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COMMENT

Acute-on-chronic stress in the time of COVID-19: assessment considerations for vulnerable youth populations

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It is well understood that new-onset COVID-19 in a patient with a pre-existing chronic medical condition results in greater adverse outcomes and higher risk for mortality than the presence of the virus in a previously healthy patient. The same principal applies to social and psychological demands related to the societal impact of COVID-19. Paul Farmer, M.D., borrowed this medical phrase "acute-on-chronic" to describe the acute stress of the 2010 earthquake experienced by Haitians living in the chronic stress of medical illness, poverty, and disenfranchisement, a perspective also applicable to child development in the context of social stressors.[1] Similarly, the acute-on-chronic framework of stress can be applied to the societal impacts of COVID-19 on vulnerable youth populations. Three high-risk youth populations of particular concern during this pandemic include children who are living in poverty, children with disabilities, and children with families experiencing high levels of conflict. Additional research is needed to understand the impacts of acute stressors on these higher-risk youth populations as they may require longer standing supports following societal return to norm.

The concept of intersectionality highlights the overlap that these groups likely have—children with disabilities are more likely to experience victimization due to family conflict, for example.[2] Further, people from marginalized racial and ethnic groups experience additional vulnerabilities during the pandemic, including overt racial discrimination and health disparities resulting from longstanding systemic racism that both increase vulnerability to COVID-19 and reduce access to high-quality, culturally responsive medical care.[3] Youth living in poverty have disabilities, and/or living in high-conflict homes may also be members of marginalized racial and ethnic groups—especially given elevated rates of poverty among many marginalized racial and ethnic groups—and thus may face additional intersections of vulnerability. Therefore, the intersection of these three categories of youth with recognition of other influential contextual factors (see Fig. 1) provides a framework for those with increased psychosocial risk due to the pandemic.

CHILDREN IN POVERTY

The impact of poverty on youth and its role in youth chronic stress is well documented.[4] Prevalence rates of youth living in poverty will rise as societal mandates related to social distancing has resulted in dramatic increases in unemployment rates and reduction of work hours across the nation. Social distancing efforts have resulted in social service office closures, reduced access to food banks and childcare services, and reduction/elimination of in-home support services. While social distancing is a necessary response to this global pandemic, the impact of reduced services for youth in poverty will likely extend well beyond the course of the pandemic. Moreover, chronic stressors inherent with living in poverty, such as food insecurity and reduced access to medical and mental health services, can be exacerbated by the acute stress of COVID-19. COVID-19 will likely have more serious outcomes for families in poverty as they may experience impaired ability to social distance and reduced access to quality healthcare.[5]

Many school districts have developed alternate means to continue to offer free meals (breakfast and lunch) to needy youth. One can learn of these resources via school district or social services websites, but families may need support in problem solving how to access supportive services (e.g., picking up meals) if resources are limited (e.g., reduced access to transportation). Families may also require additional financial supports if impacted by job loss or reduction of hours.

CHILDREN WITH DISABILITIES

Children with disabilities are often especially reliant on caregiver support with critical activities of daily living (ADLs)—such as eating, toileting, feeding, and dressing—even past the age where their peers without disabilities would be gaining a greater degree of independence. This reliance on others for support with ADLs leaves children with disabilities particularly vulnerable to maltreatment when a caregiver is either unavailable or unwilling to provide assistance.[6] Children who rely on non-family caregivers may be particularly vulnerable during the COVID-19 pandemic if their caregivers are unwilling or unable to visit due to fear, quarantine restrictions, or caregiver or child illness. Children who rely on family caregivers may also be left vulnerable if a family member is unable or willing to perform typical caregiver duties due to shifting demands, extreme stress, or illness. Additionally, reliance on caregivers for support places many children with disabilities at increased risk for exposure to COVID-19 by increasing both the number of individuals that they interact with and the close contact inherent in those interactions (e.g., close physical contact during feeding, transferring, or bathing). For some children with disabilities, sudden changes in caregiving routines or in the caregivers themselves may create extremely high levels of stress.

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Children with disabilities may also rely on medical supplies or assistive technology for participation and completion of critical ADLs. The extreme pressures placed on the healthcare system by the COVID-19 pandemic could make it more difficult to obtain these supplies or to get supplies repaired in the event of damage or mechanical failure. Similarly, access to routine but necessary medical care that many children with disabilities rely on could become increasingly difficult in a healthcare system overwhelmed by the COVID-19 pandemic. Additionally, because of their pre-existing disabilities, children with disabilities who do become critically ill with COVID-19 may be denied life-saving care, such as ventilators, in a situation requiring allocation of scarce resources, creating another source of considerable stress.

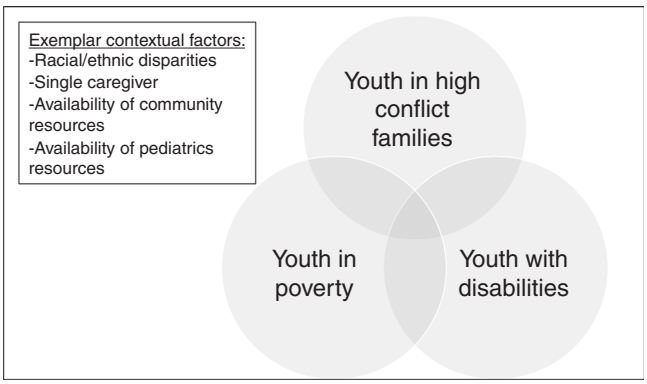

Fig. 1 Examplar individual, family, and community contextual factors that impact risk for inequities across groups are presented in the box. The three circles represent the intersectionality of the three groups discussed within this manuscript, as some youth are represented across more than one group. Risk for stress related to the pandemic likely increases with the influence of contextual factors related to inequity and representation across multiple groups.

CHILDREN IN FAMILIES WITH HIGH CONFLICT

Stay-at-home orders are a common public health initiative for reducing the spread of COVID-19. However, for some children, "home" is not a safe place, but rather a source of exposure to abuse, neglect, and violence. Domestic violence may occur between adults, between children (e.g., sibling abuse), or from an adult to a child, and both witnessed and experienced abuse can cause considerable health effects. Because stay-at-home orders quarantine families together, they may unintentionally place vulnerable children in an environment with a high degree of conflict/violence for a long, indefinite period of time. Children in these circumstances may experience heightened levels of stress, as they are unable to easily access outside support or to escape the violence by going elsewhere (e.g., school, a friend's house). Additionally, they may lack the privacy necessary to seek support remotely (e.g., over phone or the internet) due to cramped living spaces during quarantine, removing a potential coping mechanism.

Children's reduced interaction with individuals outside their family may impair or delay the identification of reportable abuse and neglect. A study of child physical abuse reporting identified that professionals (e.g., teachers, pediatricians) provided the overwhelming majority (>80%) of reports of physical abuse to child-protective services as compared to non-professionals (e.g., family members, neighbors).[7] Clinicians should prioritize families with conflict for therapeutic telehealth services as well as assess for increases in conflict due to stressors related to COVID-19. Efforts have been made by national organizations (e.g., Prevent Child Abuse America; ACES Connections) to provide online resources and parenting supports during COVID-19 as well.

RECOMMENDATIONS

Pediatricians and other family support clinicians serve an important role for high-risk families during circumstances, such as the global pandemic of COVID-19. Beyond advocating for system-level supports, such as ongoing access to free meals or

Table 1. Specific risk factors, clinical assessment features, and linkages to community supports.

Risk groups	Risk factors	Assessment questions	Resources for community support
Youth living with low income	• Lack of parental supervision • Reduced access to nutrition and school-provided meals • Lack of home educational supports	• Are adult caregivers able to provide adequate supervision in the home? • Is there enough food in the home/are youth continuing to receive free lunches through school services? • Is an adult available to support educational requirements at home?	• United Nations International Children's Emergency Fund (www.unicef.org) • Supplemental Nutrition Assistance Program (www.fns.usda.gov/snap) • Temporary Assistance for Needy Families (www.acf.hhs.gov/ofa/programs/tanf)
Youth with disabilities	• Reduced access to disability supports • Non-accessible revised educational provisions and other services • Increased risk for disability-specific abuse	• Are there new barriers to receiving disability-related supports and care? • Are accommodations and services previously provided through schools, clinics, and agencies available via virtual means? • Are families experiencing increased stress that may impact caregiver support of disability-related needs?	• American Association of People with Disabilities (www.aapd.com) • National Center for Learning Disabilities (www.ncld.org)
Youth in families with high conflict	• Increased stress (e.g., financial stress from job loss) on the family resulting in increased family conflict • Reduced external monitoring of child safety and behavioral wellbeing • Reduced access to familial supports such as therapy, respite, and social supports	• Have recent changes due to the pandemic resulted in higher levels of family stress/conflict? • Do children still have contact with outside professionals, such as teachers? • Have external supports reduced due to social distancing?	• National Child Traumatic Stress Network (www.nctsn.org) • Association of Family and Conciliation Courts (www.afccnet.org) • Children's Defense Fund (www.childrensdefense.org)

Note: Pediatricians can also serve in the important role of advocacy for additional funding at the local, state, and national level as many social services agencies may lose funding due to COVID-19 financial impacts.

disability support services, clinicians might consider prioritizing high-risk families for check-ins, either through telehealth or via phone, during the active phase of social distancing. Should supportive contact with high-risk families be feasible, the following recommendations may be useful:

- Encourage ongoing communication with as many outside regular contacts as possible: teachers, social workers, tutors, behavioral specialists. Contact does not have to be role specific (e.g., brief, non-educational Zoom call with teachers and classmates).
- Pediatricians should remain aware of increased risk for vulnerable children with histories of chronic stress or the presence of unique needs (e.g., access to disability-related supplies), as well as the role of intersectionality in increased risk.
- Pediatricians should discuss caregiving strategies and back-up contingencies should typical caregiving supports be unavailable.
- Pediatricians should recognize an increased burden of responsibility for identification of potential child abuse or neglect due to limited outside contact with other professionals.
- Pediatricians should be aware of community resources, such as meal programs, disability advocacy and support programs, and low-cost mental health services in their communities. It may be necessary to perform a "warm hand-off" of families needing services to a social worker or related agency, and pediatricians should be practiced in how to make these referrals compassionately and in a way that does not stigmatize or promote shame (e.g., by normalizing that the pandemic is uniquely stressful for everyone).

Beyond these specific recommendations, pediatricians may need to assess for a family's level of coping, access to resources, and management of stress during the COVID-19 pandemic. Table 1 offers information on key assessment questions to consider for vulnerable groups, with acknowledgment that there exists overlap in questions and needs between groups. Ongoing research on the impacts of the acute stressors associated with COVID-19 for higher-risk youth populations will support improved knowledge on prevention and intervention approaches most effective for these families. Identification of vulnerable populations is the first step in preventing subsequent risk related to acute-on-chronic stress in this time of global pandemic.

AUTHOR CONTRIBUTIONS

J.G. and E.L. conceptualized and designed the protocol described in the manuscript, drafted the initial manuscript, and reviewed and revised the manuscript. All authors approved the final manuscript as submitted and agreed to be accountable for all aspects of the work.

ADDITIONAL INFORMATION

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