Review

The co-occurrence of intellectual giftedness and Autism Spectrum Disorders

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ABSTRACT

This systematic literature review explored the state of the art concerning the theoretical and empirical knowledge of the twice-exceptionality of Intellectual Giftedness and Autism Spectrum Disorders (IG + ASD)[3], in relation to diagnostic and assessment issues. After searching and examining publications in peer-reviewed journals and dissertations, we encountered a variety of methodologies being used. The results showed the absence, until now, of theoretical conceptualisations of the phenomenon IG + ASD. Nevertheless, this contribution revealed some converging tendencies concerning both personal characteristics and diagnostic and assessment issues, between publications with and without Systematic Identification Measures (SIM). Some findings, like the 'superior non-verbal abilities', are discussed in relation to (controversial) image formation of IG and IG + ASD. Altogether, the results indicated the need for an in-depth exploration and conceptualisation of the phenomenon IG + ASD. Meanwhile, future research should also address the practical psychological-educational need for both classification-based and needs-based assessment procedures, regarding students with (suspicion of) IG + ASD.

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  [3] All abbreviations are explained below Table 1 in 'abbreviations Tables 1 and 2'.

1. Introduction

This article systematically explored the state of the art concerning the theoretical and empirical knowledge of the twice-exceptionality of Intellectual Giftedness and Autism Spectrum Disorders (IG+ASD) in relation to diagnostic and assessment issues. The rationale for this review stemmed from our educational and clinical experiences with diagnoses and assessments of intellectually gifted children and adolescents who suffered from problems with learning strategies and/or social interactions with peers. It was found difficult to differentiate whether or not these kinds of problems could be attributed to the individual student's Intellectual Giftedness (IG) or that they were merely symptoms of an Autism Spectrum Disorder (ASD). This was because some cognitive and social features often ascribed to giftedness, like language precocity or social isolation, resembled certain behavioural characteristics of children with Asperger's Syndrome (Burger-Veltmeijer, 2003). While doing second opinion assessments, it was noticed that these similar characteristics often were one-sidedly ascribed by diagnosticians in educational and clinical institutions to either IG or an ASD. This led to mis- and missed diagnoses concerning students with (suspicion of) IG+ASD and to improper one-sided interventions or no interventions at all.

So far, these practical experiences have been supported by the findings of a preliminary literature study of Burger-Veltmeijer (2006): According to the reviewed authors, misidentification often occurred whereas correct diagnosis was essential to provide adequate psychological and educational treatment and facilities. This literature search, summarised in Burger-Veltmeijer (2007, 2008), was limited however to articles published before 2005, in which the authors selectively compared literature of ASD to publications of giftedness, and interwove their findings with clinical opinions and anecdotal reports (Barber, 1996; Cash, 1999; Donnelly & Altman, 1994; Gallagher & Gallagher, 2002; Grandin, 1992; Henderson, 2001; Little, 2002; Neihart, 2000). Moreover, the search was methodologically limited, because of the narrow scope of search terms used, and because until a few years ago, the relatively few discussions of IG+ASD mainly appeared in non-peer-reviewed journals and were limited by lack of systematic data collection and statistical analysis (Huber, 2007).

In the current literature review, these limitations are dealt with. We added relevant search terms and aimed at publications in peer-reviewed journals and dissertations published until 2009. Next the theoretical outlines of the core concepts ASD, IG and IG+ASD are presented.

1.1. Autism Spectrum Disorders (ASD)

In this study, the dimensional concept of ASD was chosen, rather than the static-categorical approach used in classification systems such as the revised fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (APA, 2000). This approach was used because the border between the specific ASD-categories might not always be clear-cut and, up to now, no differences in cause or treatment were reported. Therefore, we did not focus on classification per se, but on the core characteristics that described the phenomenon of autism in a broad perspective. These were the triad of impairments of social interaction, communication, and imagination, together with a marked preference for a rigid, repetitive pattern of activities (Wing, 1992). The autistic continuum ranged from the severe diagnosis Autism (AU) to the 'lesser variants', Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS), Asperger's Syndrome (AS) and High Functioning Autism (HFA).