Exploring functional skills and their correlates in children with Down syndrome: A study from Colombo District, Sri Lanka

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Children with Down syndrome (DS) often face limitations in functional skills, particularly in self-care and social function. This study aimed to investigate functional skills and their relationship with age, gender, and BMI in children with DS aged 4-7 years, at two selected clinical settings in Colombo District, Sri Lanka; the Lady Ridgeway Hospital for Children and the Merrill J. Fernando Charitable Foundation in Moratuwa. A descriptive cross-sectional study was conducted among 52 children, using convenience sampling, to assess functional skills using the Pediatric Evaluation of Disability Inventory (PEDI), which evaluates self-care, mobility, and social function. Demographic information, including age, gender, weight, height, and BMI, was collected through an interviewer-administered questionnaire and physical measurements. Data were analyzed using SPSS version 25.0. The independent sample t-tests, Mann-Whitney U tests, Pearson correlation test, and Spearman's correlation tests were performed during statistical analysis. The mean age of the study group (n=52) was 5.35±1.15, with 51.9% (n=27) females. The self-care and social function domains had mean scores of 52.52 ± 5.66 and 50.32 ± 5.35, respectively, while the mobility domain had a higher median score of 61.40. There was a statistically significant relationship between age and self-care (r=0.274, p=0.049) and age and mobility (r = 0.420, p = 0.002). There was no statistically significant relationship between age and social function, functional skills and gender, or functional skills and BMI. 55.8% (n=29) fell within the healthy weight range. 73.1% had congenital heart diseases. Also, the study revealed varying degrees of pre-school/school attendance among the participants, with 40.4% (n=21) not enrolled, 34.6% (n=18) attending preschool, and 25% (n=13) attending school. The findings highlight that age played a significant role in developing self-care and mobility skills, whereas gender and BMI didn't significantly correlate with functional skills.

Keywords: *Down syndrome, Functional skills, PEDI, Pediatric Evaluation of Disability Inventory*