

Research

Family Members of People with Disabilities'
Explicit and Implicit Disability Prejudice



**Family Members of People with Disabilities' Explicit
and Implicit Disability Attitudes**

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Abstract

Purpose. Family members of people with disabilities may hold a unique position in that they may both internalize and reinforce ableism, and work to fight it through empowerment and resistance, making them a useful group for study to elicit understandings of disability, and disability attitudes. The aim of this study was to explore the explicit (conscious) and implicit (unconscious) attitudes toward people with disabilities by family members of persons with disabilities.

Research Methods. To do so, we analyzed secondary data from 180,701 family members, comparing their explicit and implicit disability attitudes and examining correlates with attitudes.

Results. Findings from our study suggest that although family members do not consciously believe they have negative attitudes, they unconsciously prefer nondisabled people.

Conclusions. More work is necessary to reduce prominent and systemic negative attitudes about disability as most family members still had negative attitudes about people with disabilities.

Keywords: people with disabilities, family members, explicit attitudes, implicit attitudes, ableism

Impact

- Findings revealed family members hold unconscious negative attitudes against people with disabilities, suggesting more work is needed to reduce the negative attitudes family members have about disability.
- It is important to recognize that although they may have the best intentions, family members decisions about their loved one with disabilities are not necessarily attitude-neutral, but instead may be influenced by internalization of negative disability attitudes. The implications of which may be particularly impactful for family members who hold a lot of decision making authority, such as parents of young children with disabilities or guardians.

Family Members of People with Disabilities' Explicit and Implicit Disability Attitudes

Family members of people with disabilities have unique relationships to and with disability as they “see the public and private sides of [people with disabilities]” (O’Toole, 2013, n.p). By having a family member with disabilities, “kin relations are inevitably transformed” (Rapp & Ginsburg, 2011, p. 383). As one parent of a son with disabilities described, having their son, ““brought the disability rights movement into our home”” (Rapp & Ginsburg, 2011, p. 380).

In addition to an increased intimacy with people with disabilities, as a result of being a family member of someone with a disability, family members may also experience ableism and be the targets of discrimination (Neely-Barnes, Graff, Roberts, Hall, & Hankins, 2010). Neely-Barnes et al. (2010) notes parents of people with disabilities may not only experience ableism, but while “managing their own feelings about disability that may include internalized ableism,” they “may collude with an ableist agenda and look for ways to make their member with a disability appear less disabled” (Neely-Barnes et al., 2010, pp. 245-246). For example, Neely-Barnes et al. (2010) cite mothers that encourage the normalcy of their children by trying to make them appear more nondisabled by dressing them in certain ways, or having them use certain devices. Neely-Barnes et al. (2010) critique, these strategies are not “aimed at creating a more accommodating society for their children with disabilities” (pp. 245-246). Family members may also encourage their family member with disabilities to perform normatively to “make them more acceptable to the outside world.” (Neely-Barnes et al., 2010, p. 246). Thus, family members may hold a unique position in that they may both internalize and reinforce ableism, and work to fight it through empowerment and resistance (Neely-Barnes et al., 2010), making them a useful group for study to elicit understandings of disability and disability attitudes.

Knowledge of attitudes helps us understand social interactions, socialization, and prejudice formation (Antonak & Livneh, 2000). Attitudes operate on two levels, explicit (conscious) and implicit (unconscious) (Amodio & Mendoza, 2011; Antonak & Livneh, 2000). There are concerns that explicit measures do not capture all attitudes because participants may feel pressure to conceal their biases or may be unaware they hold biased attitudes (Amodio & Mendoza, 2011; Antonak & Livneh, 2000). This can be especially true for subjects where it is especially taboo to have negative attitudes such as against people with disabilities. For this reason, much research has shifted towards measures that examine unconscious implicit attitudes. Implicit attitudes can relate to automatic processes triggered by external cues and reflect associations between attitudes and concepts (Amodio & Mendoza, 2011; Antonak & Livneh, 2000).

The majority of research about attitudes towards people with disabilities has focused on explicit attitude measures and has not considered how explicit and implicit attitudes may operate in tandem. To our knowledge, there is also no such research about family members of people with disabilities that examines both explicit and implicit attitudes. For these reasons, the aim of this study was to explore the explicit and implicit attitudes toward people with disabilities by family members of persons with disabilities. To do so, we analyzed secondary Disability Attitudes Implicit Association Test (DA-IAT) and explicit data from 180,701 family members. We also ran regression models to determine correlates of explicit and implicit attitudes – factors that relate to negative attitudes.

Methods

Participants

This study analyzed a secondary data set from Xu, Nosek, and Greenwald (2014) from Project Implicit, an open-access website where anyone can test their biases. Approximately 728,134 people from the general population (both nondisabled people and people with disabilities) participated between 2006 and 2016, 64.0% of which completed information detailing if they had family members with disabilities or not. All cases without this information ($n = 261,891$) as well as those that were not family members ($n = 285,542$) were removed. This led to a final sample size of 180,701 participants. The majority of participants were White (73.7%), women ($n = 76.3\%$), and nondisabled (78.9%) (Table 1). Most participants' highest level of education was at least some college (39.5%). The mean age of participants was 29.36 ($SD = 13.00$). Political orientation was relatively evenly distributed, with most participants identifying as 'neutral' (33.8%). The majority of participants (61.0%) had a close friend or acquaintance with a disability. Most participants identified as slightly (31.2%) or moderately religious (32.6%).

Measures

One of the most prominently used implicit methods is the Implicit Association Test (IAT), which was developed by Greenwald, McGhee, and Schwartz (1998). The IAT presents participants with two target-concept discriminations, such as Black and White, and two attribute dimensions, such as pleasant and unpleasant, displaying one target-concept discrimination and one attribute dimension on each side of the computer screen. For example, Black and pleasant on the left side of the screen, and White and unpleasant on the right. The IAT then presents participants with related stimuli and asks participants to sort them to the category the stimuli falls under. For example, they may be asked to sort a wheelchair symbol into disabled-persons or abled-persons. Target-concept discriminations and attribute dimensions are arranged so they

appear both stereotype congruent and incongruent at different times. The IAT then compares response latencies for participants' congruent and incongruent rounds.

The DA-IAT (Greenwald et al., 1998) is the most widely used disability related IAT. It is similar to the original IAT that examined preferences for Black versus White people except the target-concept discriminations are 'disabled persons' and 'abled persons¹,' and the attribute dimensions are 'good' and 'bad.' The stimuli used are symbols of people with disabilities and nondisabled people, and word stimuli are used to represent good and bad (Nosek et al., 2007). Several studies have shown the DA-IAT's construct validity, discriminant validity, and reliability (Aaberg, 2012; Pruett, 2004; Pruett & Chan, 2006; Thomas, Vaughn, Doyle, & Bubb, 2013; White, Jackson, & Gordon, 2006).

In terms of explicit attitudes, participants were asked to rate their explicit attitudes towards people with disabilities – preferences for people with disabilities or nondisabled people – on a seven-point Likert question from strongly prefer people with disabilities (1) to strongly prefer nondisabled people (7) (Xu et al., 2014).

Procedure

When beginning the DA-IAT participants are first presented with instructions telling them to push the 'E' key if presented stimuli belonged in the categories on the left side of the computer screen and the 'I' key for the right. They are told to do so as quickly as possible and

¹ The language "disabled people" and "abled-persons" are only used when referencing the DAIAT as this is the official language used in the tool and believe it should be marked as such. However, we do use the language "nondisabled" intentionally rather than say people without disabilities. Nondisabled is used to referred to people without disabilities in parallel with Linton (1998) who explains her usage of nondisabled saying, "the terms disabled and nondisabled are used frequently to designate membership within or outside the community. Disabled is centered, and nondisabled is placed in the peripheral position in order to look at the world from the inside out, to expose the perspective and expertise that is silenced...The use of nondisabled is strategic: to center disability" (p. 13)

with the least amount of errors. If participants place stimuli on the incorrect side of the screen a red 'X' appears until they correct their choice.

After instructions, the DA-IAT presents participants with seven blocks (rounds) of categorization tasks. During the first practice block, which involves 20 trials, the participants *only* sort the target-concept discriminations with 'abled-persons' on one side of the screen and 'disabled persons' on the other. The second practice block is similar; 'good' is presented on one side of the screen and 'bad' on the other for 20 trials. For blocks three (20 trials) and four (40 trials) the target-concept discriminations and the attribute dimensions are both presented on the screen at the same time. For example, 'abled persons' and 'bad' may be on the left with 'disabled persons' and 'good' on the right. The computer system randomizes if they are presented with stereotype consistent or inconsistent items during these blocks. Block five (40 trials) is then a practice block where only good and bad are presented on opposite sides of the screens. This allows participants to become familiar with the switched location of these two attribute dimensions. Block six (20 trials) and seven (40 trials) are then very similar to blocks three and four except if they received the stereotype inconsistent layout in those blocks they will receive the stereotype consistent ones in blocks six and seven and *visa versa*. After completing the DA-IAT, participants were asked to complete demographic questions as well as the measure of explicit disability attitudes.

Analysis

To calculate participants' explicit attitude scores, each participant's Likert score was utilized. Implicit attitudes on the DA-IAT were calculated using Greenwald, Nosek, and Banaji (2003) updated IAT scoring protocol. *D* scores were produced for each participant based on their response latencies in stereotype consistent and stereotype inconsistent blocks. DA-IAT scores are

reported for the strength of preference for nondisabled people or people with disabilities. In general, scores range from -2 to 2. Scores of -0.14 to 0.14 reveal no preference for nondisabled people or people with disabilities, scores of 0.15 to 0.34 a slight preference for nondisabled people, 0.35 to 0.64 a moderate preference, and 0.65 or greater a strong preference (Aaberg, 2012; Greenwald et al., 2003). Negative values of the same ranges reveal preferences for people with disabilities (Aaberg, 2012; Greenwald et al., 2003).

After calculating participants' explicit and implicit scores, we then ran linear regression models with their attitudes and demographic factors to determine if there were certain factors that predicted explicit and implicit attitudes.

Results

Explicit and Implicit Attitudes

Explicit scores ranged from 1 (strongly prefer people with disabilities) to 7 (strongly prefer nondisabled people), with a mean score across groups of 4.32 (no preference) ($SD = 0.89$). A one-tailed t test determined this score was significantly different from four, $t(175125) = 152.17$, $p < .001$, Cohen's $d = 0.36$, indicating no explicit preference for people with disabilities or nondisabled people. The majority of family members reported no explicit preferences for people with or without disabilities. Findings revealed 67.2% of family members reported no preference, 27.3% preferred nondisabled people explicitly, and 5.5% preferred people with disabilities explicitly (see figure 1).

DA-IAT scores ranged from -1.92 (strongly prefer people with disabilities) to 1.87 (strongly prefer nondisabled people), with a mean score across groups of 0.47 (moderately prefer nondisabled people) ($SD = 0.46$). A one-tailed t test determined this score was significantly different from zero, $t(161015) = 413.64$, $p < .001$, Cohen's $d = 1.02$, indicating an implicit

preference for nondisabled people. The majority of family members implicitly preferred nondisabled people, most frequently with strong preferences for nondisabled people. Findings revealed 77.2% of family members preferred nondisabled people implicitly, 13.1% had no preference, and 9.7% preferred people with disabilities implicitly (see figure 2).

Participants' explicit and implicit scores were compared utilizing Son Hing et al.'s (2008) two-dimensional model of prejudice to categorize participants into four groups (high explicit/high implicit, high explicit/low implicit, low explicit/high implicit, and low explicit/low implicit). To do so, participants' explicit and implicit scores were each categorized as high and low. The implicit scores were cut-off based on the moderate prejudice level (.35) according to IAT standards while the explicit score cut-off used was the midpoint of the Likert scale (4). Using these criteria participants' scores were then grouped into high explicit/high implicit, high explicit/low implicit, low explicit/high implicit, and low explicit/low implicit. In our study, 19.2% ($n = 30,009$) of participants were categorized into high explicit/high implicit, 7.8% ($n = 12,212$) high explicit/low implicit, 43.9% ($n = 68,650$) low explicit/high implicit, and 29.1% ($n = 45,476$) low explicit/low implicit.

Correlates of Explicit and Implicit Attitudes

We ran a linear regression model to explore correlates of explicit attitudes; the model was significant, $F(27, 72288) = 95.79$, $p < .001$, $R^2 = .035$. Findings revealed significant differences across the following IVs: age; sex; race; disability status; close friends/acquaintances with disabilities; education level; political orientation; religiosity; and year of participation (Table 2).

According to the findings, women had lower explicit negative attitudes than men (4.57 versus 4.76). Family members that were Black (4.90), Latinx (4.80), East Asian (5.03), South Asian (4.90), Native Hawaiian or other Pacific Islander (4.95), or from more than one race (4.79)

all self-reported having more explicit negative attitudes than White family members (4.76). Nondisabled family members had higher explicit negative attitudes than family members with disabilities (4.87 versus 4.76). Family members with close friends or acquaintances with disabilities had lower explicit negative attitudes than family members without close friends or acquaintances (4.58 versus 4.76). Family members with only some high school (4.76) reported more explicit negative attitudes than family members with all other levels of education (ranging 4.66 from to 4.73). In terms of political orientation, people who identified as strongly conservative (4.76) had higher explicit scores than people who identified as slightly conservative (4.72), neutral (4.60), slightly liberal (4.70), moderately liberal (4.68), and strongly liberal (4.59). People who identified as moderately (4.72) or strongly (4.68) religious had lower explicit negative attitudes than people who identified as not at all religious (4.76). The later the person participated in the study, the lower their explicit negative attitudes; for example, someone who participated in 2006 was expected to score 4.76 explicitly, whereas someone who participated in 2016 was expected to score 4.63.

To explore correlates of implicit attitudes, we also ran a linear regression model, which was significant, $F(27, 69367) = 118.65, p < .001, R^2 = .044$. Findings revealed significant differences across the following IVs: age; sex; race; disability status; close friends/acquaintances with disabilities; education level; political orientation; religiosity; and year of participation (Table 2).

According to the findings, older family members had more implicit negative attitudes than younger family members. For example, a 20-year-old family member was expected to have moderate implicit negative attitudes (0.48), whereas a 60-year-old family member was expected to have high implicit negative attitudes (0.68). Family members who were Latinx (0.36), South

Asian (0.35), Indigenous American (0.34), and from more than one race (0.34) all had lower implicit scores than White family members (0.38). Conversely, Black family members (0.45) scored higher implicit negative attitudes than White family members (0.38). Nondisabled family members had significantly more implicit negative attitudes than family members with disabilities themselves (.45 versus .38). Family members with close friends or acquaintances with disabilities had significantly lower implicit negative attitudes than family members without close friends or acquaintances with disabilities (.34 versus .38). Family members with only some high school education (0.38) had lower implicit attitudes than family members with high school degrees (0.42), some college or an associate degree (0.45), a bachelor's degree (0.43), some graduate school (0.43), or a graduate or advanced degree (0.41). People who identified as slightly liberal (0.34), modernly liberal (0.32), and strongly liberal (0.25) had significantly lower implicit negative attitudes than people who identified as strongly conservative (0.38). People who identified as strongly religious (0.35) had significantly lower implicit negative attitudes than people who identified as not at all religious (0.38). The later the family member participated in the study, the lower the implicit negative attitudes they had. For example, someone who participated in 2006 was expected to score 0.38, whereas someone who participated in 2016 was expected to score 0.35.

Discussion

Family members of people with disabilities have unique relationships to and with disability. While they may work to combat negative disability attitudes, they may also be subject to them and reinforce them. For these reasons, the aim of this study was to explore the explicit and implicit attitudes toward people with disabilities by family members of persons with disabilities.

One of the findings from this study was the large difference between people's explicit – conscious – attitudes towards people with disabilities, and their implicit – unconscious – ones. Most family members of people with disabilities explicitly reported having no negative attitudes, yet, implicitly, frequently had negative attitudes towards people with disabilities. There are a few potential reasons for these large discrepancies. First, as today ableism often operate subtly and unconsciously, people may not be aware that they hold negative attitudes (Amodio & Mendoza, 2011; Antonak & Livneh, 2000), and, therefore, may not think to report them. In these instances, they may also be unable to recognize the effects of their negative attitudes, because they are unaware they are prejudiced in the first place.

Implicit biases may also reflect internalization of societal views of, and values toward, people with disabilities. Ableism is embedded within systems and structures (Hahn, 2005; Llewellyn & Hogan, 2000; Longmore, 2003), and, as such, may not be recognizable to the majority of people as views they have internalized, or even problematic. For example, people with disabilities are often pitied due to stereotypes about their abilities and lower expectations for performance. As a result, people tend to exaggerate people with disabilities' inabilities and disadvantages, and treat them with paternalism accordingly (Susman, 1994).

These large discrepancies between explicit and implicit attitudes may also relate to participants giving explicit responses that they deem more socially acceptable. As people with disabilities are often portrayed as warm, pitiable, and vulnerable, it may result in people concealing their biases (Amodio & Mendoza, 2011; Antonak & Livneh, 2000).

For these reasons, it is critical that attitude research continue to explore both explicit *and* implicit attitudes of groups, including family members. In fact, instead of questioning “which level represents a ... person's ‘true’... attitude,” Dovidio (2001) suggests, focus should be on

questioning “which aspect of the attitude better predicts which type of behavior?” as both represent ‘true’ aspects of attitudes (p. 840).

Our findings also revealed family members’ implicit negative attitudes increased with age. This may be due to the fact that younger people grew up with the Americans with Disabilities Act and were more likely to have more people with disabilities integrated into their classrooms, communities, and workplaces. These findings may also be attributed to the fact that as family caregivers age, it is often harder for them to support their family member with disabilities. Moreover, siblings are also more likely to take on more formal caregiving roles later in life which could lead to increased stress and pressure (Heller & Kramer, 2009; Seltzer, Greenberg, Orsmond, & Lounds, 2005). It is also important to note that older adults’ negative attitudes go against their own self-interest as they are more likely to acquire disabilities as they age (Ory, Hoffman, Hawkins, Sanner, & Mockenhaupt, 2003; Smeeding, Butler, & Schaber, 2000). However, ageism may make older adults want to disassociate from people with disabilities and lead to less support as a result. More research should explore the relationship between implicit attitudes and family member age to tease out these complicated relationships.

People of color self-reported having slightly more explicitly negative attitudes than White people, however, unconsciously most family members of color actually had less implicit negative attitudes than White people. These findings may suggest family members of color were slightly more in-touch with their attitudes than White family members. Or it may be that White family members made a more of a conscious attempt to avoid looking prejudiced on the self-report measure. More research is needed to explore these discrepancies. However, it should be noted that although there were statistical differences between races, all groups still slightly or moderately preferred nondisabled people implicitly.

Family members who had close friends or acquaintances with disabilities had less explicit and implicit negative attitudes than family members without close friends or acquaintances with disabilities. Moreover, family members who had disabilities themselves had less explicit and implicit negative attitudes than nondisabled family members. However, even family members with disabilities moderately preferred nondisabled people, indicating the internalization of negative stereotype and attitudes towards disability.

Findings also revealed, women family members had lower explicit and implicit negative attitudes than family members who were men. This aligns with previous research that has found women tend to feel more favorably toward people with disabilities than men, and have more empathy for people with disabilities ((Friedman & Awsumb, in press; Hirschberger, Florian, & Mikulincer, 2005).

Although people with higher levels of education self-reported having less negative attitudes than people with less than a high school degree, implicitly the inverse was true – they had more implicit negative attitudes than people with less than a high school degree. This may be due to people with more education wanting to not reveal their attitudes on the explicit self-report. Or there may also be interactions with other variables, such as the age of participants or their field of employment which results in higher implicit scores. More research is necessary to explore this relationship.

People who identified as liberal had less explicit and implicit negative attitudes than people who identified as strongly conservative. This finding parallels previous research that has found a relationship between political orientation and ableism (Dovidio & Gaertner, 2004; Dovidio, Gaertner, Anastasio, & Sanitioso, 1992; Friedman, 2017; Henry & Sears, 2002; Son Hing et al., 2008). However, it should be noted that although liberals had lower explicit and

implicit attitudes, liberals were not free from negative attitudes either, and still held preferences for nondisabled people unconsciously.

We also examined the year of participation as a proxy for time. Findings revealed as time went on, people were expected to have lower explicit and implicit negative attitudes. However, it should be noted that regardless of the year of participation, family members still reported having no explicit preference for people with or without disabilities, yet still had moderate implicit negative attitudes. Similarly, although there were differences across all the groups we explored, most groups still fell within the categories of no explicit preference but moderate implicit preference for nondisabled people. Although problematic, this finding is not uncommon. In fact, Nosek et al.'s (2007) study of 2.5 million people (2000-2006) found that across a wide range of social groups, explicit and implicit negative attitudes was strongest against disability.

The fact that family members have implicit disability negative attitudes is likely in part because ableism is very prominent, and implicit attitudes are connected to internalized values and normal cognitive processes which help people perceive the world (Abberley, 1987; Barnes, 1997; Baynton, 2001; Dovidio & Gaertner, 2004; Gaertner, Dovidio, Nier, & Hodson, 2005; Keller & Galgay, 2010; Linton, 1998; Shakespeare, 1996). Therefore, not only is it not enough to introduce mechanisms to reduce non-family members' implicit attitudes, there must be more work to determine how to reduce family members' implicit negative attitudes as well. Moreover, it is also important to recognize that despite familial ties, family members of people with disabilities are not necessarily attitude-neutral as they may be perceived. Instead, family member's relationships, roles, and decisions are likely influenced by implicit attitudes. Although they may have the best intentions for their loved one with disabilities, their decisions may be influenced by their implicit attitudes, which may be problematic given family members often are

the decision-making authority on behalf of their child with disabilities, or even adult with whom they hold guardianship. Not to criticize families or imply they are intentionally doing harm to their loved one, rather, these findings suggest the need to also recognize the voices and lived experiences of people with disabilities, in addition to family members, such as parents. For example, there has been a movement across the world, and more recently in the United States, to shift from broad sweeping powers of traditional legal guardianship to supported decision making, a least-restrictive guardianship model which creates assisted opportunities for people with disabilities to exercise legal decision-making capacity (Gooding, 2013; Salzman, 2011; VanPuymbrouck, 2017). Supported decision making is considered “a pragmatic approach to legal determinations concerning personhood” of people with disabilities, which honors self-determination and empowerment (VanPuymbrouck, 2017, p. 3; Gooding, 2013; Kohn, Blumenthal, & Campbell, 2012).

As family members’ implicit attitudes are also a reflection of a larger and more complex societal problem, more work is also necessary to reduce systemic ableism, including ‘positive’ attitudes about pity and warmth (Campbell, Gilmore, & Cuskelly, 2003; Harris & Fiske, 2007; Stern, Dumont, Mullennix, & Winters, 2007) that can actually reinforce, rather than interrupt, stereotypes of people with disabilities . Although there is little research about intervention techniques for implicit ableism, social psychology research on implicit racism suggest in order to reduce bias, focus has to be on “redirecting the forces to produce more harmonious intergroup relations” rather than eliminating these processes (Gaertner et al., 2005, p. 385). Doing so changes the motivation from ‘avoid wrongdoing’ to “do what is right” (Gaertner & Dovidio, 2005, p. 633). More research is needed to determine if similar techniques are applicable to, or useful for, reducing implicit ableism.

Limitations

When interpreting our findings, it is important to note a number of limitations. First, it should be noted that people volunteered to participate in the DA-IAT. As a result, there is a chance of selection bias. The majority of the participants were women and White. It should also be noted that this was a secondary data analysis; as a result, we did not have the ability to add additional variables. For example, we were not able to differentiate between different types of family relationships. We were also not able to determine what types of disabilities participants' family members had or the severity of their impairments, and if there were differences in attitudes related to different disabilities. Finally, it should also be noted that although significant, our regression models of correlates only predicted a very small proportion of explicit and implicit attitudes; thus, more work is necessary to determine other factors that may impact family members' disability attitudes.

Conclusion

Ableism is extremely prominent (Abberley, 1987; Barnes, 1997; Baynton, 2001; Keller & Galgay, 2010; Linton, 1998; Shakespeare, 1996). Findings from our study suggest that more work is necessary to reduce prominent and systemic negative attitudes about disability.

Fortunately, Rapp and Ginsburg (2001) suggest,

in the United States, in particular, public representations of the connections (and disconnections) of [people with disabilities] and their families across embodied difference have helped to introduce a sense of public intimacy that, we argue, is crucial to redeeming the [American's with Disabilities Act] promissory note of a polity 'beyond ramps.' (p. 534)

However, the burden to create this change should not be placed on families or people with disabilities alone, instead, we must all work to reduce this dominant form of social oppression in systems and structures, mainstream portrayals, and everyday interactions.

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Table 1

Demographics (n = 180,701)

	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>
Age (<i>n</i> = 164,980)			29.36	13.00
Sex (<i>n</i> = 166,706)				
Female	127,237	76.3%		
Male	39,469	23.7%		
Race (<i>n</i> = 145,303)				
White (including Hispanic)	107,038	73.7%		
Black	10,254	7.1%		
Latinx	6,494	4.5%		
East Asian	2,466	1.7%		
South Asian	1,970	1.4%		
Indigenous American	925	0.6%		
Native Hawaiian or other Pacific Islander	670	0.5%		
More than one race	14,016	9.6%		
Other	1,470	1.0%		
Disability status (<i>n</i> = 179,518)				
Nondisabled	141,557	78.9%		
Person with disabilities	37,961	21.1%		
Close friend or acquaintance with disabilities (<i>n</i> = 116,629)				
Yes	71,161	61.0%		
No	45,468	39.0%		
Education level (<i>n</i> = 160,707)				
Some high school	25,548	15.9%		
High school graduate	13,144	8.2%		
Some college or associate degree	63,558	39.5%		
Bachelor's degree	25,777	16.0%		
Some graduate school	16,255	10.1%		
Graduate or advanced degree	26,486	16.5%		
Political orientation (<i>n</i> = 162,816)				
Strongly conservative	5,580	3.4%		
Moderately conservative	17,040	10.5%		
Slightly conservative	13,594	8.3%		
Neutral	54,977	33.8%		
Slightly liberal	16,743	10.3%		
Moderately liberal	34,570	21.2%		
Strongly liberal	20,310	12.5%		
Religiosity (<i>n</i> = 140,711)				
Not at all religious	29,860	21.2%		

Slightly religious	43,854	31.2%
Moderately religious	45,888	32.6%
Strongly religious	21,109	15.0%

Table 2
Linear Regression Model Coefficients

Variable	Model			
	Explicit attitudes		Implicit attitudes	
	Coefficient	β	Coefficient	β
Constant	4.76		.38	
Age (in years)	-0.0001	-0.002	.005***	0.14
Female (ref: Male)	-.19***	-0.08	-.10***	-0.09
Race (ref: White)				
Black	.14***	0.04	.071***	0.04
Latinx	.043*	0.01	-.024**	-0.01
East Asian	.27***	0.03	.022	0.01
South Asian	.14***	0.02	-.034*	-0.01
Indigenous American	-.057	-0.01	-.045*	-0.01
Native Hawaiian or other Pacific Islander	.19***	0.01	.024	0.004
More than one race	.025*	0.01	-.045***	-0.03
Other	-.002	-0.0002	-.016	-0.003
Nondisabled (ref: Person with disabilities)	.11***	0.05	.067***	0.06
Friend/acquaintance: Yes (ref: No)	-.18***	-0.10	-.042***	-0.05
Education level (ref: less than high school)				
High school graduate	-.052**	-0.01	.035***	0.02
Some college or associate degree	-.10***	-0.06	.065***	0.07
Bachelor's degree	-.068***	-0.03	.054***	0.04
Some graduate school	-.065***	-0.02	.052***	0.04
Graduate or advanced degree	-.032***	-0.01	.027***	0.02
Political orientation (ref: strongly conservative)				
Moderately conservative	-.013	-0.005	-.002	-0.001
Slightly conservative	-.043*	-0.01	-.017	-0.01
Neutral	-.165***	-0.09	-.006	-0.01
Slightly liberal	-.060**	-0.02	-.041***	-0.03
Moderately liberal	-.085***	-0.04	-.059***	-0.05
Strongly liberal	-.174***	-0.05	-.13***	-0.07
Religiosity (ref: not at all religious)				
Slightly religious	-.008	-0.004	-.001	-0.001
Moderately religious	-.043***	-0.02	-0.0003	-0.0004
Strongly religious	-.084***	-0.04	-.027***	-0.02
Year of participation	-.013***	-0.04	-.003***	-0.02

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

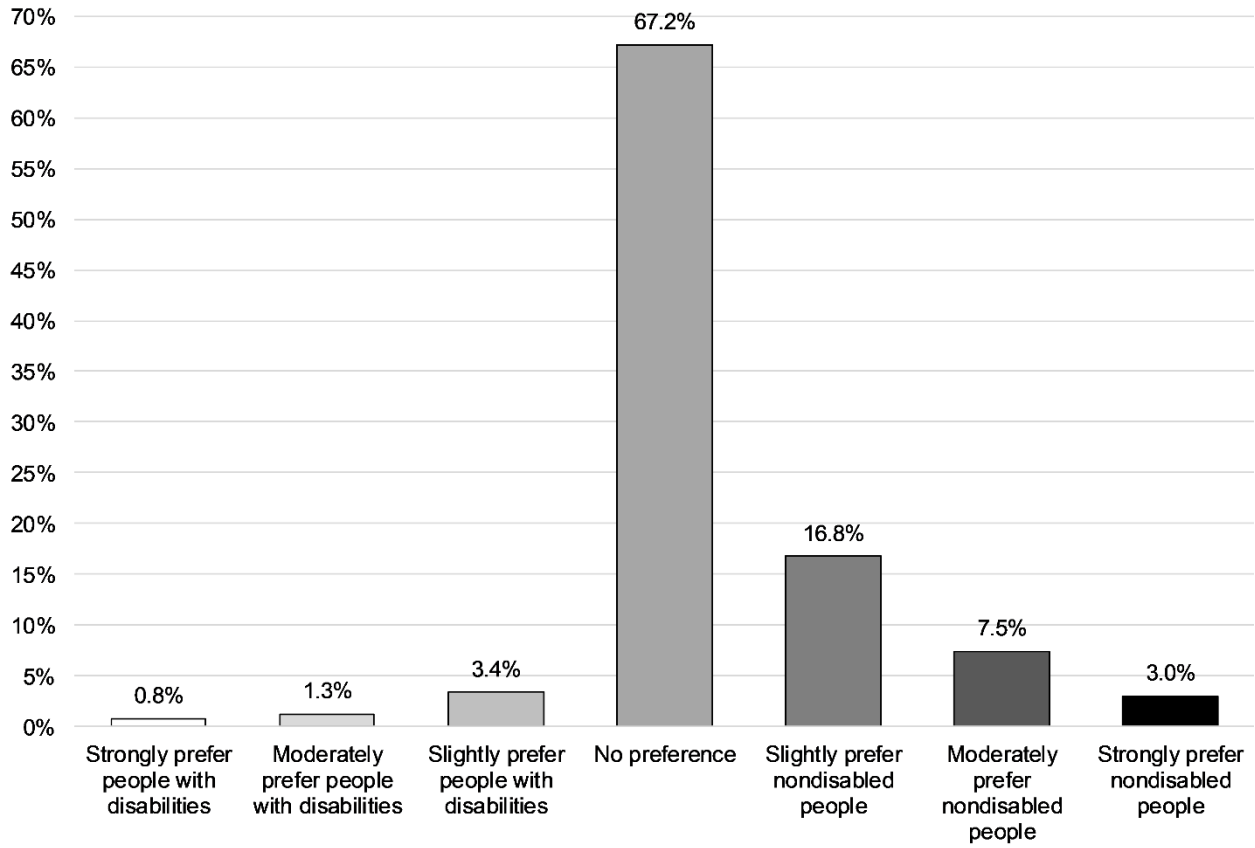


Figure 1. Explicit attitudes of family members.

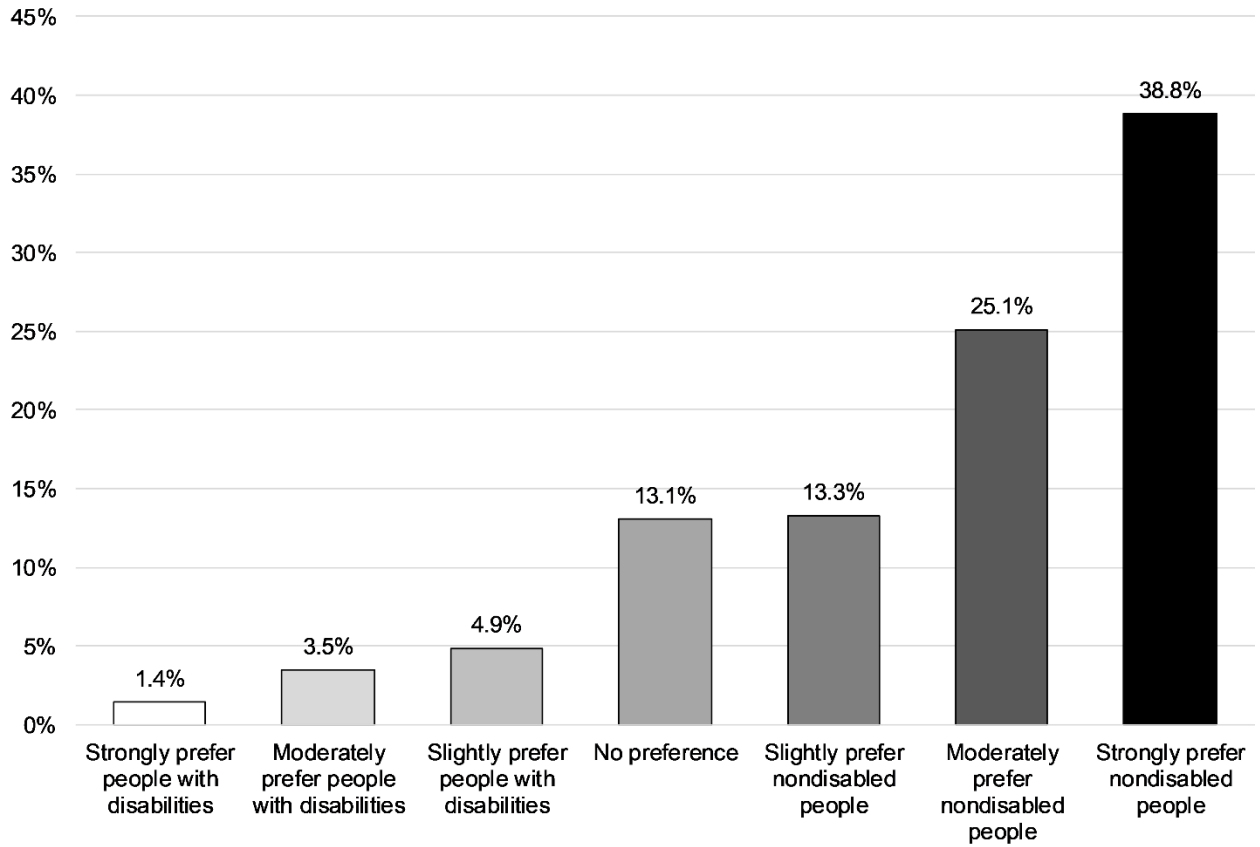


Figure 2. Implicit attitudes of family members.