Improving Screening for Child Physical Abuse in the Emergency Department (ED)

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Background and Significance

Problem

- Inconsistent screening for child physical abuse in the ED
  - Insufficient provider knowledge
  - No systematic screening process
  - Lack of time
- Law mandates reporting, not screening, for abuse
- Abuse often not recognized until severe injury or death

Statistics

- Nearly 1,000,000 children physically abused each year
- Every 10 seconds: report made
- Every day: 4 to 7 children die

Impact of Child Physical Abuse

- Lifetime cost for one year of new cases: $124 billion
- History of abuse predisposes child to
  - Post-traumatic distress
  - Future of criminal activity
  - Variety of mental and behavioral health issues

Importance of Screening for Child Physical Abuse in the ED

- ED may be first or only medical contact for abused child
- 1.3% to 15% of childhood ED injury visits → abuse
  - Early detection rate: 10%
  - Missed abuse cases: 11% to 64%
- If abuse not detected at initial visit
  - 35-50% chance of recurrent abuse
  - 10-30% chance of eventual death

Best practice for child physical abuse screening

- Provider education
- Systematic screening protocol
- Use of the validated Escape instrument (reliability: 99.2%; specificity: 98%; negative predictive value: 99%)

Methods

Population and Setting

- ED Healthcare Providers (HCPs) → RNs and MDs
- Pediatric ED in an urban, academic level 1 trauma center

Components of Screening Program

- 20-minute educational session
- Child abuse screening protocol + Escape instrument

Data Collection and Analysis

- ICD-9/ICD-10 diagnostic codes for child physical abuse
- 7-item Child Abuse Awareness pre-test/post-test
- 8-item Project Evaluation survey
- Analysis: paired-samples *t* test and descriptive statistics
  - Statistical significance: $p < .001$

Results

Child Abuse Diagnostic Codes

- Planned data collection → 3 months pre/post implementation of screening program
- Lost data access four weeks into project due to facility's transition to new electronic health record (EHR)

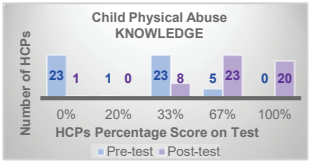
Project Evaluation Survey

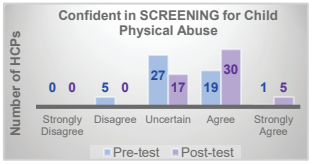
- Administered at end of project
- Participants: 14 HCPs
  - 10 (71.4%) Emergency Medicine Physicians
  - 4 (28.6%) Pediatric Registered Nurses
- Most reported screening facilitators: Escape instrument and educational session
- Most reported barrier: Transition to new EHR
- Most needed change: Build Escape instrument into EHR
- 78.6% of participants supported system-wide ED implementation of child abuse screening program

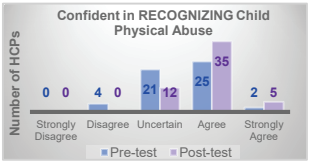
Results

Child Abuse Awareness Pre-test/Post-test

- Administered immediately before and after educational session
- Participants: 52 ED HCPs
  - 39 (75%) Emergency Medicine Physicians
  - 13 (25%) Pediatric Registered Nurses
- After educational session
  - Significant ↑ in child physical abuse knowledge, screening confidence, and recognition confidence







Conclusions and Implications for Practice

- Educational sessions effectively ↑ ED HCP knowledge and confidence in screening for and detecting child physical abuse
- Escape instrument and systematic protocol facilitate screening
- Building Escape instrument into EHR will ↓ HCP burden, ↑ screening
- Longitudinal study is needed to determine true impact of screening on HCP detection and coding of child physical abuse

For references or more information, please email smcarson@arizona.edu