Agreement in multi-informant assessment of behaviour and emotional problems and social functioning in adolescents with Autistic and Asperger's Disorder

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A R T I C L E   I N F O

A B S T R A C T

There is a paucity of evidence concerning the patterns of multi-informant agreement in populations with Autism Spectrum Disorders (ASD). This study compared ratings of behaviour and emotional problems and social functioning provided by 45 adolescents aged 12–18 years, with Autistic or Asperger's Disorder with ratings by their parents and teachers. Behaviour and emotional problems were measured using the *Child Behaviour Checklist* and social functioning was measured with the *Social Skills Rating System*. Moderate agreement was found between adolescent and parent ratings of psychopathology and social functioning. In general, parent and teacher ratings and adolescent and teacher ratings differed significantly. These findings suggest that behaviour varies across environmental contexts. Patterns of agreement between multiple informants observed in the current study frequently differed from those previously found in non-ASD populations. Clinicians and researchers need to consider a multi-informant approach to obtain a detailed picture of behaviour and emotional problems in adolescents with autism and Asperger's Disorder.

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1. Introduction

The ability of informants to provide a meaningful report of phenomena is limited by their capacity to observe individuals in specific settings (Fagan & Fantuzzo, 1999) and certain behaviours may be absent or evident with varying extent depending on the environment in which they occur (Renk & Phares, 2004). Different informants are also likely to colour their observations according to different biases, expectations and standards (Achenbach & Rescorla, 2001). Multi-informant assessment can capture the observations of numerous sources to provide a comprehensive and balanced assessment of an individual's behaviour, experiences and functioning (Macintosh & Dissanayake, 2006). Despite this advantage, few studies have examined the properties and characteristics of multi-informant assessment in populations with Autism Spectrum Disorders (ASD). This includes broad measures of behaviour and emotional problems and social functioning that are routinely used in research and clinical practice. Such information is valuable for those seeking to fully and accurately assess the wide variety of behavioural and emotional difficulties young people with ASD experience and the qualities of their social function (Matson & Nebel-Schwalm, 2007; Simonoff et al., 2008).

Consistent evidence of the discrepancy between self, parent and teacher report of behaviour and emotional problems, in children and adolescents from various populations, suggests that multi-informant assessment is preferable to obtaining

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information from a single informant (Bird, Gould, & Staghezza, 1992; De Los Reyes & Kazdin, 2005). For example, children and adolescents from clinical, paediatric hospital and typically developing samples tend to report having more behaviour and emotional problems than other informants, whilst parents report more problems than teachers (Clay, Surgenor, & Frampton, 2008; Montano, Mahrer, Nager, Claudius, & Gold, 2011; Sawyer, Baghurst, & Clark, 1992; van der Ende & Verhulst, 2005; van der Ende, Verhulst, & Tiemeier, 2011). Correlations between different informants are also generally low as reported by Achenbach, McConaughy and Howell's (1987) meta-analysis of 119 studies which found a mean correlation of 0.28 between informant ratings in young people. However, agreement varies depending on the rater dyads being compared. Ratings from informants who have witnessed behaviour in the same context (such as fathers and mothers) tend to produce moderate agreement whereas lower agreement is found between raters across contexts (Achenbach, McConaughy, & Howell, 1987; Duhig, Renk, Epstein, & Phares, 2000; van der Ende et al., 2011). Low to moderate correlations between parent and teacher ratings have been found using a range of instruments in young people from general, clinical and intellectually disabled populations (Aman, Tasse, Rojahn, & Hammer, 1996; Clay et al., 2008; Dekker, Nunn, & Koot, 2002; Freund & Reiss, 1991; Salbach-Andrae, Lenz, & Lehmkuhl, 2009; Stone, Otten, Engels, Vermulst, & Janssens, 2010). Weak to moderate correlations between self and parent and self and teachers ratings have been observed when assessing behaviour and emotional problems in adolescents with and without Axis I disorders (e.g. substance, mood, personality and conduct disorders) (Salbach-Andrae, Klinkowski, Lenz, & Lehmkuhl, 2009; Salbach-Andrae, Lenz et al., 2009; van der Ende & Verhulst, 2005). Agreement between self and teacher ratings are generally lower than those between self and parents ratings (Salbach-Andrae, Lenz et al., 2009; van der Ende & Verhulst, 2005).

Preliminary evidence specific to the agreement of multi-informant ratings in young people with ASD is also available. Hurtig et al. (2009) assessed self, parent and teacher reported behaviour and emotional problems in 46 adolescents with Autistic or Asperger's Disorder, aged 11–17 years. Use of the *Youth Self Report* (YSR), *Teacher Report Form* (TRF) and parent-rated *Child Behaviour Checklist* (CBCL) allowed comparison of ratings across 11 broad and specific problem scales. Weak to moderate correlations were found between self and parent ratings with nine of the scales correlating significantly (r = .27–.51). Some agreement was also found between self and teacher ratings, and parent and teacher ratings, with significant correlations found on seven (r = .36–.66) and five scales (r = .39–.58), respectively. Agreement within both dyads tended to occur on scales concerning externalised behaviour problems. Self and parent agreement was also examined in typically developing controls where significant correlation was found on all but one scale. However, correlations were often weaker than self-parent correlations in the ASD sample. Kanne, Abbacchi, and Constantino (2009) compared levels of agreement between parent and teacher ratings of 177 children and adolescents aged 3–18 years with ASD to that found in their typically developing siblings (n = 148) who were aged 1–16 years. Significant, moderate to strong correlations (r = .37–.73) between parent and teachers ratings were observed on six of seven DSM-oriented subscales in the sibling sample. In contrast, only four subscales in the ASD sample correlated significantly, at a low to moderate level (r = .26–.49). Such findings suggest that there is more variability in inter-rater agreement in ASD compared to typically developing or intellectually disabled populations. Yet, Hurtig et al. findings suggest inter-rater agreement is roughly comparable and, in some instances, higher in young people with ASD compared to typically developing individuals. Agreement may vary according to the measures used and specific problems examined.

Multi-informant assessment of social functioning is also preferable given further evidence of low agreement between self, parent and teacher report (Kalyva, 2010). Renk and Phares (2004) conducted a meta-analysis of 74 studies that assessed multi-informant agreement of social competence in children and adolescents. Typically developing, clinical and physically and developmentally disabled samples were included. Low to moderate mean inter-rater correlations were found; self and parent ratings (r = .21) had the lowest correspondence, while parent–teacher agreement (r = .38) was significantly higher than that of self-teacher agreement (r = .25). Other examinations of children and adolescents from the general population have found weak to moderate correlations between self, parent and teacher ratings of specific areas of social skills (r = .02–.39) such as cooperation, empathy and engagement (Gresham, Cook, Vance, Elliot, & Kettler, 2010). Assessment of social functioning in young people with intellectual disability is limited to parents and teachers given the difficulty of children and adolescents with ID to provide self report (Bielecki & Swender, 2004). Low correlations have generally been found between parent and teacher ratings on scales of social competence and social relating problems (Aman et al., 1996; Dekker et al., 2002; Tasse & Lecavalier, 2000). Evidence of low agreement in these populations may reflect variability in social behaviour across contexts or perhaps the differing perspectives of informants (Renk & Phares, 2004).

Although social function impairments represent a core component of ASD diagnoses, there is a lack of evidence concerning multi-rated and cross-contextual social functioning in young people with ASDs (Murray, Ruble, Willis, & Molloy, 2009). Available data are inconsistent with inter-rater agreement appearing to vary according to the instruments and samples examined. Murray et al. (2009) used the *TRIAD Social Skills Assessment* to examine 45 children and adolescents aged 5–14 years with Autistic Disorder, Asperger's Disorder or Pervasive Developmental Disorder-Not Otherwise Specified, who were referred for social skills intervention. Correlations between parent and teacher ratings of positive social behaviour ranged from low to weak and statistically non-significant (r = .15–.38). Macintosh and Dissanayake (2006) found no significant correlations between parent and teacher rated total and subscale social skill scores (r = −.28 to .20) on the *Social Skill Ratings System* (SSRS). Their samples consisted of 20 children aged 4–10 years with Autistic Disorder and 17 children aged 5–10 years with Asperger's Disorder. The *Assertion* subscale in the Asperger's Disorder sample (r = .60) was an exception, demonstrating good inter-rater agreement between parents and teachers. In contrast, Kalyva (2010) reported moderate agreement between parent and teacher (r = .51–.59) ratings on the Matson Evaluation of Social Skills with Youngsters in 21 children and adolescents with Asperger's Disorder, aged 9–16 years.