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## *Attitudes of College Students Toward People with Disabilities*

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*Abstract - The current study sought to explore attitudinal differences in college students toward people with disabilities (PWD) based on their demographic backgrounds and levels of prior contact. Participants were 311 undergraduate and graduate students at a large public university in the Midwest. Using the Attitudes Towards Disabled Persons Scale, Form-O (Yuker & Block, 1986) and the Contact with Disabled Persons Scale (Yuker & Hurley, 1987), a moderate positive correlation between attitudes and levels of contact was found ( $r = .302, p < .001$ ). Significant differences in the mean scores of the ATDP were observed for different demographic groups. A subsequent ANCOVA indicated that levels of prior contact were influential on attitudes towards PWD. Implications for rehabilitation practice and future research are discussed.*

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The passage of the 1990 Americans with Disabilities Act (ADA) has created opportunities in education, employment and leisure for people with disabilities (PWD); however, negative societal perceptions of PWD continue to linger (Corrigan, 2004; Olkin, 1999). Attitude is "an idea charged with emotion which predisposes a class of actions to a particular class of social situations" (Triandis, 1971, p. 9). Preferential hiring in the workplace, interpersonal aversion, and differential perspectives of a pitying nature are some of the commonly observed examples of negative social attitudes (Evans, 1976). Every human possesses an array of attributes and characteristics that are unique to him or herself. While some traits are considered central to individual identity, others are peripheral. First impressions are, therefore, arbitrarily formed when individual traits such as gentleness, aloofness, and disability are filtered through the lens of the observer. Consequently, PWD are often considered deviant from people without disabilities (PWOD) because they fail to fit the description of normalcy construed by beauty, attractiveness, and able-bodiedness.

When perceived as a central characteristic, being disabled tends to eclipse an individual's other personal characteristics. In other words, when viewed as the sole representation of an individual, disability inadvertently projects an undesirable image that overshadows all other characteristics. Thus, the false notion of disability based on inferences to misunderstanding and myths further renders to the creation of erroneous stereotypes about PWD. On the

contrary, if one's central characteristic is seen as pleasant and commendable, this positive view will spread to other personal characteristics (Vash & Crewe, 2003). Oftentimes, PWOD may perceive a disability as more severe or negative than the disability is in actuality. As such, PWD may be seen as deviant, dangerous, aggressive, or worthless with tragic lives (Olkin, 1999). Inaccurate portrayals, for example, of dangerousness, incompetence, and weakness, subject PWD to the general public's negative emotional reactions (e.g., anger, fear), and discrimination (e.g., restricting work and housing opportunities) (Corrigan, 2004). Because human beings are gregarious by nature, contacts between PWD and PWOD in a society are inevitable. However, disparities in power are magnified when having membership in the dominant group could mean having the right to enjoy certain privileges that usually preclude the oppressed group. Put simply, if a particular group is collectively labeled unfavorably by society at large, an individual in that group will likely encounter hindrances imposed on them as he or she strives for personal goals and acceptance into society (Smart, 2008). Rehabilitation professionals need to be aware that prejudicial and discriminatory social environments could have negative impacts on the well being of PWD (Livneh, 2001).

Researchers have used various demographic characteristics to explicate attitudes toward PWD with mixed results. Although Patrick (1987) and Lyons (1991) reported the sex of a person was not a significant factor in determining individual acceptance of PWD, more recent studies by

Chen, Brodwin, Cardoso, and Chan (2002), Donnell, Alston, Hampton, and Bell (1999), and Hampton and Xiao (2007) have proven otherwise. These researchers pointed out that women in the United States and overseas consistently display more favorable attitudes toward PWD. Moreover, age group has been correlated with acceptance of PWD. Royal and Roberts (1987) found 6th and 12th grade level students seemed to display friendlier attitudes toward PWD, compared to college students, 3rd, and 9th grade level students.

Research suggests that the choice of academic major in college could also be an indicator of acceptance of PWD. In a 1998 study conducted by Hodge, Murata, Kozub, and Jansma, the results revealed that students who majored in recreation and leisure programs reported having a higher level of acceptance of PWD than those in science and education programs. Moreover, college curricula, such as special education, therapeutic recreation, pre-occupational therapy, and pre-physical therapy, which place a heavy emphasis on preparing students to work directly with PWD, are reported to have positive impacts on students' attitudes (Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999; Hampton & Xiao, 2007; Wang, Thomas, Chan, & Cheing, 2003).

The influences of race and culture on the acceptance of disability have been found to be somewhat inconclusive. In a series of studies conducted in the state of Israel, Jewish youths projected less negative attitudes toward PWD than did Palestinian youths (Florian, 1982), which could be partly explained by the culturally-generated deep feelings of embarrassment and shame that Palestinians have had for their family members with disabilities (Florian & Katz, 1983). Interestingly, although Jewish youths living in kibbutz (collective community) expressed far more acceptance of PWD than did Jewish youths living in cities, both groups showed little interest in having intimate relationships with PWD (Florian, Weisel, Kravetz, & Shurka-Zernitsky, 1989).

Several international comparative studies found that persons in the United States are more accepting toward PWD than those in other countries. Before the passage of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Americans already showed more acceptance of PWD than did the Danes and Greeks (Jaques, Linkowski, & Sieka, 1970). Chen and his colleagues (2002) found American college students were more open to the idea of dating and marrying someone with a disability than were their counterparts in Taiwan and Singapore. Buddhists in Southeast Asia believe that a person's disability is retribution for wrongdoings committed in a previous life, so they considered disability a punishment from the divine (Groce & Zola, 1993). This kind of belief is also prevalent among the Chinese who exhibit more unfavorable attitudes toward PWD than do Americans and Europeans (Chan, Lam, Wong, Leung, & Fang, 1988). In a recent study examining attitudes toward PWD between Mexicans and Mexican Americans at the U.S.-Mexico border (Glover-Graf, Blankenship, Sanchez, & Carlson,

2007), Mexican nationals demonstrated less discomfort and less avoidance of disability than did Mexican Americans. However, Mexican Americans were more optimistic about the disability situation and tended to believe that PWD could lead a productive life.

The "pecking order" in the disability community affects how PWD react to different groups of PWD (Corrigan et al., 2000). Smart (2008) posited that the hierarchy of stigma corresponds with aspects of the nature and severity of the disability, as one of the primary societal prejudices and negative attitudes held by the public. For example, people with visible disabilities earn less than their counterparts with invisible disabilities (Dijkstra, 1982). Grand, Bernier, and Strohmer (1982) found that university faculty and staff showed less acceptance of cerebral palsy, compared to blindness, epilepsy, and amputation. In another study, participants were fine with the idea of dating someone who is blind, but not with marrying him or her (Strohmer, Grand, & Purcell, 1984); this sentiment is echoed in a new study by Miller, Chen, Glover-Graf, and Kranz (2009). Undergraduate students indicated more positive attitudes toward amputees than toward those with chronic depression or AIDS (Esses & Beaufoy, 1994). When asked about their willingness to interact with PWD in three social contexts, namely dating, marriage, and work, 1,013 undergraduate students reported that they were most comfortable in the last setting (Hergenrath & Rhodes, 2007). In regard to the types of disability, college students preferred least to interact with people who have mental disabilities or mental retardation (Gordon, Tantillo, Feldman, & Perrone, 2004). However, Granello and Wheaton (2001) found that undergraduate students demonstrated somewhat more positive attitudes toward persons with mental illnesses than toward those with physical disabilities.

Level of prior contact with PWD has been used as a predictor variable in several studies. In a study of health care professionals' attitudes toward PWD, Au and Man (2006) pointed out a greater level of contact was a factor in why physiotherapists, occupational therapists, social workers, and nurses showed more positive attitudes than preservice students in their respective fields. However, an earlier study by Olkin and Howson (1994) did not corroborate the assumption. In fact rehabilitation professionals working in disability-related settings tended to demonstrate rather negative attitudes and a low degree of acceptance towards certain disabilities, such as cerebral palsy, facial disfigurement, stunted growth, multiple sclerosis, and quadriplegia.

Although close physical proximity to PWD may be a determinant of persons' attitudes, past research revealed that the nature of interaction might matter more. Close physical proximity to PWD in an equal working partnership can assuage unwarranted fears. Students without disabilities reported they had developed more favorable attitudes toward their peers with disabilities after presenting a project for class assignment with them (Meyer, Gouvier, Duke, & Advokat, 2001). However, individuals who had casual experiences with PWD, such as having

neighbors with developmental disabilities, did not have more positive attitudes than those with other types of experiences (Hampton & Xiao, 2007).

### *Purpose of the Study*

The current study sought to explore further the attitudinal differences of college students toward PWD, based on their demographic characteristics and level of contact. The following research questions were formulated to guide the study: Are there differences in attitudes toward PWD among individuals of different demographic backgrounds? Does the level of prior contact with PWD influence individuals' attitudes toward them?

## **Method**

### *Participants*

Participants for a convenience sample were recruited from a large public university in the Midwest. Of the 337 students who took part in the survey, 311 (92.3%) completed the questionnaire. Participants were asked to self-identify their racial ethnicity. Most, 84.2%, identified themselves as White, 9.3% as Black, 5.1% as Asian, and 0.3% as Hispanic. More than two-thirds (68.9%) of the participants were female and the remainder were male (31.1%). The majority of participants were between the ages of 18 and 20 (60.5%) and 38.8% of them were over age 21. Moreover, 2.6% of the participants indicated that they had a disability and 97.4% did not have any disabilities. In terms of class standing, 5.8% were freshmen, 33.1% were sophomores, 22.8% were juniors, 18% were seniors, 4.5% were pursuing a master's degree, and 5.1% were doctoral students. Over one fourth (27.4%) of the participants majored in education, 29.3% in social science/humanities, 17.9% in management/business, and 25.4% in engineering science/medicine. Nearly 95% of the participants were heterosexual and 4.5% were gay or lesbian.

### *Instruments*

*Attitudes Toward Disabled Persons Scale, Form-O* (ATDP-O; Yunker & Block, 1986). The ATDP-O is a 20-item instrument using a Likert-type scale (+3 = *I agree very much*, +2 = *I agree pretty much*, +1 = *I agree a little*, -1 = *I disagree a little*, -2 = *I disagree pretty much*, -3 = *I disagree very much*) that assesses the extent to which respondents perceived people with disabilities as similar to those without disabilities. A score of 60 was added to the total sum of the 20 items to eliminate negative scores, resulting in a possible range of end scores of 0 to 120. Higher scores indicate more favorable attitudes toward PWD. Yunker and Block described the internal consistency for ATDP-O to be relatively high, ranging from .78 to .81. Test-retest coefficients of the ATDP-O over five-week and four-month intervals were reported to be  $r = .84$  and  $r = .68$ , respectively (Yunker & Block, 1986; Yunker &

Hurley, 1987). For the present sample, the Cronbach's alpha coefficient for the ATDP-O was .76.

*Contact with Disabled Person Scale* (CDP; Yunker & Hurley, 1987). The CDP, designed to measure the frequency of contact and experience a person has had with PWD, consists of 20 items that are rated on a five-point Likert-type scale (1 = *never*, 2 = *once or twice*, 3 = *a few times*, 4 = *often*, 5 = *very often*). Total CDP scores could range from a minimum of 20, indicating a complete lack of contact, to a maximum of 100, indicating frequent contact. Yunker and Hurley (1987) examined the scale's validity by correlating CDP scores with ATDP scores and found the ten correlation coefficients range from -.26 to .40, with a median correlation of .10. Based on past studies, the Cronbach's alpha coefficients have been computed at between .89 and .92 (Pruett, Lee, Chan, Wang, & Lane, 2008; Yunker & Hurley, 1987). The Cronbach's alpha coefficient for the current study was .93.

### *Procedure*

The first author obtained permission from teaching assistants and instructors in various departments and faculty advisors for student organizations to recruit research participants. Flyers with instructions for completing the survey at a Web site approved by the university IRB were distributed to them. Factorial ANOVA and ANCOVA were performed to answer the research questions.

## **Results**

The first research question examined demographic variables that might influence the attitudes of individuals toward PWD. A 2 (sex: male and female) x 2 (race: White and non White) x 2 (level of education: undergraduate and graduate) x 4 (academic major: education, social science/humanities, engineering science/medicine, and management/business) factorial analysis of variance among participants was carried out to compare their attitude scores. A significant main effect for sex was found,  $F(1, 303) = 20.75$ ,  $p < .001$ , partial  $\eta^2 = .069$ . Females showed higher attitude scores ( $M = 84.00$ ,  $SD = 11.56$ ) than males ( $M = 73.72$ ,  $SD = 14.57$ ). Due to the small sample of ethnic minority participants, Asian, Black and Hispanic participants were collapsed into one group to compare the mean score of non White participants ( $n = 46$ ) to White participants ( $n = 262$ ). A significant main effect for race was found,  $F(1, 303) = 15.08$ ,  $p < .001$ , partial  $\eta^2 = .051$ . The mean score of White participants was 82.40 ( $SD = 11.98$ ) and the mean score of non White participants was 72.09 ( $SD = 17.66$ ). For the level of education, the main effect was not statistically significant,  $F(1, 303) = .25$ ,  $p = .62$ , partial  $\eta^2 = .001$ . The result indicated that the mean score of graduate students ( $M = 88.90$ ,  $SD = 12.94$ ) was not significantly greater than the mean score of undergraduate students ( $M = 80.10$ ,  $SD = 13.20$ ). Finally, a nonsignificant main effect for academic majors was found,  $F(1, 303) =$

1.07,  $p = .36$ , partial  $\eta^2 = .011$ . The mean scores of all majors were education ( $M = 87.60$ ,  $SD = 11.81$ ), social science/humanities ( $M = 81.09$ ,  $SD = 11.59$ ), engineering science/medicine ( $M = 77.24$ ,  $SD = 14.99$ ), and management/business ( $M = 75.09$ ,  $SD = 12.43$ ).

The second research question examined whether the level of contact with PWD influenced participants' acceptance of PWD. A Pearson correlation analysis indicated a moderate positive relationship between the total scores of the ATDP and the total score of the CDP,  $r(311) = .302$ ,  $p < .001$ . A 2 (sex: male and female)  $\times$  2 (race: White and non White) two-way ANCOVA test was carried out to examine the effects of the demographic groups on attitude, controlling for the level of prior contact. The level of prior contact was significantly related to attitudes,  $F(1, 307) = 20.38$ ,  $p < .001$ , partial  $\eta^2 = .063$ . The main effect for sex was significant,  $F(1, 307) = 45.54$ ,  $p < .001$ , partial  $\eta^2 = .131$ , with female respondents showing significantly more positive attitudes ( $M = 84.00$ ,  $SD = 11.56$ ) than male respondents ( $M = 73.72$ ,  $SD = 14.57$ ). The main effect for race was significant,  $F(1, 307) = 27.99$ ,  $p < .001$ , partial  $\eta^2 = .085$ , with White respondent showing significantly more positive attitudes ( $M = 82.40$ ,  $SD = 11.98$ ) than non White respondents ( $M = 72.09$ ,  $SD = 17.66$ ).

## Discussion

Consistent with previous studies (e.g., Au & Man, 2006; Folsom-Meek et al., 1999; Granello & Wheaton, 2001; Hergenrather & Rhodes, 2007; Yucker & Hurley, 1987), the current study found positive relationships between individuals' attitudes towards PWD and their levels of prior contact with PWD. The levels of prior contact were influential on attitudes toward PWD. Due to advancements in medical care, the aging of the population, and a more accurate count of PWD, the proportion of PWD in American society has been increasing and has grown more visible than ever before in social settings (Smart, 2008).

Beliefs and information about disability are critical factors in forming attitudes toward PWD. Beliefs about PWD can be formed by information derived from social or interpersonal interactions. Social contact appears to engender positive attitudes towards PWD if it occurs in personal, intimate, and cooperative situations. In these situations, both people with and without disabilities create mutual relationships. An understanding of disability based on information may be also influential on the attitudes toward PWD. Change of views on PWD may only be possible if PWD acquire accurate information regarding disability through meaningful social contacts (Olkin, 1999; Smart, 2008).

The current study supported the previous findings that females showed more positive attitudes than males toward PWD (Chen et al., 2002; Donnell et al., 1999). One possible explanation is they have been socialized into nurturing and caretaking roles (Hyde, 2006). These gender-role expectations bound by traditions are especially evident when females feel more comfortable around PWD

and less discomfort with certain disabilities than males, such as HIV infection, facial disfigurement, multiple sclerosis, and muscular dystrophy (Jones & Stone, 1995). Because females are involuntarily subjugated to attitudes implying male superiority in many societies, they may be able to relate to the similar painful experiences of blatant and subtle discrimination or prejudice PWD encounter (Fonosch & Schwab, 1981). Females often have a propensity to exhibit more empathetic feelings toward others and have more nurturing and caretaking characteristics than males. Such caretaking and helping behaviors in females seem to reflect the long-term bonding and mutual trust between mothers and their children (Hyde, 2006).

The fact that White participants in the current study exhibited far more acceptance of PWD than their non White counterparts deserves discussion. The concept of normalcy is shaped largely by culture, ethnic norms, and religious beliefs (Smart, 2008). The reluctance of Black youths with depression to seek mental health counseling is especially great in the community where people would see them as lacking mental toughness and acuity in cognition (Lindsey et al., 2006). Contrary to the Christian, Jewish, and Muslim beliefs of an eternal afterlife, Asian Buddhist scriptures teach that a disability is punishment meted out by God for transgressions that individuals have committed in their previous lives. Disability, therefore, brings strong shame to families in the close-knit Asian culture. The evidence of unfavorable attitudes is demonstrated in the greater reluctance of Asians to consider dating and marrying a PWD than a White person (Chen et al., 2002).

The current study fails to support the notion that levels of educational attainment correlate positively with perceptions of PWD. Although educational training, workshops, and seminars related to disability issues can help to dispel the misconceptions about disability (Brostrand, 2006; Hunt & Hunt, 2004), high levels of education do not necessarily cultivate favorable attitudes toward PWD. The vastly popular eugenics movement in Europe and North America in early twentieth century was led and supported by some of the most highly educated figures during that time, including Francis Galton, Winston Churchill, Woodrow Wilson, and Theodore Roosevelt. Their desire to create a perfect human species might have unknowingly trumped the rights of PWD to live.

## Limitations

There are a few limitations in this study that must be discussed. A convenience sampling method was used to collect the data. Research participants were mostly young White college students whose attitudes and knowledge of disabilities may not necessarily represent those of more ethnically diverse groups. External validity and generalizability may be weak due to the research locale of a college town in the Midwest. Furthermore, the accuracy and reliability of self-reported knowledge and attitudes are subjected to the participants' inclinations to respond in a socially desirable manner. The use of a web-based online

survey might result in obtaining a biased sample, as it inadvertently excludes prospective participants who do not have access to the Internet.

### Implications

Attitudinal barriers, products of fear, and negative societal perceptions of disability hinder full integration of PWD into their communities. Exclusion from employment opportunities, being shunned from the pursuit of romantic relationships, and a prohibition from engaging in the self-determination process can adversely impact the psychological and physical well-beings of PWD. In order to assist PWD to attain their rehabilitation goals, rehabilitation professionals must display genuine empathy and be understanding of the obstacles facing their clients (Livneh, 2001). Improvement in the quality of life for PWD will not be feasible unless society is free of prejudice and discrimination. Rehabilitation professionals, therefore, have moral and ethical responsibilities to play an instrumental role in helping PWD become full-status citizens. By eradicating negative labels bestowed on PWD, rehabilitation professionals can deliver more effective rehabilitation services. As the current study indicates, level of prior contact have clear bearings on developing positive attitudinal views toward PWD, therefore rehabilitation professionals need to bear in mind that the context of interaction between PWD and their nondisabled counterparts has to be egalitarian for full acceptance of PWD to occur (Smart, 2008).

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