

policymakers on the role of family engagement in pediatric rehabilitation and accessibility programs.

Keywords: Power mobility, Disability, cerebral palsy, Family engagement in research

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

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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

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

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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

functioning. Additionally, this knowledge can be useful for providing support to families.

Keywords: child development, life skills, risk factors

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CHILDREN WITH LOWER URINARY TRACT SYMPTOMS SHOW DEFICITS IN BALL MOTOR SKILLS

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Background: Lower urinary tract symptoms (LUTS) can lead to behavioral, neuromotor, and psychological changes, as school-aged children, fearing an episode of urinary incontinence, often avoid common activities for their age group, such as ball games. The lack of such activities may be related to delays in the acquisition of motor skills, as the child is not exposed to stimuli that promotes this development.

Objectives: To compare ball-handling skills in children with and without LUTS.

Methods: This is a cross-sectional and observational study conducted with schoolchildren aged 5 to 11 years old, of both sexes, who either presented or did not present LUTS. Neurodivergent children and those who had undergone amputations were excluded. Two questionnaires were administered: the Dysfunctional Voiding Symptom Score (DVSS), used to screen for urinary symptoms and divide participants into groups with and without symptoms, and a sample characterization questionnaire, which included questions such as age, sex, skin color, weight and height. Gross motor skills were assessed using the Test of Gross Motor Development-3 (TGMD-3), with a specific focus on ball skills, which are scored on a scale of 0 to 54 points. The assessed skills included: striking a ball with two hands, striking a ball with one hand, bouncing a ball, catching a ball with two hands, kicking a ball, overhand throwing, and underhand throwing. Data were analyzed descriptively and using an independent t-test. The groups were compared in terms of sex, skin color, and categorical BMI using chi-square or Fisher's exact tests. All analyses were performed using SPSS version 26.

Results: A total of 77 children were evaluated, of whom 54.55% did not have LUTS and 38.96% had LUTS. Both groups were homogeneous in terms of age, sex, and skin color ($p < 0.05$). BMI also showed no significant difference between the groups ($p = 0.922$). Regarding ball skills, children without LUTS had a mean score of 41.09 ± 4.89 points, while those with LUTS had a mean score of 32.00 ± 5.61 points ($p < 0.001$). For all seven skills assessed, children with LUTS scored lower compared to children without LUTS.

Conclusion: The findings indicate that children with LUTS perform significantly worse in ball-handling skills compared to children without LUTS. These results suggest that motor deficits may be associated with the presence of LUTS, highlighting the importance of assessing and monitoring the motor development of these children.

Implications: The results reinforce the need for interventions that go beyond the treatment of urinary symptoms and promote the

improvement of motor skills in children with LUTS. Physical therapists should include specific approaches for the development of ball-handling skills in the context of pediatric rehabilitation. Collaboration among physical therapists, physical educators, and other healthcare professionals is essential to prevent and detect motor deficits early in these children, aiming to minimize long-term functional impacts.

Keywords: Child, Motor skills, Physical therapy specialty

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PARENTS AND CHILDREN IN FRONT OF SCREENS: IS THERE A RELATIONSHIP BETWEEN THEIR USAGE TIMES?

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Background: The use of digital media devices has become increasingly common among preschool children, establishing itself as a new habit during a critical phase of child development. Studies suggest that parents' behaviors regarding the use of these devices can influence their children's practices. Therefore, understanding this emerging behavioral reality is crucial for the effective implementation of interventions and public policies.

Objectives: This research aimed to investigate whether there is a relationship between parents' daily screen time and the daily screen time of preschool children attending public daycare centers.

Methods: This is a cross-sectional, observational, quantitative study, which is part of a randomized clinical trial approved by the Research Ethics Committee, focusing on the influence of media on child development. Data were collected using a questionnaire developed by the authors regarding media use at home, with questions answered by the mother, father, or guardian. The questionnaire covered topics such as time and mode of use, devices used, the age at which the child first encountered each device, and biological and socioeconomic aspects. Children aged 24 to 42 months from two Municipal Early Childhood Education Centers, whose parents signed the Free and Informed Consent Form, were included. For statistical analysis purposes, the Spearman correlation test was applied to investigate the relationship between the variables and, subsequently, a simple linear regression analysis was performed to assess the influence of parents' screen time on children's screen time.

Results: The sample consisted of 70 children and their respective parents/guardians, with a mean age of 33 months and no gender predominance. All children had exposure to media devices, spending an average of 160 minutes per day in front of screens. Regarding the guardians, more than 90% of the questionnaires were completed by mothers, who spent an average of 350 minutes per day using screens. A moderate correlation was found between children's screen time and parents' screen time ($p < 0.00$; $r_s = 0.37$). Maternal screen time accounted for 12.4% of the variation in children's screen time ($R^2 = 0.124$), indicating that parents' screen time influences children's screen use behaviors at home.