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The Impact of Service Setting on Outcomes for Children with Autism Spectrum Disorder

We examined whether the setting in which early intensive behavioural intervention services were delivered would have an effect on child outcomes. Archival data of a community-based program were used to compare child outcomes with respect to their setting(s) of service delivery. Overall, we found that differences in outcomes may exist across service settings.

What is this research about?

Early intensive behavioural intervention (EIBI) is well established as an effective intervention for children with Autism Spectrum Disorder (ASD). Common settings where EIBI programs are delivered include homes, service centres, and integrated child care centres (i.e., daycares and preschools). Each of these settings encompasses a unique combination of service characteristics, yet few studies have directly compared the effectiveness of EIBI programs in different settings. As ASD prevalence and demand for EIBI services increase, more children are receiving those services in a variety of settings. Therefore it is important to learn more about the potential effects of various settings on child outcomes.

What did the researchers do?

We analyzed archival data spanning from 2006–2014 for children who received at least one year of EIBI service from St.Amant Early Learning Autism program. We evaluated whether the number of service hours that were delivered in three different service settings would predict outcome scores. The St.Amant Early Learning Program delivers services either at home, at a dedicated, group service location (i.e., Minnetonka School), and/or in integrated child care settings (i.e., daycares and preschools). Child outcomes were assessed by standardized measures of cognitive functioning, autism severity, adaptive behaviour, and language, as well as direct observation of skill acquisition.

What you need to know:

We analyzed service data of a community-based early intensive behavioural intervention program for children with autism spectrum disorder to see if different service settings lead to different outcomes. We looked at several domains for children who received services at home, at a centre-based location, or in a child care setting. We found differences in some of the domains across the different service settings.

What did the researchers find?

We found that differences in child outcomes across settings may exist. On measures of language, scores were comparable across settings. However, differences may exist across settings in other domains. Overall, the results suggest that (1) a larger proportion of service hours delivered at home may predict gains in cognitive functioning and adaptive behaviour, (2) a larger number of service hours in integrated child care settings may predict



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reduced autism severity, and (3) a larger number of service hours delivered at a classroom may predict lower scores in adaptive behaviour, an increase in autism severity, and a lower proportion of skill gains.

A number of limitations should be considered when interpreting these results. First, greatly unequal numbers of children experienced services in each setting ($N_{\text{Home}} = 175$, $N_{\text{Integrated child care}} = 135$, $N_{\text{Centre-based location}} = 16$). The service classroom at Minnetonka school was not established until 2012; therefore, very few children represented in the total sample had received services at Minnetonka. Furthermore, child and family characteristics may not be comparable across settings. For example, due to limited space at the service classroom, priority was given to children whose homes were less suitable as service environments, to children who require additional support, or to families with financial restrictions.

Why is it important?

Despite these limitations, the current study provides an important foundation for understanding more about the typical characteristics that accompany each setting and how they might affect outcomes. Replication and extension of the current study has important policy implications, as it would allow government funders to prioritize funds based on both cost-effectiveness, and program effectiveness.

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