Adaptive behavior in Infants with Neuromotor Delay
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INTRODUCTION

Purpose: To describe AB in infants with neuromotor delays and to examine the relationship between AB and motor function.

METHODS

Participants: Convenience sample of 25 parents and their infants with neuromotor delay.
- At least 1.0 SD below the mean on the Bayley Scale of Infant and Toddler Development, 3rd ed. (Bayley-III) motor scale
- Sample from the larger START-Play randomized controlled trial (Harbourne, et al., 2018).

Measures:
- The Bayley-III: Therapists completed gross and fine motor function and cognition scales for infants.
- Parents completed the Bayley-III Adaptive Behavior questionnaire for infant’s adaptive behavior.
- Bayley-III Adaptive Behavior questionnaire domains include: 1) communication (Com), 2) community use (CU), 3) functional pre-academics (FA), 4) home living (HL), 5) health and safety (HS), 6) leisure (LS), 7) self-care (SC), 8) self-direction (SD), 9) social (SoC), 10) motor (MO) and general adaptive composite scores (GAC).
- Higher scores represent better function in the testing domain.

Data analysis and interpretation:
- AB scores were compared with test developers’ normative data
- Pearson Correlation was used between Bayley-III Adaptive Behavior questionnaire GAC and Bayley-III motor and cognitive scores.

RESULTS

- Compared to normative data, infants with neuromotor delay showed more problematic behaviors (> +1 SD) in HL, SC, and MO, and in overall scores (mean: HL = 6.50; SC = 5.04; MO = 4.60; GAC = 70.20).
- Examination of results within the infants showed that more than 50% of children had some problems in FA (60%), HL (80%), HS (52%), SC (84%), SoC (56%), MO (84%) and GAC (76%).
- Relationship between Bayley-III GAC scores and Bayley-III motor scale scores was moderate (r = 0.53, p = 0.007) and with Bayley-III cognitive scale scores was moderate (r = 0.41, p = 0.044).

CONCLUSIONS

- Results suggest that infants with neuromotor delay showed some limitations with AB, especially with home living, self-care, and motor domains. More than 50% of infants had some difficulties with health and safety, self-care, and motor domains of AB. Infants who had more difficulties in motor function also in general had more problems in AB. AB was moderately related to motor and cognitive development.

CLINICAL RELEVANCE

- The Bayley-III Adaptive Behavior Questionnaire can provide valuable information about AB in infants. It can be helpful for identification of AB limitations that affect young children’s participation in daily life.
- Medical professionals should examine AB abilities in infants with neuromotor delays in order to incorporate interventions focused on AB and potentially decrease the gap seen with peers who are typically developing.

REFERENCES