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Risk and dynamics of violence in Asperger's syndrome: A systematic review of the literature☆

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ABSTRACT

The main purpose of this article is to delineate findings from a review of the literature on the empirical basis for the existence of a relationship between Asperger's syndrome (AS) and violence risk. A second aim is to examine whether certain characteristics of the disorder may have a higher violence-triggering potential. Results of this review show that there are very few empirical studies that confirm a stable link between AS and violence. Only 11 studies involving 22 patients and 29 violent incidents met the criteria for inclusion in the review after the search of the literature. However, a qualitative analysis of the studies yielded some indications of possible patterns of dynamics of violence that may prove to be typical of persons with AS. A tentative comparison of AS and psychopathy indicated that there may be qualitative differences in the characteristics of violent behavior between the disorders. Suggestions for further research are presented.

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The earliest attempts to diagnose autism and, later on, a broader group of related developmental disabilities designated *autism spectrum disorder* recorded in the international literature date back to Kanner (1943). In 1944, Hans Asperger described a syndrome that has subsequently been given his name, even though clinical descriptions matching this disorder had already been published in European literature in the 1920s (Frith, 1991). Asperger believed the syndrome was caused by genetic factors or brain damage and labelled it *autistic psychopathy*. He argued that it shared some characteristics with, but still was different from, Kanner's early childhood autism. According to Asperger, persons with autistic psychopathy had a stable personality disorder marked by social isolation, but were not as withdrawn or aloof as Kanner's patients. Even though these individuals' intellectual skills were intact, they engaged in little nonverbal communication involving gestures and affective tone of voice, and had poor empathy and a tendency to intellectualize emotions. Asperger also emphasized their inclination to engage in long-lasting, one-sided, sometimes incoherent, and rather formalistic speech. They were also physically clumsy, and dominating and all-absorbing interests involving unusual topics dominated their conversation.

Asperger's work, however, was largely ignored until an article by Wing (1981) revitalized interest in this diagnostic concept. Still, it was not introduced in the ICD and DSM diagnostic systems as a separate diagnostic concept until the early 90s (APA, 1995; WHO, 1992). The introduction of Asperger's syndrome (AS) in the ICD-10 and DSM-IV was prompted by the recognition that autism is a clinically heterogeneous disorder and that the characterization of subtypes might help clinicians and researchers by allowing the identification of clinically more homogenous diagnostic subtypes such as AS. However, the DSM-IV criteria for AS, in particular, have been heavily criticized, and it is also asserted that efforts to develop assessment scales to evaluate AS have not been successful (e.g., Campbell, 2005; Klin & Volkmar, 2003). One main issue has been whether the AS should be considered as a part of a dimensional continuum together with other pervasive developmental disorders (PDD) or if there actually are qualitative discontinuities among the PDDs. This issue falls outside the main purpose of the current review, and the reader is referred to other literature for further study (e.g., Cashin, 2006; Klin & Volkmar, 2003; Matson, 2007).

1. Some clinical features associated with Asperger's syndrome

Despite some differences in diagnostic criteria, sustained impairments in social interaction and restricted repetitive patterns of behavior are common criteria in the DSM and ICD systems. Paradoxically, even if AS is a neurodevelopmental disturbance already present in early childhood, most of its clinical expressions and the significant impairment it causes tend not to be manifested until late puberty and early adulthood. It has been suggested that this may explain the relatively late diagnosis found in many cases of AS (Katz et al., 2006). Because this period of life is characterized by higher social demands, and marked importance of adaptive social functioning, the consequences of any impairment of this kind may be grave.

According to Wing (1996), a diagnosis of AS should be based on a detailed assessment of the individual's developmental history and present behavior. She particularly emphasized a triad of impairments: impairments in social interaction, communication, and imagination. Individuals with AS display a wide spectrum of behavioral responses, and it is not unlikely that a substantial proportion of their conduct problems is triggered by actual and/or perceived failure in their social interactions.

In contrast to autism, onset criteria state that there should be no clinically significant delay in language acquisition or cognitive and self-help skills. Although individuals with AS generally do not suffer from speech abnormalities, some communication deviances are often present: a constricted range of, and often inappropriate, intonation patterns, an unusual rate of speech, tangential and circumstantial speech, and incessant talk about a subject without regard for others' lack of interest in it. Although individuals with AS find themselves socially isolated, they are not usually withdrawn in the presence of other people. They may want friendships, but their wishes are thwarted by their own eccentric, awkward approaches and insensitivity to other people's feelings, intentions, and communications. Typically, they may be able to cognitively describe other people's emotions and intentions, but they are unable to act on this information in an intuitive and spontaneous way (Baron-Cohen, 2000). Their dependence on rule-governed behavior creates a social rigidity and immaturity that is so typical of these individuals. Acquisition of motor skills is typically delayed, and they often appear visibly awkward, with bouncy gait patterns, poor coordination, and odd posture.

2. Asperger's syndrome and violence

In a review of the literature, Fombonne and Tidmarsh (2003) found only one epidemiologic study that investigated AS alone and six studies that provided specific estimates for the prevalence of the disorder, together with estimates of other subtypes of pervasive developmental disorders. The prevalence rates reported in these studies ranged from 0.3 to 48.4 per 10,000. The authors concluded that the reviewed studies were flawed by methodological problems, and that further research was needed to obtain more valid estimates. Murphy (2003) reported that there is some evidence that 3 to 4 in every 1000 children may develop the full syndrome and that, although this issue is far from settled, there is general agreement that the prevalence of AS is low. Given the low prevalence of AS, it is not clear how commonly violent behavior occurs. Attempts to assess the violence rate have been hampered by problems pertaining to reliable and valid diagnoses of Asperger's syndrome and accurate recordings of violence. These two factors, along with the relatively recent increase in interest in the syndrome, probably explain, in part, the highly divergent estimates that have been presented so far. Table 1.

In a retrospective case study, Scragg and Shah (1994) suggested a possible association between AS and violence in 1.5% of a highly selected population of mentally abnormal offenders in England. The addition of equivocal cases increased the prevalence to 2.3%. A study of forensic patients in Sweden found that 4% of 135 youngsters who committed assault fit the Asperger's syndrome diagnosis (Siponmaa, Kristiansson, Jonson, Nydèn, & Gillberg, 2001). Ghaziuddin, Tsai, and Ghaziuddin (1991) estimated a violence prevalence rate of 2.7% in the AS population, whereas Kohn, Fahum, Ratzoni, and Apter (1998) found a prevalence of aggression around 20% (Ghaziuddin et al., 1991; Kohn et al., 1998). The divergent estimates obtained from these studies calls for a systematic review to obtain a more exact prevalence