COVID-19: BEYOND TOMORROW

Challenges of the COVID-19 Pandemic Among Individuals With Autism Spectrum Disorder

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With the persistence of COVID-19 caused by the novel coronavirus SARS-CoV-2, researchers and clinicians worldwide have advanced in their efforts to identify vulnerable groups who are at risk of developing a severe course of illness. Nonetheless, knowledge regarding COVID-19 severe morbidity and mortality risk among individuals with autism spectrum disorder (ASD) has been relatively limited thus far. Early suggestions for routes to overcome the challenges faced by individuals with ASD have acknowledged several factors that may lead to increased risk of COVID-19 infection and hospitalization among these patients, highlighting the need to ensure they receive the same standard of care in light of potential health care barriers.1 In this Viewpoint, we aim to discuss whether progress has been made with regard to the evaluation of the potential risk of severe COVID-19 illness among individuals with ASD and to summarize current knowledge regarding the uptake of vaccinations as a proxy of standard of care in this vulnerable population.

Autism as a Potential Risk Factor for Severe COVID-19

The complexity of adhering to social distancing, quarantines, personal hygiene, and mask-wearing regulations among individuals with autism was acknowledged early in the pandemic.1 The presence of lockdowns and the struggle to have children adhere to COVID-19 restrictions have led parents to report more intense and frequent behavior problems and increased difficulty in managing disruptions to daily routine.2 These difficulties in managing prevention strategies may lead this population to be especially susceptible to COVID-19 infection. Additional environmental risk factors were previously suggested as contributing to increased infection risk, such as living in a residential facility or receiving services from outside caregivers.3

Aside from the risk of infection, individuals with autism are known to have a wide range of medical risk factors, such as obesity, hypertension, and diabetes, which may contribute to increased risk of COVID-19 hospitalization and death.3 Furthermore, they frequently encounter barriers to accessing health care, such as language barriers, shortage of designated health care services, and stigma.4 As these factors increase the risk of severe COVID-19 mortality as well as the risk of lower health care utilization, we view the investigation of the effect of the pandemic on this population to be of high priority.

COVID-19 Among Individuals With ASD: What Do We Know?

Systematic large-scale evaluations of the extent of infection, hospitalization, and mortality have thus far been limited. Karpur et al6 used the national private insurance claims database in the US to examine the likelihood of infection and hospitalization among individuals with ASD and found that individuals with ASD and intellectual disabilities are 9 times more likely to be hospitalized following COVID-19 infection. In a recent population-based study, Krieger et al7 reported higher odds of COVID-19 hospitalization as well as higher infection prevalence among individuals with ASD, with estimates varying across age and sex groups. These findings corroborate early concerns regarding the vulnerability of individuals with ASD and support the call to implement effective preventive measures to mitigate the harmful effects of the pandemic among individuals with autism.

Vaccination Prioritization for Individuals With ASD

Countries worldwide show significant variability in their policies toward prioritization of individuals with ASD and other disabilities, with some countries taking considerable measures to facilitate easier access to vaccination, and others omitting this group of patients from prioritization. In Israel, adults with ASD and other neurodevelopmental or intellectual disabilities were not specifically prioritized unless they were residents of social service facilities.7 Nonetheless, individuals with neurodevelopmental disabilities were eligible for special permission to receive the vaccine at earlier ages and were actively invited to receive vaccination in some of health care management organizations. In a recent study by Weinstein et al,8 the authors examined the prevalence of COVID-19 vaccination among individuals with ASD 16 and older (the age of allowable vaccination during the period of examination) compared with matched control participants in Israel. They reported that individuals with ASD were more likely to be vaccinated against COVID-19 compared with the control group and that this trend was evident across sexes, with some variability among age groups.

Although only a few studies have investigated vaccination trends among individuals with ASD worldwide, there seems to be some variability in the extent of vaccination distribution among these patients, with some countries reporting higher prevalence of vaccinations in specific age groups, and others reporting equal or lower prevalence.9,10 Nonetheless, as some countries were more proactive with their mass vaccination plan, as well as with their prioritization efforts, further studies are needed to explore vaccination trends among these patients worldwide and to examine whether gaps in vaccination trends exist in underprivileged populations.
Conclusions
Compared with other at-risk groups, research pertaining to COVID-19 morbidity and mortality among individuals with ASD and the effectiveness of preventive efforts among this group have thus far been limited. Nonetheless, findings reported in recent studies demonstrate that individuals with ASD are at risk of a more severe course of COVID-19 illness. On the other hand, the prevalence of infection among this group compared with the general population has shown some variability, and there are also indications of similar variability with regard to the extent of adherence to vaccination plans across different countries. The emergence of methodologically sound studies to assess COVID-19 risk among individuals with autism and the systematic evaluation of preventive strategies have led to some progress in the understanding of the level of risk, as well as the degree of preventive measures taken to ameliorate this risk. Nonetheless, additional studies are needed in order to evaluate the extent of generalizability of the reported findings, as well as to assess routes to advance clinical care among this highly vulnerable population. More studies are needed in order to determine whether environmental, genetic, and immunological factors are responsible for the increased risk of a severe course of COVID-19 illness among this population, as well as to determine the factors leading to successful vaccination coverage among this vulnerable group. The shift to remote life in the wake of the pandemic has increased parental stress on the one hand, however, opened opportunities to provide remote services through telehealth in a more flexible manner, on the other. Further assessment of the effectiveness of such interventions is needed, potentially as an additional route to mitigate infection and severe morbidity risk. Studies assessing the effect of the pandemic should address the full range of outcomes in autism, and specifically potential differences in morbidity and preventive care across individuals with autism with different levels of functioning. Such studies can inform public health care officials regarding potential outreach strategies needed to provide better care for individuals with ASD.

ARTICLE INFORMATION
Published Online: March 23, 2022. doi:10.1001/jamapsychiatry.2022.0237

Conflict of Interest Disclosures: Dr Tzur Bitan reported grants from Pfizer for a study in the field of dermatology and from the American Psychological Foundation. No other disclosures were reported.

REFERENCES