown | unknown | no | Cognitive Deficit | Depression, Seiz | unknown | unknown | no | no | Homeless |
| 3 | F | 67 | no | yes | no | Schizoaffective | HTN, NIDDM, N° | Aripiprazole, As | Yes | no | no | Housed |
| 4 | F | 66 | no | no | unknown | Bipolar affective | DM II, Emphyser | Artovastatin, Dul | Yes | no | no | Housed |
| 5 | F | 62 | no | no | no | Cognitive Deficit | HTN, Cirrhosis, t | Amlodipine, Bac | Yes | no | yes | Homeless |
| 6 | M | 58 | no | unknown | no | unknown | unknown | Unknown | Unknown | unknown | unknown | Homeless |
| 7 | F | 60 | no | yes | no | Severe Anxiety | MDD, Psychosis | Ferrous sulfate, l | Yes | unknown | unknown | unknown |
| 8 | M | 28 | no | no | no | Schizoaffective | c None | Acetaminophen, | Yes | yes | yes | Housed |
| 9 | M | 68 | no | yes | no | Schizoaffective | l COPD, Pneumor | acetaminophin, t | Yes | no | yes | Housed |
| 10 | M | 60 | no | yes | no | Schizoaffective | c HTN, hypothyroi | Aspirin 81 mg, cl | Yes | no | yes | Housed |
| 11 | F | 54 | no | no | no | Schizoaffective | c DM, HTN, L side | Unknown | Unknown | no | no | Housed |
| 12 | F | 36 | no | no | no | Bipolar Disorder | Personality Diso | olanzapine, Bac | Yes | no | yes | Housed |
| 13 | M | 57 | no | no | no | Catatonic Schiz | HTN, DM | acetaminphien, | l Yes | no | unknown | Housed |
| 14 | M | 49 | no | no | no | Schizoaffective | c Huntington's Ch | Klonopin, VPA, t | Yes | unknown | unknown | Housed |
| 15 | F | 30 | no | no | no | Schozoaffective | bipolar disorder | Haldol, Acetamir | Yes | yes | yes | Homeless |
| 16 | M | 43 | no | yes | no | Schizophrenia | Seizure Disorder | Clozapine, Dival | Yes | unknown | unknown | Housed |
| 17 | M | 69 | no | no | no | Schizophrenia | epleptic, ventral | zoloft, klonopin, | l Yes | no | unknown | Homeless |
| 18 | M | 33 | no | no | no | Schizophrenia | c Anxiety, depress | ativan, trazodon | Yes | No | Yes | Homeless |
| 20 | M | 45 | no | no | no | MDD, ANXIETY | HTN, TACHYCA | ZOLOFT, KLON | Yes | yes | yes | Housed |
| 21 | F | 52 | no | no | no | Schizophrenia | PTSD, SAD, dep | Perphenazine, V | Yes | no | no | Homeless |
| 22 | F | 39 | no | no | no | Schizoaffective | c hyperthyroidism | Depakote, Clona | Yes | unknown | unknown | unknown |
| 23 | F | 56 | no | Yes | no | Schizophrenia | Borderline PD, k | benztropine, cho | Yes | unknown | no | Housed |
| 24 | F | 44 | no | no | yes | Unspecified Schi | Churg Strauss | V Albuterol, Baclof | Yes | yes | yes | Homeless |
| 25 | M | 61 | no | no | no | MDD (Bipolar) | HTN, DM 2, Dep | Lovenox, Metrop | Yes | no | yes | Housed |
| 27 | M | 22 | no | no | yes | Bipolar Disorder | none | Perphenazine, L | Yes | yes | yes | homeless |
| 28 | M | 56 | no | no | no | Schizophrenia | Diabetes | Clonazepam, Ol | Yes | yes | yes | unknown |
| 29 | M | 31 | no | yes | no | Schizophrenia | substance use | d Depakote, Clona | Yes | unknown | yes | unknown |
| 30 | M | 66 | no | no | yes | Depression, psy | Hx of sz d/o, Af | Mirtazapine, Met | Yes | yes | yes | Homeless |
| 31 | M | 52 | no | no | no | Schizoaffective | l unknown | Invenga Sustenna | Yes | no | no | Housed |

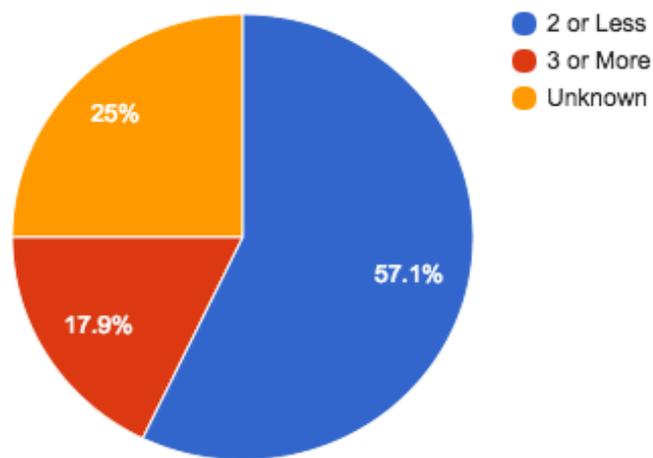
Chart Review/UO Reports Data - Falls and Interventions

| Name | Date of Fall | Time of Fall | Fall Risk Identifi | Schmid Score | Repeat Fall on | u Type of Fall | 1=F | Fall Prevention Plan/Interventions | Viewed (0=No, 1=Yes) | Fall Prevention Plan/Interventions | Count |
|------|--------------|--------------|--------------------|--------------|----------------|----------------|-----|---|----------------------|---------------------------------------|-------|
| 2 | 9/18/16 | 1040 | yes | 6 | yes (4th) | 3 | | Post huddle | unknown | Fall Prevention Plan/Interventions | |
| 3 | 6/18/16 | noc | no | unknown | no | unknown | | Assess falls status daily, falls precauti | 0 | Post Huddle | 1 |
| 4 | 6/7/16 | 550 | yes | 3 | no | 1 | | unknown | 0 | Assess Fall Status Daily | 10 |
| 5 | 6/29/16 | unknown | no | unknown | yes (7th) | 1 | | unknown | unknown | Falls Precautions | 13 |
| 6 | 5/19/16 | unknown | unknown | unknown | unknown | unknown | | unknown | unknown | Establish Toileting Routine | 5 |
| 7 | 5/8/16 | 1455 | no | unknown | unknown | 1 | | unknown | unknown | Keep bedside area dry and clutter fre | 4 |
| 8 | 3/27/16 | 2000 | no | 2 | no | 1 | | unknown | 1 | Room close to Nx station | 1 |
| 9 | 3/16/16 | 2355 | yes | unknown | yes (2nd) | 3 | | Falls Precautions | 1 | Assistive Device | 2 |
| 10 | 3/14/16 | 120 | no | 2 | no | 1 | | no | 0 | 1:1 | 4 |
| 11 | 2/18/16 | 1130 | no | 2 | no | 3 | | Assess falls status daily, establish toil | unknown | Fall Protocol Implemented | 1 |
| 12 | 2/15/16 | 430 | no | 1 | no | 2 | | unknown | 1 | Provide safe foot wear | 1 |
| 13 | 2/2/16 | 1215 | yes | 5 | yes (2nd) | 1 | | Assess falls status daily, establish to | 1 | Medication/Side Effects Assessment | 1 |
| 14 | 12/27/15 | 1150 | yes | unknown | unknown | 1 | | Assess falls status daily, establish to | 0 | | |
| 15 | 12/17/15 | 1900 | no | 0 | no | 3 | | Assess fall status daily, falls precauti | 0 | | |
| 16 | 11/17/15 | 10 | no | 2 | no | 4 | | Assess falls status daily, falls precauti | 0 | | |
| 17 | 11/11/15 | 1340 | Yes | 6 | yes (6th) | 1 | | Assess falls status daily, assistive dev | 1 | | |
| 18 | 10/12/15 | 1032 | no | 0 | no | 4 | | Falls Precautions | unknown | | |
| 19 | 9/25/15 | 30 | no | 1 | no | 2 | | Falls precautions, assess falls status | unknown | | |
| 20 | 9/5/16 | 1430 | no | 2 | yes (2nd) | 1 | | Monitor pt for dizziness and vital sign | 0 | | |
| 21 | 9/12/15 | 45 | Unknown | unknown | unknown | unknown | | unknown | unknown | | |
| 22 | 9/11/15 | 910 | no | 1 | no | 1 | | Falls protocol implemented | 0 | | |
| 23 | 9/7/15 | 119 | no | 2 | no | unknown | | no | 0 | | |
| 24 | 8/26/15 | 2220 | no | 1 | no | 2 | | 1:1 | unknown | | |
| 25 | 08/16/15 | 1530 | no | 1 | no | 1 | | 1:1 | unknown | | |
| 26 | 8/11/15 | 40 | no | 1 | no | unknown | | Falls precautions | unknown | | |
| 27 | 7/23/15 | 1100 | no | 2 | no | 3 | | 1:1 sitter, precautions per MD order, fi | unknown | | |
| 28 | 7/4/2015 | 1330 | yes | 3 | no | 2 | | Assess falls status daily, assistive devi | unknown | | |
| 29 | 7/1/2015 | 1600 | yes | 2 | no | 1 | | Assess falls status daily, falls precauti | unknown | | |

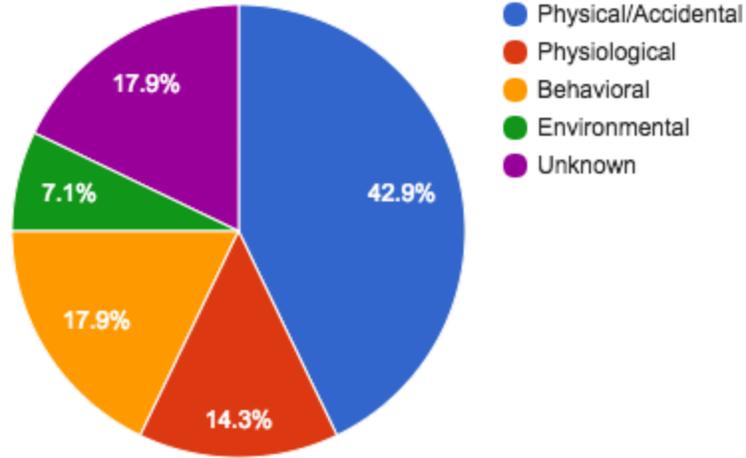
Fall Risk Identified



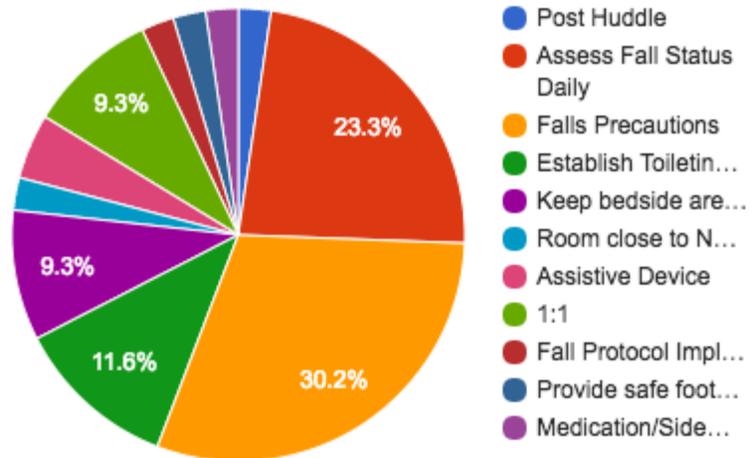
Schmid Scores



Types of Falls



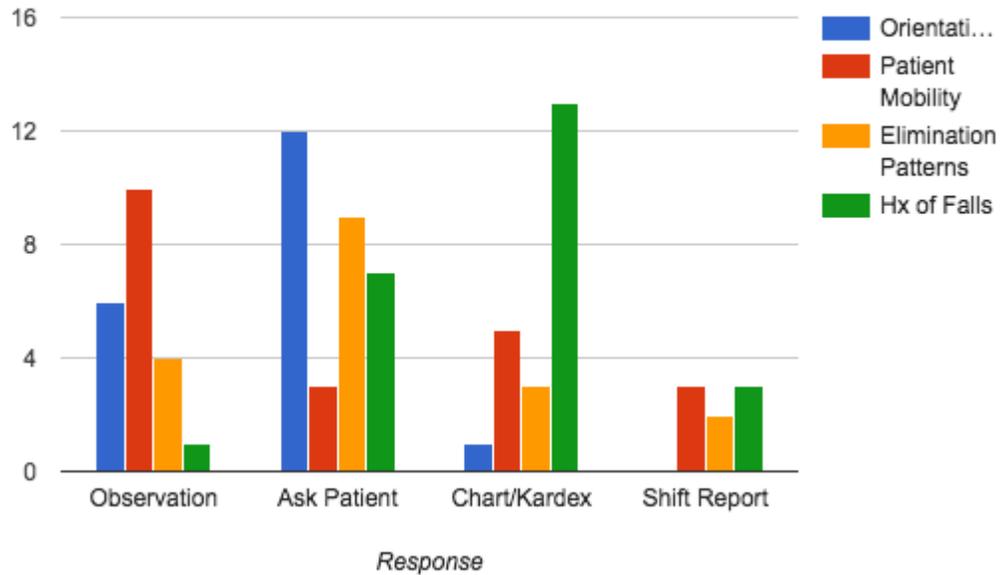
Fall Prevention/Interventions



Appendix C

7B Nurse Interviews

Evaluating Assessment Skills for Schmid Fall Risk Assessment Tool



Fall Risk Intervention and Falls Protocol

