

ENHANCING NURSING KNOWLEDGE OF FALL RISK FACTORS AND PREVENTION GUIDELINES THROUGH AN EDUCATIONAL INTERVENTION

Kimberly DiGerolamo, DNP, RN, PCNS-BC, CPN
Clinical Nurse Specialist, Inpatient Neurology/General Pediatrics
The Children's Hospital of Philadelphia



OBJECTIVES

- Participant will identify strategies to enhance knowledge and leverage collaboration to improve outcomes
- Participant will recognize the importance of tailoring education to meet specific needs of learner
- Participant will discuss role of the DNP in using evidence-based practice methodology for challenging current organizational culture to determine ways to improve or augment organizational practices

Background

- Falls are the leading cause of childhood injury ¹
- Pediatric risk factors differ from adult
- Complexity of current healthcare environment and its role in unachieved outcomes ²
 - Clarification of roles and responsibilities among patient care staff can potentially support fall prevention efforts.
- The impact of falls is far reaching:
 - Safety
 - Quality
 - Cost

Clinical Problem

- Children's Hospital of Philadelphia's (CHOP) fall rates for fiscal year (FY) 16 and 17 were similar to national average for children of 1.0 per 1000 patient days.
- Fall rates on the Oncology unit well above national average. 20% of the total falls with injury occurred on Oncology.
 - Cancer diagnosis often associated with multiple risk factors including cognition, polypharmacy, anemia, chemotherapy and radiation treatment increasing the risk of falls. ³
- Fall prevention guidelines exist but knowledge of oncology-related risk factors and application of guidelines vary among staff.

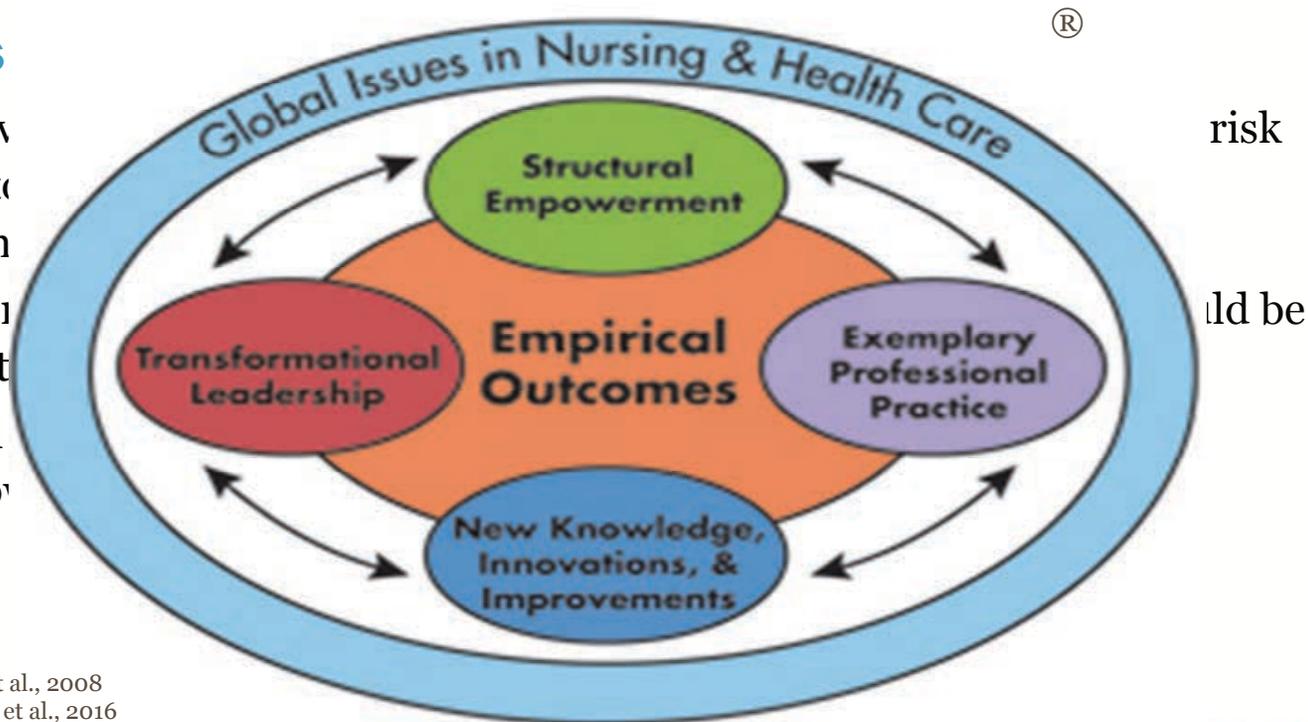
PURPOSE OF THE PROJECT

Offer a collaborative learning experience for Registered Nurses (RN) and Senior Nurse Aides (SNA) to enhance knowledge of fall risk factors and evidence-based prevention guidelines through the use of an educational intervention

PICO: Does an interdisciplinary educational intervention for Registered Nurses and Senior Nurse Aides on an inpatient Oncology unit increase knowledge of fall risk factors and evidence based prevention guidelines?

Synthesis

- Prev fact com
- Tea part
- Fall kno



4. Rush, et al., 2008
5. Wilson, et al., 2016
6. Kalisch, 2006
7. Phillips, et al., 2008
8. Koh, et al., 2009

INTERVENTION

- Gathered stakeholders to modify knowledge assessment tool and develop education
- Modified Falls Knowledge Assessment Tool: 13 multiple choice questions
 - 6 question responses/terms modified to pediatrics and/or oncology
- Developed Oncology Falls Prevention Education Session
- Delivered five 45 minute education sessions using pre/post-test for knowledge assessment

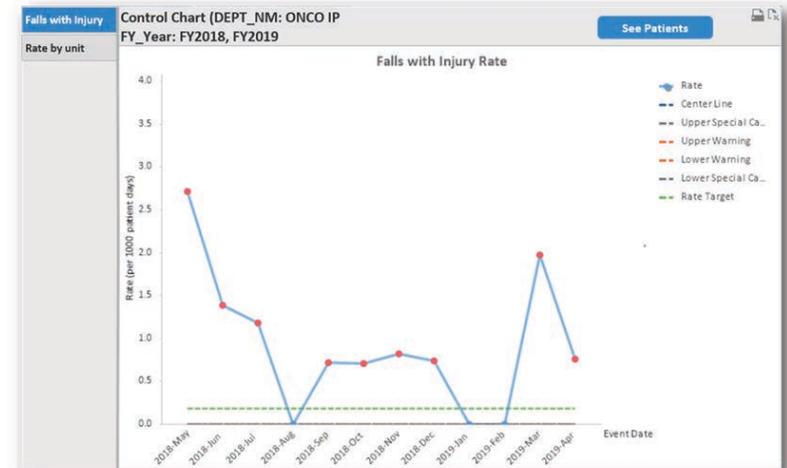
Educational Content Outline	
Pre-test	
Introduction	
Ice Breaker	
Falls Prevention current state	
Data review	
Impact of falls	
Review supportive literature	
Present case study	
Content	
General falls knowledge	
Need for comprehensive program	
Risk factors	
Roles	
Prevention	
Oncology diagnosis	
Assessment	
Education	
Review CHOP's current Fall Prevention Program	
Present 2 nd case study	
Fall Prevention myths	
Post-test	

RESULTS

- 30 participants; 27 matched pre- and post-tests completed (25 RN and 2 SNA).
- Majority participants female (96%), aged 25-34yrs (52%), with less than 5 years of experience as RN on Oncology unit (84%).
- 63% of participants had an increase in post-test knowledge score.
 - Comparison of median pre- and post-implementation ranks show post scores were statistically significantly higher ($Z = -3.11$, $p = 0.001$).
- Since the educational intervention, the Oncology unit has achieved a decreased fall with injury rate for six months consecutively.

Variables	Pre-implementation (n=27)		Post-implementation (n=27)		P value
	Median	IQR	Median	IQR	
Knowledge Score	12	10.5,12	13	12,13	0.001*

*Wilcoxon Signed-Rank Test, $p < 0.05$;
IQR = Inter Quartile Range



IMPLICATIONS FOR PRACTICE

- A unit-level quality improvement practice intervention supported improved patient outcomes on the Oncology unit. Intervention can be adapted and applied organization-wide.
- Findings consistent with the literature in addressing key components of fall prevention to enhance knowledge and increase awareness.
- High census and acuity created participation challenges. Future research needed to identify novel ways to educate staff in the complex, ever-changing healthcare environment.

ROLE OF THE DOCTORALLY PREPARED NURSE

Transformational Leadership

- Challenge current thinking
- Influence knowledge and practice
- Motivate change
- Stimulate innovation and creativity

REFERENCES

1. Centers for Disease Control and Prevention (2016). Protect the ones you love: Child injuries are preventable. Retrieved from <http://www.cdc.gov/safecchild/falls>. Accessed 6/12/19.
2. . Ebright, P., (2010). The complex work of RNs: Implications for healthy work environments. *OJIN: The Online Journal of Issues in Nursing*, 15(1), 1-12. doi: 10.3912/OJIN.Vol15No01Man04
3. Allan-Gibbs, R. (2010). Falls and hospitalized patients with Cancer: A review of the literature. *Clinical Journal of Oncology Nursing*, 14(6), 784-792. doi:10.1188/10.CJON.784-792
4. Rush, K.L., Robey-Williams, C., Patton, L.M., Chamberlain, D., Bendyk, H., Sparks, T. (2008). Patient falls: Acute care nurses' experiences. *Journal of Clinical Nursing*, 357-365. doi: 10.1111/j.1365-2702.2007.02260.x.
5. Wilson, D.S., Montie, M., Conlon, P., Reynolds, M., Ripley, R., Titler, M.G. (2016). Nurses' perceptions of implementing fall prevention interventions to mitigate patient-specific fall risk factors. *Western Journal of Nursing Research*, 1012-1034. doi: 10.1177/0193945916644995.
6. Kalisch, B.J. (2006). Missed nursing care: A qualitative study. *Journal of Nursing Care Quality*, 21(4), 306-313. doi: 10.1097/00001786-200610000-00006
7. Phillips, V.L., Roberts, D.Y., Hunsaker, A.E. (2008). Certified nursing aides' and care assistants view on falls: Insight for creation and implementation of fall prevention programs. *Journal of American Medical Directors Association*, 168-172. doi: 10.1016/j.jamda.2007.11.012.
8. Koh, S.L.S., Hafizah, N., Lee, J.Y., Loo, Y.L., Muthu. (2009). Impact of a fall prevention programme in acute hospital settings in Singapore. *Singapore Medical Journal*, 50(4), 425-432. Retrieved from: https://www.researchgate.net/profile/Serena_Koh2/publication/24407724_Impact_of_a_fall_prevention_programme_in_acute_hospital_settings_in_Singapore/links/53f160da0cf2711e0c45da2e/Impact-of-a-fall-prevention-programme-in-acute-hospital-settings-in-Singapore.pdf