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Performance of activities in daily living in children born with spina bifida

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Background

Dependency in daily living in children with spina bifida has most commonly been described as a problem due to motor dysfunctions and little is known about the impact on the performance of daily living activities due to executive dysfunction. The aim of this study was to evaluate the quality of the performance of daily activities in children with spina bifida.

Materials and methods

A cross-sectional study of children from the western region of Sweden with spina bifida (n = 50) born between 1993–1999, was carried out at the Regional Rehabilitation Centre for children and adolescents in Gothenburg to evaluate performance of activities in daily living using the Assessment of Motor and Process Skills (AMPS). The study group consisted of both children with and without hydrocephalus. The AMPS is an observational method designed to allow a simultaneous evaluation of the motor and process skills necessary for a competent performance. The results from the study group were analysed and compared to age-matched normative values and to match-pairs of typically developed Scandinavian children, in the latter case considering minimal clinically important differences (> 0,5 logits).

Results

The results showed that 60% of the children with spina bifida had lower ADL-motor skills and 48% had lower ADL-process skills than the age norms (± 2 SD). Results from the match-pair comparisons shows that the study group had skill values that were lower and of clinical meaningful importance on motor skills in 80% of the cases and on process skills in 66% of the cases. There were significant differences in both motor skills and process skills in the study group between the children with and those without hydrocephalus with the former group demonstrating lower measures.

Conclusion

Children with spina bifida have, to a large extent, decreased ability to perform activities of daily living relating to impairment of both motor and process abilities. These findings suggests that to reach autonomy in daily life, children born with spina bifida need support from parents and professionals to find, to learn and to use strategies not only to know "how to do things" but also "how to get things done".