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Welcome to JAACAP Connect!

What is JAACAP Connect?
All are invited! JAACAP Connect is an online companion to the Journal of the American Academy of Child and Adolescent Psychiatry (JAACAP), the leading journal focused exclusively on psychiatric research and treatment of children and adolescents. A core mission of JAACAP Connect is to engage trainees and practitioners in the process of lifelong learning via readership, authorship, and publication experiences that emphasize translation of research findings into the clinical practice of child and adolescent psychiatry.

Why do we need JAACAP Connect?
The field of child and adolescent psychiatry is rapidly changing, and translation of scientific literature into clinical practice is a vital skillset that takes years to develop. JAACAP Connect engages clinicians in this process by offering brief articles based on trending observations by peers, and by facilitating development of lifelong learning skills via mentored authorship experiences.

Who reads JAACAP Connect?
All students, trainees, and clinicians who are interested in child and adolescent mental health will benefit from reading JAACAP Connect, available online at www.jaacap.com/content/connect. AACAP members will receive emails announcing new quarterly issues.

Who writes JAACAP Connect?
You do! We seek highly motivated students, trainees, early career, and seasoned clinicians and researchers from all disciplines with compelling observations about child and adolescent psychiatry. We pair authors with mentors when necessary, and work as a team to create the final manuscripts.

What are the content requirements for JAACAP Connect articles?
JAACAP Connect is interested in any topic relevant to pediatric mental health that bridges scientific findings with clinical reality. As evidenced by our first edition, the topic and format can vary widely, from neuroscience to teen music choices.

How can JAACAP Connect help with my educational requirements?
Motivated by the ACGME/ABPN Psychiatry Milestone Project©, JAACAP Connect aims to promote the development of the skillset necessary for translating scientific research into clinical practice. The process of science-based publication creates a vital set of skills that is rarely acquired elsewhere, and models the real-life thought process of translating scientific findings into clinical care. To bring this experience to more trainees and providers, JAACAP Connect aims to enhance mastery of translating scientific findings into clinical reality by encouraging publishing as education. JAACAP Connect combines education and skill acquisition with mentorship and guidance to offer new experiences in science-based publication. We will work with students, trainees, early career, and seasoned physicians, regardless of previous publication experience, to develop brief science-based and skill-building articles. Opportunities for increasing knowledge and skills through publishing as education will be available through continued contributions and direct involvement with the JAACAP Connect editorial team, using an apprenticeship model.

Start Thinking About Authorship With JAACAP Connect
What trends have you observed that deserve a closer look? Can you envision reframing key research findings into clinical care? Do you want to educate others on a broader scale, thereby improving the health of children around the country, the world? We encourage all levels of practitioners and researchers, from students to attendings, to join in and participate. All are welcome, and you are invited.
Moving on presents an opportunity for reflection. I became involved with JAACAP Connect in late 2019 and served as the JAACAP Connect Editor from 2021 to 2022. It is staggering to reflect on the extent of global and national change in such a brief time. The world struggling through a pandemic. The country confronting racism and violence. And so much more hard work lies ahead. In parallel, my journey with Connect includes a rich tapestry of emotions, from joy and excitement to angst and uncertainty and even loss and grief. When I started this journey, I was most looking forward to working with new authors, hoping to help mentor and inspire creativity and the furthering of scientific knowledge within the field of child and adolescent psychiatry. This part of my journey was extremely fulfilling, though I found that I was the one left inspired by the next generation of child psychiatrists. What surprised me during this journey was the family I gained along the way, for whom I will be forever grateful. I am so excited to see where our newest member of the JAACAP family, the amazing Dr. J. Corey Williams, takes us next. Onwards.

Anne B. McBride

This introduction represents a role transition where I will be humbly taking over as the editor of JAACAP Connect. I am grateful to receive the baton from Dr. McBride and past JAACAP Connect editors. I hope that I can do justice to the role in their footsteps. I am transitioning into the role with some uneasiness but comforted by the bonds of the JAACAP family. I want to express my gratitude to Doug, Mariel, Mary, and others at JAACAP for their continued support and encouragement; and a special thank you to the McDermott family for allowing us to honor the legacy of John F. “Jack” McDermott. His legacy has allowed me and many others to have opportunities for continued growth and development within JAACAP. Throughout the following series of issues released this year, I hope to play a role in bringing our JAACAP Connect readers high-quality, thought-provoking content, covering a diverse range of topics which are relevant for practicing child and adolescent psychiatrists. I hope to share some personal reflections as an early career psychiatrist and share my enthusiasm for the art and science of scholarly writing.

J. Corey Williams

In the first article of this issue, Drs. Shenai, Salk, Lim, Chernoff, Gopalan, and Joseph address postpartum posttraumatic stress disorder secondary to childbirth and delivery. Their study provides guidance on appropriate times and populations to screen for childbirth-related trauma disorders.

We move onto education with a thoughtful piece by Dr. Shapiro and Student Doctors Kidambi and Terrana, who showcase unexpected lessons as medical students with a preclinical elective that provides early exposure to child and adolescent psychiatry. Next, Drs. VanBronkhorst and Duarte focus on social brain development in adolescence in the age of the COVID-19 pandemic. They discuss the pandemic’s impact on social development and provide interventions to foster resilience.

The next article by Drs. Jahan and Loehr provides a practical and succinct guide for a common issue among practicing child and adolescent psychiatrists, namely, how to manage growth deceleration associated with ADHD and stimulant-induced appetite suppression. Finally, Dr. Massey and Ms. Strong leave us with an inspiring reminder of the ways children and adolescents became the hidden superheroes during the COVID-19 pandemic. Thank you for joining us in this incredible journey.

J. Corey Williams, MD, MA
Editor

Anne B. McBride, MD
Former Editor
Assessment of Postpartum Posttraumatic Stress Disorder Symptoms Secondary to Childbirth at Delivery and 10 Weeks Postpartum

Neeta Shenai, MD, Rachel Salk, PhD, Sarah Lim, MD, Eva Chernoff, MD, Priya Gopalan, MD, Heather Joseph, DO

Childbirth is recognized as a potential traumatic event and can lead to postpartum posttraumatic stress disorder (PTSD). Postpartum PTSD may carry significant morbidity with negative ramifications on parent-infant bonding, marital relationships, comorbid psychiatric illnesses, and future reproductive decisions. Emergency cesarean section, medical complications of mother or baby, high subjective distress, and presence of dissociation are risk factors with the highest predictive values for postpartum PTSD. However, as deliveries without medical complications can also be perceived as traumatic, identifying women at risk for postpartum PTSD remains a challenge. The current study aimed to evaluate the feasibility of assessing the presence of trauma at delivery and progression of symptoms at 10 weeks.

Method

Participants

Women admitted to the postpartum unit at Magee-Womens Hospital from June 2017 to June 2018 within one week of delivery were eligible for enrollment. Women were excluded if they could not speak English or had a fetal demise. Nursing staff initially approached potential participants. Research staff then discussed the study if inclusion criteria were met. Approval for this research was obtained from the University of Pittsburgh Institutional Review Board.

Procedures

Participants provided informed consent prior to enrollment and questionnaires were administered and sent through Qualtrics. Participants who responded that they felt either their life or their baby’s life was in danger at the time of delivery completed the Impact of Events Scale Revised (IES-R) in the baseline assessment. A follow-up questionnaire was sent approximately 10 weeks after delivery to all participants. Those who responded that they felt their life or baby’s life was in danger at the time of delivery completed the Posttraumatic Symptom Scale (PSS-SR) to assess for PTSD. Participants were compensated $10.

Measures

- Edinburgh Postnatal Depression Scale (EPDS) are 10 self-rated items designed to screen for postpartum depression. A cutoff score of 12.5 was used.
- Adverse Childhood Experiences (ACEs) are 10 self-rated yes or no items to screen for adverse childhood experiences. The cutoff score of 4 was used.
- Generalized Anxiety Disorder (GAD-7) are 7 self-reported items on a 4-point Likert scale. A cutoff score of 10 showed probable moderate levels of anxiety.
- Impact of Events Scale Revised (IES-R) are 22 self-rated items to evaluate level of stress from a traumatic event, scored on a 5-point Likert scale. A score greater than a cutoff of 24 is of clinical concern.
- Posttraumatic Symptom Scale (PSS) are 22 self-rated items, rated on a 5-point Likert scale, to assess PTSD. A score of 3 or greater for each of the 4 symptom clusters follows the DSM-V criteria for diagnosis of PTSD.

Questions assessing subjective birth experience, objective factors during delivery including delivery mode, presence of code (defined as a change in medical status), neonatal intensive care unit (NICU) admission,
psychiatric history, and history of traumatic events were also assessed at delivery.

**Statistical Analysis**

The sample was divided into 4 groups which included 1) Persistent high risk: women who felt their life or their baby’s life were in danger at both times; 2) Early recovery: women who initially endorsed then did not report that their or their baby’s life was in danger; 3) Persistent low risk: women who did not report that their life or their baby’s life were in danger at both times; and 4) Delayed reporters: women who initially did not report then endorsed their or their baby’s life were in danger.

The groups were characterized by descriptive statistics for the following variables: presence of a code, NICU admission, delivery mode, stress level and presence of dissociation at delivery, psychiatric and/or trauma history, impact of events, and interim trauma. Analysis of variance (ANOVA) with Bonferroni post-hoc comparisons examined whether the 4 groups of women differed on self-report measures of trauma, anxiety, and depression within one week of delivery. ANOVAs were run without covariates, with socioeconomic status (SES), measured by reported income, as a covariate for trauma as the outcome, and psychiatric and trauma history as covariates for anxiety and depression symptoms as the outcomes. Lastly, obstetrical and self-report measures predicting PSS scores at 10 weeks postpartum were examined.

**Results**

**Sample Characteristics**

The recruited sample had a high retention rate of 74% (138/187) completing the full study. Sample characteristics of each group include persistent high risk (n=13, 9%), early recovery (n=13, 9%), persistent low risk (n=108, 78%), and delayed reporters (n=4, 3%). Of the 17 participants who endorsed a traumatic delivery at the 10-week follow up, 4 women met criteria for PTSD per *DSM-5* criteria as assessed by the PSS score. Women who met criteria for PTSD had higher scores in the hyperarousal and negative cognitions symptom domains. See Table 1 for demographic characteristics of participants and Table 2 for group characteristics.

<table>
<thead>
<tr>
<th>Table 1. Demographic and Psychosocial Characteristics (n = 138)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean (SD) %</strong></td>
</tr>
<tr>
<td>Age 31 (5.20)</td>
</tr>
<tr>
<td>Ethnicity 1</td>
</tr>
<tr>
<td>Hispanic Non-Hispanic 99</td>
</tr>
<tr>
<td>Race White 51.4 African American 11.3 Asian 1.9 Other 0.5</td>
</tr>
<tr>
<td>Marital Status Married 42.5 Living together 39.6 Divorced/Separated 1.4 Single 15.1</td>
</tr>
<tr>
<td>Household Income &lt;$30K 18.2 $30-60K 19.7 $60-100K 28.5 &gt;$100K 33.6</td>
</tr>
<tr>
<td>Employment Status Employed 75.6 Unemployed 19.3 Student 3.0 Other 2.2</td>
</tr>
<tr>
<td>First Pregnancy Yes 48.2 No 51.8</td>
</tr>
<tr>
<td>Education Some high school 1.5 High school/GED 9.5 Some college 13.1 College/trade 32.1 Graduate 43.8</td>
</tr>
</tbody>
</table>
Table 2: Group Characteristics of Delivery

<table>
<thead>
<tr>
<th></th>
<th>Persistent high risk n = 13</th>
<th>Early recovery n = 13</th>
<th>Persistent low risk n = 108</th>
<th>Delayed reporters n = 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>23% (3)</td>
<td>15% (2)</td>
<td>1% (2)</td>
<td>50% (2)</td>
</tr>
<tr>
<td>NICU admission</td>
<td>23% (3)</td>
<td>15% (2)</td>
<td>6% (6)</td>
<td>25% (1)</td>
</tr>
<tr>
<td>Delivery mode</td>
<td>Vag = 31% (4)</td>
<td>Vag = 39% (5)</td>
<td>Vag = 66% (n = 71)</td>
<td>Vag = 50% (2)</td>
</tr>
<tr>
<td></td>
<td>C-sec = 68% (9)</td>
<td>C-sec = 62% (8)</td>
<td>C-sec = 31% (n = 4)</td>
<td>C-sec = 25% (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress level at delivery</td>
<td>81.54 (17.61)</td>
<td>74.47 (24.70)</td>
<td>54.68 (21.77)</td>
<td>70.00 (21.463)</td>
</tr>
<tr>
<td>Psych and/or trauma</td>
<td>69% (9)</td>
<td>62% (9)</td>
<td>34% (n = 37)</td>
<td>75% (3)</td>
</tr>
<tr>
<td>history present</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact of events at</td>
<td>15% (2) &gt; 24</td>
<td>31% (4) &gt; 24</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>the time of delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(IES-R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interim trauma</td>
<td>7% (1)</td>
<td>7% (1)</td>
<td>3% (3)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>(post-delivery and up to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 weeks)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissociation at delivery</td>
<td>38% (5) ≥ 22</td>
<td>15% (2) ≥ 22</td>
<td>8% (9) ≥ 22</td>
<td>0% (0) ≥ 22</td>
</tr>
<tr>
<td>(PDEQ)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Delivery mode consists of: C-sec=cesarean section; Vag = spontaneous vaginal delivery; Vag w/ assist = vaginal delivery with assistance. IES-R was not administered to participants in groups 3 and 4 as they did not indicate trauma at the time of delivery.

Effect of Group on Trauma, Depression, and Anxiety Postpartum

Correlations were first analyzed among the 3 outcome variables (ACEs, GAD-7, EPDS). The correlation between ACEs and EPDS was small, $r (1, 138) = .145$, $p = 0.089$. ACEs and GAD-7 were modestly correlated, $r (1, 138) = .24$, $p = 0.004$. As expected, GAD-7 and EPDS were moderately correlated, $r (1, 138) = .639$, $p < 0.001$.

Without covariates, there were statistically significant main effects of group membership in the remaining 3 groups on ACEs, GAD-7, and EPDS. The group difference was no longer significant when the ANOVA for ACEs was re-analyzed including household family income, a proxy for socioeconomic status (SES), as a covariate. When including psychiatric and trauma history in the ANOVA for GAD-7 and EPDS group, differences remained significant. See Table 3.

Relationship Between Obstetrical and Self-Report Measures at 10 Weeks Postpartum

The presence of a code ($p=.12 , p = .69$), delivery mode ($p=.28 , p = .27$), degree of dissociation at delivery ($r = -.27 , p = .29$), history of psychiatric illness or trauma ($p=.40 , p = .12$), and postpartum depression ($r = .34 , p = .18$) were not found to be significantly associated with PSS score at 10 weeks postpartum. In contrast, NICU admission ($p=.51 , p = .04$) was significantly associated with PSS score 10 weeks post-delivery.

Discussion

Consistent with findings from Creedy et al., women reported higher symptom burden closer to the time of delivery which follows the natural course of trauma. The early recovery group (9%; n=13) reported statistically significant lower baseline anxiety rates in compar-
ison to the persistent high-risk group, which may affect cognitive processing of trauma. As the persistent high-risk group had higher ACEs, GAD-7, and EPDS scores, screening during pregnancy may identify patients who are at higher risk for perceiving the delivery as traumatic. This study did not find a significant association of PSS scores with presence of a code, delivery mode, postpartum depression, degree of dissociation at delivery, or history of psychiatric illness, which is inconsistent with other studies. This difference may be secondary to hospital specific initiatives including education of childbirth trauma and communication at the bedside among clinical staff.

NICU admission was significantly associated with PSS scores, though rates of admission did not differ between both groups. Unique stressors specific to a NICU admission, including appearance and behavior of the infant and sounds of unit, may help maintain a perception of ongoing threat to the infant’s life. Further, physical separation from the infant and potential inability to participate in expected activities with the infant such as breastfeeding could influence severity of symptoms. As such, interventions that target perceived stress and trauma-informed care in this population could impact maternal health.9

Though the study encompassed a small sample size, the high retention rate of 74% was a notable strength. Nonetheless, there are challenges to diagnosing PTSD in the postpartum population. Specifically, hyperarousal symptoms have the potential to represent aspects of general motherhood rather than PTSD.10 In addition, self-report measures may result in higher prevalence

### Table 3. Comparison of Groups on Adverse Childhood Events, Anxiety, and Depression

<table>
<thead>
<tr>
<th></th>
<th>Persistent high risk</th>
<th>Early recovery</th>
<th>Persistent low risk</th>
<th>Delayed reporters</th>
<th>ANOVA F (df,n)</th>
<th>Post hoc comparisons groups 1 v 2 v 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACES-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>baseline; no covariates</td>
<td>2.85 (3.02)</td>
<td>1.62 (3.25)</td>
<td>1.26 (2.01)</td>
<td>0.75 (1.5)</td>
<td>F (2, 131) = 2.90, p = 0.06</td>
<td>1v3, p = 0.06 2v3, p = 0.87 1v2, p = 1.00</td>
</tr>
<tr>
<td>ACES, controlling for SES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F (2, 130) = 2.26, p = 0.108</td>
<td></td>
</tr>
<tr>
<td>GAD-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F (2, 131) = 6.87, p = 0.001 1v3, p = 0.001 2v3, p = 1.00 1v2, p = 0.07</td>
<td></td>
</tr>
<tr>
<td>baseline</td>
<td>8.85 (5.34)</td>
<td>5.23 (4.97)</td>
<td>4.45 (3.75)</td>
<td>4.75 (7.09)</td>
<td>F (2, 130) = 4.82, p = 0.01</td>
<td></td>
</tr>
<tr>
<td>GAD-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>baseline, control for psych/trauma hx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F (2, 131) = 8.50, p &lt; 0.001 1v3, p &lt; 0.001 2v3, p = 0.35 1v2, p = 0.23</td>
<td></td>
</tr>
<tr>
<td>EPDS baseline</td>
<td>10.00 (5.39)</td>
<td>6.92 (4.63)</td>
<td>4.89 (4.25)</td>
<td>8.25 (4.79)</td>
<td>F (2, 130) = 5.59, p = 0.005</td>
<td></td>
</tr>
<tr>
<td>EPDS baseline, control for psych/trauma hx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The Delayed Reporters Group was excluded from the analysis of variance (ANOVA). Post hoc comparisons used Bonferroni correction. Group 1 = Persistent high risk; Group 2 = Early recovery; Group 3 = Persistent low risk; Group 4 = Delayed reporters.
rates in comparison to clinical interviews. Prevalence in this sample (3%; n=4) was lower than reported in the current literature despite the sample consisting of significant medical complexity. Finally, 9% (n=13) reported subsyndromal symptoms of PTSD and the impact on quality of life and mother-infant bonding was not assessed.

Conclusion
Though screening for PTSD symptoms at delivery is likely to capture a higher number of patients, our study suggests this is not an appropriate time point for screening. As a NICU admission was found to be associated with PTSD symptoms, screening this population during a pediatrics follow up visit will likely identify more at-risk patients as opposed to universal screening.

Take Home Summary
Targeted screening of mothers who experienced a NICU admission will likely identify more at-risk patients for postpartum PTSD secondary to childbirth. Given unique stressors mothers face in the NICU, interventions to decrease perceived stress and increase approaches utilizing trauma-informed care are likely to improve quality of care.

References
About the Authors

**Neeta Shenai, MD**, is a visiting associate professor of psychiatry at the University of Wisconsin School of Medicine and Public Health. At the time of submission, Dr. Shenai was an assistant professor of psychiatry and consultation-liaison psychiatrist at the University of Pittsburgh. She served as the psychiatry clerkship director as well as a faculty co-director for the residency women’s mental health area of concentration. Her clinical interests include trauma related disorders and perinatal addictions.

**Rachel Salk, PhD**, is a licensed clinical psychologist. She has a private practice and maintains an active program of research. She is interested in women's mental health, measurement-based care, and gender minority youth.

**Sarah Lim, MD**, is a fourth-year resident in psychiatry at the University of Pittsburgh Medical Center. She is trained in general adult psychiatry.

**Eva Chernoff, MD, MPH**, is a fourth-year resident and current chief resident in psychiatry at The Mount Sinai Hospital in New York, NY. She is in the Public Psychiatry track and is planning on pursuing child and adolescent psychiatry fellowship. Her interests include child and adolescent psychiatry, public and community psychiatry, and PTSD.

**Priya Gopalan, MD**, is an associate professor of psychiatry, chief of psychiatry for Magee-Womens Hospital, and medical director of the Psychiatry Consultation-Liaison service at the University of Pittsburgh Medical Center. She is a faculty co-advisor to the Women's Mental Health Area of Concentration at Western Psychiatric Hospital and is active in teaching OB-GYN residents at Magee. She works nationally with the National Curriculum for Reproductive Psychiatry. Her interests include perinatal addiction and especially dual diagnosis conditions and trauma-related disorders.

**Heather M. Joseph, DO**, is a child and adolescent psychiatrist and assistant professor of Psychiatry and Pediatrics at the University of Pittsburgh. Dr. Joseph’s research interests include identification of early signals of risk for childhood ADHD and examination of potentially malleable factors that promote the development of attention across the first few years of life.

The authors have reported funding for this study from the Magee Medical Staff Award.

**Disclosure:** Dr. Joseph has reported salary support from the University of Pittsburgh and the National Institute of Mental Health (NIMH). Dr. Joseph has also received grant funding from the National Institute of Mental Health, the Brain Behavior Research Foundation, and the AACAP Junior Investigator Award. Drs. Shenai, Salk, Lim, Chernoff, and Gopalan have reported no biomedical financial interests or potential conflicts of interest.

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This article was edited by Duy Nguyen, MD, and Peter Szatmari, MD.
JAACAP OPEN

An official journal of the American Academy of Child & Adolescent Psychiatry

Editor Manpreet Kaur Singh, MD, MS

JAACAP Open promotes dissemination of scientific work from a broad array of original hypothesis-testing and hypothesis-generating, and mixed methods investigations, meta-analyses, reviews, and pre-registered reports in domains relevant to child, adolescent, and family mental health such as basic, translational, clinical, epidemiologic, health policy, population science, and global health research.

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Medical school can feel like a race to the finish given the whirlwind of endless information, systems to learn, and pressure to quickly find one’s life calling. There tends to be urgency to become an expert for United States Medical Licensing Examination exams, shelf exams, and clinical rounds. Students don’t want to lose any time in finding their path so they can focus on optimizing their residency applications. Child and adolescent psychiatry is a specialty that is often overlooked given the minimal time allocated to it.¹,² Not all medical schools have capacity or faculty to encourage and promote its concepts or clinical experiences.

Due to the global shortage of child and adolescent psychiatrists, there is a need to creatively increase awareness of and interest in the field. Recruitment into psychiatry can be enhanced by dispelling myths, connecting to positive role models, and offering earlier exposure in medical school.³ All physicians should learn about the relevance that youth mental health has on our patients, families, communities, and society. When given the opportunity, medical students enjoy educational experiences in child and adolescent psychiatry.⁴ Creating spaces to introduce students and integrate public health, advocacy, equity, justice, connectedness, and well-being may inspire interest and stimulate new directions in which future trainees may take our field.

In 2020, a new preclinical elective in child and adolescent psychiatry was created for UC San Diego medical students to serve as an introductory course in pediatric mental health. The elective aims to provide an exploration of youth mental health topics with frequent discussion questions and cultivation of a cohesive learning community. There is a focus on medical student well-being and reflection on one’s own mental health, noting the impact this has on learning and practice. Sessions are delivered through a lens of equity, public health, cultural sensitivity, youth experience, and holistic health. Each class begins with an optional 5 minutes of group mindfulness; concepts of self-compassion are emphasized throughout the course. Students complete pre-assignments designed to be fun, relevant, and engaging. Sample sessions are included in Table 1.

### Table 1. Topics Covered
- Introduction to child and adolescent psychiatry
- Well-being
- Cultural sensitivity
- Youth voice and perspective: a young adult with lived experience speaks on her journey and consideration for future physicians
- Trauma
- Development
- Suicide and hope
- Empathy and compassion
- Final session on student reflections

### Student Voices
Two second year medical students, Neha V. Kidambi and Alec Terrana, who took this preclinical elective on child and adolescent psychiatry share some unexpected lessons and reflections.

"Coming in, I didn’t really have expectations about what this class would be able to teach me. However, I feel like I left with a better idea of what wellness means to me and also the importance of recognizing how to preserve and promote wellness in others, which I can’t say that I have ever learned in another class. At the start of the course, I was surprised to get an assignment to engage in a wellness activity for myself. I was even more surprised that I instantly felt a shift in the way that I thought. How could something as simple as gratitude make me feel..."
so much better about my day? As a second-year medical student, I have found it quite difficult at times to sit and reflect on the positives of my day amongst the seemingly endless exams, deadlines, and obligations. Taking the time to reflect on what gave me happiness made me feel not only more grateful and thankful for what I had, but also promoted a more positive mindset for me moving forward.

Another salient and unexpected lesson was that of intergenerational trauma. We discussed the article “From Generation to Generation: Rethinking ‘Soul Wounds’ and Historical Trauma.” The idea that “soul wounds” could persist in the epigenome of descendants of those who suffered devastating historical trauma and cause physiological reactions was a concept I had never fully grasped before. I had not thought about what other things I may not necessarily see on the surface that would perhaps shape how people react and adjust. However, it was this article and our group discussion that solidified the concept that health and wellness could also be shaped by the history and trauma of an individual and their families. It was further reinforced by our talks on adverse childhood experiences and learning about how Dr. Nadine Burke Harris is championing against cycles of familial trauma and stress on pediatric health and their downstream outcomes. I could see the importance of recognizing the effects in children early on and working to develop a framework to overcome the barriers that may ensue in the years to come. I saw clearly how important mental health was throughout any individual’s lifetime and that there was really no start or stop to mental health.

Finally, I did not expect to learn as much about connection for others and ourselves as students. In our core coursework, we learn about the diagnoses and reinforce the importance of evidence-based treatments, but not about the value of belonging and purpose. Despite knowing friends and family with depression, I had not previously been able to see that purpose may have positive effects on the trajectory of their health.

I know that these lessons will stay with me no matter what field of medicine I decide to pursue, and I am grateful for the opportunity to have had the space and support to learn these concepts with my colleagues before third year.

Neha V. Kidambi

The assertion that medical school is hard seems to be universally agreed upon. However, the different ways in which it might be hard are less commonly discussed. More than the deluge of information or the time commitment required to integrate it all, my difficulties have primarily been emotional and spiritual, rooted in an apparent difference in underlying ideology. As a humanities nerd at heart and a practicing massage therapist for a number of years, I gravitate towards the gestalt.

While there is undoubtedly a place for views of both the macro and the micro, embedding that tension within a system that actively incentivizes students to overwork themselves and rewards competition seems to undermine that exploration. It has challenged my ability to nourish my own curiosity and enjoy the process of integrating seemingly conflicting viewpoints. It’s exhausting and alienating and honestly just weird, given that the underlying intent is to produce compassionate healers adept in critical thinking.

In the midst of all of this, there has been the child and adolescent psychiatry elective, an apparent safe haven for those of us who care more about the forest than the trees. This elective is the most at home I’ve felt in the content and community of any formal part of my preclinical curriculum. Nearly all of my favorite topics in the world of healing have been touched upon in this course, from considerations of cross-cultural approaches to mental health and self-compassion as an instrumental practice in the physician’s toolkit, to the idea that taking adverse childhood experiences (ACEs) more seriously is a paradigm shift that is nearly decades overdue.

Discovering that there are communities in which these ideas and approaches embodied by child and adolescent psychiatry truly matter within the world of medicine has been an enormous relief and a much-needed reminder of what really matters after 18 months of biomedical boot camp. Moreover, it has affirmed that other medical students are passionate about these topics as well and
that we crave a space for understanding our patients as more than just dysfunctional bodies with clogged arteries and insulin resistance.

I can also say that I’m intrigued by child and adolescent psychiatry as a professional path more than I ever would have imagined when I started school. My primary motivations for pursuing an MD seem to be at the heart of the field: seeking to understand people in their fullness and complexity; remaining mindful of how personal, familial, and social histories inform our brief clinical encounters; and having a platform to advocate for people who are often denied meaningful pathways to advocate for themselves. This elective has been one of my most meaningful experiences at UCSD thus far and am thankful for the ways in which it has reinvigorated me as I move into my clinical years.

Alec Terrana

These reflections remind us of the developmental journey that is medical education. As they expand their knowledge base, medical students enhance self-awareness and connection to their peers. A powerful lesson learned by all was the importance of creating safe, affirming, and nonjudgmental spaces in which to be authentic together. Given the high rates of medical student burnout,5,6 we must implement effective ways to embed well-being into courses and create supportive learning environments. Bringing medical students, our future leaders, into discussions about holistic health and celebrating their voices and perspectives will help advance us all as lifelong learners and healers.

Take Home Summary

Early introduction of child and adolescent psychiatry to medical students may grow our workforce but also provide valuable learning opportunities for students pursuing other specialties. Intentional integration of learner well-being into courses may increase satisfaction and build resilience.

References


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Fostering Resilience to Adverse Childhood Experiences Among Adolescents: Investing in Social Brain Development in the Age of the COVID-19 Pandemic

Sara B. VanBronkhorst, MD, MPH, and Cristiane S. Duarte, PhD, MPH

Social experiences are central to developing resilience to adverse childhood experiences (ACEs). Disruptions to social interactions during the COVID-19 pandemic may compromise resilience, or the ability to psychologically adapt to ACEs, by blunting social brain development. This is especially concerning for children with access to limited resources. Drawing from evolutionary psychology and resilience research, we understand that the development of the social brain—a complex network of brain regions involved in social behaviors—is shaped by life experiences throughout childhood. Adolescence is a sensitive period of brain development during which rapid and lasting attunement of the brain to the environment occurs. Therefore, to counter potential negative effects of the COVID-19 pandemic on resilience to ACEs among vulnerable adolescents, interventions should focus on promoting social brain development through positive social experiences. Critically, this effort will support youth who are economically marginalized, and/or racially and ethnically minoritized. Not only are these adolescents highly exposed to ACEs and to discrimination-based social rejection, they often lack access to resources that foster resilience. Individual, family, and community level interventions can promote trajectories toward resilience by facilitating supportive relationships, providing access to social resources, and promoting social cohesion by reducing experiences of social rejection.

The social brain has evolved to play an important role in resilience to threat. Social behaviors enhance species’ survival by coordinating a collective, group response to predators. Across species, animals use social behaviors to survive threats. Fish form social organizations and construct shelter systems specialized to protect one another. Musk oxen, when approached by wolves, form a circle to protect their most vulnerable, with horns facing outward and their calves sheltered in the center. Humans have developed complex social brains that underlie psychological processes of empathy and perspective taking to strengthen group cohesion. Across multiple levels of human social domains—from pair-bonds and family units, to larger communities—a sense of belonging can encourage group members to aid one another when encountering threat.

Central in the neurobiology of the social brain is the ancient oxytocin system. Oxytocin-like molecules emerged over 600 million years ago in the shared ancestors of modern vertebrates and invertebrates. The oxytocin system promotes resilience in several ways. It supports the development of social bonds across the lifespan through feelings of joy and meaning in response to positive social behaviors. Oxytocin also interacts with the hypothalamic-pituitary adrenocortical (HPA) axis to modulate the stress response. When a person engages in social behavior in the context of a threat, the oxytocin system reduces their stress response. This process is referred to as the social buffering of stress. Lower stress levels, in turn, are associated with indicators of resilience, including better long-term physical and mental health. The oxytocin system may also promote resilience and healing through its anti-inflammatory and antioxidant effects in response to threat. Importantly, however, the development of the oxytocin system and its ability to buffer stress and promote resilience depends on a person’s life experiences during development. ACEs and other experiences of social rejection are associated with deficits in social functioning, lower oxytocin levels, and changes in HPA axis functioning.
Additionally, ACEs are associated with reduced volumes in brain regions involved in social cognition, including the amygdala and the medial prefrontal cortex. There is increasing evidence, however, that positive social relationships—including with parents, therapists, friends, teachers, and neighbors—can provide a powerful buffer to these effects of ACEs. Furthermore, during adolescence, the brain undergoes rapid synaptic pruning and becomes highly attuned to the environment. Therefore, as a sensitive period in brain development, adolescence may represent an important window of opportunity during which these positive experiences can provide lasting effects.

In designing interventions to promote resilience to ACEs during or in the aftermath of the COVID-19 pandemic, it will be important to consider how the ongoing social disruptions may affect social brain development of some adolescents more than others. Families who are marginalized and minoritized may be disproportionately impacted by these social disruptions. These families are most likely to have remote as opposed to in-person learning during the pandemic, and are least likely to have access to optimal technology for remote learning. Remote learning also introduces new challenges to social relationships for adolescents with ACEs. For example, digital peer relationships can worsen bullying and social rejection, which tend to be more severe and relentless when occurring digitally. Finally, the policies and systemic factors that contribute to higher ACEs among marginalized and minoritized families also perpetuate inequities in access to social resources. These social resources include, for example, safe neighborhoods, well-staffed schools, and the financial resources needed for certain social experiences.

Ports of entry for interventions for restoring healthy adolescent social brain development following the disruptions from COVID-19 can occur across various social domains—from individual and family relationships to neighborhoods and cultural groups. Experiences in one social domain can have reverberations across other domains. On the individual level, therapists can aid adolescents in learning how to strengthen relationships. Interpersonal Psychotherapy for adolescents, for example, is an effective approach to depression that focuses on social relationships. On the family level, parents and siblings can be involved in relationship-focused therapy. Group attachment-based therapy is an example of an effective approach to improve parent-child interactions through psychoeducation and mutual support among family participants.

On the community level, school and neighborhood interventions can promote resilience. Legislation can be passed to require mental health curriculum in schools to promote resilience, as has been done in some states such as New York and Virginia. This curriculum can incorporate social-based programs. A range of evidence-based, creative, school-based interventions to improve social relationships have been shown to be effective. Examples of these programs include using drama and role-play to develop empathy and prosocial skills; video-games and virtual-reality to build perspective taking; direct relationship-building by pairing school-aged students with college students; and interventions to reduce bullying. Operating within COVID-19 safety guidelines, afterschool programs that provide experiences of shared enjoyment and social cohesion such as art, drama, and sports, may be helpful.

We must also acknowledge that to create lasting inroads in the effort to promote resilience for those most exposed to ACEs, systemic changes are needed. From inequities in access to childcare, health, and mental health care, to policies that permit racial profiling and mass incarceration, to the social acceptance and infliction of identity-related aggressions, racism and discrimination can fundamentally impact resilience by reducing access to social resources and the critical experience of belonging. Proposed antiracism legislation, such as the Anti-Racism in Public Health Act, could fund programs that aim to support racial equity in healthcare and the legal system. Medical and educational institutions can prioritize recruiting people of color to leadership positions, require antiracism training for employees, and ultimately make these institutions more attuned to the needs of minoritized and low-income children.
reduce segregation in schools, emphasis on improving the admissions process for top-performing schools could have considerable impact. Changes such as these, implemented across social domains, can lead to greater access to the life experiences of social connection and belonging that are needed for healthy social brain development.

In summary, social disruptions related to the COVID-19 pandemic may have reduced resilience among adolescents by impacting social brain development. However, we can counter these effects by providing opportunities for positive social experiences, improving equity in access to social resources, and by funding antiracism initiatives. Attention to social brain development during adolescence can promote lasting trajectories of resilience. This is our opportunity, like musk oxen, to invest in one another and to provide shelter for those exposed to ACEs by rebuilding a protective wall of positive social bonds.

**Take Home Summary**

Social brain development is critical for resilience to adverse childhood experiences (ACEs). Based in evolutionary psychology and resilience research, we describe an anticipated social impact of the COVID-19 pandemic on youth with ACEs and outline evidenced-based interventions to promote resilience.

**References**


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This article was edited by Misty Richards, MD, MS.
Central nervous system stimulants are prescribed to children and adolescents with increasing frequency for treatment of attention-deficit/hyperactivity disorder (ADHD). Due to their well-established safety profile and high efficacy, stimulants are used first line to support learning and interpersonal functioning in children with ADHD. Caution must still be used when prescribing stimulants, which are associated with appetite suppression and weight loss in children. Since the benefits of stimulants were first established, concern has grown for stimulant-associated growth deceleration and persisting limits on adult height.

The Multimodal Treatment of Attention-Deficit Hyperactivity Disorder Study (MTA), sponsored by the National Institute of Mental Health in 1997, focused on the comparative efficacy between stimulant medication, behavior therapy, a combination of both, and usual community care. At the time the MTA was first conducted, there was little concern that use of stimulants for ADHD would meaningfully affect children's size. However, more recent research on stimulant use in children has demonstrated height and weight deceleration without evidence of growth rebound. A 36-month follow-up study conducted to address some of the MTA's limitations found that newly medicated children who initiated stimulants during the surveillance period grew an average of 2.0 cm and 2.7 kg less than the children who remained unmedicated. A 16-year MTA follow-up study showed that consistently medicated participants (used ≥50% of days during every measured time interval) had a significantly shorter sex-corrected height (4.7cm/1.9 inches, P<0.001) than participants with ADHD who had negligible exposure to stimulants.

Stimulant-induced appetite suppression may contribute to slowing of growth. Accordingly, increasing caloric intake may help to offset the decrease in weight gain in children taking stimulants. In 2020, a randomized controlled trial involving 230 children ages 5-12 with no history of chronic stimulant use examined the efficacy of weight recovery treatments (WRTs). Children were randomly assigned either to treatment with daily methylphenidate or to behavior therapy. The children who showed a decrease in BMI of > 0.5 z-units after 6 months of methylphenidate were randomly assigned to 1 of 3 WRT groups: monthly monitoring of height and weight, drug holidays (medicating for school hours only), and 150 kcal/day caloric supplementation. Although children assigned to all 3 WRT groups increased their weight velocity, recovery was greater for those who took drug holidays or caloric supplements. None of the WRTs were associated with an increase in height velocity.

If tolerated, a child with significant appetite suppression may recover some weight by medicating only during school hours with a shorter-acting stimulant and not taking medication on days without school. However, shorter-acting formulations have the disadvantage of waning therapeutic effect later in the day. Worsening ADHD symptoms during nonmedicated hours may make it necessary to try different weight recovery methods. To maximize caloric intake, it is important to know how the patient is taking stimulant medication in relation to mealtimes.

When a child presents with reduced appetite and/or diminished growth, a range of potential causes must be investigated. Even when stimulant medication is the likely culprit, the benefits of stimulant medication...
for a particular child’s overall functioning may justify continuing the medication and addressing appetite suppression by other means.

We suggest the following measures when a patient taking stimulants for ADHD presents with decreased appetite and/or growth:

**Thorough Medical and Psychiatric History Including Screening For Substance Abuse**

Medical conditions unrelated to prescription stimulant use may contribute to decreased appetite and weight loss. Decreased oral intake may be a presenting symptom in diabetes, hypothyroidism, inflammatory bowel disease, malignancy, and a variety of other causes. Substance abuse history is important, especially with methamphetamine, cocaine, or other non-prescribed stimulants, and potentially can cause further appetite suppression and weight loss. Patient T, a 16-year-old female treated for ADHD at our child psychiatry clinic, was taking both amphetamine-dextroamphetamine and sertraline 25 mg daily when she presented with depressed mood. Patient T’s symptoms included low energy, lack of interest, lack of motivation, poor appetite and weight loss. After her sertraline was gradually increased to 100 mg daily, her appetite improved, and weight loss resolved within the next several months.

**Complete and Accurate List of Prescribed and Nonprescribed Medications**

Other medications and supplements with appetite-suppressing effects may be taken concurrently with stimulant medication. For example, decreased appetite is associated with use of bupropion, topiramate, amantadine, spironolactone, nitrofurantoin, itraconazole, and hydroxyurea. In the case of patient X, a 15-year-old male with poor appetite and BMI of 16.6 treated for ADHD, improved appetite and weight gain were achieved by managing medications without discontinuing the stimulant. Upon inquiry it was discovered that in addition to methylphenidate extended-release 18 mg daily, Patient X was also taking topiramate 100 mg daily as prescribed by his neurologist for treatment of his tic disorder. When tics were under control, topiramate was tapered and discontinued by his neurologist. His appetite and weight had increased when he followed up with psychiatry after discontinuation of topiramate.

**Drug Holidays and Caloric Supplementation**

As demonstrated by Waxmonsky et al. in the trial of weight recovery treatments (WRTs) for stimulant-associated growth restriction, increasing caloric intake by use of supplements and strategic timing of medications may help to restore weight velocity. Parents or caregivers may be encouraged to maximize the child’s caloric intake by offering food when appetite is highest. Administering medication with or after a full meal may allow for sufficient nutrient intake before the medication begins to have appetite-suppressing effects. Patient Y, a 14-year-old male, responded well to methylphenidate extended-release 54 mg daily for ADHD but had reduced appetite with lack of weight gain. It was then discovered that Patient Y was taking methylphenidate on an empty stomach in the morning at least one hour before breakfast. His weight increased after he began taking methylphenidate with a full breakfast. Other helpful strategies for increasing caloric intake include offering a small bedtime snack or delaying dinnertime until after stimulant medication effects wear off.

For children who can tolerate drug holidays on non-school days, nutrient intake on weekends may help to offset poor appetite on school days. Patient Z, a 9-year-old male treated with methylphenidate, was not gaining weight as expected for a child his age. Patient Z had gained weight at his 2-month follow-up after his parents stopped administering methylphenidate on weekends and holidays.

**Regular Monitoring of Height and Weight**

Although the effect was smaller in the monitoring group than the drug holiday or caloric supplementation groups, Waxmonsky et al. found that in children whose BMI decreased with initiation of stimulants, measuring weight and height on a monthly basis increased weight...
velocity. In theory, regular monitoring may be helpful because it keeps parents and caregivers mindful of any changes in growth. This awareness may lead caregivers to limit medication frequency and increase the child’s caloric intake.

Treatment of ADHD in children and adolescents must be individualized. If stimulant medication improves decision-making and learning ability for a child with ADHD, these benefits must be considered along with the stimulant’s potentially negative effects on physical growth. If lack of growth is significant or does not respond to the above recommendations, the clinician may consider a different type of stimulant or a trial of non-stimulant medication. This approach may help to optimally treat ADHD symptoms while keeping appetite and growth effects manageable.

**Take Home Summary**

Growth deceleration in height and weight has been associated with stimulant medication use in children with ADHD. These effects may persist into adulthood. We propose methods for growth rate management in children who benefit from stimulants for learning and interpersonal functioning.

**References**


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Hidden Superheroes: Children and Adolescents in the COVID-19 Pandemic

Leora Massey, MD, Yuki Strong, BS

The pandemic has left its unmistakable impact on each of our lives and those of our patients. As a post-graduate year 3 (PGY-3) at Rush University Medical Center, the tail-end of my psychiatry residency training and my entire child and adolescent psychiatry fellowship training was forever altered. My (Leora Massey) patients each day tell me about their unique experiences growing up and attending school during a pandemic. Few other topics have impacted people of all ages and backgrounds as significantly as the COVID-19 pandemic. This article will examine some of the literature that illustrated the profound impact that COVID has had on children and adolescents since March 2020, revealing hidden superheroes of this pandemic—the pediatric population. This research is especially pertinent, given the US Surgeon General’s advisory declaring a Youth Mental Health Crisis on December 7, 2021. At the start of the pandemic, health care and other essential workers were frequently referenced as the superheroes of our society. I would like to also acknowledge the struggles of children and adolescents—those who might have stayed home but were also tasked with the crucial work of continuing to learn, mature, and develop during months of social isolation. They, in fact, might be considered superheroes as well.

Prior to the Pandemic

Even before the COVID-19 pandemic, mental health challenges were the leading cause of disability and poor life outcomes in youth, with up to 1 in 5 American children under 18 years old in the US with a reported mental, emotional, developmental, or behavioral disorder. Adolescence is a highly dynamic time with abrupt physical changes, self-regulatory capacity, and social challenges. It is also a time of vulnerability in terms of development of mental illness, with most psychiatric diagnoses presenting in individuals less than 24 years of age. In 2016, of the 7.7 million children with treatable psychiatric disorders, about half did not receive adequate treatment.

Public health crises are known to cause mental health crises even in children without mental illness and exacerbate symptoms in those with diagnosed disorders. Natural disaster further disrupts the ability to access care. The pandemic has also affected adolescent development in a multitude of ways: altering physical activity, screen time, sleep, and diet, in addition to all the co-occurring societal changes. Among adolescents, there was found to be a correlation between depressive symptoms and negative COVID-19 experiences.

Understanding the impact of COVID-19 will be essential to create and implement interventions to reduce psychiatric symptoms throughout the duration of the pandemic, as surges occur and remit, along with social distancing guidelines.

During the Pandemic: Anxiety and Depression

The pandemic resulted in new onset psychiatric symptoms for many adolescents. One study examined the global prevalence of depression and anxiety symptoms in children and adolescents during this time. As of August 2021, the prevalence of these diagnoses had doubled compared with prepandemic estimates. A meta-analysis of 29 studies including more than 80,000 youth found that the prevalence of clinically elevated depression and anxiety were 25% and 20% respectively. Prevalence rates were notably higher when collected later in the pandemic, in older adolescents, and in females.

It was also found that children reported anxiety scores more than 5 standard deviations greater than average pediatric populations prior to the pandemic.
increase in anxiety was linked to decreased physical activity, increased screen time, and sedentary behavior.4

A complex interplay of factors that negatively impacted children’s psychological well-being during the pandemic included: disruption of routines, loss of caregiving relationships, virtual schooling, and increases in the development of multiple Adverse Childhood Events (ACEs) clustered in time, such as abuse, neglect, parental separation, and substance use within the home. There was also found to be a cumulative, dose-response relationship to poor physical health and mental health because of reduced physical activity.5

Some studies demonstrate that stay-at-home orders correlated with upticks in mental illness in adolescents, which may point to the strong link between social isolation and psychological well-being.5 Talking with friends and prioritizing sleep had a protective effect against anxiety for healthy adolescents.6 One study found that a particularly vulnerable population to mental health problems was children of families with income loss.7 Young females in families with income loss were found to have the highest risk for developing depression, anxiety, and obsessive-compulsive disorder due to stay-at-home orders.7

Quarantined youth were found to be more likely to demonstrate regression of milestones, substance use disorders, and suicidal ideation.8

Grief and Loss

Given the staggering numbers of deaths from the pandemic, children and adolescents have been affected by loss in unprecedented numbers. As of October 2021, 175,000 children in the US have lost one or both parents and a grandparent caregiver to COVID-19. The CDC reported that one US child loses a parent or caregiver for every four COVID-19 deaths. There has been an increased risk of complicated grief due to reduced hospital visitations and traditional funeral practices, among other societal changes to mourning as a result of social distancing.

The Struggles of Parenting in a Pandemic

It is well-known that children take cues from their parents, and so worsening parental mental illness during the pandemic directly affected child well-being. One study looking at March to June of 2020 demonstrated that over the course of the pandemic, 27% of parents reported worsening of their own mental health, 14% of parents reported worsening behavioral health for their child, and 10% of families reported both.8 In June of 2021, the CDC released a Morbidity and Mortality Report about the toll taken on parents and caregivers of adults during the pandemic. Their report showed 5-fold increased odds of negative psychiatric symptoms in this population and found that overall, 70% of all caregivers reported recent adverse mental health symptoms, including symptoms of anxiety or depression, COVID-19 Trauma, Stressor Related-disorder, or suicidal ideation. This was based off data from 10,444 US adults surveyed during 2 monitoring periods: December 2020 and February – March 2021.10 In many cases, the mental health of parents worsened because of socioeconomic hardships.9 Most of these parents who reported worsening mental health also reported that their children were experiencing mental health problems as well.11 On the other hand, families with strong ties promoted mental well-being in children. Adolescents who reported social support from their parents displayed increased positive affect and decreased negative affect.12

Conclusion

Having started (and now nearly completed) child and adolescent psychiatry fellowship in the pandemic, there is a lot that I (Leora Massey) have lost the ability to observe children playing with office toys in our clinic rooms, the opportunity to have in-person case conferences, and a consistent sharing of didactics with all of my co-fellows together in-person. However, there is also much that I have gained: becoming adept at telepsychiatry, learning to use technology such as screen-sharing and the Zoom Whiteboard to connect with patients, and getting a glimpse of family interactions within the home environment. Knowing now how the post COVID-19 world has drastically changed the way that we deliver
mental health treatment to patients of all ages, I doubt that I would choose to train outside of a pandemic. Through this lens of pandemic-era child and adolescent psychiatry fellowship, I have seen that children and adolescents who have lived through the pandemic are resilient. To name only a few of their stressors, they have and are still battling depression and anxiety, trying to learn through online school with all its obstacles and challenges, grieving the loss of loved ones, undergoing social isolation, and experiencing financial stress within their families. We often hear that healthcare workers are the pandemic’s superheroes, but if we look underneath the masks on the playground, school cafeteria, and classrooms, we might find another group that deserves that title of superhero as well—that of the pediatric population.

**Take Home Summary**

The impact of the pandemic on youth is so profound that the US Surgeon General advisory declared a Youth Mental Health Crisis on December 7, 2021. Over the past three years, pediatric anxiety and depression increased and parental mental health declined. Children and adolescents have exhibited remarkable resilience facing pandemic-related challenges.

**References**

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**Author Guidelines**

*JAACAP Connect* is interested in any topic relevant to pediatric mental health that bridges scientific findings with clinical reality. As evidenced by our previous editions, the topic and format can vary widely, from neuroscience to teen music choices. What trends have you observed that deserve a closer look? Can you envision reframing key research findings into clinical care? Do you want to educate others on a broader scale, thereby improving the health of children around the country, the world? We encourage all levels of practitioners and researchers, from students to attendings, to join in and participate.

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