“They're experiencing a different sort of trauma”: Mental Health Effects of Living through the COVID-19 Pandemic Among Primary Educational Settings

Araz Majnoonian (amajnoon@ucsd.edu)
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Dawn Duong
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Anh Van Vo
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Carrissa Wijaya
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Megan Nguyen
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Marlene Flores
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Vinton Omaleki
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Tina Le
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

Rebecca Fielding-Miller
University of California, San Diego, Herbert Wertheim School of Public Health and Human Longevity Science

---

Research Article

Keywords: children, trauma, COVID-19, education, mental health

Posted Date: February 23rd, 2023

DOI: https://doi.org/10.21203/rs.3.rs-2488760/v1

Abstract

The COVID-19 pandemic has affected the mental health of students and educational staff in all learning environments. We conducted a qualitative study to understand the mental health impacts experienced by students and school staff during virtual, in-person, and hybrid learning throughout the pandemic.

We facilitated 15 focus group discussions (FGDs) in English and Spanish with 20 parents and 19 school staff from socially vulnerable communities with comparatively high rates of COVID-19 compared to the rest of San Diego County. We analyzed the data using an iterative process to identify common themes that emerged from FGDs.

Participants in FGDs report feeling anxious, overwhelmed, and afraid of learning and working in unsafe environments. Simultaneously, teachers and parents are experiencing feelings of helplessness and burnout from virtual learning. Parents report adverse social, emotional, and behavioral changes in children during the pandemic, regardless of whether they were in virtual or in-person learning. Changes parents noticed include social withdrawal, unwillingness to return to in-person learning, and changes in personality.

Virtual and in-person learning during the pandemic has been stressful for people in school communities. The psychological effects participants describe seem to echo classic descriptions of complex trauma, which if left unaddressed, can lead to long-term suffering. As we move into the long-term phase of the COVID-19 response, schools will need to monitor if these behavioral patterns persist and adopt a trauma-informed approach that encompasses the school community as a whole.

Background

As of February 2022, the United States has had 75 million cases of COVID-19 and over 900,000 deaths (Treglia et al., 2022). More than 167,000 children in the United States have lost a parent or caregiver to COVID-19, 70% of which are under 13 year of age (Treglia et al., 2022). Minority communities have experienced higher COVID-19 mortality and morbidity rates (Rossen, 2021; Tai et al., 2021) due to existing health disparities (Bibbins-Domingo, 2020). Compared to their white counterparts, Native American, Native Hawaiian, and Pacific Islander children lost caregivers at rates nearly 4 times higher, Black and Hispanic children at nearly 2.5 times higher, and Asian children at 1.6 times higher (Treglia et al., 2022). Financial pressure, food insecurity, lockdowns, quarantines, and elevated exposure to death and disease have led to high stress levels during the pandemic (Ettman et al., 2020; Harper & Neubauer, 2021; Hossain et al., 2020; Shim, 2020). The COVID-19 pandemic continues to cause negative mental health outcomes due to its prevalence and disruption in communities, leaving children and schools particularly vulnerable (Boden et al., 2021; Khan et al., 2020; Płomecka et al., n.d.; Shim, 2020).

Given the unprecedented changes that have occurred in the education system during the COVID-19 pandemic, early research has shown that school staff, parents, and students have all been experiencing prolonged stress (Boden et al., 2021). Due to safety regulations in early 2020, many public schools in

California rapidly shifted to virtual learning as communities experienced high rates of COVID-19 infections (“Map,” 2020). As the months progressed and restrictions loosened, some schools allowed students to return for limited in-person learning and utilized a hybrid education system. Schools implemented the following safety measures in order to protect students and staff: masking, social distancing, separating classes into small cohorts, and quarantining and isolating when people were exposed to a positive COVID-19 case. Concurrent research shows that public school teachers have suffered mental health impacts and were challenged by the switch to online learning, stressed with more job demands, and fearful and anxious about contracting the COVID-19 virus (Baker et al., 2021). School is often the first place that children are provided with social support services because educators, school social workers, and counselors play an early role in recognition and intervention, often being the first to observe warning signs of a mental health crisis (Masonbrink & Hurley, 2020). However, school staff were limited in their roles during school closures as they were unable to intervene for children at-risk (Masonbrink & Hurley, 2020). As schools continue in-person learning during the pandemic, they will play an important role in addressing the effects of psychological stress for both students and school staff.

We conducted a qualitative study to explore how the pandemic experience within school communities has impacted the mental health of children, teachers, and school staff.

Methods

The Safer at School Early Alert (SASEA) pilot study utilizes daily environmental monitoring in order to detect asymptomatic SARS-CoV-2 infections in K-12 school/childcare sites in San Diego County (Fielding-Miller et al., 2021). Our study involved qualitative data collection to understand the school community’s thoughts and perceptions about the impact of COVID-19 and the presence of SASEA in their schools. Community members were engaged in the study and shared their expertise on their community’s challenges and needs during the COVID-19 pandemic.

We partnered with 12 different school/childcare sites in geographic regions with the highest rates of COVID-19 in San Diego County between December 2020- February 2021. While implementing environmental monitoring, we also conducted focus group discussions (FGD) with school staff and parents from SASEA affiliated sites. School sites were selected in zip codes with high levels of social vulnerability according to the California Healthy Places Index (*California Healthy Places Index Map*, n.d.). FGD provided space for dialogue between parents and staff to share their experiences navigating virtual and in-person learning and to give feedback on SASEA. This study was approved by the UC San Diego Human Research Protections Program with Institutional Review Board approval number 201607.

Participants

We used convenience sampling by distributing flyers and sending out email and text invites for FGDs to parents and school staff from SASEA partner sites. School staff participants consisted of teachers,

administrators, and other staff members. Parent FGDs were conducted in both Spanish and English. Participants were compensated for their time with a $25 Visa gift card.

Instrumentation

We used a semi-structured field guide to address various topics surrounding the COVID-19 pandemic. Participants were asked questions that facilitated discussions surrounding in-person and virtual learning from the perspectives of school staff and parents. Although we did not interview children directly, parents and teachers gave insight on students' challenges during the pandemic. The aim of FGD was to understand the atmosphere of COVID-19 in the community and fine-tune the SASEA pilot in accordance with the participants' preferences. However, mental health challenges came up organically in these discussions, given they were central to everyone's lived experience and were ubiquitous in all of our FGD.

Participants were informed about the purpose of the study and their rights before the interview began. Focus group facilitators shared that they are looking for participants' input to help understand COVID-19 risks, feelings about testing, tracing and treatment efforts across the County, and the needs and priorities of their communities. Participants were informed that their consent is ongoing and participation is voluntary. The researcher obtained participants' informed consent to conduct and record the interview.

Data Collection Procedure

Each FGD was conducted via Zoom with one facilitator and one notetaker. Participants joined live and either discussed with one another aloud or, in the case of technical difficulties, used the chat function. Each FGD was recorded and transcribed verbatim using Otter.ai and translated into English if needed. Interviewers took robust field notes immediately after each interview to take note of their own thoughts as well as thick descriptions to capture the atmosphere of the focus group discussion. As researchers, we were not exempt from feeling the effects of the COVID-19 pandemic; therefore, it was noted that we also felt burnout and exhaustion and acknowledged that our own experiences could influence our understanding of the data.

Data Analysis

Qualitative data was analyzed using an iterative, thematic process, in which seven researchers coded for themes that emerged in FGD transcripts independently, then came together to discuss themes and subthemes that were unanimous across transcripts. Given that our focus group discussion was not aimed at understanding the mental health impacts of the COVID-19 pandemic, consistency in interpretations of the data across researchers helped protect against selectivity in the understanding of data. Data analysis was primarily done using MAXQDA (VERBI Software, 2020) and followed a modified grounded theory approach. The codebook was developed using both deductive and inductive coding for themes that involved the mental health impacts of the COVID-19 pandemic.

Results

We conducted 15 focus group discussions, each approximately 90-minutes, with parents and school staff from our partner sites between November 2020 to February 2021. A total of 8 FGD were conducted with school staff (n=22) and 7 FGD with parents (n=20). Three primary themes highlighting the impact of COVID-19 in schools emerged during analysis: the impact on teachers and staff, the impact of virtual learning on students, and the impact of limited in-person learning on students.

Impact on Staff

Teachers described the negative mental health impact of working through the COVID-19 pandemic. School staff participants reported feeling overwhelmed by how rapidly they had to alter their lesson plans to fit virtual learning formats. One school staff described their experience as follows:

“I think in addition to the struggles that it leaves on families and the students, like, the stress that it puts on teachers. Like when we went into the spring with distance learning, we literally had to do it in two weeks, we had to have it all figured out. Like I've never been so overwhelmed in my entire life. All of our teachers are burnt out this year and pretty much over it at this point… [it’s] more stress on staff and like stress doesn't help you when you're not feeling well. So I think it's not good either way. There's no way to win around that.”

- Staff FGD Participant

Regardless of safety measures, staff FGD participants reported feeling anxious going back to in person learning because they feared being exposed to COVID-19. Staff members reported concerns that safety protocols were not practical for younger children, who struggled with masking properly, social distancing, and adhering to safety protocols. A school staff member expressed the following:

"I mingle with a very large chunk of the children. And although it's all outside, we are, in my position, still being exposed to the children. I feel like almost more, because they have their masks off, they're eating. These kindergarteners, you know, these little babies can't open their lunches, they can't do all of these things. And we can't require that they have their masks on when we're helping them."

- Staff FGD Participant

School staff described how the additional roles and responsibilities they had took a toll on their mental health. Staff participants reported feeling overwhelmed and burnt out from the pressure of managing their classrooms during the pandemic. Even with acknowledgement from administration that this situation is stressful and requires self-care, staff shared they do not feel like they have the support to do so. One staff participant said the following:

“I think this has just been a traumatic experience, really, for everybody. I really can't imagine that there are people out anywhere that won't think of this as some kind of traumatic experience. And I know, like, our district is constantly talking about how we need to[...] practice self care, self care. We hear a lot of that. Take time for you to be with your family, take time to do this and make sure you're exercising, make sure

you're getting plenty of sleep. But they haven't really made that possible in the sense [...] like for me, with my workload […] so I wish that they knew that. That our workloads need to change."

- Staff FGD Participant

Another theme that occurred as teachers described their experience during the pandemic was feelings of helplessness. Teachers felt they could not do anything to alleviate the stress from their workload, yet were still being asked to do more. Staff participants brought up concerns about how sustainable these teaching conditions will be before it all becomes too much for them to handle. A staff participant shared her experience:

"It's always like, you know, let's just ask the same people to do more stuff, you know, that tends to be how it is. And at some point, you're like [...] I cannot physically, emotionally, psychologically do it anymore. But there's nothing left either."

- Staff FGD Participant

Several of our teacher-participants expressed feeling so overwhelmed and burnt out that they no longer felt teaching was enjoyable. The added stress and burden teachers experienced during the pandemic pushed them to the point where they did not have the mental capacity or strength to continue with the way things were. A school teacher explains this feeling:

"I wish they knew how little value I feel as a distance learning teacher. I feel like I'm kind of a throw away and we're forgotten… And this has been the hardest, most awful year of my life. And I honestly think about quitting every day, multiple times a day. And I love my students, but this is not what I want to do, and I yeah, it's just been painful this year. I wish they knew [...] We don't get a say. And I have twenty five students who I'm trying my hardest to take care of this year."

- Staff FGD Participant

Impact of Virtual Learning on Students

Parents worried that while their children were engaged in remote learning, they were overly isolated, with no physical interactions with classmates and teachers. Parents shared they were worried about how the isolation affected their children. Parents discussed observations of their children's behavioral changes, such as social withdrawal, increased anxiety, constant fear of COVID-19, and lack of interest in usual activities. One parent describes this change in her son in the following way:

"So my son is 12 years old and he has to stay home alone taking his classes. Of course I'm monitoring him, talking and everything, but it's something that's a trauma too for him and he gets [...] anxiety. Because it affects a lot of kids, luckily not all, but the lock up [...] has affected them a bit."

- Parent FGD Participant

In addition to behavioral changes, parents and staff discussed the learning loss they had seen in students as a result of virtual learning. Parents and staff noticed that many of their students were unable to focus and make progress in their schooling while learning online. Many discussed the importance of being in-person, and how being fully online can be detrimental to children's learning:

"But the academic portion, like, so many kids are falling so far behind… they just don't have the help necessary to get them to the thing, especially the younger ones. I have so many young children that at this point in their lives, they should be doing so many things with their education, like reading or understanding the sounds that letters make, for instance, or numbers or how to add or how to subtract and they're missing out on a lot of that because...if your teacher can't be there, and see necessarily that just struggling in some facets because they're...they're staring at his computer screen."

- Staff FGD Participant

Impact of limited in-person learning on students

As the school year progressed, some schools transitioned to limited in-person learning, with students placed in small cohorts to limit their interactions with others. Students were required to wear masks in classrooms, desks were placed far apart from one another, and desk shields were utilized to protect students and teachers from COVID-19. Students were only allowed to interact with their small cohorts during recess and lunch breaks, which were also monitored for safety reasons. Parents and staff discussed the repercussions of limiting peer interactions for kids:

"They can't get together. But it is causing some other things where the kids are having to stress over not being with friends. They're not able to integrate with anybody except their small cohort… And that's difficult to watch as well, because we're not seeing the progress for the kids and we're not seeing, I think, the emotional growth either. So I think it's multifaceted. They're experiencing somewhat of a different sort of a trauma thing in a way, because they're not allowed to do what kids do."

- Parent FGD participant

Students and staff experienced additional disruptions in their school routines during in-person learning due to classroom quarantines when someone in the cohort tested positive for COVID-19. Each quarantine resulted in at least a two week period from exposure, in which students had to go back to virtual learning from home. The cycle between virtual and in-person learning caused stress for both the teachers and the students. Many teachers expressed their concerns about the disruptiveness of repetitive quarantining and returning to in-person learning.

"I mean I think that's one of the reasons why a lot of teachers are against going back too soon is because we kind of predict what is going to happen... kids need routine and they work really well with routine and like breaking that routine to go and isolate and.. do distance learning and then be put back into the classroom again, it just seems a little bit more.. disruptive than just.. you know, staying home and doing [virtual learning]."

- Staff FGD participant

Bringing students back to school for in-person learning did not alleviate the learning loss they were experiencing during virtual learning. Because of the back and forth between quarantine periods, staff noticed that there was a decline in academic performance in students that had multiple quarantines.

"I can say from the experience of my students who have had to be out for that 10 days or two weeks, there's definitely learning loss there[…] they're not getting the support they need for sure[…] I've had some students who have been out three or four different times because of exposure, and I'm seeing big differences in those students."

- Staff FGD participant

Discussion

The mental health effects reported by school staff and children in our study appear to mirror characteristics of complex trauma (Lubit et al., 2003; Nader, 2007; Treatment (US), 2014). Teachers and school staff across all learning modalities described feeling anxiety, fear, burnout, stress, and helplessness. Many staff expressed being overworked and felt that their workload was unsustainable. Teachers felt helpless because they were unable to provide their students with the level of support they would have liked during virtual learning, which put more stress on them and further exacerbated their own mental health. Our results are consistent with current findings that the COVID-19 pandemic has caused numerous traumatic stressors among vulnerable populations (Bridgland et al., 2021; Cénat & Dalexis, 2020; Harper & Neubauer, 2021). The COVID-19 pandemic magnified anxiety, stress, and depression levels in adults and increased behavioral difficulties, stress, fear, worry, and psychological distress in children (Ahmed et al., 2020; Nearchou et al., 2020; Xiong et al., 2020).

Students in all learning modalities experienced an increase in mental health effects such as severe fear, anger, and helplessness mirroring characteristics of complex trauma. Trauma can manifest itself in children in the form of generalized anxiety, attention and learning problems, social withdrawal, intensification of specific fears, concentration problems, distractibility in class, avoiding social activities, hypervigilance, and behavioral changes (Lubit et al., 2003; Nader, 2007). Parents noted how disruptions in children's regular routines impacted their overall well-being and contributed to learning loss and difficulty concentrating. In addition, parents reported seeing personality changes in their children due to the long months of virtual learning and isolation from their peers. Some parents noticed their children were withdrawing from their usual activities and were continuously anxious and overwhelmed as they struggled to learn virtually with less support than usual. Returning to in-person school presented consequences as well. Frequent quarantines contributed to further learning loss and strict social distancing within small cohorts caused distress in children.

Following a traumatic experience, one of the most prominent coping mechanisms in adults is seeking support from one's social network, yet the major preventative effort to reduce the spread of COVID-19 was

social distancing and isolating people (Saltzman et al., 20200618; Treatment (US), 2014). The COVID-19 pandemic presented itself as a unique circumstance, in which people were unable to rely on their social support networks, yet were dealing with prolonged traumatic stressors. Staff and teachers reported that while they were in isolation at home for long periods of time, they felt it was challenging to cope with their emotional stress. A nationally representative survey suggests that prevalence of depressive symptoms in U.S. adults increased more than 3-fold during the pandemic when compared to before the pandemic (Ettman et al., 2020).

Children are particularly vulnerable to adverse mental health impacts due to their limited understanding of the events taking place, inability to properly communicate feelings, and lack of coping mechanisms (Imran et al., 2020; Treatment (US), 2014). Consistent with recent findings from Ireland (O'Sullivan et al., 2021), children were particularly impacted during periods of social isolation in which parents reported higher levels of stress, anxiety, and depression. In addition, prolonged lockdowns exacerbated some children's vulnerability to experiencing family violence with limited access for support (Usher et al., 2020). Children from socially vulnerable school communities have been disproportionately affected by the disruptions from the pandemic (George et al., 2021; Terrier et al., 2021). The COVID-19 pandemic has heightened the impact of existing chronic stressors such as food insecurity, housing insecurity, and financial challenges, contributing to poorer mental health outcomes in low SES communities (Khanijahani et al., 2021).

The long term effect of complex trauma, if left unaddressed, could lead to post-traumatic stress disorder (PTSD) symptoms (Lubit et al., 2003). Untreated PTSD in children can result in significantly increased risk for suicidality, substance abuse, and poorer mental health (Foa et al., 2018). While our data identifies traumas and stressors related to the pandemic within socially vulnerable communities in San Diego, other forms of individual, group, community, or mass trauma and stressors; historical and generational trauma; and current general life stressors are interrelated and can simultaneously impact individuals in communities of color (Harper & Neubauer, 2021). Our results considered the mental health impacts of the COVID-19 pandemic within the context of school communities; however, we recognize that participants may have experienced financial burdens, increased morbidity and mortality, and housing instability, contributing to their mental health status. To begin the process of healing and to prevent long term effects of traumatic stress, school districts are encouraged to integrate a systemic trauma-informed approach to education (Harper & Neubauer, 2021). School administrators are encouraged to engage community members, including parents and school staff, to have open discussions and address the socio-ecological levels of intersectional trauma.

As schools transition to a new normal, it is important to consider staff mental health as much as students. Addressing staff trauma may improve mental health, quality of education, and preserve the workforce. In the state of California, the teacher retirement rate increased 26% in the second half of 2020 in comparison to 2019, and 62% of teachers who retired did so earlier than was expected (*Understanding the Increase in Teacher Retirements*, n.d.). More than half of teachers who retired in 2020 indicated that they did so due to the challenges of teaching during the COVID-19 pandemic. Consistent with our own

complex findings, teachers were evenly split between the stressors of teaching in-person and the stressors of teaching remotely: 35% of recent retirees did not want to continue working remotely, and 35% did not want to risk exposure to COVID-19 by teaching in the classroom (*Understanding the Increase in Teacher Retirements*, n.d.).

This study must be understood in light of certain limitations. Our focus group discussions were conducted via Zoom, limiting participants to those who had access to a computer and internet. FGDs were conducted during a peak of the pandemic and before vaccines were distributed, which likely increased parent and teacher anxiety. This study was also not designed to assess clinical trauma as a primary endpoint, rather these themes emerged organically over the course of iterative qualitative data collection. Additional research utilizing validated psychometric measures is needed to better understand the actual prevalence and correlates of trauma or complex trauma among K-12 staff and students. Teachers and school staff are critical to the education system; therefore, special attention should be given to address the challenges they have faced during the pandemic.

Declarations

Ethics approval and consent to participate

All participants provided written and verbal informed consent to participate in this study. All methods were carried out in accordance with relevant guidelines and regulations. This study was approved by the UC San Diego Human Research Protections Program with Institutional Review Board approval number 201607.

Consent for publication

N/A- All identifying information was redacted from the study.

Availability of data and materials

We will store deidentified study data and associated documentation in a data repository maintained by the UC San Diego Library or the UC Dryad repository. Researchers will request data using the standard processes at UC San Diego Library, and the UC San Diego Library data access committee will decide which requests to grant. The standard UC San Diego Library data access process allows access for one year and is renewable. Once the data are submitted to UC San Diego Library, that archive will control the long-term persistence of the data set. In addition to the UC San Diego Library, all data requests will be forwarded to the SASEA team for approval.

Competing interests

The authors declare that they have no competing interests.

Funding

This study was supported by the San Diego County Health and Human Services through contract number 563236, which funded the University of California, San Diego Safer at School Early Alert pilot program.

Authors' contributions

A.M. and D.D. wrote the main manuscript text and contributed to conceptualization, data curation, investigation, formal analysis, methodology, writing the original draft, and reviewing and editing all drafts. A.V.V., M.N, M.F., V.O., and T.L. investigated, curated data, and reviewed and revised drafts. C.W. administrated the project, supervised, and provided resources. R.F-M. contributed to conceptualization, formal analysis, funding acquisition, methodology, supervision, writing of the original draft, and review and editing.

Acknowledgements

We are deeply grateful to the leadership, staff, students, and families at our partner school districts and school sites across San Diego County. This project would not have been possible without their enthusiasm and generosity. We thank our colleagues at the County of San Diego, Health and Human Services Agency for their vision and support. The opinions and assertions expressed herein are those of the authors and do not necessarily reflect the official policy or position of the County of San Diego Health and Human Services Agency.

References

1. Ahmed, M. Z., Ahmed, O., Aibao, Z., Hanbin, S., Siyu, L., & Ahmad, A. (2020). Epidemic of COVID-19 in China and associated Psychological Problems. *Asian Journal of Psychiatry*, *51*, 102092. https://doi.org/10.1016/j.ajp.2020.102092
2. Baker, C. N., Peele, H., Daniels, M., Saybe, M., Whalen, K., Overstreet, S., & The New Orleans, T.-I. S. L. C. (2021). The Experience of COVID-19 and Its Impact on Teachers' Mental Health, Coping, and Teaching. *School Psychology Review*, 1–14. https://doi.org/10.1080/2372966X.2020.1855473
3. Bibbins-Domingo, K. (2020). This Time Must Be Different: Disparities During the COVID-19 Pandemic. *Annals of Internal Medicine*, *173*(3), 233–234. https://doi.org/10.7326/M20-2247
4. Boden, M., Zimmerman, L., Azevedo, K. J., Ruzek, J. I., Gala, S., Abdel Magid, H. S., Cohen, N., Walser, R., Mahtani, N. D., Hoggatt, K. J., & McLean, C. P. (2021). Addressing the mental health impact of COVID-19 through population health. *Clinical Psychology Review*, *85*, 102006. https://doi.org/10.1016/j.cpr.2021.102006
5. Bridgland, V. M. E., Moeck, E. K., Green, D. M., Swain, T. L., Nayda, D. M., Matson, L. A., Hutchison, N. P., & Takarangi, M. K. T. (2021). Why the COVID-19 pandemic is a traumatic stressor. *PLOS ONE*, *16*(1), e0240146. https://doi.org/10.1371/journal.pone.0240146
6. *California Healthy Places Index Map*. (n.d.). Retrieved February 14, 2022, from https://map.healthyplacesindex.org/

7. Cénat, J. M., & Dalexis, R. D. (2020). The Complex Trauma Spectrum During the COVID-19 Pandemic: A Threat for Children and Adolescents' Physical and Mental Health. *Psychiatry Research*, *293*, 113473. https://doi.org/10.1016/j.psychres.2020.113473
8. Ettman, C. K., Abdalla, S. M., Cohen, G. H., Sampson, L., Vivier, P. M., & Galea, S. (2020). Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic. *JAMA Network Open*, *3*(9), e2019686. https://doi.org/10.1001/jamanetworkopen.2020.19686
9. Fielding-Miller, R., Karthikeyan, S., Gaines, T., Garfein, R. S., Salido, R., Cantu, V., Kohn, L., Martin, N. K., Wijaya, C., Flores, M., Omaleki, V., Majnoonian, A., Gonzalez-Zuniga, P., Nguyen, M., Vo, A. V., Le, T., Duong, D., Hassani, A., Dahl, A., … Knight, R. (2021). Wastewater and surface monitoring to detect COVID-19 in elementary school settings: The Safer at School Early Alert project. *MedRxiv*, 2021.10.19.21265226. https://doi.org/10.1101/2021.10.19.21265226
10. Foa, E. B., Asnaani, A., Zang, Y., Capaldi, S., & Yeh, R. (2018). Psychometrics of the Child PTSD Symptom Scale for DSM-5 for Trauma-Exposed Children and Adolescents. *Journal of Clinical Child & Adolescent Psychology*, *47*(1), 38–46. https://doi.org/10.1080/15374416.2017.1350962
11. George, G., Dilworth-Bart, J., & Herringa, R. (2021). Potential Socioeconomic Effects of the COVID-19 Pandemic on Neural Development, Mental Health, and K-12 Educational Achievement. *Policy Insights from the Behavioral and Brain Sciences*, *8*(2), 111–118. https://doi.org/10.1177/23727322211032248
12. Harper, G. W., & Neubauer, L. C. (2021). Teaching During a Pandemic: A Model for Trauma-Informed Education and Administration. *Pedagogy in Health Promotion*, *7*(1), 14–24. https://doi.org/10.1177/2373379920965596
13. Hossain, M. M., Tasnim, S., Sultana, A., Faizah, F., Mazumder, H., Zou, L., McKyer, E. L. J., Ahmed, H. U., & Ma, P. (2020). Epidemiology of mental health problems in COVID-19: A review. *F1000Research*, *9*, 636. https://doi.org/10.12688/f1000research.24457.1
14. Imran, N., Zeshan, M., & Pervaiz, Z. (2020). Mental health considerations for children & adolescents in COVID-19 Pandemic. *Pakistan Journal of Medical Sciences*, *36*(COVID19-S4), S67–S72. https://doi.org/10.12669/pjms.36.COVID19-S4.2759
15. Khan, K. S., Mamun, M. A., Griffiths, M. D., & Ullah, I. (2020). The Mental Health Impact of the COVID-19 Pandemic Across Different Cohorts. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-020-00367-0
16. Khanijahani, A., Iezadi, S., Gholipour, K., Azami-Aghdash, S., & Naghibi, D. (2021). A systematic review of racial/ethnic and socioeconomic disparities in COVID-19. *International Journal for Equity in Health*, *20*(1), 248. https://doi.org/10.1186/s12939-021-01582-4
17. Lubit, R., Rovine, D., Defrancisci, L., & Eth, S. (2003). Impact of Trauma on Children. *Journal of Psychiatric Practice®*, *9*(2), 128–138.
18. Map: Coronavirus and School Closures in 2019-2020. (2020, March 7). *Education Week*. https://www.edweek.org/leadership/map-coronavirus-and-school-closures-in-2019-2020/2020/03

19. Masonbrink, A. R., & Hurley, E. (2020). Advocating for Children During the COVID-19 School Closures. *Pediatrics*, *146*(3), e20201440. https://doi.org/10.1542/peds.2020-1440
20. Nader, K. (2007). *Understanding and Assessing Trauma in Children and Adolescents: Measures, Methods, and Youth in Context*. Routledge.
21. Nearchou, F., Flinn, C., Niland, R., Subramaniam, S. S., & Hennessy, E. (2020). Exploring the Impact of COVID-19 on Mental Health Outcomes in Children and Adolescents: A Systematic Review. *International Journal of Environmental Research and Public Health*, *17*(22), 8479. https://doi.org/10.3390/ijerph17228479
22. O'Sullivan, K., Clark, S., McGrane, A., Rock, N., Burke, L., Boyle, N., Joksimovic, N., & Marshall, K. (2021). A Qualitative Study of Child and Adolescent Mental Health during the COVID-19 Pandemic in Ireland. *International Journal of Environmental Research and Public Health*, *18*(3), 1062. https://doi.org/10.3390/ijerph18031062
23. Płomecka, M. B., Gobbi, S., Neckels, R., Radziński, P., Skórko, B., Lazzeri, S., Almazidou, K., Dedić, A., Bakalović, A., Hrustić, L., Ashraf, Z., Jabeen, H., Alp, A. B., Behnam, M. A., Shibli, D., Barańczuk, Z., Haq, Z., Qureshi, S. U., Strutt, A. M., & Jawaid, A. (n.d.). *Mental Health Impact of COVID-19: A global study of risk and resilience factors*. 45.
24. Rossen, L. M. (2021). Disparities in Excess Mortality Associated with COVID-19—United States, 2020. *MMWR. Morbidity and Mortality Weekly Report*, *70*. https://doi.org/10.15585/mmwr.mm7033a2
25. Saltzman, L. Y., Hansel, T. C., & Bordnick, P. S. (20200618). Loneliness, isolation, and social support factors in post-COVID-19 mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, *12*(S1), S55. https://doi.org/10.1037/tra0000703
26. Shim, R. S. (2020). Mental Health Inequities in the Context of COVID-19. *JAMA Network Open*, *3*(9), e2020104. https://doi.org/10.1001/jamanetworkopen.2020.20104
27. Tai, D. B. G., Shah, A., Doubeni, C. A., Sia, I. G., & Wieland, M. L. (2021). The Disproportionate Impact of COVID-19 on Racial and Ethnic Minorities in the United States. *Clinical Infectious Diseases*, *72*(4), 703–706. https://doi.org/10.1093/cid/ciaa815
28. Terrier, C., Chen, D. L., & Sutter, M. (2021). COVID-19 within families amplifies the prosociality gap between adolescents of high and low socioeconomic status. *Proceedings of the National Academy of Sciences*, *118*(46). https://doi.org/10.1073/pnas.2110891118
29. Treatment (US), C. for S. A. (2014). Understanding the Impact of Trauma. In *Trauma-Informed Care in Behavioral Health Services*. Substance Abuse and Mental Health Services Administration (US). https://www.ncbi.nlm.nih.gov/books/NBK207191/
30. Treglia, D., Cutuli, J. J., Arasteh, K., Bridgeland, J., Edson, G., Phillips, S., & Balakrishna, A. (2022). *Hidden Pain: Children Who Lost a Parent or Caregiver to COVID-19 and What the Nation Can Do to Help Them* [Preprint]. SocArXiv. https://doi.org/10.31235/osf.io/jnr93
31. *Understanding the increase in teacher retirements*. (n.d.). CalSTRS.Com. Retrieved February 14, 2022, from https://www.calstrs.com/blog-entry/understanding-increase-teacher-retirements

32. Usher, K., Bhullar, N., Durkin, J., Gyamfi, N., & Jackson, D. (2020). Family violence and COVID-19: Increased vulnerability and reduced options for support. *International Journal of Mental Health Nursing*, 10.1111/inm.12735. https://doi.org/10.1111/inm.12735
33. VERBI Software. (2020). MAXQDA 2020 [computer software]. Berlin, Germany: VERBI Software. Available from maxqda.com.
34. Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M. W., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*, *277*, 55–64. https://doi.org/10.1016/j.jad.2020.08.001