Tailoring Interventions in Reducing Rate of Falls in a Psychiatric Inpatient Unit

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Background and Problem

National Database of Nursing Quality Indicators: psychiatric units experience 13 – 25 total number of falls per 1,000 patient days compared to four falls in a medical-surgical area per 1,000 days (Abraham, 2016)

- 700,000 – 1,000,000 reported inpatients falls each year (AHRQ, 2013)
- One-third of falls lead to fracture and head trauma (AHRQ, 2019)
- By 2020, cost of fall injuries will reach $67.7 billion (CDC, 2014)
- Increased LOS, liability, and additional healthcare costs (Bouldin et al., 2013)

CMS do not reimburse hospitals for injuries related to falls since October 2008 (Abraham, 2016; Bouldin et. al., 2013; CMS, 2014)

Challenges in Psychiatry:

- adherence to plan of care,
- lack of patient engagement, and
- lack of research studies (Abraham, 2016)

Aim

Principal aim is to decrease the rate of falls in a psychiatric inpatient hospital using the evidence-based Tailoring Interventions for Patient Safety (TIPS) program

- Evidence-based practice to prevent falls by using a fall risk screening tool and a tailored fall prevention program which address patient's risk factors (Dykes et al., 2018)

Methodology

- QI project in a 133-bed psychiatric hospital
- Provided in-person education and hands-on training of the Fall TIPS program to the 103-nursing staff : electronic medical record (EMR) TIPS documentation of the Morse fall assessment, tailored-interventions, and patient education
- Project timeline: Oct. 2019 to Feb. 2020
- Data source was de-identified falls rate per 1,000 patient days from Jan. 2018 to Feb. 2020

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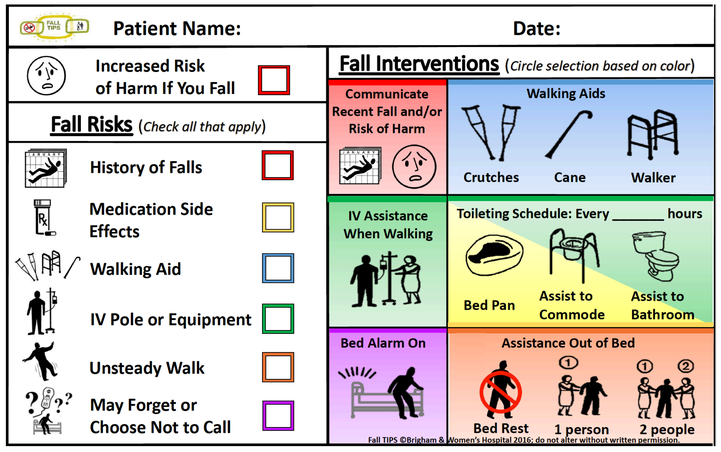

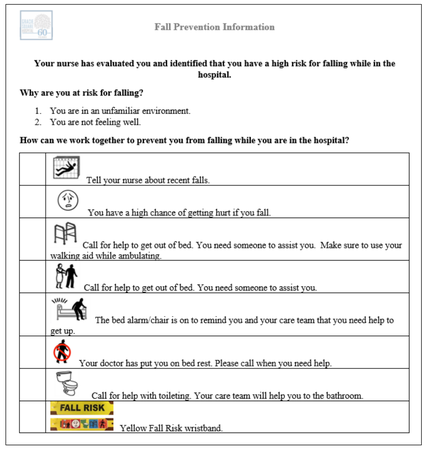

Results

- Though post-intervention only started October 2019, the overall falls incidents **decreased by 14%** from 149 in 2018 to 128 in 2019
- The findings showed a **decrease in the falls rate** with the Fall TIPS program compared to pre-intervention from Sept. 2019 to post-intervention from Feb. 2020:
  - Falls rate per 1,000 pt. days: 4.73 to 1.46
  - Falls with injury per 1,000 pt. days: 1.18 to 0.58
- A Mann-Whitney U test of falls rate pre-intervention from Jan. 2018 to Sept. 2019 and post-intervention from Oct. 2019 to Feb. 2020
- Although there is **no statistical significance** of falls rates in using Fall TIPS, the data is trending towards significance.
  - Falls rate per 1,000 pt days: $U(N_{\text{Fall standard}} = 21, N_{\text{Fall TIPS}} = 5,) = 33, z = -1.27, p = 0.21$
  - Falls w/injury rate per 1,000 pt days: $U(N_{\text{Fall standard}} = 21, N_{\text{Fall TIPS}} = 5,) = 30, z = -1.47, p = 0.14$

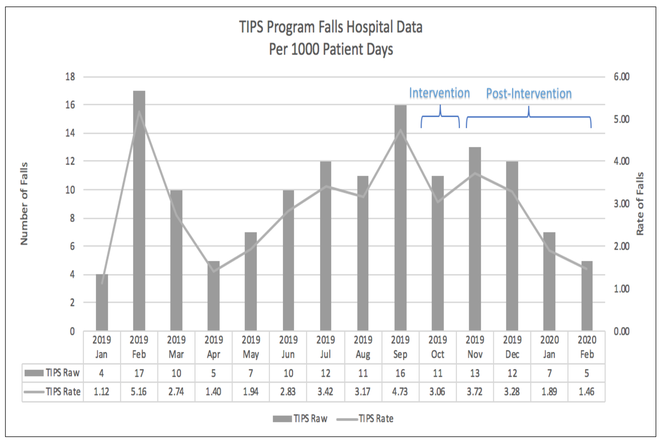

Figure 1
TIPS Program Falls Hospital Data (Jan. 2019 – Feb. 2020)

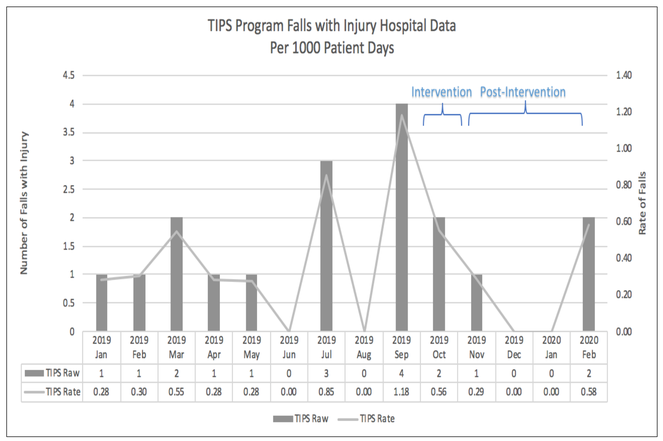

Figure 2
TIPS Program Falls w/ Injury Hospital Data
(Jan. 2019 – Feb. 2020)

Discussion

- TIPS program showed a downward trend in the rate of falls and falls with injury
- Inpatient falls in psychiatric hospitals can be addressed and reduced using the Fall TIPS by continuously assessing the fall risk factors, tailoring interventions, and patient education

Discussion

- Universal fall precautions and fall risk injury assessment should be assessed
- Involving staff, patient, and family in fall prevention plan of care

Implications

- Clinical Practice: Communicating risk assessment, interventions, and education
- Healthcare Policy: Incorporated the TIPS program in the Fall Prevention Policy
- Quality and Safety: Continuous review of fall incidents, monthly tracking of data, and audits to ensure compliance
- Education: Educating the nursing staff and consistent patient and family education
- Economic Implications: Cost-savings
- Dissemination: Poster presentation within the hospital and university and publication submission
- Sustainability: Standard of care in Nursing practice and policy; monitoring of falls data; and continuous involvement of nursing staff and management

Conclusion

- Although not statistically significant, it assisted with the trending down of the falls rate by educating nurses in identifying risk factors, tailoring interventions using the EMR documentation/poster and educating patients

Reference List

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