policymakers on the role of family engagement in pediatric rehabilitation and accessibility programs.
Keywords: Power mobility, Disability, cerebral palsy, Family engagement in research

Conflict of interest: The authors declare no conflict of interest.
Funding: FAPEMIG.
Ethics committee approval: No. 6.952.272.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101356

94

MANUAL PERFORMANCE AND FUNCTIONALITY OF CHILDREN AND ADOLESCENTS WITH AUTISM SPECTRUM DISORDER

Flávia Batalha Gomes Costa[a], Thamires Gabriela Silva Santos[a], Beatriz Couto Fortuna[b], Marco Túlio Silva Batista[b], Guilherme Menezes Lage[b], Lidiane Aparecida Fernandes[a]
[a] *Universidade Federal de Juiz de Fora (UFJF), Juiz de Fora, MG, Brazil*
[b] *Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, MG, Brazil*

Background: Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects communication, social interaction, and can impact motor skills. Children with ASD may exhibit clinically relevant motor deficits, compromising daily activities such as grasping objects and writing. These limitations can affect functionality, thereby reducing autonomy and social participation. Functionality, understood as the ability to perform daily tasks independently, is often associated with fine motor skills. However, the relationship between manual performance and functionality in children and adolescents with ASD has not been sufficiently explored in the literature.
Objectives: To associate the functionality of daily activities with the manual performance of children and adolescents with Autism Spectrum Disorder.
Methods: A cross-sectional, quantitative study that was submitted to and approved by the Research Ethics Committee. The study included children and adolescents aged 6 to 15 years, of both sexes, diagnosed with Autism Spectrum Disorder, classified as support level I or II, who have normal or corrected vision and do not present movement restrictions in the upper limbs. To assess functionality, the Pediatric Evaluation of Disability Inventory - Computer Adaptive Test (PEDI-CAT) was used and applied with the parents, and to evaluate manual performance, the Block Design Test was conducted with the children.
Results: The data were presented as mean and standard deviation. Normality was initially observed through the Shapiro-Wilk test. To associate manual performance with the functionality of daily activities, Pearson correlation tests were conducted. The data were organized using the Statistical Package for the Social Sciences (SPSS) version 20.0, with a significance level set at $p < 0.05$. The correlation between manual performance and the functionality of daily activities did not show a significant difference for the association between performance with the right hand and daily activities [$r = 0.17$, $p = 0.57$], while the association between performance with the left hand and daily activities was [$r = -0.02$, $p = 0.96$].
Conclusion: This study did not find a significant association between manual performance and the functionality of daily activities in children and adolescents with ASD. These results suggest that other factors, such as sensory and cognitive aspects, may influence the functionality of this population. Future research should investigate these variables, as well as include larger samples and longitudinal analyses, in order to better understand the determinants of functionality and manual performance in children and adolescents with ASD.
Implications: Despite the findings, it is important to consider that the sample size was relatively small ($n = 14$), which may have influenced the results and limited the generalization of the data. Nevertheless, these results may guide more effective interventions in physical therapy, education, and social inclusion for children and adolescents with ASD.
Keywords: Autism Spectrum Disorder, Motor Skills, Daily Activities

Conflict of interest: The authors declare no conflict of interest.
Funding: Not applicable.
Ethics committee approval: Research Ethics Committee of the João de Barros Barreto University Hospital -Approval document N° 5.600.662.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101357

95

TRAJECTORY OF FUNCTIONAL SKILLS IN CHILDREN BORN WITH BIOLOGICAL RISK IN THE FIRST 2 YEARS OF LIFE: PROSPECTIVE STUDY

Raissa Wanderley Ferraz de Abreu, Camila Resende Gâmbaro Lima, Maura Nogueira Cobra, Nelci Adriana Cicuto Ferreira Rocha
Universidade Federal de São Carlos (UFSCar), São Carlos, SP, Brazil

Background: Children with biological risk for motor delay are those born with certain adversities (e.g., prematurity, low birth weight, perinatal complications, etc.) and may experience limitations in daily activities. Despite existing evidence, knowledge about the developmental trajectory of functional skills in real-life contexts during the first two years of life is still limited.
Objectives: To verify the development trajectory of functional skills (mobility, daily activities and social-cognitive) of children with biological risk at 12 and 24 months of age.
Methods: This was a prospective, observational multicenter study. Eighteen infants with biological risk and their families participated in the study (mean gestational age: 37.55 weeks- SD 3.12 weeks; birth weight: 3.01 kg- SD 0.905g; stay in NICU: 8.55 days; 61.11% received oxygen therapy, and 27.77% required cardiopulmonary resuscitation). Functional abilities were assessed using the Pediatric Evaluation of Disability Inventory - Computer Adaptive Test (PEDI-CAT) - speed version. The normative score (scores between 30 and 70 are within the expected range for age) and the continuous score (individual functional progress) for each domain were used. The paired t-test was applied to compare the children at 12 and 24 months, considering a significance level of 5%.
Results: The children exhibited an average normative score above 50 for all skills. At 24 months, children had higher continuous and normative scores for daily activities than at 12 months ($p = 0.024$ and $p < 0.001$, respectively), and higher continuous scores at 24 months in mobility ($p < 0.001$) and social-cognitive domain ($p < 0.001$).
Conclusion: The children evaluated showed functional progress in mobility, daily activities and social-cognitive. Furthermore, these children did not show motor delay in these activities.
Implications: Understanding the trajectory of functional skills in a real-life context enables the monitoring of adaptive behaviors and the identification of potential delays in important domains of