Coordination difficulties in preschool-aged children are associated with maternal parenting stress: A community-based cross-sectional study

Michio Takahashi,⁎ Masaki Adachi, Nobuya Takayanagi, Sayura Yasuda, Masanori Tanaka, Ayako Osato-Kaneda, Takahito Masuda, Akio Nakai, Manabu Saito, Michito Kuribayashi, Kazuhiko Nakamura

Abstract

Background: Although coordination difficulties are sometimes observed even in children in the general population, no empirical studies have examined the impact of these difficulties on parenting stress.

Aims: The aim of this study was to elucidate the relationship between coordination difficulties and parenting stress in a community-based sample of preschool-aged children and their mothers.

Methods: The study included 1691 families. Mothers with 4- or 5-year-old children completed questionnaires about parenting stress and children’s coordination difficulties, as well as traits associated with attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD).

Results: The results of hierarchical multiple regression analyses showed that coordination difficulties, and ADHD and ASD traits were each independent predictors of parenting stress. Among the significant predictive factors, impaired general coordination, as well as hyperactivity-impulsivity, showed a strong impact on parenting stress. In addition, a gender difference was observed in the manner in which coordination difficulties influenced parenting stress.

Conclusions: Coordination difficulties in preschool-aged children in the general population increased maternal parenting stress (as did ADHD and ASD traits). This highlights the need to provide support for mothers who have children with coordination difficulties, even when there is no clinical diagnosis.
What this paper adds?

To the best of our knowledge, this is the first study to show a relationship between coordination difficulties in preschool-aged children and maternal parenting stress. We examined this relationship using a large, community-based sample of 1691 families with children aged 4–5 years. Our findings indicated that some types of coordination difficulties had a negative impact on parenting stress, with impaired general coordination showing a strong impact. Additionally, we found that the pattern of impact of coordination difficulties on parenting stress differed between boys and girls. The findings of this study highlight the need to provide support for mothers who have children with coordination difficulties, even when there is no clinical diagnosis.

1. Introduction

Excessive parenting stress is an important problem that is often related to inappropriate child-rearing practices and strain on parents’ mental health and well-being (e.g., Abidin, 1992; Webster-Stratton, 1990). For example, an association has been shown between high parenting stress and the risk of maltreatment to children who are developing typically or otherwise (Algood, Hong, Gourdine, & Williams, 2011). Another study showed that parenting stress directly influenced the quality of mother–child interactions (Farmer & Lee, 2011). In addition, stress related to parenting a child has been found to be associated with the risk of developing depression and with the severity of depression in the general population (Farmer & Lee, 2011; Manuel et al., 2012; Naerde, Tambs, Mathiesen, Dalgard, & Samuelsen, 2000).

It is well established that parents of children with attention-deficit/hyperactivity disorder (ADHD) or autism spectrum disorder (ASD) experience high parenting stress (Hayes & Watson, 2013; Karst & van Hecke, 2012; Miranda et al., 2015; Theule, Wiener, Tannock, & Jenkins, 2013). These studies also showed that parenting stress increased with the severity of a child’s symptoms. It has also been observed that ADHD and ASD symptoms exist to some extent in children with typical development, although at the subclinical level (Marín-Méndez, Borra-Ruiz, Álvarez-Gómez, McGoey, & Soutullo, 2016; McGoey, DuPaul, Haley, & Shelton, 2007; Posserud, Lundervold, & Gillberg, 2006; Takayanagi et al., 2016).

Developmental coordination disorder (DCD) is a neurodevelopmental disorder characterized by slow acquisition and reduced performance of motor coordination skills, with these deficits significantly interfering with activities of daily living or academic achievement (American Psychiatric Association [APA], 2013; Geuze, Schoemaker, & Smits-Engelsman, 2015). The prevalence of DCD in children is between 5% and 6% (APA, 2013). Previous clinical studies have shown that DCD symptoms pervasively affected functional performance in daily activities at home and school (Elbasan, Kayihan, & Duzgun, 2012; Kopp, Beckung, & Gillborg, 2010; Summers, Larkin, & Dewey, 2008; van der Linde et al., 2015; Wang, Tseng, Wilson, & Hu, 2009). Van der Linde et al. (2015) showed that children with DCD experienced difficulties with various aspects of activities of daily living, including poor performance, delays in learning, and infrequent participation. Such problems could directly influence parenting stress through increasing the frequency a child needs attention, the effort of caring for the child, and the amount of the parents’ time required.

Children with DCD experience not only impaired motor coordination, but also the secondary problem of impaired mental health; this contributes to adverse effects on their daily functional level and well-being. It has been found that the impaired motor coordination of children with DCD adversely affects their mood, competency, self-efficacy, and quality of life (e.g., Green, Baird, & Sugden, 2006; Mandich, Polatıjko, & Rodger, 2003; Missiuna et al., 2014; Skinner & Piek, 2001; Zwicker, Harris, & Klassen, 2013). Consequently, these children infrequently participate in some activities of daily living (Engel-Yeger & Hannna Kasis, 2010; van der Linde et al., 2015; Wang et al., 2009; Zwicker, Missiuna, Harris, & Boyd, 2012). It is therefore likely that various and pervasive problems resulting from children’s coordination difficulties impact parenting stress.

It has been reported that coordination difficulties, as well as ADHD and ASD traits, are not uncommon in children in the general population (Hill et al., 2016; Noda et al., 2013). Furthermore, it has been shown in children with and without DCD that the severity of coordination difficulties was associated with the level of performance of activities of daily living (van der Linde et al., 2014).

Literature on the effect of coordination difficulties on parenting stress is scarce for both clinical and non-clinical populations, although the difficulty of obtaining a diagnosis of DCD and appropriate services to support children with DCD and their parents has been well documented (Ahern, 2000; Novak, Lingam, Coad, & Emond, 2012; Rodger & Mandich, 2005). There have been a few interview-based studies that mainly addressed parenting stress associated with difficulties in managing the daily activities of children with DCD such as extended length of time taken to learn activities (Missiuna, Moll, Law, King, & King, 2006; Stephenson & Chesson, 2008). An interview-based study found that children with DCD often demonstrated emotional and behavioral problems and that their parents had difficulties dealing with these problems (Stephenson and Chesson, 2008). Studies using interview techniques can involve detailed qualitative analysis of the interview data and present important findings about parenting stress experienced by the parents of children with DCD. However, such findings are difficult to generalize directly to a wider population because the qualitative methods used are based on only a small number of cases. Quantitative studies are needed to confirm whether findings from qualitative studies can be generalized, but as yet there have been no studies that quantitatively investigated the stress resulting from parenting a child with DCD. A reason why so few studies have examined parenting stress in parents of children with DCD may be that DCD is a hidden disability that attracts little concern and support (Novak et al., 2012).

We hypothesized that coordination difficulties, such as those seen in DCD could be associated with parenting stress, even in a non-clinical population. Thus, the aim of this study was to evaluate empirically the association of children’s motor coordination problems with parenting stress. We assessed coordination difficulties in preschool-aged children and parenting stress using questionnaires in a population-based sample, and examined the impact of coordination difficulties on parenting stress.
دریافت فوری متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات