EDITORIAL

Immigration, Prenatal Stress and Autistic Traits in Offspring: Examining the Role of Discrimination

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From her beacon-hand glows world-wide welcome
—The New Colossus, Emma Lazarus[1]

Inscribed on the Statue of Liberty, Emma Lazarus's poem, *The New Colossus,*[1] helped shape the image of the United States as a country compassionate toward the needs of those who emigrated to its shores. The United States has more immigrants than any other country in the world, estimated at more than 40 million people.[2] Roughly 18 million children in the United States have at least 1 immigrant parent.[2] Most immigrants in the United States arrive with the hope of better educational and economic opportunities.[3] Although moving to a new country can offer new opportunities, stability, and safety, there are also challenges. Immigrants experience unique stressors that lead to potentially negative mental health outcomes. After being pushed out of their home country because of stressful circumstances such as violence, severe poverty, and armed conflicts, many individuals then encounter additional stressors after migrating–including discrimination.[3]

In the United States, many immigrants report experiencing discrimination as part of their life experience once within US borders. According to 1 survey study, 33% of immigrants experienced being told that they should "go back to where you came from."[3] The health care system further contributes to this experience of discrimination. A reported 38% of Black immigrants report being treated differently or unfairly by health care providers.[3] Given the large and expanding immigrant population within the United States, mental health clinicians need to better understand challenges faced by immigrants to provide appropriate treatment.

The original research article in this issue of the *Journal*, de Leeuw and colleagues[4] explores the mediating role of mothers' migratory stressors on autistic traits in their offspring. The authors sought to address the question of whether there is an association between maternal migration and offspring autistic traits in a population-based sample, and to what extent prenatal maternal stress indicators mediate the possible association. Using data from the Generation R study, a population-based cohort study starting during fetal life and continuing through adulthood, the researchers evaluated 2 groups based on maternal migration background. One group included women who migrated within Europe. The second group consisted of women who migrated to the Netherlands from outside of Europe. Stress was gauged through several self-reported questionnaires and autistic traits evaluated through the parent-reported Social Responsiveness Scale when the child was 6 years old. Seven mediators were explored, including maternal psychopathology, stressful life events, family

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functioning, and perceived discrimination. Mothers with a migration background scored higher on almost all stress-related assessments. Prenatal stress indicators mediated the association between maternal migration and child autistic traits, accounting for up to half of the total effect of maternal migration for both groups. For women who had a migration background from within Europe, the most important stress indicator was maternal psychopathology. The most important stress indicator for women originating from outside of Europe was perceived discrimination.

As a large population-based prospective study with a broad range of measured stressors, this research has many strengths. However, it should be interpreted in the context of some limitations. There are no data on autistic traits of parents. Given the heritability of autism and autistic traits, this limits interpretation of the mediators' effects on the causal pathway from migration to autistic traits. Also, there are no data about fathers and how their role affects the pathway from migration to autistic traits, preventing us from understanding their contribution to autistic traits in offspring and their intersection with prenatal stressors. Furthermore, it would be useful to better understand how prenatal stressors affected attitudes and behaviors (ie, negative thoughts about pregnancy, lack of prenatal care) related to pregnancy and parenting and autistic traits in offspring. Similarly, the study does not include a comprehensive evaluation of the attachment relationship or bonding between the mother and child. Attachment relationships are an important consideration in the development of child psychopathology, as healthy attachment helps buffer a child from negative experiences and stressors.[5] Positive influence and factors related to wellbeing are not fully explored in this study, and warrant additional investigation to further understand protective factors in this population. Finally, autistic traits overlap with other diagnostic categories. Traits are not specific to the outcome of autism spectrum disorder (ASD) and does not necessarily indicate pathology. We hope that future research can consider these limitations to further explore the ways in which prenatal stressors mediate migration and autistic traits, as well as other mental health outcomes in children.

Although this study is based on a Dutch population, it has relevance for the United States given its large global immigrant population. For one, this study underlines the compounding problems confronted by immigrant families experiencing discrimination. Although previous studies have demonstrated increased risk of autism associated with maternal migration, this study further illuminates specific stressors explaining this association. Families who migrate are exposed to many stressors, particularly families who are fleeing hardship, putting them at a higher risk for offspring with autism. With this study, we learn that even once families arrive from a different culture and background they are still at continued risk, largely due to perceived discrimination. In addition to being at risk for autism or autistic traits, these same families may have more difficulty in receiving a diagnosis or obtaining care. Given the high prevalence of autistic traits among those with a migrant background in a non–clinical population–based sample, it is likely that many individuals are receiving a delayed diagnosis and subsequent treatment, particularly among high-functioning autistic individuals. Factors potentially associated with this underdiagnosis of ASD are related to stigma, barriers to accessing evaluation services, as well as diagnostic bias among clinicians. These findings emphasize the importance for mental health clinicians and primary care providers to consider ASD as part of youth's differential diagnosis, even for those who are above the typical age of diagnosis, particularly in children with a migration background.

The study by de Leeuw *et al.*[4] also suggests that early stressful experiences in one generation, such as perceived discrimination and maternal psychopathology, confer risk and potential psychopathology to the next generation. However, both factors are addressable. This finding allows us to also consider the question: if stressors, such as maternal psychopathology, are treated, does this reduce the risk of psychopathology in the offspring? This adds to other research focusing on the ability to mitigate risk through multigenerational mental health approaches.[6] Maternal psychopathology involves treatable conditions. Therefore, treating maternal psychopathology demonstrates benefits in the mental health of the individual, as well as their living offspring. Child clinicians must hold the multiple perspectives of both parent and child as well—as their relationship to one another—in mind. Treating a child's mental illness is necessary, but not sufficient, in supporting their mental health. The wellbeing of all family members must be considered.

This study uniquely brings the role of perceived discrimination among migrant populations on children's development squarely into view. It highlights that the context within which families and children live has an impact on their wellbeing and mental health. The healthcare field can respond to the challenges faced by immigrant populations, particularly peripartum women, in several ways. For one, the clinical workforce can routinely extend beyond traditionally trained clinicians and can include individuals with lived experience as lay health workers. This would aid in ensuring representation within the field and

providing culturally responsive care. Findings suggest that including peer support workers has positive health outcomes for individuals with migrant backgrounds and may reduce barriers to care.[7] Second, experiential training and mentorship focusing on culturally responsive care is important to militate against the experience of perceived discrimination by patients seeking care. Exploring one's own prejudices and remaining curious about a patient/client from a holistic standpoint can create a more welcoming and inclusive environment. Finally, clinicians can lend their voices to advocate for policy changes to enhance prevention and early intervention in mental health so that individuals at risk can receive care before psychopathology develops. Although negative and bigoted rhetoric around immigrant populations dominates political discussions on immigration, the healthcare workforce can stay informed on the needs of immigrant populations and ensure that all communities thrive despite their national origins.

The relationship between prenatal stressors and offspring neurodevelopment needs further examination to better understand underlying mechanisms. Eliminating the fungible risk factors for mental illness, such as maternal psychopathology and discrimination, and thereby reducing the burden of these disorders on individuals, families, and their ecosystems, is a formidable but necessary task. Making mental health care available to individuals is important, but it is not the only element in supporting mental health. Societal attitudes and behaviors can have a significant impact on immigrant mental health.[8] Experiencing discrimination, or being "othered," has the potential to have enduring effects on family mental health over time. As mental health clinicians, we must focus on providing treatment through medications and therapy, as well as participate in fostering a sense of belonging for all patients. To achieve positive mental health outcomes for our patients, we have an ethical imperative to serve those who seek and need care, as well as a duty to create a "world-wide welcome."

CRediT authorship contribution statement

Emily J. Aron: Conceptualization, Writing – original draft, Writing – review & editing. **Flavia DeSouza:** Writing – review & editing.

Accepted May 20, 2024.

Dr. Aron is with the Georgetown University School of Medicine, Washington, DC. Dr. DeSouza is with Howard University, Washington, DC.

The authors have reported no funding for this work.

Disclosure: Dr. Aron has received grant funding from the National Institute of Mental Health. She also receives project support from Perigee Foundation, Clark Foundation and Department of Defense. Dr. DeSouza has reported no biomedical financial interests or potential conflicts of interest.

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https://doi.org/10.1016/j.jaac.2024.05.017

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