Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Hot Topics Department

Emergency Department Preparedness for Children Seeking Mental Health Care

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There has been a dramatic increase in the number of emergency department visits by children seeking help for mental health disorders according to a new study (Lo, Bridge, Shi, Ludwig, & Stanley, 2020). Using data from the 2007 to 2016 Nationwide Emergency Department Sample the authors looked at national trends in emergency department use by children. They found that, although the overall number of pediatric emergency department visits have remained stable during this 10-year period, the percentage of children (5 to 17 years) seeking help for all types of mental health disorders in U.S. emergency departments increased 60%. Visits by children for deliberate self-harm increased by 325%. Visits for anxiety disorder increased by 117%. Impulse disorders visits grew by 111%. Substance use disorder excluding alcohol rose159%, while alcohol-related disorders fell 39%. Emergency department visits for mental health rose for both boys and girls across all ages, including a 68% increase for those ages 15 to17 years. The authors reported that visits by children with mental health disorders increased significantly in all types of emergency departments both metropolitan and non-metropolitan, but particularly in emergency departments in rural areas and those with low pediatric volumes (less than 4000 children per year). Visits to low-pediatric-volume emergency departments and emergency departments in nonmetropolitan areas rose 53% and 41%, respectively. Prior research has shown that these emergency departments are significantly less prepared to treat children with mental disorders than larger, urban emergency departments (Ames et al., 2019; Remick et al., 2018).

According to the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey (https://www.cdc.gov/nchs/nhanes/index.htm), approximately 13% of children ages 8 to 15 years had a diagnosable psychiatric disorder in the previous year. Among children living below the federal poverty level, more than 1 in 5 (22%) had a mental, behavioral, or developmental disorder (https://www.cdc.gov/childrensmentalhealth/data.html). Suicide is the second leading cause of death for adolescents 15 to 19 years old as well as for children 10 to 14 years old (https://www.cdc.gov/nchs/data/databriefs/db352-h.pdf). Youth living in rural areas are nearly twice as likely to die by suicide, especially those linked to firearms, with the rural-urban disparity increasing over time (Centers for Disease Control and Prevention, 2017).

Although there has been an increase in the number of children and adolescents vising emergency departments with mental health disorders, the emergency medical services system is unprepared to care for these children. The 2019 National Pediatric Readiness Assessment (NPRP) is a quality improvement project established to ensure that all U.S. emergency departments have the guidelines and resources to provide effective emergency care to children. This collaborative effort between the federal Emergency Medical Services for Children Program, the American Academy of Pediatrics, the American College of Emergency Physicians and the Emergency Nurses Association (https://emscimprovement.center/domains/hospital-based-care/pediatric-readiness-project). found that only 47.2% of hospital emergency departments reported having a children's mental health policy, and in rural areas, this drops to 33%. While over half of all emergency departments report having designated transfer guidelines for children with mental health issues, only 38% of rural emergency departments have such guidelines. The NPRP has also found that emergency departments that see small numbers of children are less likely to be prepared to treat children resulting in worse outcomes, including mortality (Remick et al., 2018). Although the 2020 update of the National Pediatric Readiness Project Assessment survey, which was scheduled to begin in June, has been postponed until further notice (https://www.pedsready.org), the NPRP site provides open access resources to assess and improve pediatric readiness inemergency departments. These include checklists for medication, equipment, and supplies as well as guidelines for patient transfer and monitoring of quality care.

In addition, many children are not receiving the comprehensive care that is required and are often discharged from emergency departments without referrals for mental health follow-up care. Lynch et al. (Lynch et al., 2018) found that fewer than half of children received a primary care or specialty follow-up visit within 7 days following an emergency department visit with a psychiatric diagnosis. This was the case regardless of insurance coverage type with 46.6% (Medicaid) and 46.6% (private insurance) of children not receiving follow-up care. This is

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particularly important since the risk of suicide attempt or death by suicide is highest within 30 days of discharge from an emergency department or inpatient psychiatric unit (Suicide Prevention Resource Center, 2013). Factors identified by the authors for the lack of follow-up care include behavioral health workforce shortages, wait times for an appointment with a provider, and lack of reimbursement for care coordination. The authors note that such coordination is important because emergency department care alone is often not sufficient for patient's behavioral health needs.

Innovative solutions are needed at a systems level to better meet the needs of children with mental health emergencies. The Health Resources and Services Administration (HRSA) has developed a toolkit, "Critical Crossroads: Pediatric Mental Health Care in the Emergency Department," (https://www.hrsa.gov/critical-crossroads) that offers an adaptable framework and pathway with recommendations for triage, screening, assessment, and disposition for pediatric mental health patients in emergency departments. Elements of the National Alliance on Mental Illness's Compassionate Care in the Emergency Room (https://www.nami.org/Blogs/NAMI-Blog/June-2015/Compassionate-Care-in-the-Emergency-Room) and the Substance Abuse and Mental Health Services Administration (SAMHSA) guidance for a trauma-informed approach to caring for children with mental disorders (https://www.samhsa.gov/childrens-awareness-day/past-events/2018/child-traumatic-stress-resources) have been incorporated into the pathway. SAMHSA also provides practitioner training and virtual learning labs resources (https://www.samhsa.gov/practitioner-training). This HRSA pathway recommends emergency departments provide a calm environment with a dedicated care team available in specific rooms or hallways for triage. A list of screening tools for suicidal ideation, behavioral disorders and self-harm is provided. The HRSA pathway recommends policies related to mental health in emergency departments which include standardizedpatient search proceduresensuring an appropriate level of observation, enhanced environment and room safety, and guidance for appropriate use of chemical and physical restraints (U.S. Department of Health and Human Services, Health Resources and Services Administration. Maternal and Child Health Bureau, 2019).

For youth discharged from rural emergency departments, connections to outpatient mental health services may be challenging in the face of limited resources. Children awaiting psychiatric placement may experience emergency department boarding, with lengths exceeding 24 h. Boarding in highly stimulating emergency departments is detrimental to some mental health conditions, while at the same time reducing the number of beds available for children with other conditions. Some authorities have suggested that increasing transfer agreements between rural hospitals and larger medical centers is an important first step to help solve the access issues that exist in many rural hospitals (Hoffman & Foster, 2020).

Other opportunities for improving the care of children with mental disorders in emergency departments include the use of telemedicine for remote evaluations, the expansion of models that provide on-site mental health evaluations in the home or at school, and diversion programs that direct children to dedicated mental health crisis centers rather than emergency departments. A 2013 review showed that telemedicinemental health care is effective in many settings and has been comparable to in-person care. (Hilty et al., 2013). The National Consortium of Telehealth Resource Centers is a network of telehealth Resource Centers that have been established to provide assistance, education and information to organizations and individuals who are actively providing or are interested inproviding health care at a distance (https://www.telehealthresourcecenter.org). The American Psychological Association also provides information about setting up telepsychological services (https://www.apa.org/topics/covid-19).

Although connecting children and adolescents to mental health resources poses a particular problem in rural settings where services are often limited emergency departments serve as a critical place to intervene, establish continuity of care and ultimately save the lives of children with mental health conditions. Emergency departments are often the safety net for children seeking mental health care, but ultimately, integrating mental health services into the pediatric medical home is critical to improve access to care and reduce emergency department visits.

How the pandemic will affect the mental health of children is still unknown, but COVID-19 has brought a host of new stressors, while removing many of the resources that children have traditionally used to cope with stress. The isolation of families staying together for long periods of time because of shelter in place orders, may increase child abuse and suicide attempts. The disruption of routines and the stress of potentially contacting a life-threatening illness may exacerbate preexisting mental health disorders. At the same time physical distancing and the fear of contacting COVID-19 may keep families away from emergency departments, endangering mental health even as it protects physical health. It will be a while until the impact of COVID-19 is fully known. We are at least two years away from having the data to understand how the COVID-19 emergency impacted the mental health of children. Itt is not a given that the pandemic will increase the rate of mental health disorders. While some COVID-19 associated events may increase the stress on some children, for other children the virus may bring a sense of solidarity that protects against mental health crises. But whatever happens healthcare providers can help by being prepared for mental health disorders in emergency departments by learning more about mental health treatments, screening patients for suicidal intentions, particularly among children with prior emotional or behavioral problems and utilizing telemedicine and other prevention interventions including safety plan apps such as My3 (https://my3app.org), and NowMattersNow.org (https://www.nowmattersnow.org), an online repository of videos. The American Psychological Association (https://afsp.org/mental-health-and-covid-19), the National Association of Social Workers (http://www.helpstartshere.org/) and the American Foundation for Suicide Prevention (https://afsp.org/mental-health-and-covid-19) have internet sites that specifically focus on mental health and the COVID-19.

As the number of children arriving in emergency department seeking care for mental health disorders increases, there is a need to focus on mental health preparedness at all hospital emergency departments, particularly smaller volume and rural hospitals.

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