Evaluating Pediatric Falls Risk Assessment Tools

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Introduction

The Joint Commission has included “reducing risk of patient harm from falls and fall-related injuries” in the National Patient Safety Goals since 2005. Identifying patients who are at high risk for falls can help reduce them. Currently there are numerous assessment tools available to classify patients who are at risk. It is important to find an assessment tool that will best pinpoint patients at our institution who are at jeopardy in order to reduce their risk of harm and keep them safe. Which tool has been shown to be the most accurate at correctly categorizing the inpatient pediatric population?

PICO Question

Population: Inpatient pediatric population

Intervention: Pediatric falls risk assessment tool

Comparison: Miami Children’s Humpty Dumpty Falls Prevention Program

Outcome: More accurate and appropriate predictor model for identifying patients at risk for falls

Question: For the inpatient pediatric population, is there a more accurate and appropriate predictor model for identifying patients at risk for falls than the Miami Children’s Humpty Dumpty Falls Prevention tool?

Methods

A literature search was conducted using CINAHL, EbscoHost, and PubMed databases.

Keywords: *falls prevention, pediatric falls assessment tool, falls risk, pediatric falls*

Inclusion Criteria: Articles within 10 years, inpatient hospitals, pediatric patients.

Results

Article	Methods	Results
Harvey, K., et al (2010)	Matched Case-Control Design; Sample of 100 inpatient pediatric patients	“The Cummings scale was fairly associable, user friendly and efficient in correctly identifying fallers.”
Ryan-Wenger, N., et al (2012)	Retrospective Case-Control Design; Sample of 652 inpatient pediatric patients	GRAF-PIF, Humpty Dumpty, CHAMPS, and PFRA have insufficient precision or accuracy.
Kissinger, E. & Marin, A. (2010)	Retrospective Chart Review; Sample of 101 inpatient pediatric patients	“Cumming’s Scale is highly sensitive in identifying hospitalized children for either high risk, low, or no risk for falls”
Neiman, J., et al (2011).	Develop and evaluate fall risk assessment and prevention program; Sample of 59 fall encounters	Identified six criteria with statistical significance for predicting falls.

Discussion

- Many different pediatric fall risk assessment tools in use today
- Literature supports this topic needs to be researched further – Evidence is inconclusive
- Important factors for determining a patient’s risk of falling: Orthopedic or neurological diagnosis, PT/OT, Use of anticonvulsants and sedatives, History of falls

Conclusions

- PSHCH currently uses the Humpty Dumpty Falls Prevention Program
- Humpty Dumpty tool lacks specificity – over 80% of patients classified as “high risk” but only 24% of these actually fell
- Humpty Dumpty does not address some key predictors of falls – i.e. Functional status and History of falls
- Cumming’s Fall Risk Tool validated by current research and accounts for 6 factors: History of falls, Physical alterations/impairments, Functional status, Equipment/Environment, Cognitive/Psychological, and Medications
- These factors have played a role in falls that have occurred here on our pediatric units

References

Harvey, K., Kramlich, D., Chapman, J., Parker, J. and Blades, E. (2010), Exploring and evaluating five paediatric falls assessment instruments and injury risk indicators: an ambispective study in a tertiary care setting. Journal of Nursing Management, 18: 531–541.

Kissinger, E. & Marin, A. (2010). Pediatric falls risk assessment in the hospitalized child. Unpublished master’s thesis, California State University, Sacremento.

Neiman, J., Rannie, M., Thrasher, J., Terry, K., and Kahn, M. (2011). Development, implementation, and evaluation of a comprehensive fall risk program. Journal for Specialists in Pediatric Nursing, 16, 130-139.

Ryan-Wenger, N. A., Kimchi-Woods, J., Erbaugh, M. A., LaFollette, L., & Lathrop, J. (2012). Challenges and Conundrums In the Validation of Pediatric Fall Risk Assessment Tools. Pediatric Nursing, 38(3), 159-167.