

# Functional Ability, Anxiety and Participation in Children with and without Cerebral Palsy: Does Anxiety Mediate?

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## OBJECTIVES:

Participation is a key rehabilitation outcome in children with cerebral palsy (CP) due to the range of participation restrictions experienced by this population (Gosling, 2016). However, research concerning the impact of emotional difficulties on participation is mixed, with anxiety receiving little attention.

Recent research has demonstrated the presence of separation anxiety in children with CP (McMahon et al., 2020). This may have devastating consequences for children, such as refusing to attend school, somatic repercussions, and social isolation (Riordan & Singhal, 2018). Consequently, investigating the role anxiety, especially separation anxiety, may have on participation is crucial to enhance the involvement and quality of life of children with CP. This study aimed to investigate the impact of anxiety on the relationship between subjective functional ability and participation.

## METHODS:

This investigation was a cross-sectional, between-subjects design which utilised an online survey. Parents of children with (n = 19, mean age = 12.26, s.d. = 2.75) and without CP (n=17, n = 17, mean age = 11.06, s.d. = 3.84) aged between 5-17 years of age were recruited and the Child Adolescent Scale of Participation, Pediatric Quality of Life Inventory, and Spence Children's Anxiety Scale were administered.

Figure 1: The difference in median scores between parent-reported participation in children with and without cerebral palsy.

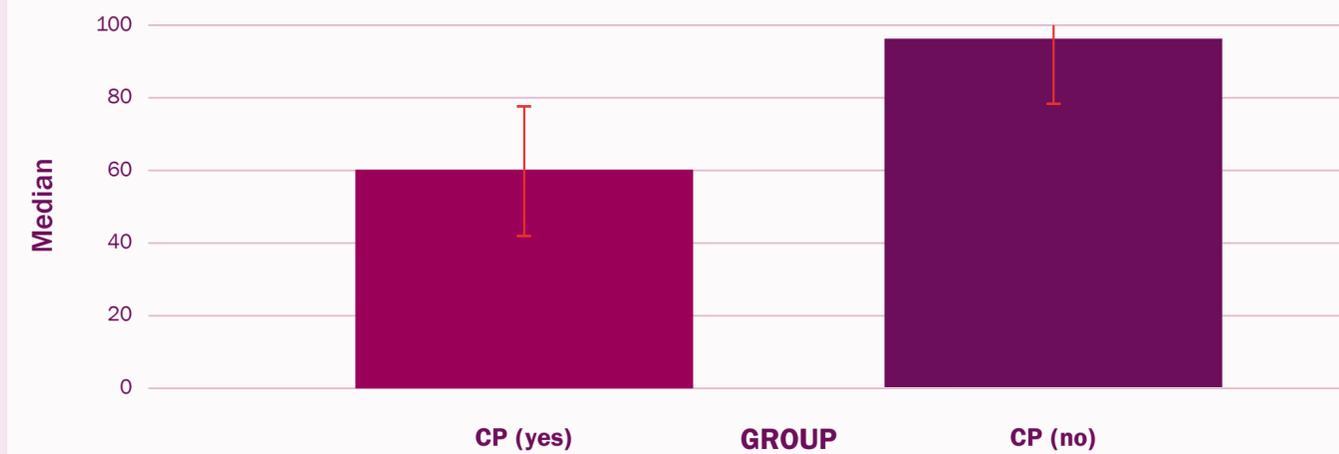
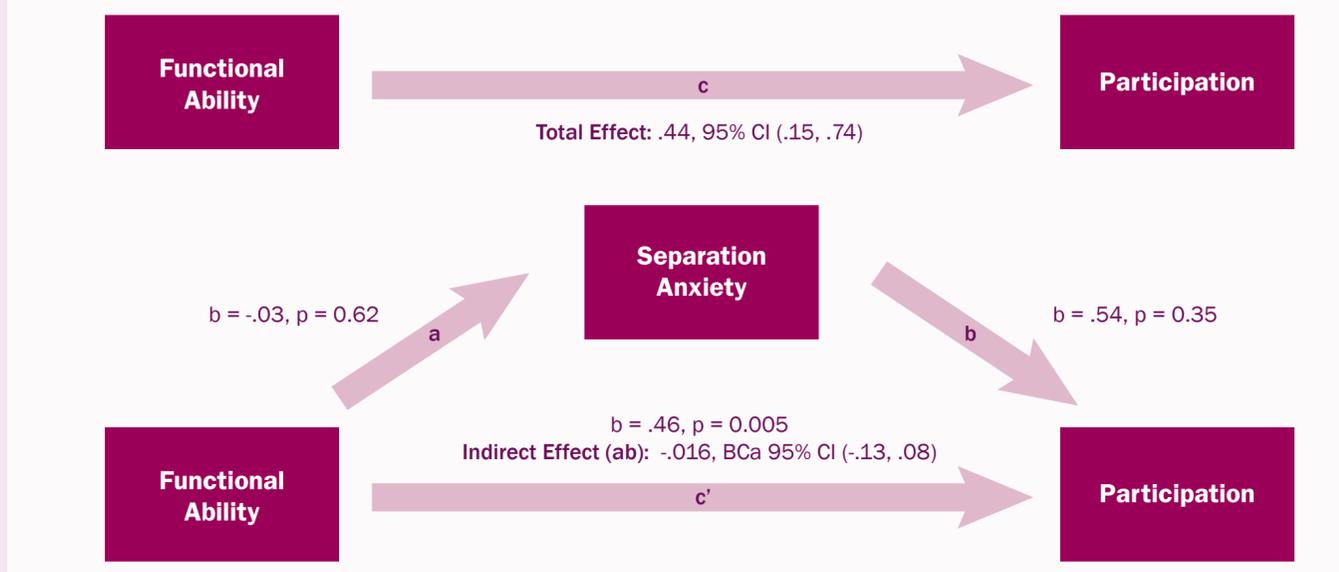


Figure 2: The simple mediation of the effect of functional ability on participation through separation anxiety. The standardised regression coefficients are presented.



## RESULTS:

Parental reports of children with CP's participation were significantly lower in comparison to typically developing children (U =318.50, z = 5.03, p <.001) Figure 1. Parent-reported functional ability significantly predicted participation, F (1, 17) = 10.06, p = .006. However, neither total anxiety (BCa 95% CI [-.11, .09]) nor separation anxiety (BCa 95% [-.13, .08]) significantly mediated this relationship, Figure 2.

## CONCLUSIONS:

These findings support participation as a key consideration for clinicians working in neuropsychological rehabilitation. In combination with the findings from McMahon et al (2020), this paper suggests the importance of screening for anxiety in children with CP. However, as the sample size was small, further research is required to investigate the impact of anxiety, especially separation anxiety, may have on participation in children with CP.

## References:

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- McMahon, J., Harvey, A., Reid, S. M., May, T., & Antolovich, G. (2020). Anxiety in children and adolescents with cerebral palsy. *Journal of Paediatrics and Child Health*. DOI: 10.1111/jpc.14879
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