AJP Audio – Dr. Aaron Samuel Breslow – December 2023

Aaron van Dorn
Welcome to AJP Audio for December 2023. I'm Aaron Van Dorn. Today on the podcast, I spoke with Dr. Aaron Samuel Breslow, a psychologist at the Prime Center for Health Equity, part of the Psychiatric Research Institute at Montefiore Einstein, part of the Albert Einstein College of Medicine in the Bronx, New York. The COVID-19 pandemic first hit the United States in New York City, and one of the areas hardest hit was with the Bronx, a large and diverse borough of the city.

Dr. Breslow and colleagues have a paper in this issue of AJP that looks at the racial and ethnic disparities in the COVID-19 and pandemic-related stressors and the adverse mental health outcomes among healthcare workers in the Bronx. Afterwards, we'll be joined once again by American Journal of Psychiatry's Editor-in-Chief Dr. Ned Kaelin to discuss the rest of the December issue in depth.

Dr. Breslow, your study looked at the impact of the COVID-19 pandemic on the stress and mental health of healthcare workers in the Bronx, New York, with an emphasis on potential differential impacts on healthcare workers from racial and ethnic minority groups. What did you find?

Dr. Aaron Samuel Breslow
Yeah, so in this study, what we were really looking at is the impact of COVID-19 stressors for healthcare workers, and particularly looking at the impact this might have had differentially for healthcare workers from racial and minority groups. And what we found kind of frankly unsurprisingly was that healthcare workers who were Latinx, Black, Asian, multiracial, really had heightened levels of exposures to COVID-19 related stressors during this time.

We interviewed about a thousand people in spring 2020 when rates of COVID were really outrageously high, especially in the Bronx and our heart hospitals. And what we found really was pretty concerning. So overall, like in the full sample, our healthcare workers have really high rates of COVID-19 stressors and everybody was affected. This these were things like redeployment, fear of being sick with COVID-19, testing positive, a lack of autonomy at work, inadequate access to PPE or personal protective equipment, sort of the phenomena that we all saw in the news every day. But we found additionally, that wasn't necessarily being reported on was really startling examples of racial and ethnic disparities. So healthcare workers from racial and ethnic minority groups, for example, had higher rates of redeployment than white colleagues, higher rates of fear of COVID-19, lack of autonomy, and also inadequate access to PPE. So like face masks, gloves and all of these important life-saving tools. And what we sort of contextualize this as, it's really just suggestive of how structural racism is embedded in our healthcare workforce, not just in our provision of care. And then to the last kind of answer to your question is paradoxically, even though our Latinx, black, Asian and multiracial respondents had higher levels of those stressors, they actually had similar, if not better, mental health outcomes compared to their white peers, which was very interesting to find.

Aaron van Dorn
Why did you choose to look at the Bronx in particular? Can you tell us a little bit about the demographic makeup of the Bronx and what made it suitable for your study?

Dr. Aaron Samuel Breslow
There's two kind of main answers to this. The first is that the Bronx is our home. So our lab and our center is situated in the South Bronx. So I work in the Morris Park neighborhood, which is kind of mid Bronx and Norwood area also. And so our clinical services are really deeply rooted in the borough. And most of our staff live in the Bronx or near the Bronx. So.

The Bronx is kind of like in our blood, it's in our walls. We're connected with our people and the communities there. And the other piece is that like, this was a time really of extraordinary, you know, I'm sure you recall, national reckoning in terms of racial justice and during the height of COVID-19 and also the ground rule of support for Black Lives Matter and police reform or abolition. And a lot of that activist work was occurring in the Bronx as well. And I think a big reason for that is that the Bronx is a majority minority borough in terms of racial and ethnic identity. So we really wanted to measure racial disparities among health care workers who are working with majority racial and ethnic minority patient populations that were already profoundly impacted by social determinants of health. And you asked us for the demographic makeup of the Bronx. You know, the Bronx is huge and vibrant and incredible. And it also contains the poorest urban congressional district in the country. It's an interesting place. We're sort of eclipsed by some of the wealthiest suburbs in the nation too. But our patient populations face really crisis level rates of obesity, of heart disease, asthma, infant mortality. We still have an ongoing HIV and AIDS epidemic in the Bronx. And we often say, you know, it's not a coincidence that occurs within a sort of majority minority population. So the Bronx is home to about 1.4 million people and about 90% of those are people of color or racial minorities. So that was kind of the big, just two big reasons. And we knew the COVID-19 pandemic was pronounced in the Bronx. So we highlighted this in the paper, but our residents were more likely than any other New York City borough to work essential, low paid jobs. And we saw how that kind of translated into higher rates of COVID-19 illness and death, especially among our Latinx and black residents.

I think we kind of knew this. We saw this in the news a lot, these racial disparities, but we didn't see how they may have occurred for our Bronx-based health care workers who are supporting those patient communities.

Aaron van Dorn
Your study separates COVID-19-related stressors from pandemic-related stressors. What differentiates the two, and why did you choose to group them separately for your analysis?

Dr. Aaron Samuel Breslow
Some of this is just kind of wonky operationalization of outcome stuff. But we did think about this differently phenomenologically. So we really had two sets of primary outcomes. And as you highlighted the first, we called COVID-19 related stressors. And this wasn't literally stress necessarily. So these outcomes included stressors that were directly related to kind of like vocational impact of the pandemic for healthcare workers. So examples included those things we talked about redeployment, fear of being sick, testing positive, lack of autonomy, and inadequate access to PPE. Those of us, most of us who were kind of glued to our phones and the news heard about these phenomena a lot.

And so in our conceptualization, these outcomes were kind of the most important. We figured any disparity in the likelihood of these stressors were kind of a clear manifestation of structural racism in the healthcare workforce. And we really wanted to see that, that was sort of a primary outcome. And then we also had this piece that we call pandemic related distress. And this, we define as distress sort of like that were experienced as acute symptoms, really related to the onset of the pandemic.

So pandemic related distress was actual distress related to the pandemic, which makes sense. So for example, healthcare workers may have had bad dreams about traumatic experiences during the pandemic, maybe intrusive thoughts about patients dying. A lot of our participants also reported engaging in what we would call like emotional numbing or emotional suppression, just kind of turning off

emotionally to avoid feeling these bad feelings. And so to assess for pandemic related distress, what we did is we, adapted a scale called the impact of event scale, which is kind of a nice psychometric tool kind of commonly used to measure post-traumatic stress. But we tailored it, which is really nice, so we tailored it specifically to ask about experiences with respect to the COVID-19 crisis in mind. And so we really wanted to see if these things were associated and kind of differentiate between general stress that healthcare workers feel and stress that was really particular to this traumatic.

Aaron van Dorn
As you were just mentioning, you also looked at adverse mental health outcomes that weren't necessarily related to the COVID-19 pandemic. What were these and why did you include these exploratory outcomes?

Dr. Aaron Samuel Breslow
Yes, so we also did capture rates of what we called adverse mental health outcomes. And these were general sort of psychological outcomes that are commonly reported among healthcare workers during this time. So these included depressive symptoms, anxious symptoms, post-traumatic stress, insomnia, serious psychological distress and what we call hazardous alcohol use. Unlike the phenomenon of pandemic-related distress, for these we didn't actually prime respondents to contextualize these outcomes as specifically related to their work during the pandemic. So there was no introduction saying, think about this in the context of the COVID-19 crisis with respect to the COVID-19 crisis. And the reason we wanted to capture these was really to see if there would be racial disparities and ethnic disparities, and to see if the racial disparities and exposure to COVID-19 related stressors would have a differential impact between different racial and ethnic groups. So we kind of frame these as exploratory. We really wanted to focus our results as narrowly on COVID-19 specific outcomes as we could. But that said, right, we're psychologists, we're psychiatrists, and we couldn't kind of help but be curious to find whether there'd be racial and ethnic differences in these adverse health outcomes as well. We really wanted to see it if it occurred.

Aaron van Dorn
Yeah, of course, as long as you've got the notebook out.

Dr. Aaron Samuel Breslow
Exactly. We have the we have the tools to ask the questions and we have a pretty rapid audience and we had a lot of responses even in the first few days of our survey. So it was interesting though, the results did not confirm our hypothesis. So despite having lower rates of COVID-19 related stressors, our white respondents actually had higher rates of anxiety, higher rates of post-traumatic stress and alcohol use.

So these adverse mental health outcomes, these more general ones, were actually worse among our white sample, which was a surprising finding. What were the limitations of your study? Sure, so there's kind of a few we mentioned in the paper. Kind of an easy one to talk about is the fact that this, you know, it's a survey study. So we used an online survey to collect data. So all the outcomes are really subjectively reported by our respondents. We didn't measure these observationally. Of course, as a psychologist, I love and honor subjective reports of emotional experiences, but we kind of have to take those limitations as they are. And of course, we interviewed our friends and our colleagues, and it was an anonymous survey, but of course, there's some inherent selection bias and social desirability properties at play. So those are important to consider. But I think kind of beyond that and a little more interestingly, it's very, very tricky to accurately and fully capture structural racism.

in the work that we do in research. We don't have a lot of good benchmarks or guidelines, we don't have a lot of good measurement tools, and for this study we didn't explicitly capture structural racism per se, and that would have been really hard to do, right? So what we did instead was capture this differential exposure to COVID-19 related stressors by race and ethnicity, which I do think is really critically important to address, but we didn't ask respondents if they attributed their level of risk exposure to racism.

We didn't objectively sort of measure vocational disparities like title, leadership role, income. And we do see in other studies that in the healthcare workforce and other workforce settings, what happens is that people of color or people from racial and ethnic groups, they face really material manifestations of white supremacy like literally are paid less, are not invited to the same meetings as white male colleagues, especially. So we didn't measure that explicitly. So within those limitations, kind of tried to frame the differential exposure to COVID-19 related stressors as a proxy for structural racism and wanted it to be kind of interpreted within that limitation.

Aaron van Dorn
So your study looked at the impacts of the previous pandemic that we all just went through, but I was just wondering what conclusions do you think policymakers should draw from your results as they're looking forward to and looking to make changes or change the equitability of these structures and prepare for the next pandemic?

Dr. Aaron Samuel Breslow
It's such an important and great question. And there are policy recommendations that are specific to the next pandemic. I mean, who knows when that will be tomorrow, today? Like it feels like it's, it feels like we're on the precipice of something else. And, you know, those are just really like this disaster preparedness we've got to do. And we have to really, really expect policy-wise and at a systems level that our healthcare workers are going to bear the brunt of a lot of the trauma associated with these viral plagues, with pandemics, and that those impacts might be people of different racial and ethnic groups and identities. And then just more broadly, right, I think we did find a pernicious systemic manifestation of racism and structural racism in the sample. So even if it was self-reported, right, our Latinx, our Black, Asian, and multiracial healthcare workers really did have significantly higher rates of COVID-19-related stressors. These are things that put them at risk for illness, for trauma, for mortality, above and beyond their white colleagues. So I think this paper is one of sort of many that really echoes calls for structural interventions to measure and mitigate racism and white supremacy in medicine. At our lab at the prime center for health equity at Einstein College of Medicine, we do a lot of work measuring how structural racism impacts our patient populations. We see that people of color, that transgender folks have differential access to care, but we don't always sort of in our own house. And so I think there's policy implications here that folks in power at these very large, very profitable medical institutions need to really work to mitigate racism in their own workforce. And there are so many amazing folks who have already identified strategies to do that that I'll kind of name here. So the Commonwealth Fund, for example, made really strong suggestions for broader reform in medicine, and those include examining institutional policies with an equity lens. They recommend establishing accountability frameworks for medical schools and hospital systems. So within the LGBT space, for example, we have every hospital gets an equity scorecard in terms of how well they are doing with supporting LGBTQ patients. I don't know that those benchmarks exist in terms of mitigating white supremacy within medical spaces. So that's another idea, sort of using an equity scorecard to monitor equity and leadership, paying folks of color better and more, and sort of promoting people to leadership positions, and really creating ongoing initiatives to kind of meaningfully name and reduce white supremacy in our institutions.

Aaron van Dorn
So what's next for your research?

Dr. Aaron Samuel Breslow
So for this study in particular, we have a couple different things that we're going to try to do. We've already met with some of the head leadership at our institution and kind of provided them with summary statistics related to what occurred during this time.

They are sort of taking that into account now. And what we didn't do in this study was collect any qualitative data from participants. So we are kind of wondering what folks' phenomenological experiences were beyond just psychometric scales. So what we're going to do is sequential exploratory process. So we collected all these quantitative data. We're going to bring them back to the healthcare workers that we interviewed and say, you know, a few years later, a few years on.

How can you help us make sense of what we found? How can you help us make sense of what you and your colleagues reported? And what are some sort of community generated recommendations you might have to address some of these imbalances of power? So that's kind of a nice way that we wanna translate some of these quantitative findings to sort of more phenomenological experiences that our healthcare workers had. So that's the big thing for this study and kind of getting ready for the next disaster whenever that comes.

And then our team, you know, we're at the prime center for health equity at Einstein. So in terms of what we're starting to launch now is really a big five year NIH funded endeavor to really measure and mitigate mental health care disparities for our growing transgender and non-binary population. So I talked about this at the beginning. I do a lot of clinical work supporting our trans community in the Bronx. And similar to this AJP study, we're really hoping to contextualize ways that

systems drive disparity, so that our healthcare systems drive disparity. And so for the next study, we'll be interviewing a group of trans stakeholders, a group of providers, and then looking through longitudinal electronic health record data to see how our hospitals can improve care delivery for marginalized folks.

Aaron van Dorn
Dr. Breslow, thank you for taking the time to speak with us today.

Dr. Aaron Samuel Breslow
Of course. Thank you so much.

Aaron van Dorn
Up next, Dr. Ned Kalin. Hi, Dr. Kalin. Welcome back to AJP Audio!

This month I spoke with Dr. Breslow regarding their study of racial and ethnic disparities in COVID-19 related stressors and adverse mental health outcomes among health care workers in the Bronx. What can you tell us about it?

Dr. Ned Kalin
So this is a very interesting paper that surveys roughly a thousand health care workers from the Montefiore Health System in the Bronx, which is a very diverse group of individuals, and asks the

question whether or not there are disparities associated with race and ethnicity in relation to the experience of the COVID-19 pandemic. The data was collected over an eight-month period from April 2020 to January 2021. And the findings are important. Basically, what the authors report in their paper is that Latinx, Black, Asian, and multiracial individuals reported experiencing significantly higher levels of COVID-related stressors.

And these include such things as redeployment to another area during this period of time in the system, worries and fears about contracting COVID, having a positive COVID test, feeling a lack of autonomy at work, and feeling like there was a lack of access to personal protective equipment. So there were the disparities in relation to that. When looking at levels of distress, the most dramatic outcome was in the Latin X individuals that when compared to white individuals.

reported significantly greater levels of feeling distressed. And then finally, when looking at psychiatric symptoms, Latinx individuals had a higher prevalence of PTSD compared to white participants when looking at the symptoms related to PTSD. And interestingly, when looking at hazardous alcohol use, white individuals reported significantly greater hazardous alcohol use than the other groups. This is a study that's important because it not only characterizes some of the experiences related to stress and psychiatric symptoms during COVID-19, but more importantly, it really pins down disparities related to race and ethnicity in the experience of the pandemic from the standpoint of emotional distress, stress levels, and also some psychiatric symptoms. Ianti Vano and colleagues investigated genome-wide association studies looking at postpartum depression. Yeah, this is a really important study, and it is a study that reports on the largest sample to date of genetic findings using GWAS techniques for better understanding postpartum depression. Overall, postpartum depression is common. It can be severe and when very, very severe, can have terrible impacts on moms, families, and babies.

But even in its less severe forms, depressed moms during the early postnatal period can not only suffer themselves but their lack of engagement with their babies and their lack of attachment can have long-term effects on wellbeing and mental health. For all those reasons, it's really important for us to better understand postpartum depression and certainly the genetics related to it. This particular study had a sample, it was a meta-analysis of data with a sample of almost 19,000 women with postpartum depression, and they compared the genetic findings here to roughly 58,000 women who are considered control women or comparison women. Most of the data came from individuals of European descent. There was a small amount of data from women of East Asian ancestry and African ancestry. And this was out of the 18,000 or so women, only roughly maybe 1300 or 1400 were from either East Asian or African ancestry. When the final analysis was done to look for snips that were related to postpartum depression, they identified a number of SNPs that were related, but it's important to keep in mind that none of these findings passed the multiple comparison correction that's necessary for GWAS studies. And this is again because while this was the largest sample to date for postpartum depression, it's still relatively small from the standpoint of what you need to demonstrate significance with these corrections for SNP analysis. Nonetheless, certain genes were identified. One gene that was identified was interesting.

It's a gene that's related to mitochondrial protein metabolism. And then when the individuals that were from the minority groups, the African ancestry and East Asian ancestry, and it was, were included in the analysis. A gene that came out that was really quite interesting was fibroblast growth factor receptor substrate two gene. That's a lot of words, but basically this is a gene that's important. We believe in facilitating the effects of neurotrophic receptors, which is important from the standpoint of thinking about neuroplasticity. Additionally, when looking at shared genes or shared genetics across disorders, postpartum depression was found to have significant and somewhat strong genetic correlations with

other psychiatric disorders, including major depression, anxiety disorders, and bipolar disorder. Now, this is not particularly surprising because many of these individuals that had postpartum depression probably had some of these other illnesses or histories of these other illnesses or family histories of these other illnesses. Nonetheless, this study is quite important. Again, it's the largest sample to date that's been analyzed from the standpoint of the genetics of postpartum depression, beginning to identify some candidate genes that may be important, and then to keep in mind sort of the caveat that the sample size was still not large enough to get significance when the appropriate statistical corrections were used.

Aaron van Dorn
Next, we have a paper from Copeland and colleagues looking at adult mental health and functional outcomes of children who are considered resilient to adversity.

Dr. Ned Kalin
This is a really interesting study that I think has important implications from the empirical data standpoint, as well as conceptually from the standpoint of how we think about defining and talking about resilience. This is a study that was part of the Great Smoky Mountain cohort, which is a cohort that goes way back individuals from fairly underprivileged socioeconomic backgrounds were included in this study. And this is an analysis of roughly 1400 participants that were data was collected from them from very early on, and then up to eight time points between nine to 16 years of age. And then also later on, when the individuals were 25 and 30 years of age, there was more data that was collected that was related to psychiatric diagnoses, achievement and actual functioning. Now this is a group of individuals that experienced a fair amount of childhood adversity. And the idea here was to look at the impact of adversity on how these individuals did as children and also as relatively young adults. From the standpoint of adversity, the adversities that were looked at were lower socioeconomic status, significant family distress and family dysfunction, maltreatment and victimization from the standpoint of peer victimization. What the authors of this study found with there was a fairly high rate of adversity, they defined low-risk children as having only experienced one or less of those categories of adversity, whereas children at higher risk were defined as having been exposed to two or more of these types of adversity. What the authors found was that a lot of these children that were exposed to adversity had childhood psychiatric illnesses. When there were roughly 650 children in the risk group that later went on that were studied, and of those, roughly 10% or 63 of those individuals did not develop a childhood psychiatric disorder. So most of the kids that were in the high risk group also developed a psychiatric disorder as a child, but 63 of them did not. Those kids have been considered to be resilient kids because despite the fact that they had, you know, at least two of these significant adversity experiences didn't develop a psychiatric illness as a child. But what's really interesting about this study is when these children, that were thought to be resilient were assessed at 25 and 30 years of age compared to low risk children. These so-called resilient children had a significantly greater likelihood of developing an anxiety or depressive disorder. They were also more likely to have poor physical health and to not do as well financially and didn't have as good of achievement from an educational standpoint. So these findings really called a question of sort of how we think about adversity and its impacts on development and also how we define and talk about resilience. And the point here is that kids that otherwise look resilient when followed long enough into adulthood were found to have emerging other psychiatric disorders and not doing as well with from a medical sort of physical standpoint and also from an educational and financial standpoint.

Aaron van Dorn
Finally, we have a priority data letter from Joseph and colleagues looking at the troubling trend in suicide among Black women in the U.S. What can you tell us about that?

Dr. Ned Kalin
This is a very important study. This study characterizes suicide rates in black females, both girls and women, using a database of looking at the time span from 1999 to 2020. And of course, as we all know, during this time, overall suicide rates increased. But when looking at black females, the increase over this time period from 1990 to 2020 was from 2.1 individuals per 100,000 to 3.4 individuals per 100,000. This is almost a third greater increase in suicide rates over that time in black females. What's interesting and important to note is that this was most dramatic in the 15 to 24 age group. The suicide rate in black females in this young age group increased much more dramatically, from a rate of about 1.9 to 4.9 per 100,000 over this time span. And also the highest suicide rates occurred in individuals that were born after 2002. So taken together, these data not only characterize the increasing suicide rate in black females over this time period, but also highlight that this increase has been in younger individuals and also in individuals that were born more recently after 2002 to the need to think about this risk group and to think about early prevention and interventions. This study draws important attention to the effects of structural racism on this vulnerable group of black girls and women from the standpoint of increasing mental health issues and increasing suicide risk. We have a very nice editorial that talks in more depth about the impacts of structural racism and also intersectionality from the standpoint of black females and the risk that they face given these issues, written by Dr. Ruth Shim from the University of California, Davis and Dr. Carolyn Rodriguez from Stanford University.

Aaron van Dorn
Dr. Kalin, thank you once again for joining us.

Dr. Ned Kalin
You're welcome. It's a pleasure. Take care.

Aaron van Dorn
That's all for this month and this year's AJP audio, but I hope you'll join us again in 2024 when we continue to look at the best and most interesting research in psychiatry. Until then. The views and opinions expressed in this podcast are those of the individual speakers only and do not necessarily represent those of the American Psychiatric Association.