

# How the COVID-19 Pandemic Affects the Definition of a Condition?

## A commentary on the diagnostic process of Autism Spectrum Disorder

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**A**UTISM SPECTRUM DISORDERS (ASDs) ARE known to adversely affect communication and social skills. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5, social communication and interaction are of paramount importance in assessing ASD. Generally, social and environmental factors play a considerable role in psychological disorders and influence the process of development and socialisation.<sup>1</sup>

In the past decades, multiple studies have shown an increase in the rate of ASD diagnosis.<sup>2</sup> It is assumed to be the cause of the rise in ASD diagnosis which ultimately led to the updating of the DSM-IV to the currently used DSM-5.<sup>3</sup> However, it has been suggested that the application of diagnostic criteria is subject to clinical judgement by experts and can be inconsistent. The clinician must also obtain the patient's history either from caregiver or child.<sup>3</sup> In general, the involved individuals' perception and experiences can affect the diagnostic process.

In March 2020, the World Health Organization (WHO) characterised the COVID-19 epidemic as a pandemic.<sup>4</sup> During the COVID-19 pandemic, experts suggested social distancing as an effective way of controlling the spread of this viral respiratory infection. Some months later the WHO stated that COVID-19 would be a disease that we would have to live with for some time and that some form of social distancing should return to the lives of the people. Different countries took different measures in terms of their lockdown policies and therefore each society experienced a specific situation based on their government's decision.<sup>4</sup>

Many studies have researched the effects of quarantine and social distancing on mental status/health.<sup>5,6</sup> A study has shown that COVID-19 has had psychological effects and led to increased difficulties among those with ASD.<sup>7</sup> Individuals have to modify their behaviour, routines and adapt their attitude to changing environment. In fact, social media and social networking has enhanced interpersonal communication as people have acquired different communication skills, which has led to the creation

of more groups, an increase in experiences and events that are social in nature.<sup>8</sup> A possible explanation for this is that social norms can drive human behaviour.<sup>9</sup> In the context of the COVID-19 pandemic, social distancing can cause a change in daily routine and may cause changes in autistic behaviours, and therefore it may also alter the definition and diagnostic criteria of ASD. As autistic behaviours are defined on a spectrum, there may be different interpretations among experts and between many diagnostic tools and manuals. Being a spectrum, the matter of relativity should be considered in ASDs diagnosis; for example, when society is more interactive, group activities and team working are encouraged and individuals who appear to be introverted and have less sociable traits may be diagnosed with ASD. On the other hand, when social isolation becomes an inevitable aspect of life, the line separating a non-ASD life and an ASD life shift and become blurred.

Since the beginning of 2020, individuals have been experiencing the fear of being infected with COVID-19, mental issues, lack of information, lack of in-person contact, etc; this can have problematic and enduring effects on different social groups.<sup>10</sup> While many genetic factors are considered in ASD occurrence, the role of environmental factors in behavioural phenotypes is also evident.<sup>11</sup> To some extent, a situational change can affect a definition of a condition which is assumed to have both genetic and environmental aspects. As far as children who may be more interested in 'screen' activities rather than physical activities, sedentary behaviours will increase in a situation where all team-sports and gatherings are forbidden.<sup>12</sup> This can result in social avoidance traits long after the pandemic ends such as handwashing for those with obsessive-compulsive disorder and repetitive behaviour in non-ASD people. Pre-pandemic, children with ASD benefited from social inclusion but it seems that nowadays people are getting used to autistic-like normality and those children cannot have social interaction as before.<sup>13</sup> As a consequence of pandemic-induced isolation, the diagnostic criteria used for detecting autistic traits

will probably need modification. As several criteria are needed for the diagnosis of ASD, clinicians may rely on criteria other than those related to social communication for the diagnosis of ASD.

Previously, some experts had called ASD the 'new normal' and hypothesised that the condition we know as the autism spectrum is in fact an evolutionary change of mind.<sup>14</sup> Taking the current pandemic into consideration, it is notable that ASD seems to be reconsidered as the new normal. Roy *et al.* stated that pandemic-related anxiety can lead to behavioural changes in society.<sup>15</sup> In light of this, Amaral and de Vries stated that it is not the process of diagnosis but the confounding factors caused by the pandemic that can be misleading and will affect the prevalence of ASD.<sup>16</sup>

Although epidemiological phenomena are transient, they can impact different groups of people seriously in different aspects of life, after the phenomenon is ended. The impact can be more visible in individuals with previous history of mental health disorders.<sup>17</sup>

Future research should focus on whether social distancing changes normal social behaviours and interest in peers as this could lead to a change in diagnostic criteria of ASD.

## References

1. Goldson E. Advances in Autism—2016. *Adv Pediatr* 2016; 63:333–55. <https://doi.org/10.1016/j.yapd.2016.04.014>.
2. Kodak T, Bergmann S. Autism Spectrum Disorder: Characteristics, Associated Behaviors, and Early Intervention. *Pediatr Clin North Am* 2020; 67:525–35. <https://doi.org/10.1016/j.pcl.2020.02.007>.
3. Bartolotta T, Rizzolo D. Recognizing autism spectrum disorder. *JAAPA* 2019; 32:22–6. <https://doi.org/10.1097/01.JAA.0000569776.76198.e1>.
4. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. From: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> Accessed: Nov 2020
5. Pfefferbaum B, North CS. Mental Health and the Covid-19 Pandemic. *N Engl J Med* 2020; 383:510–12. <https://doi.org/10.1056/NEJMp2008017>.
6. Singh S, Roy D, Sinha K, Parveen S, Sharma G, Joshi G. Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations. *Psychiatry Res* 2020; 293:113429. <https://doi.org/10.1016/j.psychres.2020.113429>.
7. Colizzi M, Sironi E, Antonini F, Ciceri ML, Bovo C, Zocante L. Psychosocial and Behavioral Impact of COVID-19 in Autism Spectrum Disorder: An Online Parent Survey. *Brain Sci* 2020; 10:341. <https://doi.org/10.3390/brainsci10060341>.
8. Reid Chasiakos YL, Radesky J, Christakis D, Moreno MA, Cross C. Children and Adolescents and Digital Media. *Pediatrics* 2016; 138:e20162593. <https://doi.org/10.1542/peds.2016-2593>.
9. Fehr E, Schurtenberger I. Normative foundations of human cooperation. *Nat Hum Behav* 2018; 2:458–68. <https://doi.org/10.1038/s41562-018-0385-5>.
10. Wang G, Zhang Y, Zhao J, Zhang J, Jiang F. Mitigate the effects of home confinement on children during the COVID-19 outbreak. *Lancet* 2020; 395:945–7. [https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X).
11. Posar A, Visconti P. Autism in 2016: The need for answers. *J Pediatr (Rio J)* 2017; 93:111–19. <https://doi.org/10.1016/j.jped.2016.09.002>.
12. Bidzan-Bluma I, Lipowska M. Physical Activity and Cognitive Functioning of Children: A Systematic Review. *Int J Environ Res Public Health* 2018; 15:800. <https://doi.org/10.3390/ijerph15040800>.
13. Harper CB, Symon JB, Frea WD. Recess is time-in: Using peers to improve social skills of children with autism. *J Autism Dev Disord* 2008; 38:815–26. <https://doi.org/10.1007/s10803-007-0449-2>.
14. Draves W. Is autism the new normal? From: <https://lern.org/article/is-autism-the-new-normal/> Accessed: Nov 2020.
15. Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental health-care need in Indian population during COVID-19 pandemic. *Asian J Psychiatr* 2020; 51:102083. <https://doi.org/10.1016/j.ajp.2020.102083>.
16. Amaral DG, de Vries PJ. COVID-19 and Autism Research: Perspectives from Around the Globe. *Autism Res* 2020; 13:844–69. <https://doi.org/10.1002/aur.2329>.
17. Yao H, Chen J-H, Xu Y-F. Patients with mental health disorders in the COVID-19 epidemic. *Lancet Psychiatry* 2020; 7:e21. [https://doi.org/10.1016/S2215-0366\(20\)30090-0](https://doi.org/10.1016/S2215-0366(20)30090-0).