Results and discussion.– This model is based on developmental literature, learning disability research, pilot research on awareness in children with BI, adult awareness models used in rehabilitation. The model emphasizes (1) the role of on-line error detection in the construction of autobiographical memories that allow a child to progressively build a self-knowledge of strengths and difficulties; (2) the multiple components of awareness that need to be assessed separately; (3) the interaction between executive functions, episodic memory, working memory and knowledge base in the development of awareness; (4) age-dependent differences in awareness construct. A framework for awareness assessment is proposed. Implications for rehabilitation are discussed: errorless versus errorful learning, rehabilitation approaches based on metacognition, rationale for rehabilitation interventions based on child’s age and impaired awareness component, ethical and developmental considerations of confrontational methods.

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Early weight gain after childhood traumatic brain injury
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Keywords: Traumatic brain injury; Outcome; Weight; Children; Pituitary function

Objectives.– To assess weight changes after traumatic brain injury (TBI) in children and the factors influencing them.

Methods.– Longitudinal observational study of 39 children (59% boys, mean age 8.0 ± 4.4) with TBI of mixed severity. Weight and height before TBI were obtained from the children’s records and were then measured monthly for one-year post-TBI. Body mass index (BMI) and BMI z-scores were calculated, and pre-TBI values were compared with functional values using paired tests. Linear mixed-effect interaction models evaluated the effect of children’s characteristics on z-score evolution.

Results.– Z-score curves revealed early weight loss followed by a rapid increase. Mean BMI gain over the study period was 0.9 kg/m² (P < 0.001) and mean z-score gain was 0.4 (P = 0.006). Six children had become overweight. Factors associated with a greater increase rate in z-score were mobility restriction, male sex and older age. Global pre- to post-TBI weight gain was significantly higher in males. Pituitary hormonal testing was available for 17 children at 3 months and for 27 at one year. Growth hormone deficiency was detected in one child.

Discussion.– Early post-TBI weight gain of children was rapid and excessive. Male sex was a risk factor for excessive weight gain.

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Everyday memory assessment following childhood acquired brain injury (ABI)
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Keywords: Child; Acquired brain injury; Cognitive impairment; Everyday memory; Ecological assessment

Introduction.– Memory complaints are frequent following acquired brain injury (ABI). Ecological validity of formal tests has been questioned. The aim of this study was to report on the validity of a questionnaire of everyday memory in childhood ABI.

Methods.– The Questionnaire of MEMory (Q-MEM) is a new tool specifically adapted for ecological assessment of memory disorders in children and constructed with four sections tapping effortful/intentional learning, automatic/procedural learning, prospective memory/organization, and working memory. Parents of 58 children with ABI, aged 5–18 years, answered the Q-MEM by describing their child’s everyday memory before as well as after ABI. Children also performed formal verbal and visuo-spatial memory tests.

Results.– The Q-MEM detected significant changes in all four aspects of everyday memory following ABI. Consistent classification (impaired versus unimpaired) was found between cognitive formal test performance and parental report of everyday memory for more than 2/3 of the children. However, the QMEM was able to identify everyday memory impairments in 25% of the sample, which had not been identified through the formal cognitive assessment.

Discussion.– Those findings give strong support to the use of memory questionnaires to assess more ecological aspects of memory, which could be very complementary to the results of formal neuropsychological assessments.

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