Suicide and autism spectrum disorder: the role of trauma

Mental disorders are considered among the leading risk factors for suicide. According to the World Health Organization, more than 90% of people committing suicide suffer from a mental disorder. For this reason, suicide prevention needs to devote great importance to grow the awareness of the mental conditions that are most likely to raise the risk of suicidal behaviors. Several psychiatric disorders are classically linked to suicide. The lifetime risk of suicide is estimated to be 4% in patients with mood disorders, 8% in people with bipolar disorder, 5% in people with schizophrenia, and 7% in people with alcohol dependence. Post-traumatic stress disorder (PTSD) as well is frequently associated with suicidal ideation and suicide attempts. Suicide, in fact, has been reported as one of the most important causes of death among veterans, with the risk for intentional death continuing to be high many years after service, but remarkable rates have also been reported in general populations exposed to natural disasters worldwide.

Neurodevelopmental disorders are usually overlooked in statistics of mental conditions enhancing the risk of suicide. Notwithstanding, a recent systematic review of studies involving subjects with Autism Spectrum Disorder (ASD) found percentages of suicidality ranging from 10.9 to 50% and pointed out that individuals with ASD might comprise 7.3 to 15% of suicidal populations. This seems to suggest that neurodevelopmental disorders could play a role as important as other mental disorders in suicide risk. For decades, ASD prevalence estimates have ranged from 0.2 to 0.9%, far below the prevalence of depression (around 16%), alcohol dependence (around 5.4%), bipolar disorders (about 2.1%), and schizophrenia (around 1%). This may be one of the reasons why research about suicide risk in ASD subjects has been scant and ASD is not included among mental disorders at high risk for suicide. But what should we expect now that recent data on ASD prevalence highlight rates up to 1.4% and growing data have shown that this prevalence might still be on the rise? Whatever such grow in prevalence is due to an increased incidence or it is likely due to a greater recognition of ASD, together with the growing attention devoted to partial and subthreshold cases, autism related conditions might be expected to climb the rankings of suicide risk factors in the close future.

Recent evidence indicates that ASD subjects may present with a very broad range of manifestations of suicidality, including completed suicide, attempted suicide, and suicidal ideation, with this latter being the most common. Few data also indicate that ASD subjects who attempt suicide tend to engage in more lethal methods. Moreover, adolescence appears to be the highest-risk period, and high functioning ASD individuals at higher risk than low functioning ones.

Despite additional research is necessary to better understand how this unique population expresses suicidal tendencies, extant literature highlights the role of stressful life events (e.g., bullying, relationship difficulties) as triggers for suicidal attempts. It has been shown that important adverse life events, such as bereavement or exposure to natural disaster, may be particularly disruptive for subjects suffering from ASD. Nonetheless, their limited cognitive flexibility, their rigid attitudes, their executive functioning and problem-solving difficulties make ASD subjects less likely to adjust even to minor stressors, such small changes in daily life or failures in work or private relationships, even in those cases diagnosed with subthreshold autism conditions. Besides anecdotal reports of suicidal behaviors following the difficulty of ASD patients to cope with life stressors, Kato and colleagues recently examined 587 suicidal patients hospitalized for inpatients treatment, reporting that the 43 with ASD were more likely to have attempted suicide in the framework of an adjustment disorder compared to non-ASD patients, who in turn were more likely to present a mood disorder. Across the different developmental stages, a range of situations may be difficult to deal with for subjects with ASD: inclusion in the group of peers, school performance, intimate relationships. Even in those cases with normal or above normal intellectual abilities, the difficulties in expression, empathy and understanding of shared codes of communication easily lead to chronic traumatization and to social exclusion across the entire life. Given their difficulties in mentalizing emotionally charged situations, what is usually considered a stressful life situation may come to ASD patients as a true traumatic event, while suicide may represent the only extreme way to express inner feelings and to cope with conflicts. Further data suggest a link between suicidality and trauma and stress-related conditions among ASD subjects. In fact, despite only a few studies explored PTSD prevalence rates among ASD patients, and those who did it reported only low rates, Storch and colleagues recently found that comorbidity with depression or PTSD is associated with increased risk for suicidal thoughts and behaviors in youth with ASD and speculated about a potential link.
between ruminative thoughts associated with depression and PTSD that may increase suicide risk. It is surprising that a population characterized by a significant vulnerability lying on the severe impairment in interpersonal relationships and the inability to cope with conflicts or deep affective involvements show low prevalence of PTSD. One possible explanation might be that the characteristic difficulties in understanding, mentalizing and expressing relationship may also latch onto the capability of understanding and expressing a traumatic event, especially in subjects with intellectual or language disability. On the other hand, another important issue to be considered is the commonly used definition of trauma. Our unpublished data showed that individuals with mild autistic traits and no intellectual impairment are prone to develop a full PTSD-like syndrome following “minor traumas”, such as peer victimization, unsuccessful social exposures, being accused of a theft. Such stressful events do not endorse the definition of trauma of DSM-5, allowing, at the best, the diagnosis of Adjustment disorder. However, it is possible that such “adjustment disorders” underlie a more complex post traumatic stress symptomatology, aldo including the high risk of suicidal behavior recently shown in PTSD patients 8-12.

A further perspective arising from recent studies is worth being considered about the relationship among autism, suicide and trauma. While the few data available show only low rates of PTSD in ASD samples, several authors agree about ASD patients being at high risk of traumatic events, particularly because of their chronic interpersonal traumatization 27-28. In attempting to explain the inconsistency between the high rates of traumas and the low prevalence of PTSD among ASD patients, King 27 pointed out that the typical impairments of ASD may also impact individual’s capability of understanding, mentalizing and referring events as traumatic, limiting the chance that a post traumatic stress symptomatology would be recognized as such. In addition, a few authors hypothesized that ASD patients are likely to show a particular form of PTSD, arising from multiple traumas, named Complex PTSD 27-28. Complex PTSD symptomatology is often chronic and more severe than typical PTSD symptoms, including deficits in emotional regulation, negative self-perception, interpersonal problems and dissociative symptoms 27-32 33. It has been observed that the symptoms of Complex PTSD, prolonged across time, lead to long-term instability in interpersonal relationships, emotional lability, unstable self-perception, as well as to maladaptive behaviors, such as a broad range of suicidal behaviors and substance abuse, so that these subjects might even be labeled as having a Borderline personality disorder (BPD) 27. From such a perspective, trauma and stress-related disorders might be the link between autistic dimension and suicidality not only among subjects with a known ASD, either subthreshold or full-blown, but also among those with a borderline phenotype covering an autistic constellation of symptoms, or in ASD subjects in which a diagnosis of comorbid BPD has been made. Somehow in agreement with this hypothesis, a small study conducted on 41 BPD patients found that those with comorbid ASD show greater suicidality than those with BPD alone 34.

While further experimental data are needed to test this latter hypothesis, we think that ASD will be gaining greater importance among risk factor for suicidality in the near future and that research into this field would benefit from focusing not only on severe autism spectrum conditions, but also on subthreshold and partial forms. The role of traumatic life events as triggers of suicide attempts among ASD subjects will also require investigation. Conversely, a more comprehensive investigations of autistic traits among PTSD patients showing suicidal tendencies should be a priority for future research.

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