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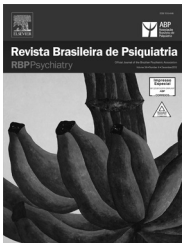
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Letter to the Editors

Early joint attention deficits in autism: evidence from a retrospective case study

Autism is a neurodevelopmental disorder characterized by severe impairments in communication and social interaction along with the presence of stereotyped behaviors and/or restricted interests. Although it is not usually diagnosed until 30-36 months of age, there is general agreement that autism is caused by genetic and biological factors that affect brain growth and organization from the beginning of development.[1] Therefore, a major focus of recent research has been the identification of early behavioral markers of the disorder. In the present report, we discuss one such marker: impaired joint attention (JA) skills.

JA refers to people's ability to coordinate their attention toward an object or event in the environment. In typical development, JA emerges toward the end of the first year of life. For example, around 9-12 months of age, babies begin to shift their eyes in the direction of others' gaze. They also begin to point to or hold up objects for others to see.[1-2] According to one perspective, these behaviors reflect infants' emerging understanding of people as intentional agents and, as such, are important precursors of later language and social cognitive skills.[2]

Impairments in JA skills are thought to play a pivotal role in autism. Indeed, recent retrospective and prospective studies suggest that such impairments are already evident at the beginning of the 2nd year of life of children later diagnosed with autism.[3-4]

In the present report, we describe the JA skills of an autistic boy who had participated in a longitudinal study investigating the development of communication skills between 9 and 18 months of age. According to subsequent maternal reports, the boy was diagnosed with autism at the age of 30 months, at which time he showed clear signs of the condition. His JA skills, assessed at 9, 13 and 18 months of age with the Early Social Communication Scales (ESCS),[5] were compared with those of 10 boys who had also participated in the study and who were apparently developing typically.

The ESCS is a 15-25 min structured observation of various nonverbal communicative skills. Only the scores for JA skills, namely, the number of times the child initiated JA episodes with the examiner (IJA) and the number of times (out of 14) he responded appropriately to the examiner's pointing gestures (RJA), are reported below. Assessments occurred in the children's homes and were videotaped for subsequent coding by two independent raters. Reliability, as measured by the proportion of inter-rater agreement, ranged from 0.71 to 0.83.

At all ages, the autistic boy's scores were lower than the controls' mean scores, particularly for IJA. As illustrated in Figure 1, his IJA score was the lowest of all children at both 13 and 18 months of age, and only one child in the control group had an equally low score at 9 months of age. Together with the results mentioned previously, these findings suggest that health professionals should pay close attention to the presence of early impairments in JA skills.

Clearly, further studies are necessary to confirm the association between early impairments in JA and autism. Prospective studies of children at high familial risk for autism offer a promising methodology for this investigation.[3-4]

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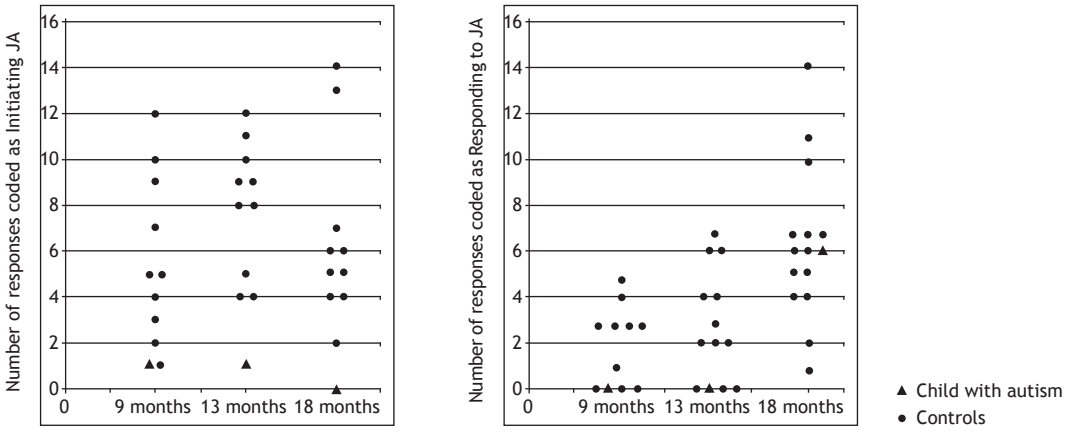


Figure 1 Scores on the ESCS as a Function of Age and Diagnosis.

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**Modest*
***Significant*
****Significant. Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.*

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