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Challenging behaviors in toddlers diagnosed with autism spectrum disorders with the *DSM-IV-TR* and the proposed *DSM-5* criteria

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ABSTRACT

With publication of the *DSM-5* slated for May 2013, it has been predicted that the new diagnostic criteria will cause a decrease in the prevalence of autism spectrum disorders (ASDs), seriously impacting children no longer meeting criteria for the disorder. A majority of individuals with ASD have behavior problems which are not considered core features of the disorder but are significantly impairing and often the focus of intervention. The aim of the current study was to investigate types of challenging behaviors in toddlers who may no longer meet diagnostic criteria for ASD using a psychometrically sound measure, the *Baby and Infant Screen for Children with aUtIsm Traits (BISCUIT) – Part 3*. The study included 3339 toddlers, 501 who will retain ASD diagnosis according to the *DSM-5*; 439 who will no longer meet criteria, and a comparison group of 2399 toddlers referred for evaluation due to atypical development. Though toddlers diagnosed under the *DSM-5* exhibited the most challenging behaviors, those who did not meet *DSM-5* criteria exhibited significantly more challenging behaviors than the atypically developing toddlers. The effect of the changes in ASD diagnostic criteria on access to early behavioral interventions warrants careful consideration as the new *DSM-5* criteria are adopted.

1. Introduction

Autism spectrum disorders (ASDs) are one of the most prevalent neurodevelopmental disorders. Although symptoms of ASDs vary, they are generally characterized by the three core features: social skills deficits, communication impairments, and repetitive and restricted behaviors (Fodstad, Matson, Hess, & Neal, 2009; Levy & Perry, 2011; Matson & Boisjoli, 2007a; Matson, Dempsey, & Fodstad, 2009b; Matson, Dempsey, LoVullo, & Wilkins, 2008a; Piven, Harper, Palmer, & Arndt, 1996; Wing & Gould, 1979). Many other conditions such as psychiatric disorders and challenging behaviors commonly co-occur with ASDs (Jang, Dixon, Tarbox, & Granpeesheh, 2011; Matson & Nebel-Schwalm, 2007; Matson, Wilkins, & Macken, 2009e; Simonoff et al., 2008). Additionally, ASDs are generally considered lifelong conditions (Fombonne, 2003; Kanner, 1971; Lotter, 1978; LoVullo & Matson, 2009). The symptoms of the disorder, as well as commonly co-occurring behavioral and psychiatric concerns, may further limit social relationships (Fodstad et al., 2009; Matson & Wilkins, 2007; Matson, Neal, Fodstad, & Hess, 2010c) and interfere with effective education (Matson & Boisjoli, 2007b; Horner, Diemer, & Brazeau, 1992).

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Professionals most commonly use the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM-IV-TR*) to diagnose ASDs. The definition of autism has evolved over the years, with previous modifications of the DSM criteria resulting in marked effects on prevalence rates (e.g., *DSM-IV* to *DSM-IV-TR*; King & Bearman, 2009). This fact is important since diagnoses based on *DSM-IV-TR* criteria are widely used by insurance and service providers to qualify individuals for services. Thus, any change in the criteria can have a significant impact on the lives of children with symptoms of ASDs and their families. The *DSM-IV-TR* currently identifies five disorders on the autism spectrum including autistic disorder, Asperger's disorder, pervasive developmental disorder not otherwise specified (PDD-NOS), childhood disintegrative disorder (CDD), and Rett's disorder. Recently, the American Psychiatric Association (APA) approved the *DSM-5*, which includes significant changes to the criteria and core features of ASDs. For example, the categories of ASDs will be subsumed into one autism spectrum disorder category, and the communication and social interaction domains will be combined into one domain, social/communication deficits (McPartland, Reichow, & Volkmar, 2012). Furthermore, more total symptoms will be needed to meet criteria in the area of social/communication deficits and repetitive and restrictive behaviors, thus creating a more stringent algorithm with greater impairment needed to receive an ASD diagnosis (Matson, Hattier, & Williams, 2012b; Turygin, Matson, Beighley, & Adams, 2013).

The *DSM-5* revisions were suggested so that ASD diagnoses would be more specific and more reliable (Frazier et al., 2012; Wing, Gould, & Gillberg, 2011). However, there are concerns that these changes will conversely lower the sensitivity; some researchers found that 23–47% of individuals will lose their diagnoses with the changes of *DSM-5* (Gibbs, Aldridge, Chandler, Witzlsperger, & Smith, 2012; Matson, Belva, Horovitz, Kozlowski, & Bamburg, 2012a; Matson et al., 2012b; Mayes, Black, & Tierney, 2013; McPartland et al., 2012; Turygin et al., 2013.; Worley & Matson, 2012). A major concern regarding the changes is that those who no longer meet diagnostic criteria will still have significant impairment but will lose access to relevant services. Types of services often utilized by individuals with ASD include early intensive behavioral intervention (EIBI), speech therapy, physical therapy, and occupational therapy (Bitterman, Daley, Misra, Carlson, & Markowitz, 2008; Hume, Bellini, & Pratt, 2005). EIBI has proven to be an effective intervention in treating individuals with ASD symptoms, including a variety of challenging behaviors that might otherwise severely limit educational and social opportunities while placing greater stress on caregivers (Butter, Wynn, & Mulick, 2003; Eldevik et al., 2009; Granpeesheh et al., 2009a; Howlin, Magiati, Charman, & MacLean, 2009; Matson & Smith, 2008; Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011).

Challenging behaviors may be defined as behaviors that are not socially acceptable, are physically harmful, and negatively impact quality of life (Matson, Mahan, Hess, Fodstad, & Neal, 2010b). Though challenging behaviors such as stereotypies and aggression are common in individuals with a variety of intellectual/developmental disabilities, these behaviors are more common in individuals with ASD (Hill & Furniss, 2006). Researchers have estimated that over 90% of individuals with ASD

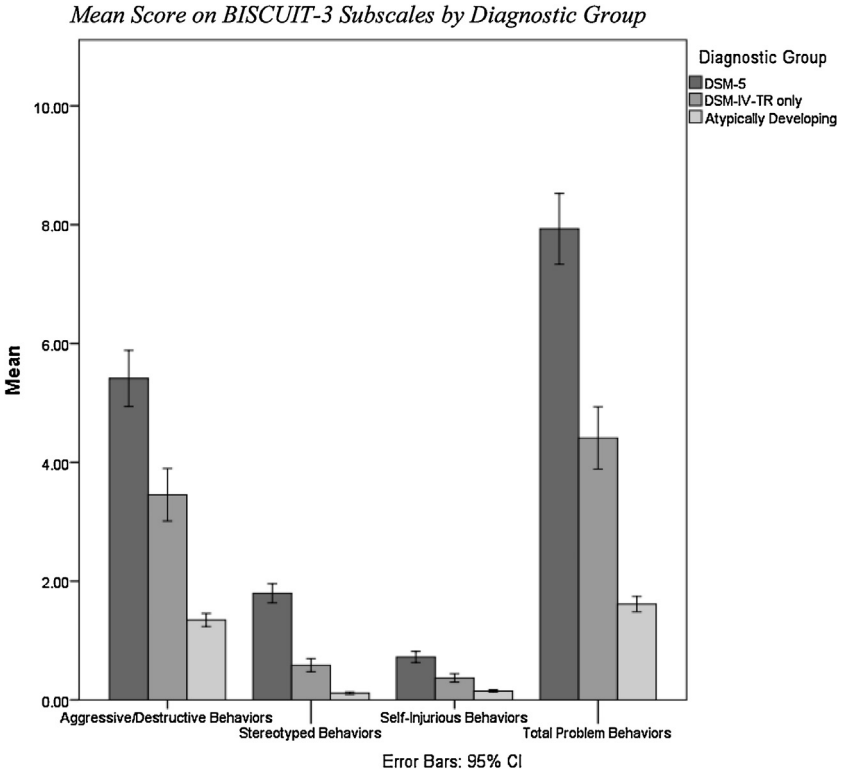

Fig. 1. Mean score on BISCUIT-3 subscales by diagnostic group.