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Social Attention in Young Children with Autism Spectrum Disorders

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Background and purpose of the study: While social stimuli (e.g., facial expression, name calling, and speech, etc.) are complex and unpredictable, they are important in early social development when children engage in social interaction. Failure to attend to social stimuli would impair the development of social communication. It has been shown that children with autism spectrum disorders (ASD) around the age of four has displayed social attention impairment in social orienting and joint attention (e.g., Dawson et al., 1998, 2004; Leekam et al., 2006). However, the nature of social attention and the relationships among social orienting, joint attention and language development in young children with ASD under the age of three have not been explored yet. The purpose of this study was to investigate social attention and its relation to language in young children with ASD under 36 months.

Methods: The participants were 20 30-month-old children with ASD, 20 28-month-old children with developmental delay (DD), and 20 typical developing 17-month-old infants (TD). The ASD and DD groups from a local hospital in southern Taiwan were assessed and diagnosed according to DSM-IV-TR (APA, 2000) and ADOS (Lord et al., 1999) by a research team, consisting of two child psychologists and two child psychiatrists. Materials used in the study were modified from Dawson et al. (1998, 2004), including 6 social stimuli and 6 nonsocial stimuli presented randomly through one of two speakers posited in front of child's left and right sides. Social stimuli involved calling the child's name with three different emotional tones and three different two-word vocabularies as well as nonsocial stimuli consisted of hammer and electronic music, each with three different rhythms. The joint attention was measured using Early Social Communication Scales (ESCS, Mundy et al., 2003) to explore relationships among social orienting, joint attention, and language competency. Results: The results showed that social orienting and overall orienting were poorer in the ASD group than in the DD and TD groups. It was also found that children with ASD were poorer in joint attention tasks than the DD and TD groups. Additionally, joint attention was a better variable than social orienting to discriminate ASD group from non-ASD groups. Moreover, correlation analyses revealed a significant relationship between overall attention orienting and high level response to joint attention in the ASD group that was critical to language development. For both control groups, no significant relationship was found among social orienting, response to joint attention and initiation of joint attention.

Conclusions: The results suggested that social attention impairments in young children with ASD are shown under age of three, and the response to joint attention is more important than initiation of joint attention to language development in children with ASD under 36 months. Further studies are needed to follow the subjects to clarify the developmental trajectory of early social development in children with ASD.

Keywords: joint attention, language ability, social orienting, young children with autism spectrum disorders

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