

## Adults' Attitudes toward Children with Medical Conditions

Laura Nabors

Department of Psychology  
University of Cincinnati  
Cincinnati, Ohio, USA.

### Abstract

*Adults may hold negative attitudes toward children with medical conditions. More information is needed about factors that may be related to these attitudes. This study investigated the relations among sex of participants, experiences with children with medical conditions, expectations for working with children with and without medical conditions, and attitudes toward children with medical conditions. Results of linear regression analyses indicated that the interaction of sex of participants and previous experience with children who had medical conditions predicted attitudes for females, but not for males. Increasing understanding of the variables that influence attitudes toward children with medical conditions will provide information for interventions and for policy to improve inclusion of these children in everyday settings.*

Adults may hold negative attitudes toward children with medical conditions (Bugental, 2003). Goffman (1963) and others (e.g., Harper, 1999; Yunker, 1988) proposed that attitudes toward persons with a discrediting attribute, like a medical condition, will be negative indicating that the attribute is considered a stigmatizing condition. Results of several studies indicate that adults hold negative attitudes toward children with specific conditions, like Down's Syndrome (Wishart, & Johnston, 1990) and cancer (Wiens & Gilbert, 2000). Studies that assess adults' general attitudes toward the global concept of "children with medical conditions" are needed. Understanding adults' attitudes toward children with medical conditions is important, given that these children often are in need of advocacy and assistance in everyday settings (Blendon et al., 1998; Bugental, 2003). This study examined adults' attitudes toward children with medical conditions and factors related to these attitudes, using a modified version of the Attitudes Toward Disabled Persons Scale (Form O, ATDP-O; Yunker, Block, & Campbell, 1960; Yunker & Block, 1986).

After reviewing literature using the ATDP-O, Yunker and Block (1986) reported that females typically held more positive attitudes toward persons with disabilities than males did. Similarly, Harper (1991, 1999) also reported that females held more positive attitudes toward children with medical conditions compared to males. This finding was expected in the current study. The majority of studies show that previous experience or contact is moderately and positively correlated with attitudes toward adults and children with different types of medical conditions (e.g., Donaldson, 1980; Harper, 1999) and this is true for studies using the ATDP-O as the measure of attitudes (Yunker & Block, 1986; Yunker & Hurley, 1987). Hence, for this study, it was expected that adults reporting more experience interacting with children who had medical conditions would provide more positive ratings on the ADTP-O. An expectation for future interactions with children with medical conditions has not received much attention, and this variable may be related to attitudes toward these children. In addition, the interactions among variables, such as sex of participants, experience and future expectations need to be examined. This study advanced the literature by assessing both future expectations and the interactions among sex of participants, experience, expectations and young adults' attitudes toward children with medical conditions.

### Method

#### Participants

Participants were 300 undergraduate students (150 males and 150 females) attending a large Midwestern University.<sup>1</sup> Average age of the students was 19 years (SD = 2 years, range = 16 to 37 years). The majority of participants were freshman in college (58%, n = 173), while 74 were sophomores, 39 were juniors, and 12 were seniors. Most of the participants (about 82%) were Caucasian (n = 244).

Twenty-five were African American (8%), 6 were Hispanic American (2%), 13 were Asian American (4%), and 10 (3%) reported “other” for their ethnic group. Seven of the participants were parents and one had a child with a chronic medical condition. Roughly 45% ( $n = 137$ ) of the participants knew someone with a chronic illness. More females ( $n = 26$ ) than males ( $n = 12$ ) knew 2 or 3 adults with chronic illnesses. Females ( $n = 22$ ) were more likely to have an immediate family member (parent or sibling) with a medical condition than males ( $n = 13$ ). A similar number of females ( $n = 29$ ) and males ( $n = 27$ ) reported that other family members had chronic conditions. Twenty-two females and 17 males had a friend with a medical condition. Preliminary analyses indicated that age, college class (freshman, etc.), knowing adults and family members with medical conditions, and ethnic group were not related to ATDP scores.

## Measures

Modified Attitudes Towards Disabled Persons Scale, Form O (ATDP-O; Yunker et al., 1960; Yunker & Block, 1986). The ATDP-O consists of 20 items that were developed to examine adults’ attitudes toward “disabled persons” (e.g., “Most disabled people feel that they are not as good as other people”). For the purposes of this study the terminology (i.e., “disabled people”) was updated to “children with medical conditions.” Otherwise, the wording of the 20 questions remained the same. Yunker and Block (1986) reported that this measure was robust to slight wording changes. This scale has good psychometric properties (median coefficients for reliability and validity across studies were .80; Yunker & Block). The alpha coefficient for the version of the measure used in this study also was .80. After reviewing studies using factor analyses to search for subscales, Yunker and Block recommended using the total score to represent adults’ attitudes and this was the score used in the current study. The median total score for females was “79.2” (18 studies) and “75.1” for males (17 studies) for males (with a median total score of “79.7” for females and males, p. 8, Yunker & Block). Demographic Questionnaire (Orf, 1994; Wiens & Gilbert, 2000). Several items from this measure were utilized including questions about experience with children with chronic conditions, desire to work with children with and without chronic conditions in the future, and number of children participants wanted in the future (using 4-point rating scales). Other items assessed experience with persons with medical conditions and demographic factors such as gender, academic status (e.g., freshman, sophomore, junior), ethnicity, and age.

## Procedures

Participants completed the MATDP-O and then completed the demographic questionnaire. It took about 15 minutes to complete the measures. The order of the measures was not counterbalanced (i.e., the MATDP-O was administered first), so that answers to questions about experience with medical conditions and illnesses would not “prime” or influence reports on the MATDP-O.

## Results

The mean score on the ATDP-O was 75.05 ( $SD = 14.72$ ); the mean score for females was 77.01 ( $SD = 15.10$ ) and was 73.10 for males ( $SD = 14.11$ ). Participants reported expecting to have about 2 children ( $M = 2.66$ ,  $SD = 1.14$ ). They rated their exposure to children as slightly above average ( $M = 3.87$ ,  $SD = .90$ ). Exploratory analyses indicated that these factors were not related to change in ATDP scores.

The mean ratings for likelihood of working with children with and without chronic illnesses were 2.86 ( $SD = 1.65$ ) and 3.95 ( $SD = 1.97$ ) respectively. Participants’ exposure to children with medical conditions was slightly below average ( $M = 2.10$ ,  $SD = .81$ ). Participants reported how often “they were around” (exposure to) children with medical conditions. Sixty-eight of the participants were “never around” chronically ill children, 147 were “rarely” exposed, 69 had some experience, and 15 had frequent experience (e.g., were often around children with medical conditions). No participants reported being around children with medical conditions “all of the time.”

Linear regression models were tested to examine the relations among sex of participants, experience with children with medical conditions, ratings about working with children or chronically ill children in the future, interaction terms and MATDP-O Scores. Table 1 presents the standardized Betas, standard errors, t scores, and p values for the final model, which included the main effects of each variable and the interaction of gender with the other three variables.

**TABLE 1: REGRESSION MODEL FOR GENDER, LEVEL OF EXPERIENCE AND THE INTERACTION TERM**

PREDICTOR	STANDARDIZED BETA	STANDARD ERROR	T	P
GENDER	-.265	5.31	-1.47	.144
EXPERIENCE: CHILDREN WITH MEDICAL CONDITIONS	-.260	3.63	-1.31	.192
WORK WITH CHILDREN WITH MEDICAL CONDITIONS IN FUTURE	.282	2.73	.919	.359
WORK WITH CHILDREN IN FUTURE	-.160	1.99	-.601	.548
SEX X EXPERIENCE*	.554	2.234	2.07	.039
SEX X WORK WITH MEDICAL CONDITIONS	-.388	1.62	-1.02	.308
SEX AND WORK WITH CHILDREN	.385	1.265	1.09	.278

NOTE. \* MEANS SIGNIFICANT RESULTS WERE FOUND,  $P < .05$ .

The model was significant,  $F(7, 289) = 3.11$ ,  $p < .01$ , and predicted 7% of the variance in MATDP-O scores. Inspection of the data in Table 2 shows that the interaction of sex and experience was the only significant predictor. The three-way and four-way interaction terms were not significant in preliminary models and were not included in the final model.

Follow-up regression models examined the impact of experience for males and females. Exposure to children with medical conditions positively influenced females' MATDP-O scores,  $F(1, 147) = 10.86$ ,  $p < .001$ , Standardized Beta = .262, Standard Error = 1.47,  $t = 3.26$ ,  $p < .001$ . Females with more experience provided higher ratings. This model predicted 7% of the variance in the dependent variable. A regression analysis for male participants, with level of experience as the predictor, did not yield significant results. Mean ratings for males and reports of level of experience and females and level of experience are presented in Table 2.

**TABLE 2: ATDP SCORES FOR MALES AND FEMALES BY REPORTS OF EXPERIENCE WITH CHILDREN WITH CHRONIC ILLNESS**

SEX	MALES			FEMALES		
	M	SD	N	M	SD	N
LEVEL OF EXPERIENCE						
NEVER	73.68	17.14	40	72.25	14.96	28
RARELY	72.23	13.27	77	74.65	14.78	70
SOMETIMES	74	12.66	27	82.93	14.54	42
OFTEN/FREQUENT	75.67	10.26	6	82.44	12.35	9

## Discussion

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Study results indicated that females' attitudes toward children with medical conditions were positively impacted by their previous experiences with these children. This was not true for males.

For this study, females had more positive attitudes than males, although the main effect for "sex of participants" was not significant in final model for the regression analysis. Other researchers have also found that females have more positive attitudes toward children and adults with medical conditions compared to males (e.g., Harper, 1999; Wiens & Gilbert, 2000; Yucker & Block, 1986). Surprisingly, expectations for future interactions with children with or without medical conditions were not related to attitudes. Results may have been different if the relationship between expectations for interactions and attitudes toward children who had specific conditions (like cancer) had been examined.

Although experience was positively related to females' attitudes, this factor predicted only 7% of the variance in the dependent variable. However, Yunker and Block (1986) suggested that many factors show only modest relationships with attitudes. Thus, this type of finding is not uncommon. Researchers should continue to examine the relations among many types of factors (e.g., personality characteristics of perceivers) and adults' attitudes toward children who are not developing typically.

Several factors may have limited the generalizability of study results. Notably, the sample, which included only college students, was one of convenience. In addition, behaviors toward children with medical conditions were not examined, and behaviors may differ from attitudes. Moreover, the value participants assigned to previous interactions with persons with medical conditions was not examined. Berrenberg (1989) reported that the positive or negative valence of previous interactions may be the key factor affecting attitudes.

1 or 2 sentences about study results

Given that adults, especially males, could benefit from interventions to improve their attitudes, it will be important to continue to understand relations among characteristics of perceivers, previous experiences, and attitudes. Research examining adults' perceptions of the valence or value of previous experiences, as being positive or negative, may explain the nature of the link between experience and attitudes. When knowledge of perceiver values and characteristics that are related to their attitudes increases, it will become easier to develop interventions and policies to facilitate the inclusion of children with medical conditions in everyday settings.

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## Footnotes

1 Participants also participated in other studies for this project (e.g., Nabors & Lehmkuhl, 2005).

2 The ATDP-O measure was presented in Yunker and Block's (1986) review of Attitudes Towards Disabled Persons Scales.