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The link between emotion regulation, social functioning, and depression in boys with ASD

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ABSTRACT

Purpose: Symptoms of depression are common in children and adolescents with an autism spectrum disorder (ASD), but information about underlying developmental factors is limited. Depression is often linked to aspects of emotional functioning such as coping strategies, but in children with ASD difficulties with social interactions are also a likely contributor to depressive symptoms.
Methodology: We examined several aspects of emotional coping (approach, avoidant, maladaptive) and social functioning (victimization, negative friendship interactions) and their relation to depression symptoms in children with ASD ($N = 63$) and typically developing (TD) peers ($N = 57$). Children completed a battery of self-report questionnaires.
Results: Less approach and avoidant, but more maladaptive coping strategies, and poor social functioning were uniquely associated with more symptoms of depression in children with ASD. Only less approach and more maladaptive coping were uniquely associated with depression severity in TD boys.
Conclusions: Unlike TD boys, boys with ASD who report using avoidant strategies to deal with stressful situations report fewer symptoms of depression, suggesting that this may be an adaptive emotion regulation strategy. However, understanding the role of over-arousal in this process, inferences about long-term effects of this strategy, its causality and direction of effects will require additional research.

1. Introduction

Autism spectrum disorders (ASD) are associated with a wide range of psychiatric symptoms and disorders, of which depression appears to be relatively common (Gadow, Guttmann-Steinmetz, Rieffe, & De Vincent, 2012; Kim, Szatmari, Bryson, Streiner, & Wilson, 2000; Matson & Nebel-Schwalm, 2007; Simonoff, Pickles, Charman, Chandler, Loucas, & Baird, 2008). In non-ASD individuals depression is generally characterized by a diminished interest in activities, feelings of worthlessness or guilt, and a diminished ability to concentrate or make decisions. Kim et al. (2000) found higher levels of depression in children with ASD based on parent-report. Owing to phenotypic overlap (e.g., prefers to be alone) and atypical manifestation of depression in ASD, it is difficult to accurately recognize and diagnose depression in these children. For

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example, depression in children with ASD could also be accompanied and therefore indicated by aggressive behavior, hyperactivity, self-injurious behavior, and regression of previously learned skills (Magnuson & Constantino, 2011). Although there is no longitudinal research on childhood depression in children with ASD, we know that in typically developing (TD) individuals' onset of depression during childhood is associated with antisocial behavior, substance use, and suicide in later life (King, Iacono, & McGue, 2004; McGee & Williams, 1988; Rao, Weissman, Martin, & Hammond, 1993). Given the relatively high rate of depression symptoms in children with ASD it is important to identify factors that may contribute to the development of depression as potential targets of intervention with the possibility of preventing later-onset mental health concerns.

1.1. Coping strategies and depression

In general, child self-reported symptoms of depression are strongly linked to certain aspects of emotion regulation such as coping strategies in both children with ASD and their TD peers (Rieffe et al., 2011; Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Coping involves regulating the emotional impact of a stressful event (Lazarus & Folkman, 1984), which is a key element for adaptive functioning. Coping strategies can be divided into three categories; approach (e.g., seeking social support, trying to solve the problem), avoidant (e.g., cognitively restructuring a stressful event, distracting oneself from the problem, ignoring the problem), and maladaptive coping (internalizing, such as thinking something bad will happen again, or externalizing/acting out, such as screaming or hitting something). Whereas very young children mainly use avoidant coping strategies to distract or remove oneself from a stressor, older children are more likely to use approach strategies, such as problem solving (Fields & Prinz, 1997).

Research in TD children has shown that ineffective coping strategies and self-reported depressive symptoms are inter-related. For example, Abela, Brozina, and Haigh (2002) showed that one maladaptive strategy, rumination, was related to an increase of depressive symptoms in children (8–12 years), whereas approach and avoidant strategies were not. Wright et al. (2010) also found that approach (but not avoidant) strategies were associated with fewer self-reported depressive symptoms in TD children (8–13 years), but the converse was true for maladaptive strategies. Importantly, Rieffe et al. (2011) found that children with ASD (9–13 years) used fewer self-reported adaptive strategies in terms of seeking social support and trying to find a solution, compared to TD children. Whereas adaptive strategies (e.g., approach strategies) were related to less depressive symptoms in the TD group, in children with ASD they were not. However, maladaptive strategies were related to more depressive symptoms in the ASD group (Rieffe et al., 2011).

1.2. Victimization and depression

In children with ASD, it is likely that impaired social skills and negative social experiences with peers (e.g., victimization, negative friendship interactions) also contribute to dysphoria (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012; Whitehouse, Durkin, Jaquet, & Ziatas, 2009). Victimization is often associated with self-reported anxiety and depression (Fekkes, Pijpers, & Verloove-Vanhorick, 2004; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007) and includes such behaviors as physical pestering, name-calling, backbiting, and ignoring. Children with ASD are victimized more often than their TD peers, possibly due to their difficulties with social interactions, atypical interests, and overreactions to provocations (Cappadocia, Weiss, & Pepler, 2012; Rieffe et al., 2012). Whereas the relation between victimization and self-reported depression in TD children is well documented, Kelly, Garnett, Attwood, and Peterson (2008) did not find this to be the case in children with ASD. However, in their study both variables were assessed with parent-report, which may not be the best way to measure these constructs (Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Moretti, Fine, Haley, & Marriage, 1985). For example, parents may be less able to distinguish typical adolescent mood problems from real depression. Furthermore, a large percentage of school-age children do not tell their parents if and when they are bullied (Fekkes et al., 2005).

1.3. Negative friendship interactions and depression

Although friendships high in positive behaviors have a nurturing influence on children's mental health, friendships high in negative interactions such as domination, conflicts, and rivalry are related to depressive symptoms in TD adolescents (Berndt, 2002; Kouwenberg, Rieffe, & Banerjee, in press). Berndt (2002) hypothesizes, based on his earlier study showing a longitudinal relationship between negative friendship interactions and disruptive behaviors, that negative friendship interactions can lead children to adopt this interaction style in other social interactions. Therefore, they have fewer social successes, which in turn could lead to internalizing problems.

Children with ASD are known for their difficulties in forming and maintaining peer relationships. For example, they score higher on self-reported negative friendship interactions such as conflict and betrayal compared to their TD peers (Whitehouse et al., 2009). Deficits in communication and social insight may prevent them from developing strategies to overcome interpersonal difficulties and conflicts (Carrington, Templeton, & Papinczak, 2003). Moreover, Whitehouse et al. (2009) found that peer conflicts and betrayal are indeed associated with symptoms of self-reported depressive symptoms in adolescents with ASD.