

Mental Health Screening in the Pediatric Emergency Department

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Background

- 1 in 10 children in the United States suffer from a mental illness severe enough to impair their level of functioning
- Screening tools exist but patients are not routinely screened
- Many mental illnesses in children go undiagnosed
- The Emergency Department (ED) is often used as a point of entry into healthcare services
- ED's could be an ideal screening location to uncover mental illness and provide appropriate referrals

Objective

- To determine if pediatric mental health screening tools can be used to detect undiagnosed mental illness in Pediatric ED patients

Methods

- Literature review using 3 databases, PsychINFO, CINAHL, and PubMed
- Search terms: Mental Illness OR Depression OR Anxiety OR Attention Deficit Hyperactivity Disorder OR ADHD AND Pediatric AND Emergency Department
- Inclusion criteria:
 - Conducted in the United States or Canada
 - Participants 24 years of age and younger
 - Presenting to the ED with a non-psychiatric chief complaint only or with both non-psychiatric and psychiatric complaints

Results

Authors, Year Published	Study Participants	Study Design	Intervention/Exposure	Findings
Downey et al., 2018	<ul style="list-style-type: none"> • 200 English speaking patients • Chosen at random • Ages 12-17 • Presenting to the ED with a non-psychiatric complaint • Medically stable • Able to communicate 	Prospective Cross Sectional	<ul style="list-style-type: none"> • MINI International Neuropsychiatric Interview for Children and Adolescents screening tool • Administered by trained research ED fellows • Administered at random times of day and night • 20 minutes to complete 	<ul style="list-style-type: none"> • Top 3 reasons for visits: Musculoskeletal Gastrointestinal Respiratory • 41% of participants screened positive for mental illness • Top diagnoses: Oppositional Defiant Disorder (14%) ADHD (13%) Conduct Disorder (9%) Depression (5%) Anxiety (5%)
Hacker et al., 2017	<ul style="list-style-type: none"> • Medicaid eligible children with at least 10 months of Medicaid eligibility • Age 4.5 years to 18 years 	Longitudinal Policy Analysis	<ul style="list-style-type: none"> • Mandated behavioral health screening • Using the Pediatric Symptom Checklist • In ambulatory, emergency, and inpatient care 	<ul style="list-style-type: none"> • Increases in: Psychotropic medication use Behavioral health related outpatient visits Behavioral health related hospitalizations
Horowitz et al., 2010	<ul style="list-style-type: none"> • Patients age 10-21 years • Presenting to the ED with both psychiatric and non-psychiatric complaints • Exclusion criteria: developmental disability or cognitive impairment, medically unstable (triage level 1), parent or guardian not present, parent or guardian not English speaking 	Prospective Cross Sectional	<ul style="list-style-type: none"> • Patients were screened with two tools: RSQ-R and SIQ • Risk of Suicide Questionnaire-Revised (RSQ-R): 17 item questionnaire • RSQ-R based on risk factors → suicidal ideation, depression, hopelessness, substance abuse, and social isolation • Suicidal Ideation Questionnaire: 30 item questionnaire assessing severity of suicidal ideation • Patients were asked, "What was it like to be asked these questions?" 	<ul style="list-style-type: none"> • 25% of non-psychiatric patients required further psychiatric evaluation to assess for suicide risk • 6% of non-psychiatric patients reported significant suicidal ideation • 66% were neutral to being asked questions about mental health • 18% described the experience as positive • 8% reported feeling "weird" or awkward" • 8% felt the questions were stressful
Nager et al., 2017	<ul style="list-style-type: none"> • 992 ED patients • Ages 12-24 • 77.9% of participants Hispanic/Latino • Exclusions: developmental delay, non-English speaking, in an acute medical crisis 	Retrospective Cross Sectional	<ul style="list-style-type: none"> • 11-item Emergency Department Distress Response Screener (ED-DRS) 	<ul style="list-style-type: none"> • 47.5% of patients screened positive • 33.8% experienced depressed mood • 30.4% experienced anxiety • 23.9% victims of bullying • 21.2% physically abused • 14% abused drugs and alcohol
Newton et al., 2017	<ul style="list-style-type: none"> • Non-psychiatric and psychiatric patients presenting to the Emergency Department • Children and adolescents aged 6-18 	Systematic Review	<ul style="list-style-type: none"> • Studies included that evaluated mental health instruments in pediatric ED setting • Mental health instruments: any instrument that could identify mental illness, emotional or behavioral disorders, substance use problems, or suicide risk • 7,425 citations, 4,832 after removing duplicates, 168 considered potentially relevant based on title and abstract, 14 met inclusion criteria 	<ul style="list-style-type: none"> • Systematic Review identified 3 instruments as evidence based screening options: HEADS-ED → questions pertaining to home, education, activities/peers, drugs/alcohol, suicidality, emotions/behaviors, and discharge resources ASQ → Ask Suicide-Screening Questions Tool, set of 4 questions pertaining to suicide risk DSM-IV 2 item scale → 2 questions asking about alcohol abuse and alcohol dependence
Ramsawh et al., 2012	<ul style="list-style-type: none"> • 100 adolescents aged 13 to 17 years • Presenting to the ED for evaluation of medical and surgical complaints • Exclusion criteria: acute medical problem requiring immediate intervention (resuscitation, intubation), primary psychiatric or substance related condition, altered mental status, developmental disability, non-English speaking, and parent or guardian not present 	Prospective Cross Sectional	<ul style="list-style-type: none"> • 5 item Screen for Child Anxiety Related Emotional Disorders (SCARED) • Brief measure of 5 common anxiety domains: separation anxiety, social phobia, panic/somatic, generalized anxiety, and school phobia symptoms • Parents received SCARED-P • Children received SCARED-C • Parents and children filled out questionnaire asking if their presenting complaint was any 1 of 3 common physical symptoms of anxiety: chest pain, headache, abdominal pain 	<ul style="list-style-type: none"> • 33% screened positive for probable anxiety disorder • Fair agreement between both parent and child reports (SCARED-C and SCARED-P) • Patients who screened positive: More likely to be female More school absenteeism due to physical problems in last 6 months More likely to have presenting complaint related to headache More likely to have positive asthma status
Rutman et al., 2008	<ul style="list-style-type: none"> • Adolescents aged 12-17 • Exclusions: critically ill or injured, developmentally delayed, intoxicated, non-English speaking 	Prospective Cross-Sectional	<ul style="list-style-type: none"> • One Item Screen for Depressive Symptoms • Two Item Screen for Depressive Symptoms • Center for Epidemiologic Studies Depression Scale (CESD) 	<ul style="list-style-type: none"> • 25% screened positive on One Item Screen • 40% screened positive on Two Item Screen • 37% screened positive on CESD • Two question screen had high sensitivity and specificity, would be ideal as an initial screen in the ED

Conclusion

- 7 studies included
- 8 different screening tools used
- 4 of the 7 studies found that 25% or greater of their participants screened positive for a mental health disorder
- Mental health screening tools could be used in Pediatric EDs across the US to identify undiagnosed mental illness in children

Clinical Implications

- Screening ED patients could assist children in receiving mental health treatment, improving their quality of life presently and as they grow and develop

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