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ATTITUDINAL BELIEFS TOWARDS INDIVIDUALS WITH DISABILITIES AT A METROPOLITAN UNIVERSITY: INSIGHTS AND IMPLICATIONS FOR KINESIOLOGY PROFESSIONALS

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Berndt, A., et al. The primary aim of this study was to examine the attitudinal beliefs of college students, faculty, and staff at a public metropolitan university toward individuals with disabilities. This cross-sectional study utilized the Interactions with Disabled Persons Scale to assess current perceptions of individuals with disabilities of students, faculty, and staff (n=138). Independent *t*-tests and an ANOVA were utilized to examine differences between students and faculty/staff. Results revealed males, individuals with some experience in coursework related to individuals with disabilities, and those with higher volumes of contact with individuals with disabilities displayed lower scores on the IDP. Additional research utilizing a larger sample size is needed to confirm these findings. Importantly, this paper provides evidence of the need for efforts by kinesiology educators to provide curriculum and experiential activities that increase exposure to individuals with disabilities in order to heighten knowledge, lessen discomfort, and ultimately improve the experiences and outcomes of individuals with a disability at metropolitan universities.

Key Words: student, faculty, staff, university, individuals with disabilities

INTRODUCTION

A paradigm shift toward inclusion of those with disabilities has been underway for the past few decades (Staniland, 2010). Resistance remains, however, as ongoing prejudices and discrimination toward individuals with disabilities pose barriers to their opportunities for employment, housing, health care, and positive social interactions (Corrigan & Watson, 2002; Jahoda & Markova, 2004; Lyubykh et al., 2020; McDonell & Samman, 2020; Metzel & Walker, 2001; Odom et al., 2011). Predictably, increased enrollment in higher education institutions coincides with increasing numbers of students who self-identify as having a disability (National Center for Education Statistics [NCES], 2014; 2019). Although underreporting is a concern (Leake, 2015), students with disabilities made up 10.9% (2,243,000) of the total student population in post-secondary education in 2007-2008, while in a 2018 report 9.4% of students seeking services at university and college counseling centers identify as having a disability (Center for Collegiate Mental Health [CCMH], 2019). In 2015-2016, post-secondary students with disabilities grew to 19.4% (NCES, 2019). The increase in post-secondary education has also led to better outcomes as those individuals with disabilities with college degrees have higher employment rates, satisfaction, and stability than individuals with a disability without post-secondary degrees (U.S. Bureau of Labor Statistics, 2015; Madaus, 2006; Madaus, Zhao, & Ruban, 2008; Zafft Hart, & Zimbrich, 2004).

Recent research suggests that while higher education institutions have made strides in understanding the barriers posed to minority or marginalized student populations relative to access, retention, and degree completion, the inverse is true for college students with disabilities (Leake & Stodden, 2014). Earlier detection and diagnosis of

students who self-identify as having a disability has led to increased services and opportunities for individuals to attend post-secondary educational institutions (NCES, 2014). Yet there remains limited understanding regarding how post-secondary students without disabilities are- or are not- affected by their interactions with peers with disabilities as well as the attitudes of faculty and staff (Leake & Stodden, 2015). To do so requires a better understanding of the attitudes held by higher education students and faculty without disabilities toward college students who self-identify as having a disability.

According to the International Classification of Functioning, Disability, and Health, a disability may include impairments, activity limitation, and restrict participation in activities (World Health Organization [WHO], 2018). Research indicates that attitudes toward individuals with disabilities often differ across disability type as well as gender, age, and education. For example, women have been found to have more positive perceptions and/or attitudes towards individuals with disabilities than men (Morin et al., 2008; Staniland, 2010), while older individuals (≥65) displayed higher degrees of social distance or unwillingness to interact with those with intellectual disabilities (Morin et al., 2008; Ouellette-Kuntz et al., 2009). Hesitancy to interact with individuals who have a disability was also found among younger, college-age individuals. For example, Aiden and McCarthy (2014) found that 21% of individuals (18–34-year-olds) avoided talking to an individual with a disability based on their uncertainly about how to effectively communicate with a person with a disability.

Educational level has also been linked with attitudes towards individuals with disabilities (Morin et al., 2008; Slater et al., 2020). For example, research has found those with a university education were more likely to accept and support the rights of individuals with disabilities (Slater et al., 2020). Further, Ouellette-Kuntz et al. (2009) found individuals with a low (high school or less) or medium (community college or trade school) education level were significantly less likely to engage with a person with an intellectual disability than those holding post-secondary and advanced degrees. The hesitancy toward personal engagement with individuals with disabilities found in these key demographic variables, especially age and education, were key factors in our decision to better understand potential links between social distance and attitudes toward individuals with disabilities among college students.

Another factor related to improved attitudes towards individuals with disabilities is ones' degree of previous contact (Morin et al., 2008; Ouellette-Kuntz et al., 2008; Szumski et al., 2020). For example, individuals who knew or were related to an individual with intellectual disabilities were reported to be more comfortable with these individuals (Morin et al., 2008; Ouellette-Kuntz et al., 2008; Santiago et al., 2020). Santiago et al. (2020) found that kinesiology students who had not had previous experience interacting with individuals with disabilities reported anxiety prior to interacting with such individuals. Similarly, individuals who have had quality contact hours, defined as time spent with the population in varying degrees of intimacy, show more positive attitudes towards individuals with disabilities (An & Decker, 2019; Block & Rizzo, 1995; Gething, 1991; Morin et al., 2008; Wright, 1980). Similar findings have been found among educators. Block and Rizzo (1995) found physical educators felt more competent and held more favorable attitudes toward individuals with profound and severe disabilities when they had more quality direct contact and teaching time with individuals with severe and profound disabilities.

Research also indicates that formal instruction and/or practicum experiences with individuals with disabilities can improve attitudes toward individuals with disabilities (Block & Rizzo, 1995; Morin et al., 2008). In that vein, Campbell et al. (2003) found student teachers had less discomfort interacting with individuals with disabilities following a course that included specialized instruction and practicum experiences with individuals with disabilities (Campbell et al., 2003; Tait & Purdie, 2000). Further, other studies have found that service-learning experiences have also positively impacted kinesiology students' attitudes towards individuals with disabilities (Roper & Santiago, 2014; Santiago & Roper, 2016; Santiago et al., 2020). These experiences particularly in teacher preparation and adapted physical education courses have been found to provide opportunities for students to gain hands-on meaningful experiences (An & Decker, 2019).

Unfortunately, kinesiology, a field prime for encouraging interaction with individuals with disabilities, has been reported to focus more on able bodied curriculum thus perpetuating negative attitudes towards individuals with disabilities (Narasaki-Jara et al., 2020). Predictably, being the recipient of negative attitudes due to one's disability can have negative implications for college students, as evidenced by studies showing that college students with disabilities are less inclined to seek the academic or personal support they need to be successful (Barnard-Brak et al., 2010; Hong, 2015).

These studies are among the many that underscore the need for increased awareness and understanding of the attitudes of college students, faculty, and staff toward individuals with disabilities. However, it should be noted that among these studies lies a common denominator. That is, these studies each underscore the critical and often implicit roles that one's perception of different disability types and the visibility of the disability play in the attitude as well as emotional and behavioral responses of college students, faculty, and staff. Smart's "hierarchy of stigma" (2016, p. 137), for example, argues that individuals with psychiatric disabilities are the most stigmatized, while individuals with cognitive disabilities experience less stigma. Physical disabilities, by extension, are the least stigmatized. It stands to reason that kinesiology instructors hold similar views and, given their influence over curriculum and classroom environments, may be unknowingly perpetuating these biases within kinesiology curriculums and the discipline at large, an argument supported by the physical ableism found in kinesiology curriculums (Narasaki-Jara et al., 2020). Overall, there is a clear need to broaden awareness surrounding the current attitudes among college students, faculty, and staff toward individuals with all disability types and profiles. To that end, the primary aim of this study is to examine the attitudinal beliefs of college students, faculty, and staff at a public metropolitan university toward individuals with disabilities. The secondary objective is to examine potential differences of attitudinal beliefs based on role in the university, gender, age, amount of direct personal contact with individuals with disabilities, and exposure to appropriate disability-informed post-secondary curriculums.

METHODS

This cross-sectional study was conducted at a public, metropolitan university in the Midwest. The primary instrument used was the Interactions with Disabled Persons Scale (IDP; Gething, 1991). The IDP was developed to measures attitudes based on responses reflecting discomfort levels of participants. This study was approved by a university Institutional Review Board.

Protocol

Inclusion criteria for the study were participants 19 years of age or older (age of majority in the state); a current student, faculty, or staff member at the mid-sized public metropolitan university in the Midwest, and, not identifying as having a disability. Participants were recruited through the university's electronic daily newsletter and direct recruitment by faculty members contacted by the lead author. A short description of the study and a link to the online survey was included in the university's electronic daily newsletter which was sent to all students, faculty, and staff at the university. The research team purposefully decided to not include a definition of disability to gain a better understanding of participants' general thoughts towards individuals with disability. The recruitment advertisement in the electronic newsletter was sent a total of three times. The lead researcher also contacted faculty members to recruit students. Faculty members who agreed to disseminate the survey provided the same description as the newsletter with the electronic link to their students under the caveat that participation was strictly voluntary. Interested participants voluntarily clicked on the link to complete the survey via Qualtrics, an online survey data tool.

The first page of the survey included an explanation of the survey. By proceeding to the next page of the survey, participants indicated their consent to participate in the study. Participants completed a short demographic form to indicate their role in the university (undergraduate, graduate, student, staff, or faculty), gender (male, female, other), age (19, 20-29, 30-39, 40-49, 50-59, 60+), year in school (freshman, sophomore, junior, senior,

graduate), type of relationship or interaction with an individual with a disability (self-identified, immediate family member, extended family member, friend, classmate, no relationship, other), and whether they had taken coursework that provided education on or required contact with individuals with disabilities (Yes, No, Don't know). Data collection occurred May thru October 2018.

Instrument

The mechanism of measure in this study was the IDP (Gething, 1991). The IDP was designed to measure attitudes towards individuals with disabilities, across all disability types (Gething, 1991; Gething & Wheeler, 1992). Further, the IDP has been found to have acceptable test-retest reliability ranging from .51-.81 and high internal consistency with alpha coefficients ranging from .74-.86 (Gething, 1991). Additionally, the scale has shown good construct, concurrent, and content validity (Gething & Wheeler, 1992; Thomas et al., 2003; Wallymahmed et al., 2007). The IDP is a 20-item scale in which participants indicate their aspects of discomfort when interacting with individuals with disabilities (Forlin & Fogarty, 1999). A full list of questions is available in Table 1. Each question has a 6-point Likert scale measure ranging from "I disagree very much" to "I agree very much." To score the IDP Scale, answers have a value number consisting of: (6) I agree very much, (5) I agree somewhat, (4) I agree a little, (3) I disagree a little, (2) I disagree somewhat, and (1) I disagree very much. This is the scoring system for all questions except for numbers 10, 14, and 15 in which the scoring system is reversed. Question 19 was discarded as it does not cluster consistently with other variables on any factor. The highest score achievable is a 114. Higher scores indicate more discomfort toward individuals with disabilities.

Table 1

Interaction with Disabled Persons Scale.

Item	Description
1	It is rewarding when I am able to help.
2	It hurts me when they want to do something and can't.
3	I feel frustrated because I don't know how to help.
4	Contact with a person with a disability reminds me of my own vulnerability.
5	I wonder how I would feel if I had this disability.
6	I feel ignorant about people with disabilities.
7	I am grateful that I do not have such a burden.
8	I try to active normally and ignore the disability.
9	I feel uncomfortable and find it hard to relax.
10	I am aware of the problems that people with disabilities face.
11	I can't help staring at them.
12	I feel unsure because I don't know how to behave.
13	I admire their ability to cope.
14	I don't pity them.
15	After frequent contact, I find I just notice the person not the disability.
16	I feel overwhelmed with discomfort about my lack of disability.
17	I am afraid to look at the person straight in the face.
18	I tend to make contacts only brief and finish them as quickly as possible.
19	I feel better with people with disabilities after I have discussed their disability with them.
20	I dread the thought that I could eventually end up like them.

Data Analysis

The results were imported from Qualtrics into SPSS Version 25 (Armonk, NY). Items were scored following protocol based on the IDP Scale Manual (Gething, 1991). Descriptive analysis determined frequencies of scoring and measures of mean and standard deviations. For dichotomous variables (gender (male or female)), role at the university

(student or faculty/staff), and coursework taken at the university (yes or no), independent t-tests were conducted. For the remaining variables (age, amount of contact) an ANOVA was used. If a significant difference was found, Tukey's honestly significant difference was utilized as a post hoc test of multiple comparisons to determine specific differences between groups.

RESULTS

Approximately 15,431 students and 2,145 faculty/staff were eligible for this study. One-hundred eighty-eight respondents took the survey, although 50 were omitted for not meeting one or more of the qualifications of the study. One individual indicated "other" for gender of which the score was omitted for gender analysis but used on all other categorical correlations. One respondent indicated they were unsure about their amount of contact with individuals with disabilities. This survey was omitted for amount of contact analysis but used in other categorical correlations. Seven individuals indicated they did not know if they had taken a course with curriculum material related to individuals with disabilities and were omitted for coursework data analysis. A total of 138 surveys were used in the final data analysis, indicating a response rate of <1% (Table 2). Of the 138 participants, 84 identified as students (either undergraduate or graduate) and 54 identified as a faculty or staff member. The majority of participants were female students in the 20-29 years of age range. The majority of respondents also reported having daily or weekly contact with someone with a disability and did not have previous coursework addressing individuals with disabilities as a subject matter.

Table 2

Respondent Demographics

		N	%
Role in University		138	
	Faculty/staff	54	38.1
	Students	84	61.9
Gender		138	
	Male	37	26.8
	Female	100	72.5
	Other	1	0.007
Age		138	
	19 Years old	13	9.4
	20-29	72	52.2
	30-39	21	15.2
	40-49	11	8.0
	50-59	12	8.7
	60+	9	6.5
Amount of Contact		137	
	Daily	47	34.3
	Weekly	47	34.3
	At least once a month	29	21.2
	Once every 3 months	6	4.4
	Less than once every 3 months	8	5.8
Coursework		131	
	Yes	56	42.7
	No	75	57.3

Table 3 presents comparisons of the mean IDP scores by comparison categories. Significant differences were found for gender, amount of contact, and coursework. When looking at gender, female scores were higher than male scores suggesting males felt less discomfort towards individuals with disabilities than females. Independent t-test revealed this difference was statistically significant ($F(2,135) = 13.66$, $p < 0.00$).

IDP scores revealed respondents reporting daily contact with individuals with disabilities displayed the lowest scores. Conversely, respondents indicating contact of less than once every three months with a person or persons with a disability displayed the highest scores of any group. ANOVA results indicated a significant difference between groups $F((4,132) = 3.24$, $p < 0.02$). Specifically, post hoc test of multiple comparisons results revealed participants who reported daily contact compared to contact at least once a month had lower scores ($p < 0.02$). No other significant differences were found between any other groups. Finally, individuals who indicated they had taken some coursework related to individuals with disabilities ($M = 69.59$, $SD = 23.72$) as opposed to none ($M = 72.23$, $SD = 17.67$) reported lower scores on the IDP. This difference was revealed to have statistically significant ($F(2,129) = 10.06$, $p < 0.01$) lower IDP scores through an independent t-test. This indicates a lower discomfort level from those who have some deeper knowledge content of individuals with disabilities.

Table 3

Associations between participant characteristics and IDP Score

		Mean (SD)	df	*F*-value	*p*
Gender					
	Male	66.27 (14.91)	135	13.66	0.00
	Female	73.97 (21.63)			
Age					
	19 Years old	75.30 (19.36)	132	1.32	0.26
	20-29	74.57 (20.94)			
	30-39	67.38 (21.28)			
	40-49	70.27 (18.01)			
	50-59	67.50 (21.81)			
	60+	59.44 (14.32)			
Role in University					
	Faculty/staff	73.31 (20.62)	136	0.08	0.78
	Student	68.94 (20.19)			
Amount of Contact					
	Daily	64.74 (19.06)	132	3.24	0.02
	Weekly	71.47 (21.61)			
	At least once a month	79.72 (19.30)			
	Once every three months	72.00 (11.70)			
	Less than once every three months	82.75 (20.96)			
Coursework					
	Yes	69.59 (14.91)	129	10.06	0.00
	No	72.23 (17.68)			

Note. Significant at the $p < 0.05$ level

DISCUSSION

The primary aim of this study was to examine the attitudinal beliefs of college students, faculty, and staff at a public metropolitan university toward individuals with disabilities. In this study, males, participants with more contact as well as those who had coursework related to individuals with disabilities had significantly less discomfort with individuals with disabilities. This study provides important information regarding student, faculty, and staff attitudes towards individuals with disabilities. Even though our results occurred in an age of increased awareness, (social) media exposure, and legal protections for individuals with visible and invisible disabilities both in and outside of higher education campus, findings suggest college students with disabilities remain likely to encounter institutional and attitudinal barriers on campus that could pose challenges to their academic and personal wellbeing (Barnard-Brak et al., 2010; Katsiyannis et al., 2009; Mamiseishvili & Koch, 2011). To gain additional perspective on attitudinal influences, future inquiries into connections between social distance and disability attitudes may benefit from taking a historical perspective. For example, family environment is a primary socializing agent (Gladding, 2007) known to influence attitudinal development, including prejudicial beliefs (Cossman, 2004). Consequently, explorations of family influence could prove especially useful in helping college students and higher education personnel identify and process "culturally learned assumptions" (Pedersen, 2003, p. 31) and their potential role in their attitudes toward college students or others with disabilities.

This study's secondary objective was to examine potential differences of attitudinal beliefs based on role in the university, gender, age, amount of direct personal contact with individuals with disabilities, and exposure to appropriate disability-informed post-secondary curriculums. Previous research with undergraduate students found no difference in scores between males and females (Loo, 2001). In this study, males had significantly lower scores than females indicating less discomfort towards individuals with disabilities, contradicting prior studies showing that females held more favorable attitudes toward individuals with disabilities (Morin et al., 2008; Staniland, 2010). One reason for the difference in our findings could be that more females than males completed the study. While a larger sample size is recommended, the contradictory nature of our results could be clarified by adding a qualitative component to future studies seeking to understand predicators of attitudes toward individuals with disabilities.

While prior studies examining links between age and attitudes toward individuals with disabilities show mixed results (Aidan & McCarthy, 2014; Morin et al., 2008; Ouellette-Kuntz et al., 2009); no significant differences in age or role in the university were found in this study. While not statistically significant, the youngest age group (19-year-olds) in our study reported the most discomfort with individuals with disabilities. However, this trend suggests future studies examining the attitudes of college students toward individuals with visible and invisible disabilities by current academic status (i.e., freshman, sophomore, etc.) could prove fruitful given higher educational levels have consistently been found to be associated with less discomfort with individuals with disabilities (Ouellette-Kuntz et al., 2009; Slater et al., 2020). Here, all of our respondents had at least some post-secondary education that, with the benefit of added exposure to persons with disabilities, may have contributed to less discomfort with individuals with a disability. Additional research is needed to advance these arguments and, by extension, examine these hypotheses across post-secondary academic levels (i.e., undergraduate, graduate, post-graduate).

Consistent with other studies (Block & Rizzo, 1995; Campbell et al., 2003; Morin et al., 2008; Roper & Santiago, 2014; Santiago & Roper, 2016; Santiago et al., 2020), respondents in our study who indicated they had taken coursework specific to individuals with disabilities reported significantly less discomfort with individuals with disabilities. Also consistent with previous research (Block & Rizzo, 1995; Morin et al., 2008), less discomfort with individuals with disabilities was reported among our respondents who had daily or weekly contact with individuals with disabilities. These findings offer further support to the notion that increased exposure to both individuals with disabilities through direct personal exposure and intentional post-secondary curricula

can positively impact the attitudes of college students toward those with disabilities. Importantly, within this study a strong area of recruitment was from the kinesiology department as this was the department in which the lead author was obtaining his degree. Students within this degree are required to take an adaptive physical education course that includes a service-learning component in which students help teach swimming lessons to individual with disabilities. This is similar to other research with kinesiology students finding the importance of service learning in adaptive kinesiology curriculum that includes both quantity and quality of contact hours with individuals with disabilities (Lee et al., 2020; Narasaki-Jara et al., 2020; Santiago et al., 2016; Santiago et al., 2020). While a majority of studies on personal exposure in general has focused on pre-service teachers, it is important to advocate for the inclusion of evidence-based disability content and experiences in post-secondary orientation programs, first-year college experience courses, and across academic and professional disciplines (e.g., information technology, arts, sciences). Other research has explored incorporating more inclusive education into such subjects as computer programming (Ludi et al., 2018). However, few changes were found in student's attitudes towards individuals with disability; yet there were improvements in sympathy for those who specifically interacted with individuals with disability. This provides an opportunity for kinesiology departments to serve as leaders in the field in terms of sharing their experiences with improving students' attitudes with other academic units as well as expanding adaptive education opportunities to not only students within their profession but also to the wider student population.

Our results suggest that kinesiology educators are right to consider substantive revisions to kinesiology curriculums- and perhaps even teaching styles and formats- that will position kinesiology curriculums, instruction/instructors, and learning environments as appropriately sensitive to the potential range of disability profiles of their students. In doing so, kinesiology educators-and future generations of kinesiology educators and professionals-will create, learn, and work within and across personal, educational, and professional environments where negative disability attitudes are removed. These efforts could facilitate social and learning environments that optimize the personal and academic success of students with disabilities by recognizing the potential of all students (Fleming et al., 2017; Mamiseishvili & Koch, 2011). To do so kinesiology professionals must first reflect and address their own biases and attitudes toward individuals-and students in particular.

There were several limitations to this study. First, participants may have experienced social desirability bias and not answered questions truthfully. Second, this study consisted of a small sample size; thus, the findings may not be a true representation of the university's population. Third, the survey sent out via electronic newsletter was initially labeled "Disability Survey", language that may have been misleading and, in some cases, interpreted as stigmatizing by individuals with and without disabilities. Future surveys should utilize disability inclusive nomenclature. Further, the IDP scale generalized across all disability types, disallowing researchers from discerning distinctive attitudinal differences between social distance and key demographic variables, respectively, across the four recognized disability types. (e.g., physical, intellectual, mental/emotional, learning).

Conclusion

In a perfect world, the baseline approach for interacting with college students (and all persons) with disabilities would be grounded in understanding and respect that would translate across all types of higher education settings (urban, rural, suburban, public, private). In reality, the attitudes of post-secondary students and faculty/staff toward students with disabilities can have profound implications on the latter's academic and personal wellbeing and success. Therefore, among this study's primary contributions are findings that support (Block & Rizzo, 1995; Campbell et al., 2003; Morin et al., 2008) and contrast (Loo, 2001) with previous empirical studies about the attitudes of post-secondary students and faculty/staff toward college students with disabilities-and their practical implications (Leake & Stodden, 2014). Yet just as disabilities come in different forms, so too do the settings, structures, students, faculty/staff, and institutional cultures of higher education. In short, our results expanded the

empirical evidence concerning links between the attitudes of students and faculty/staff from a mid-sized, urban, public metropolitan university toward students with disabilities. Although useful, these results are perhaps best considered as a building block for more comprehensive and intentional attitudinal studies of the student and institutional cultures of distinct American higher educational institutions. In doing so, researchers can uncover the learned assumptions that lead higher education institutions and their stakeholders to develop and possibly maintain unhealthy attitudes toward students with disabilities. Only then will students with disabilities be effectively heard by their academic peers and educators and policies and procedures created to mitigate or dispense with barriers impeding their academic and personal success.

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