warrants consideration in the assessment of individuals with SCD.

Categories: Medical/Neurological Disorders/Other (Child)
Keyword 1: sickle cell disease
Keyword 2: cognitive functioning
Keyword 3: intellectual functioning
Correspondence: Rebecca Avila-Rieger, Ph.D. Montefiore Medical Center rerieger@gmail.com

84 Parent Ratings of Everyday Social, Emotional, and Behavioral Functioning in Children with Unilateral versus Bilateral Hearing Loss

Samantha Hasenbalg[1], Rachel Landsman[1,2], Matthew Fasano-McCarron[3], Megan Herlihy[1], Peter K Isquith[1,2]
[1]Boston Children's Hospital, Boston, MA, USA. [2]Harvard Medical School, Boston, MA, USA. [3]Children's Hospital of Philadelphia, Philadelphia, PA, USA

Objective: Reduced hearing is associated with increased risk for social, emotional, and behavioral difficulties. Studies to date have typically compared DHH children with their hearing peers without regard for unilateral hearing loss (UHL) versus bilateral hearing loss (BHL). Children with UHL are often perceived as more like their typically hearing peers than their peers with BHL. Children with UHL typically access sound and spoken language which facilitates their functioning with fewer supports (e.g., interpreters, captioning). These children, however, show cognitive, academic, and communication profiles more similar to children with BHL than typically hearing peers. They may also experience similar social, emotional, and behavioral challenges as their BHL peers. We examined social, emotional, and behavioral functioning in a clinically referred sample of children with UHL versus BHL.
Participants and Methods: Parents of 100 children aged 2 to 17 years (M=7.12) with either UHL (n=30) or BHL (n=70) completed the Behavioral Assessment System for Children, Third Edition (BASC-3) as part of neuropsychological evaluation in a Deaf and Hard of Hearing Program within a tertiary pediatric hospital. BASC-3 scores based on General Combined norms were compared to an expected distribution of typically developing hearing children using non-parametric one-sample tests. Profiles of scores for children with UHL and BHL were examined in a repeated measures MANOVA.
Results: The groups of children with UHL and BHL showed similar age, gender, race, ethnicity, and Area Deprivation Index compositions. Eighty four percent of BHL children communicated with spoken language, and 100% of UHL children communicated with spoken language (p=.02). There were similar rates of comorbid diagnoses for ADHD (20%), Anxiety/Depression (18%), Autism Spectrum Disorder (8%), and Intellectual Disability/Global Developmental Delay (9%). However, children with BHL tended to be at greater risk for Language Disorders (50%) than those with UHL (30%, = 3.41 p=.065). Together, children with hearing loss showed significantly higher scores on the BASC-3 Hyperactivity, Aggression, Attention Problems, Atypicality, and Withdrawal clinical scales than expected (One-Sample Kolmogorov-Smirnov Test; p<.01). Profile analysis showed that children with any type of hearing loss had a varied pattern of scores across scales (F(7,686)=4.33, p<.01), with highest scores on Hyperactivity and Attention Problems scales and lowest scores on Somatization. Scale profiles did not differ, however, between UHL and BHLgroups (p=.127).
Conclusions: Children with UHL have access to auditory input, typically enabling early language development more like their hearing peers compared to children with BHL. In turn, these children may be overlooked more so than their BHL peers. However, the likelihood of social, emotional, and behavioral difficulties is similar between the two groups of children with hearing loss, whether that is unilateral or bilateral. Our study showed both groups of children had similar profiles across BASC-3 scales with elevations relative to norms. Measuring these everyday functions in children with hearing loss is important for early detection of risks to promote early intervention.

Categories: Medical/Neurological Disorders/Other (Child)
Keyword 1: assessment
Keyword 2: neuropsychological assessment
Keyword 3: child development disorders

https://doi.org/10.1017/S1355617723001649 Published online by Cambridge University Press

Correspondence: Peter K. isquith, Boston Children's Hospital, Peter.Isquith@childrens.harvard.edu

85 Relationships between neuropsychological functioning and adaptive functioning in a clinical sample of children with Spina Bifida

Sara K Pardej[1], Jennifer I Koop[2], Daniel Holliday[2], Erin T Kaseda[3], Amy K Heffelfinger[2]
[1]University of Wisconsin-Milwaukee, Milwaukee, WI, USA. [2]Medical College of Wisconsin, Milwaukee, WI, USA. [3]Rosalind Franklin University of Medicine and Science, North Chicago, IL, USA

Objective: Individuals with Spina Bifida (SB) are at increased risk for difficulties with various aspects of adaptive functioning. Poorer adaptive functioning could delay or prevent an individual from successfully living independently and managing their own condition. Despite the importance of understanding adaptive functioning in SB, currently the literature on predictors of and associated neurocognitive skills with adaptive functioning is sparse. Thus, this retrospective chart review study aimed to explore the extent to which intellectual functioning, predicts adaptive functioning in a clinical sample of children with SB.
Participants and Methods: A retrospective chart review of children with SB was conducted at a Midwestern academic medical center. Children were seen in the context of routine neuropsychological evaluations to identify neuropsychological diagnoses and provide treatment recommendations. All measures were administered based on the age of the child and in accordance with administration guidelines. Only children with complete data were included in analyses. The sample included 42 participants (M_{age}=10.89, SD_{age}=3.15; 18 male, 24 female). Intellectual functioning was evaluated using either the Wechsler Intelligence Scale for Children – Fifth Edition (WISC-V) or Wechsler Intelligence Scale for Children—Fourth Edition (WISC-IV). Adaptive functioning was evaluated using primary caregiver-report scores from the Adaptive Behavior Assessment System – Third Edition (ABAS-3). Hierarchical regressions were conducted to investigate the extent to which intellectual functioning predicts parent-reported adaptive functioning. The unique contribution of each predictor variable was also considered.
Results: Model predictors included participant sex, verbal comprehension, working memory, processing speed, and full scale IQ to predict 4 different indices on the ABAS-3. Results showed a significant contribution of participant sex in all models, with males having been rated as having poorer adaptive skills. Intellectual functioning did not significantly contribute to the models. Semipartial correlations revealed that processing speed and working memory often each accounted for a fair amount of variability when controlling for all of the remaining variables in the models. In particular, when accounting for all of the remaining variables, processing speed accounted for 6.3% of variability in global adaptive functioning, 6.1% in Conceptual Skills, and 10.11% in Social Skills. Furthermore, after controlling for all of the other variables, working memory accounted for 4.5% of the variability in global adaptive functioning.
Conclusions: The present results suggest that males with SB are at increased risk for poorer adaptive functioning, and there may be some preliminary evidence of processing speed and working memory playing contributory roles as well. This may suggest at least in childhood, the verbal and global cognitive capacities of individuals with SB are not as contributory to adaptive functioning as more basic cognitive skills, such as processing speed and working memory. It is recommended that males with SB in particular should be closely monitored with regard to their development of adaptive skills, as they may be at risk of poorer adaptive abilities. Additionally, our findings provide preliminary evidence of processing speed and working memory impacting adaptive functioning. Thus, interventions and accommodations targeting both of these domains may be appropriate to implement to help with poorer adaptive skills in this population.

Categories: Medical/Neurological Disorders/Other (Child)
Keyword 1: adaptive functioning
Keyword 2: intellectual functioning
Keyword 3: spina bifida
Correspondence: Sara K. Pardej, University of Wisconsin-Milwaukee, skpardej@uwm.edu

https://doi.org/10.1017/S1355617723001649 Published online by Cambridge University Press