

Depression, Temperament and their Relationship to Other Characteristics in Children with Asperger's Disorder

Bethany Butzer and M. Mary Konstantareas

Abstract

This study examined a number of characteristics and their relationship to depression in children and adolescents with Asperger's Disorder (AD). These characteristics included degree of AD symptomatology, temperament, general psychopathology, social skills, awareness of disability, gender, and parental vs. self-reports of the children's depression. A set of questionnaires assessing these characteristics was sent to families of individuals with AD. The following findings emerged. First, as might be anticipated, more severe AD symptomatology was related to lower mood in children with AD. Also, a higher level of social skills in these children was related to lower levels of depression. As predicted, a higher awareness of disability was related to higher levels of depression, as reported by the parents. Finally, parents rated their children with AD as being significantly more depressed than did the 13/22 children who could report on their own depression. This result was particularly relevant to the parents of males with AD. The findings are considered in the context of better understanding the possible connection between AD children's well documented mood difficulties and their other presenting characteristics, particularly their temperament and social and cognitive functioning.

A large number of studies have reported symptoms of negative mood and depression in individuals with Asperger's Disorder (AD) (Barnhill & Smith-Myles, 2001; Ghaziuddin, Ghaziuddin & Greden, 2002; Kim, Szatmari, Bryson, Streiner & Wilson, 2000). Although there is agreement as to the comorbidity of affective disorder and AD, the relationship between a number of presenting characteristics and depression needs to be clarified.

Characteristics that appear relevant include degree of AD symptomatology, temperament, general psychopathology, relative competence in social interaction, awareness of disability, and gender differences, among other variables. More specifically, it is unclear whether depression occurs more often in lower or in higher functioning individuals with AD. Some have suggested that depression is more likely to occur in higher functioning individuals (Szatmari, Bartolucci & Bremner, 1989), while others have found no relationship between degree of symptomatology and depression in individuals with AD (Kim et al., 2000). In addition, no study thus far has examined the relevance of temperament and mood, despite the fact that it is quite evident that temperament is directly related to mood and affectivity in general. In one of our studies of Autism Spectrum Disordered (ASD) children, for example, we found that while effortful control was lower in children with ASD than in typical children, a much narrower band of Negative Affectivity, which includes mood, was reported for these children on the Children's Behavior Questionnaire (Janes & Konstantareas, 2003; Konstantareas & Stewart, 2001). Thus, the present study utilized a temperament scale to assess the children's temperamental characteristics as well. In addition, some have suggested that higher awareness of disability may be related to depression in individuals with AD (DeLong & Dwyer, 1988), while others believe that it is the lack of social skills that may act as a risk factor for depression (Bolton, Pickles, Murphy & Rutter, 1998). These contradictory findings and views have led us to the examination of these issues in the present study. As well, life events were thought to relate to these children's possible negative mood, and were therefore also examined.

Considering that there are gender differences in the incidence of depression in typical children and adolescents, with girls reporting higher levels (Piccinelli & Wilkinson, 2000), we also examined possible differences in levels of depression for boys and girls with AD. Finally, most studies on depression in children with AD have been based on parental reports of the children's depression. In this study, we attempted to examine the AD children's own views as to their possible negative mood and depression, by asking them to provide a self-report on their mood. This was in addition to the parental report on the children's depressive symptomatology. As well, there is considerable evidence that children with AD, because of their awkwardness and other characteristics, constitute easy targets for bullying by peers and others (Little, 2001). We therefore examined this issue as well. In sum, the aim of the present study was to broaden research in this relatively new area, by considering the relationships between and among the aforementioned characteristics in children and adolescents with AD.

Method

The sample consisted of 22 children and adolescents who had been diagnosed with AD. Of the sample, 13 were male and 9 female. The children ranged in age from 6 to 19 years. The parents and children had to provide informed consent to participate in the study. A booklet of questionnaires was forwarded to participants in the mail, along with a self-addressed envelope with the request to return the completed questionnaires to the researchers. The materials sent out included a demographics questionnaire, a measure of AD symptomatology, a children's temperament questionnaire, a general scale of symptoms in children in the 4-18 age group, which included social and other skills, a simple measure of awareness of disability, a measure of bullying specifically created for this study, a parental report of their child's depression, a life events scale, and a child self-report of depression.

Results

A number of significant correlations were obtained among the variables of interest. More specifically, it was found that more severe symptomatology was associated with higher levels of negative mood. Also, lower levels of social skills were associated with higher levels of negative mood and depression. Finally, a higher level of awareness of disability was related to a higher level of negative mood in these children. Gender differences in parental vs. self-reports of depression were also found. Overall, parents rated their children as being at an almost borderline level of clinical depression, whereas children rated themselves as being comparable to typical children and adolescents in mood. An interaction was also found between gender and depression report. Specifically, the parents of males rated their sons as being higher in depression than the parents of females. In contrast, there were no differences in the self-ratings of males vs. females on the self-report of depression. Surprisingly, life events appear to be unrelated to depression in these children. As well, the parents of almost all children reported that they were targets of bullying by peers. The various dimensions of temperament were directly related to symptomatology and mood in a variety of ways.

Discussion

The present study yielded a number of findings and suggested possibilities for future research. In contrast to some previous research, but in support of other studies, we found that more severe symptomatology was related to a

lower quality of mood. This is consistent with the view that parents see their lower functioning children as being less happy and reporting anxiety and depression around changes in routine, meeting new people, being asked to participate in sports with groups, and other things, as well as smiling and laughing less frequently than other children. In addition, lower levels of social skills were related to higher levels of reported depression by parents, a finding that is consistent with previous research (Bolton et al., 1998). The intervention implication here is that social skills training may assist in reducing negative mood in children and adolescents with AD, as it appears that social skills may act as a buffer against depression.

The present study also revealed that awareness of disability was related to a higher self-reported level of negative mood. This suggests that a higher level of cognitive ability and social awareness comes with a price, in that the children's self-concept may be affected in a negative fashion. Cognitive behavioral interventions may be relevant for these children around this problem. In fact, evidence for the successful application of this type of therapy in children with AD has already been recently reported (Bauminger, 2002). The fact that, on average, parents in the present sample rated their children as being at the almost borderline clinical level of depression shows that parents believe that depression is displayed at relatively high levels in their children with AD. This supports previous research that found depression to be a particular problem in individuals with AD (Kim et al., 2000). However, the children in the present sample rated themselves as being no different in terms of depression compared to the general population. A number of explanations may be offered to account for the difference in the ratings of the children and the parents. It is possible that, because parents are fully aware of the severity of AD, they hold a more pessimistic outlook of their child's condition, and expect their child to be more depressed than he/she actually is. Alternatively, the children in the present study may have been too unaware of their own inner affective states to accurately report on them. Finally, the children may have been aware of their mood as being negative but were wary about answering honestly to certain questions on mood, out of fear that they would upset their parents or even themselves, or because of some awareness of social desirability.

The fact that parents of males tended to rate their sons as more depressed than parents of females is also interesting. This result, which needs independent replication, runs counter to research on the presence of greater depression in typical females than in males. It is possible that the explanation lies in the fact that parents of boys with AD are more worried about their sons' independence than are parents of girls, following traditional

gender role expectations. Alternatively, the finding may be an artifact of statistics, since the majority of the sample consisted of males, something typical for this population.

In conclusion, it appears as though children and adolescents with AD are quite likely to present with depression, if one assumes that parental reports are accurate. Low social skills as well as the children's unique symptomatology and awareness of their difficulties appear to be significantly related to whether or not they will experience problems in mood. Further research into self-concept, level of cognitive and social functioning, symptom expression, temperament, and how these variables affect mood will certainly be necessary for a better understanding of the needs of these youngsters and the types of intervention from which they are likely to benefit.

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Correspondence

Mary Konstantareas
Department of Psychology
University of Guelph
Guelph, ONT
N1G 2W1
konstantareas@psy.uoguelph.ca