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Parental Survey to Assess Risk Factors and Incidence of Falls in Pediatric Ambulatory Services

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Purpose:
Falls and the related sequelae represent hazards recognized by healthcare organizations, but evidence describing the incidence of falls in pediatric ambulatory settings is limited. Likely sources of information (e.g., adverse event reporting systems) have not been validated as a means of measuring incidence and are likely to underestimate falls that do not result in injuries. National guidelines provide little guidance on fall prevention strategies in ambulatory settings and, absent a reliable method to measure incidence, interventions cannot be readily evaluated. Preventing falls in ambulatory settings pose particular challenges, given the high volume and short patient/family contact times. The purpose of the study was to measure the incidence of falls and investigate predictors of falls among pediatric patients in the ambulatory setting as reported by the parents/guardians.

Methods:
This is a descriptive correlational design multicenter research study using survey methodology. The survey was conducted for up to 6 weeks at eight pediatric ambulatory care clinics in 2 large pediatric hospitals (4 clinics each).

Results:
Data were collected from 2418 parents. Survey response rate was 27%. Forty-eight parents reported that their child fell (2.0% fall incidence rate). The mean age of the fallers was 4.2 (standard deviation = 2.9) years and 27 (56%) were female. Of parents reporting a fall, half (50%) occurred in the clinic waiting room, 25% only in the exam room and 25% in both. Only 5 parents (10% of fall population) reported telling a hospital employee about the fall event. Only 3 (6%) of the falls reported by parents were entered in the adverse event reporting systems. In contrast to parent reports, the adverse event report system captured only 6.25% (3/48) of all reported falls. Multivariable logistic regression analysis revealed 3 significant variables predicting falls: younger age ($p<.001$), predisposing medical condition ($p=.013$), and medication that causes drowsiness ($p=.033$).

Conclusion:
Fall incidence in the ambulatory setting are under-estimated by adverse event reporting systems. Children who are at increased risk for falling in the ambulatory setting are younger, have medical conditions that affect their ability to walk, and take medication

that causes drowsiness. Preventing falls in high risk populations require a targeted risk assessment early in the check-in process and specific strategies to prevent falls during ambulatory care visits.

Title:
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Keywords:
Ambulatory setting, Pediatric falls and risk of fall

Abstract Summary:
Falls and the related sequelae represent hazards recognized by healthcare organizations, but evidence describing the incidence and risks of falls in pediatric ambulatory settings is limited. This study engaged parents to assess fall incidence and to investigate predictors of patients who fell from those that did not.

References:

- McNeely HL, Thomason KK, Tong S. Pediatric fall risk assessment tool comparison and validation study, JPN. (2018); 41: 96-103.https://doi.org/10.1016/j.pedn.2018.02.010
- DiGerolamo K, Davis KF. An integrative review of pediatric fall risk assessment tools, JPN. (2017); 34: 23-28.
- Benning S, Webb T. Taking the fall for kids: A journey to reducing pediatric falls, JPN. (2019); 46: 100-108.
- Parker C, Kellaway J, Stockton K. Analysis of falls within pediatric hospital and community healthcare settings, JPN. (2020); 50: 31-36.
- Garrard L, Boyle DK, Simon M, Dunton N, Gajewski B. Reliability and validity of the NDNQI® injury falls measure, WJNR. (2016); 38 (1): 111-128.

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