

# Young Children's Attitudes Toward Their Peers Who Wear Hearing Aids



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## INTRODUCTION

Negative attitudes or perceptions of a disability can prevent the full social inclusion of a child with disability in the classroom, affecting their peer interactions and their psycho-social development (Nabors, 1996). Several decades ago, adult and older child observers (ages 10 to 18 years) revealed negative attitudes toward children wearing hearing aids, a phenomenon that has been coined the "hearing aid effect" (Blood, Blood & Danhauer, 1977). Pictures of children wearing hearing aids were rated more negatively than children not wearing hearing aids and the larger the size of the aid, the greater the negative perception (Blood et al., 1977; Dengerink & Porter, 1984; Haley & Hood, 1986).

It is reasonable to suspect that such attitudes about hearing aids and the children who wear them might have changed since those early studies. With the initiation of legislation requiring least restrictive environment, today's school children have more exposure to children with hearing loss than those who were surveyed 30 years ago.

## PURPOSE

The purpose of the current investigation was to evaluate young school-aged children's attitudes towards peers wearing hearing aids. Shifts in young children's ability to identify, define, and understand consequences of disabilities occur with age and experience (Smith & Williams, 2001). Determining if the "hearing aid effect" is evidenced in children and whether age is a factor could assist us in designing appropriate educational programs for children in integrated classroom settings. Specifically, the following questions were addressed by this study:

- Do children with normal hearing perceive children who wear hearing aids more or less negatively than children who do not wear hearing aids?
- Does age play a role in how children perceive those who wear hearing aids?

## METHODS

**Participants:** Thirty-four typically developing children with normal hearing from the Nashville-area were recruited for this study.

Group 1: Younger Children (1 <sup>st</sup> graders)	n = 14
Group 2: Older Children (3 <sup>rd</sup> and 4 <sup>th</sup> graders)	n = 20

### Materials

**20 Picture Plates:** 20 Caucasian Boys (10 between 6 and 7 years and 10 between 9 and 11 years) were photographed. Half of the photos in each age group featured a child wearing a hearing aid.

**Photo Dyads:** One photo of a child with a hearing aid and one photo of a child without a hearing aid (Example: See Photo 1 and Photo 2).

### Procedures

Questions based on the *Pictorial Scale of Perceived Competence and Social Acceptance for Young Children* (Smith & Williams, 2001) in each areas of Peer Acceptance and Cognitive and Physical Competence were used for each photo dyad. See examples of questions in Table 1.

**2 Alternative Forced Choice Task (2AFC):** Photo dyads were presented and participants were asked to choose which child was better at cognitive and physical tasks or more accepted by their peers.  
Example: Which child is better at reading alone?

**Individual Ratings (IR):** Photos were viewed individually and participants were asked to rate the child in areas of cognitive competence and physical competence, and peer acceptance.

Example: Is he good at reading alone or not good at reading alone?

1. Really Not Good
2. Kind of Not Good
3. Kind of Good
4. Really Good

## METHODS CONTINUED

**Sociometric Popularity Rating Scale:** All ten photos were viewed. Participants were instructed to "Find a photograph of someone you especially like." (3 times) and then to "Find a child you don't like very much." (3 times) These choices were recorded to create a composite score.

**Analysis:** Between groups repeated measures ANOVAS were completed for the following dependent variables: 2AFC scores (cognitive and physical competence, and peer acceptance) and individual rating scores (cognitive and physical competence, and peer acceptance) and for sociometric popularity scores.

Photo 1: Photo of child w/o HA



Photo 2: of child with a HA



Table 1: Examples of Questions

### Cognitive Competence:

- (2AFC) Which child is better at math?
- (IR) Is he good at math or not good at math?

### Physical Competence:

- (2AFC) Which child is better at bouncing balls?
- (IR) Is he good at bouncing balls or not good at bouncing balls?

### Peer Acceptance:

- (2AFC) Which child gets asked to play with others?
- (IR) Does he get asked to play with others or does he not get asked to play with others?

## RESULTS

### Photo Dyads:

As seen in Figure 1, when forced to choose between the two photos in the photo dyad, children of both age groups were more likely to choose the photo of a child without a hearing aid as having more physical competence and to have greater peer acceptance. Children chose the photo of a child without a hearing aid 66% of the time as having greater physical competence as compared to their peers with a hearing aid (34%). Children chose the photo of a child without a hearing aid as having greater peer acceptance 65% of the time as compared to their peers with a hearing aid (35%).

However, when forced to choose a photo of a child with or without a hearing aid as having greater cognitive competence, no preference was indicated. When assessed by age group, older children were more likely to choose the child wearing a hearing aid as having more cognitive competence, whereas younger children were more likely to choose the child without the hearing aid.

### Individual Rating:

Photos were viewed individually and participants were asked to rate the child in areas of cognitive competence and physical competence, and peer acceptance. As seen in Figure 2, when rating individual photos of children with and without hearing aids in areas of cognitive competence, physical competence and peer acceptance, there were no significant differences between how photos of children with and without hearing aids were rated. There were also no significant differences in how the two age groups rated individual photos.

### Sociometric Popularity Rating:

A sociometric popularity composite score was compiled for both photo groups. A positive score indicated that more photos were "liked" than "dis-liked." A negative score indicated that more photos were "dis-liked" than "liked." Participants in this study were more likely to "like" photos of children without a hearing aid and to "dis-like" photos of children with a hearing aid (see Figure 3).

Figure 1: Photo Dyad 2AFC Scores.

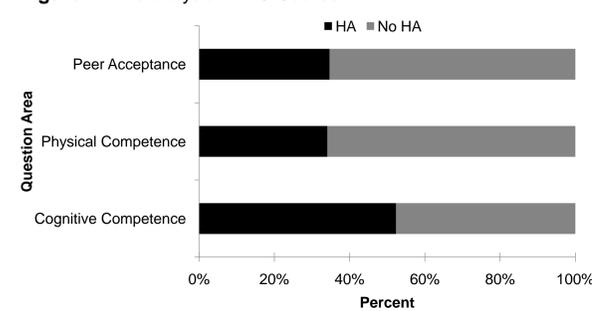


Figure 2: Individual Ratings of Children with and without hearing aids. Rating Scale: Really Good (4); Kind of Good (3); Kind of Not Good (2); Really Not Good (1)

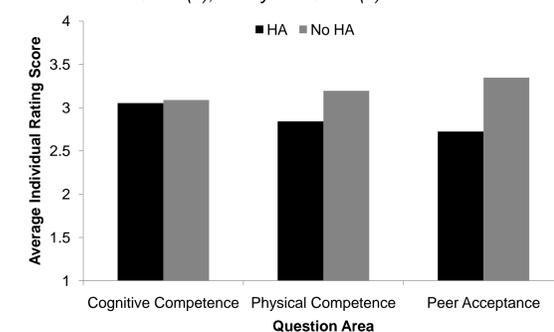
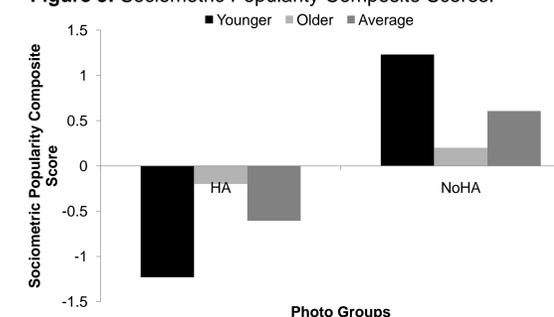


Figure 3: Sociometric Popularity Composite Scores.



## Spontaneous Utterances

The following examples of utterances were recorded in response to the following questions during the course of the study:

### "Which child knows more in math?"

"Not him because he probably can't hear the teacher," while pointing to the child wearing a hearing aid (younger group)

### "Which child gets asked to play with others?"

"He can't because he has a hard time hearing." (older group)

### "Which child has more friends?"

"He has more friends," pointing to child without hearing aids, "but he has better friends," pointing to photo of child with hearing aids. "He looks different from other people and people who were friends with"

## SUMMARY

This study has demonstrated that when forced to make a choice between a peer with a hearing aid versus a peer without a hearing aid, children were more likely to choose a peer with a hearing aid as being poorer at physical tasks and as having less acceptance from their peers. In addition to these findings, children who wore a hearing aid were considered to be not as well liked as their peers without a hearing aid.

In contrast with the findings from the forced choice ratings and popularity ratings, when children rated each photo individually, there were no differences in how children with and without a hearing aid were rated.

These findings suggest that when directly compared to their peers without hearing aids, children who wear hearing aids are more likely to be viewed as being less capable physically and may be less socially accepted by their peers.

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