Problem Behaviors in Young Children: The Impact of Hearing Loss and Language Impairment

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Introduction
Current State of Knowledge
• Problem behaviors in children negatively impact social and academic outcomes as well as overall development (Masten et al., 2005)
• Previous research has largely found a higher prevalence of problem behaviors in children with HL compared to their hearing peers with typical language (TL) (Quittner et al., 2010; Barker et al., 2009; Topol, Girard, St. Pierre, Tucker, & Vohr, 2011; van Elsäk, Treffers, Veerman, & Verhulst, 2004; Dannmeyer, 2009)
• However, other studies have found no difference in problem behaviors between children with HL and their peers with TL (Khan, Edwards & Langdon, 2005; Theunissen et al., 2012)
• Most evidence supports the theory of language impairment (LI) as being the greatest source behind problem behaviors in children with HL (Quittner et al., 2010; Barker et al., 2009; Dannmeyer, 2009; Cruz et al., 2012) and in hearing children with LI alone (Moretti et al., 2013; van Dael, Verhoeven & van Balkom, 2007; Kaiser, Hancock, Cai, Foster & Hester, 2000)

Purpose of the Current Study
• To better understand problem behaviors in children with HL and the correlation between problem behaviors and LI

Research Questions
Question 1
What is the relationship between problem behaviors and language skills across different populations of young children?
Question 2
Do children with HL have more problem behaviors than hearing children with LI or TL?
Question 3
Do parents and teachers differ in their report of problem behaviors in children with HL?

Participants
• 48 children, 16 in each group (HL, LI, TL)
• Mean age of 43 months (SD 12.2)
• Children were matched on age and gender between groups and language ability between HL and LI groups
• 56% female, 44% male
• 73% Caucasian, 17% African American, 10% Other
• Average income was $80,000 (SD: $47,000)
• 64% of mothers had a bachelors degree or higher
• Average total language standard score of children:
  - HL: 83 (19)
  - LD: 75 (10.2)
  - TL: 117 (20)

Methods

Limitations
• Small sample size; monolingual children only
• Direct observational measures of problem behaviors are needed

Conclusions
• Internalizing problem behaviors were moderately correlated with language level, but not uniquely with HL
• Children with HL did not have significantly different levels of internalizing or externalizing problem behaviors than children with LI or TL
• Parent and teacher reported problem behaviors were in concordance

Clinical Implications
• Targeting language development in children may reduce internalizing problem behaviors
• Difficulties with problem behaviors may emerge as the child enters grade school

Results

Research Question 1:
• Overall language skills were moderately correlated with internalizing behaviors (r = - .351, p = .02)
• Children who had better language skills demonstrated fewer internalizing problem behaviors; this relationship did not vary by group

Research Question 2:
• Children with HL did not exhibit a significantly greater number of internalizing (F(1, 21) = .62, p = .44) or externalizing (F(1, 21) = .000, p = .98) problem behaviors than children with LI
• Children with HL did not exhibit a significantly greater number of internalizing (F(1, 27) = .61, p = .44) or externalizing (F(1, 27) = .35, p = .56) problem behaviors than children with TL

Research Question 3:
• There was no significant difference between parent and teacher report for internalizing (F(1,27) = .01, p = .94) or externalizing (F(1,27) = .02, p = .88) problem behaviors

Research Question 2:
One-way ANOVA
- Internalizing Problem Behaviors
  - Hearing Loss M (SD): 50.46 (11.27)
  - Language Impaired M (SD): 50.38 (11.11)
  - Typical Language M (SD): 47.94 (11.47)

Internalizing Problem Behaviors
- Hearing Loss M (SD): 48.92 (12.87)
- Language Impaired M (SD): 52.50 (11.54)
- Typical Language M (SD): 45.13 (13.09)

References

Statistical Analysis
Research Question 1:
• Correlational analyses

More Information
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