

## *Original Paper*

# Teachers' Efforts and Barriers to Implementing Empirically-Based Practices in Addressing Disability Stigma

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### ***Abstract***

*Stigmatization of students with disabilities leads to adverse long-term effects and teachers experience challenges implementing empirically-based practices to address this stigma. This study explored teachers' efforts to address stigma in the classroom and barriers to implementing such efforts. The Disability Stigma Perspectives and Practice (DSPP) survey was completed electronically by 330 teachers from a school district. Descriptive analysis revealed that 90 percent of teachers reported attempts to address stigma, with social contact based practices being most frequently endorsed. Additionally, descriptive analysis indicated that the most commonly reported barriers to implementing empirically-based practices to address stigma included constraints of time, materials, class size, and feeling overwhelmed. The implications of these findings for school psychologists, administrators, and educational institutions in providing the appropriate support for teachers to successfully implement strategies to reduce stigma are discussed.*

### ***Keywords***

*disability stigma, inclusion, teacher support*

## **1. Introduction**

Individuals with physical or mental disabilities are often targeted by public stigma in society, provoking a risk of self-stigma and other adverse effects as a result (Adler & Wahl, 1998; Bell, Long, Garvan, & Bussing, 2011; Bellanca & Pote, 2013; Campbell, Ferguson, Herzinger, Jackson, & Marino, 2004; Corrigan & Penn, 1999; Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Eisenman & Tascione, 2002; Gillespie-Lynch, Brooks, Someki, Obeid, Shane-Simpson, Kapp, Daou, & Smith, 2015; Segall, 2011; Segall & Campbell, 2012; Ventieri, Clarke, & Hay, 2011; Vogel, Wade, & Hackler, 2007). Research has found overwhelming evidence for the presence of stigma towards individuals with disabilities, in the

general public, in childhood peer relationships, and specifically in schools (Bellanca & Pote, 2013; Corrigan & Penn, 1999; Gillespie-Lynch et al., 2015; Katz et al., 2012; Lee, 2014; Segall, 2011; Segall & Campbell, 2012; Ventieri et al., 2011; Vogel et al., 2007; Yu et al., 2016). This stigma presents as stereotyped beliefs, such as the perception that individuals with disabilities are dangerous, dysfunctional, unpredictable, unintelligent, incompetent, lazy, or noncontributing, which lead to prejudiced attitudes and discriminatory behaviors (Corrigan & Shapiro, 2010; Ferrari, 2016; Wahl, Susin, Kaplan, Lax, & Zatina, 2011).

The literature on disability stigma in the general public provides abundant evidence for the existence and harmful effects of such stigma (Adler & Wahl, 1998; Corrigan & Penn, 1999; Crisp et al., 2000; Ventieri et al., 2011; Vogel et al., 2007). For instance, this stigma was examined in a study conducted by Crisp, Gelder, Rix, Meltzer, and Rowlands (2000). Typically developing individuals were interviewed on their perceptions of common mental disabilities. This study revealed that the majority of respondents viewed individuals with disabilities negatively, maintained stereotypes of these individuals, and avoided talking to individuals with disabilities.

Research focusing on childhood specific stigma towards peers with disabilities reveals similarly negative cognitions, attitudes, and behaviors (Bell et al., 2011; Bellanca & Pote, 2013; Campbell et al., 2004; Gillespie-Lynch et al., 2015; Ohan et al., 2013; Segall & Campbell, 2012). One such study conducted by Ballanca and Pote (2013) examined this stigma. Children participating were asked to read a vignette about a child with Attention Deficit Hyperactivity Disorder (ADHD), depression, or a learning disability or a vignette about a typically developing child. They were then surveyed about their attitudes toward the child in the vignette. Findings showed that the children maintained more negative beliefs and attitudes towards the children with disabilities as compared to the typically developing child.

Another study conducted by Campbell, Ferguson, Herzinger, Jackson, and Marino (2004) presented similar results. In this study, children watched videotapes of a child who engaged in typical behaviors and a child who engaged in behaviors characteristic of an individual with autism. When surveyed about their attitudes and behavioral intentions towards the children in the videotapes, the participants reported much more favorable attitudes and intentions towards the child engaging in typical behaviors as compared to the child displaying behaviors characteristic of autism.

The development of school-based stigma of students with disabilities has also been a focus of research (Chamberlain, Kasari, & Rotheram-Fuller, 2007; Eisenman & Tascione, 2002; Katz et al., 2012; Lee, 2014; Segall, 2011; Yu et al., 2016). This school-based stigma is often manifested as peer victimization, bullying, and social alienation. One study conducted by Yu, Ostrosky, Meyet, Favazza, Mouzourou, and van Luling (2016) utilized teacher report to explore students' relationships and attitudes towards peers with disabilities. Results revealed that typically developing students tended to avoid peers with disabilities and often became upset or bothered by the behaviors of the children with disabilities.

### *1.1 Why is Stigma Important to Understand?*

Examining and understanding the processes of stigmatization, especially of individuals with disabilities is invaluable, as the presence or absence of this stigma has the potential to precipitate long-term outcomes (Bell et al., 2011; Corrigan et al., 2010; Corrigan & Shapiro, 2010; Dunn, 2016; Fellner, 2015; Ludwikowski et al., 2009; Ventieri et al., 2011; Wahl et al., 2011). As eloquently explained by the former U.S. Surgeon General, “stigma tragically deprives people of their dignity and interferes with their full participation in society” (U. S. Department of Health and Human Services, 1999). Whereas the absence of stigma in individuals with disabilities has been found to lead to positive self-beliefs and developments of social ties to the community, the presence of stigma causes long-term negative outcomes, such as worsened prognosis for the disability itself, interference with treatment effects, worsened self-esteem and wellbeing, diminished social outlooks, decreased academic and professional achievements, and adverse influence on risks of incarceration and homelessness (Bell et al., 2011; Bellanca & Pote, 2013; Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Dorsey, Mouzourou, Park, Ostrosky, & Favazza, 2016; Dunn, 2016; Eisenman, Pell, Poudel, & Pleet-Odle, 2015; Fellner, 2015; Katz et al., 2012; Ludwikowski et al., 2009; O’Driscoll et al., 2012; Vogel et al., 2010).

The stigma of individuals with disabilities has been found to predict the course and impact of the disability both directly and through its influence on treatment (Corrigan & Shapiro, 2010; Power & Green, 2010; Ludwikowski et al., 2009; Vogel et al., 2007; Vogel et al., 2010; Vogel et al., 2013). Abundant research has provided evidence of the harmful effects of stigma on individuals’ attitude toward treatments, such as counseling, psychiatric care, and other supports, as well as their likelihood to seek treatment, stay in treatment, and fully comply with such treatment (Bell et al., 2011; Corrigan & Shapiro, 2010; Esters, Cooker, & Ittenbach, 1998; Ferrari, 2016; Ludwikowski et al., 2009; Mann & Himelein, 2008; Martin, J., 2010; Murman et al., 2014; NASP, 2010; Ohan et al., 2015; Power & Green, 2010; Sirey, Bruce, Alexopoulos, Perlick, Raue, Friedman, & Meyers, 2001; Ventieri et al., 2011; Vogel et al., 2007; Vogel et al., 2010; Vogel et al., 2013; Wahl et al., 2011; Weisman et al., 2016). Beyond the effects of the stigma towards individuals with disabilities, the literature labels specific negative attitudes towards individuals who seek treatment as help-seeking stigma, which is defined as the perception that people who seek treatment are undesirable or socially unacceptable (Ludwikowski et al., 2009). Studies have consistently found support for the adverse effects of stigma on treatment (Murman et al., 2014; Vogel et al., 2007; Vogel et al., 2010). The effects of both public and self-stigma on attitudes towards treatment and willingness to seek treatment were revealed in a study conducted by Vogel, Wade, and Hackler (2007). Based on the analysis of student survey responses, findings determined that perceptions of public stigma influenced self-stigma, which effected attitudes toward treatment, which then impacted willingness to seek treatment (Vogel et al., 2007). This relationship is presented in Figure 1, drawn from the 2007 study conducted by Vogel, Wade, and Hackler. These findings were replicated in a similar study conducted by Vogel, Shechtman, and Wade (2010) focusing

on group counseling as the treatment in question. Another study conducted by Sirey, Bruce, Alexopoulos, Perlick, Raue, Friedman, and Meyers (2001) revealed parallel effects of stigma on treatment. Individuals who were newly admitted to treatment were surveyed about their perception of public stigma and their treatment compliance was tracked over time. Results indicated that the participants who perceived greater stigma were more likely to withdrawal from treatment early.

The literature presents ample empirical indication of the detrimental impact of stigma on confidence, self-esteem, self-efficacy, and overall wellbeing (Bell et al., 2011; Chen & Schwartz, 2012; Corrigan et al., 2010; Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Dorsey et al., 2016; Mann & Himelein, 2008; Martin, J., 2010; Wahl et al., 2011; Weisman et al., 2016). These adverse effects arise in part from the influence of discrimination, social alienation, and victimization resulting from the stigma, which lead to discouragement and damage self-esteem (Chen & Schwartz, 2012; Wahl et al., 2011). Another explanation of this process is suggested in a theorized self-fulfilling prophesy influence known as the “why try effect”. Specifically, it is suggested that when individuals believe and internalize stigma, they discontinue attempts to succeed and become convinced that they are unable to achieve their goals, thus diminishing their self-esteem and self-efficacy (Corrigan & Shapiro, 2010).

Social rejection is another great risk for individuals targeted by stigma (Bell et al., 2011; Bellanca & Pote, 2013; Chen & Schwartz, 2012; Corrigan & Penn, 1999; Dorsey et al., 2016; Katz et al., 2012; Ventieri et al., 2011; Wahl et al., 2011; Weisman et al., 2016). In some cases, the discriminatory behavior caused by the stigma of individuals with disabilities is then compounded by symptomatic social and emotional impairments, making social isolation an even larger risk (Bellanca & Pote, 2013; Dorsey et al., 2016). Studies have found that children with disabilities are bullied in school at alarming rates, with some finding that as many as ninety-four percent of students with disabilities are bullied each year (Chen & Schwartz, 2012). This social isolation and lack of peer relationships may lead to many other risk factors in education, employment, and emotional development (Chen & Schwartz, 2012; Corrigan & Penn, 1999; Ventieri et al., 2011).

Stigmatization is known to adversely affect individuals’ academic and professional achievement (Bell et al., 2011; Chen & Schwartz, 2012; Corrigan et al., 2010; Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Dorsey et al., 2016; Katz et al., 2012; Mann & Himelein, 2008; Martin, J., 2010; Morrow, Hubbard, & Swift, 2014; O’Driscoll et al., 2012; Ventieri et al., 2011; Weisman et al., 2016). In particular, individuals targeted by stigma and associated discriminatory behavior are more likely to experience academic failure, less positive school attitudes, increased problem behavior, more suspensions, worse attendance, and higher retention rates (Chen & Schwartz, 2012; Dorsey et al., 2016; Katz et al., 2012; Morrow et al., 2014; O’Driscoll et al., 2012; Weisman et al., 2016). Moreover, perceived public stigma has been shown to decrease the likelihood that students disclose their disabilities to teachers in later education, precluding them from receiving necessary supports in class (Martin, 2010). The experienced stigma as well as this diminished academic achievement then

negatively impact professional outlook by increasing risk of unemployment, discrimination in the workplace, and interference with goals at work (Bell et al., 2011; Corrigan et al., 2010; Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Mann & Himelein, 2008; O'Driscoll et al., 2012; Ventieri et al., 2011). Finally, discrimination and diminished employment rates resulting from stigma may harm housing options and increase risk of delinquency and incarceration frequency and duration (Bell et al., 2011; Mann & Himelein, 2008; O'Driscoll et al., 2012).

However, preventing public and self-stigma from early in an individual's childhood would effectively reduce the risk of these many negative outcomes, as well as increase the incidence of positive self-beliefs and social connections (Dunn, 2016; Eisenman, et al., 2015). The positive effects of successful efforts to maximize acceptance of students with disabilities were demonstrated in a study conducted by Eisenman, Pell, Poudel, and Pleet-Odle (2015). Students with disabilities in an inclusive high school who were interviewed about their experiences in this study specifically described how the acceptance of peers and teachers improved their confidence and self-beliefs. Clearly, the abundant detriments to individuals targeted by stigma contrasted with the positive effects of increasing acceptance provides evidence for the necessity to thoroughly understand the development of stigma in order to effectively combat its impact on those effected.

### *1.2 Empirically-Based Practices to Increase Acceptance in the Classroom*

Research provides evidence of the critical nature of implementing empirically-based practices to increase acceptance of students with disabilities in the classroom (Fellner, 2015; Katz et al., 2012; Murman et al., 2014; Segall & Campbell, 2012; Staniland & Byrne, 2013; Weisman et al., 2016). These practices should be preventative, multi-tiered, and promote inclusion, understanding, solidarity, social acceptance, and respect for all people (Chen & Schwartz, 2012; Dorsey et al., 2016; Fellner, 2015; Katz et al., 2012). Teachers should protect students with disabilities from teasing and bullying both because of their responsibility to create a safe, educational environment, as well as the research support for the greater relative effectiveness of acceptance efforts run by teachers in school for children at a young age (Bellanca & Pote, 2013; McAuliffe, Hubbard, & Romano, 2009; Segall & Campbell, 2012; Staniland & Byrne, 2013; Ventieri et al., 2011; Weisman et al., 2016).

The literature supports three primary methods of increasing acceptance in the classroom: education, social contact, and advocacy or protest (Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Ferrari, 2016). Education based methods teach students about disabilities, characteristics and treatment, and how to approach individuals with disabilities. Empirically based educational methods may include explicit educational programs, programs integrated into the curriculum, educational videos, fiction or non-fiction books, or theater productions (Salinger, 2020). Social contact based methods involve interaction with individuals with disabilities to reduce stigma. Some research suggests that social contact may be most effective in increasing acceptance and maintaining the impact long-term (Corrigan & Shapiro, 2010; Ferrari, 2016; Mann & Himelein, 2008; Staniland & Byrne, 2013). Social contact

may involve direct social contact with peers or adults with disabilities, or indirect or vicarious social contact involving video narratives about experiences with disabilities, written narratives by people with disabilities, descriptions about personal relationships with individuals with disabilities, or discussions of well-known figures with disabilities (Salinger, 2020). Finally, advocacy or protest methods reduce stigma through involvement in student clubs or organizations to increase awareness or acceptance of disabilities, school-wide movements to increase acceptance, or organized protests of stigma or discrimination within the community or through publications (Salinger, 2020). Each of these strategies may take on various forms, an understanding of which enables schools to suggest the most appropriate for use by their teachers.

### 1.2.1 School-Wide Initiatives

Practices to increase acceptance of students with disabilities may also be implemented at the school-wide level through anti-stigma or anti-bullying campaigns, organizations, or behavior support systems. School wide campaigns may contest stigma of individuals with disabilities by focusing on increasing acceptance of behavioral or emotional difficulties, mental health issues, or seeking professional help (Anti-Defamation League, 2017; Bear, Witcomb, Elias, & Blank, 2015; Best Buddies International, 2017; MHA, 2017; Ministry of Education, 2012; Pacer Center, Inc., 2016; Southern Poverty Law Center, 2017; The Department of Safe Schools, 2017). Research has found that these types of large-scale advocacy campaigns are effective in decreasing stereotypes (Corrigan & Penn, 1999). Many school-based campaigns also work through the provision of factual information about disabilities to decrease stigma through the improvement of accurate understandings of disabilities (Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Lequia, 2015; Mann & Himelein, 2008). For instance, the #OK2TALK initiative changes the dialogue about mental illness in the school, home, and community, while also providing prevention and early intervention resources in schools (Geisler, Heidelberg, & Van Velsor, 2014; MHA, 2017). Similarly, the It's Ok to Get Help! campaign implements education and awareness methods to decrease the stigma of seeking professional help for disabilities or mental health issues (MHA, 2017). Other school-wide campaigns focus more generally on improving peer acceptance or decreasing bullying on a broader scale. The No Place for Hate initiative, for example, aims to create unified, inclusive school settings by empowering students, teachers, and parents to stand against bias and bullying (Anti-Defamation League, 2017). Another school-wide campaign to increase acceptance is the Teaching Tolerance operation, which provides classroom and school-wide resources for this purpose (Southern Poverty Law Center, 2017; The Department of Safe Schools, 2017; The School District of Palm Beach County, 2017). Additionally, schools may endorse national or international awareness campaigns, such as the National Bullying Prevention Month, which provides education to prevent bullying, and Pink Shirt Day, an international unified movement to take a stand against bullying (Ministry of Education, 2012; Pacer Center, Inc., 2016; The School District of Palm Beach County, 2017; Thompson, 2017).

School based organizations focusing on increasing acceptance are also effective in reducing stigma, as types of empirically-based advocacy or protest methods (Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Cramer, 2015; Ferrari, 2016; Murman et al., 2014). Several of these groups focus specifically on decreasing disability stigma, and may also work through the incorporation research based education or social contact practices (Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Lequia, 2015; Mann & Himelein, 2008; Park & Chitiyo, 2011; Staniland & Byrne, 2013). For instance, the Best Buddies program promotes inclusion and acceptance of students with intellectual disabilities by pairing them with typically developing peers to facilitate shared activities, experiences, and social participation (Best Buddies International, 2017; Hardman & Clark, 2006). MPower for Teens, a high school level student organization, reduces stigma of mental health issues by providing education on these issues, involving specialists in the field in discussions and projects, and facilitating community service initiatives to benefit individuals with mental health issues (MHA, 2017). Alternatively, student led organizations may focus on contesting bullying in general. The Safe School Ambassadors (SSA) program, for example, recruits students in grades four to twelve who have been identified as confident, motivated, and socially aware leaders to combat social exclusion, bullying, and peer mistreatment in their schools (The Department of Safe Schools, 2017; The School District of Palm Beach County, 2017).

Behavioral support systems may also increase acceptance of all students by improving school climate to create socially safe learning environments (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014). The School-wide Positive Behavior Support (SwPBS) system in particular supports social, academic, and behavioral competence through the implementation of school-wide targeted interventions. SwPBS emphasizes the importance of data based decision making, systems change, and empirically-based practices (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014; The Department of Safe Schools, 2017; The School District of Palm Beach County, 2017). Likewise, the Social Emotional Learning (SEL) approach works towards students' long-term social and emotional capabilities through the employment of explicit social emotional education, promotion of positive school climate, and provision of opportunities for contributory service (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014). Although these behavioral support systems have much broader and wide reaching aims, research shows that effective implementation increases acceptance of all students (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014). Considering these research based school-wide initiatives, it is evident that there are many practices to increase acceptance of students with disabilities that may take place outside the classroom in addition to those within.

### *1.3 Barriers to Implementing Efforts to Reduce Stigma*

Considering factors that may be preventing teachers from implementing efforts to reduce stigma of students with disabilities is necessary in developing supports for teachers for this purpose. Based on research, one of the most commonly reported barriers to implementing efforts to reduce stigma is lack

of training, which decreases understanding of how to implement strategies and feelings of competency in this practice (Bell et al., 2011; Cramer, 2015; Segall, 2011; Weisman et al., 2016; Yu et al., 2016). Studies surveying teachers about their training found that seventy-seven to ninety-nine percent of teachers report a desire for more training on working with students with disabilities (Bell et al., 2011). Another frequently cited barrier is lack of administrative support for using resources to reduce stigma (Lee, 2014; Segall, 2011; Segall & Campbell, 2012; Weisman et al., 2016; Yu et al., 2016). This may also preclude teachers from obtaining the necessary in-service training and resources to implement such interventions. Other regularly noted barriers include lack of time or resources, difficulties with logistics, overabundance of responsibilities, programs that are difficult to sustain, difficulties with student engagement and behavior, and lack of teacher motivation (Dorsey et al., 2016; Lee, 2014; Weisman et al., 2016; Yu et al., 2016). By understanding these barriers, supports may be developed to encourage and enable teachers to employ evidence based strategies to reduce stigma in their classes.

## **2. Method**

### *2.1 Research Questions*

#### **2.1.1 Research Question 1: Employment of Empirically-Based Practices**

The frequency of teachers' use of empirically-based practices to increase acceptance of students with disabilities in the classroom is known to be scarce (Cramer, 2015; Segall, 2011; Weisman et al., 2016; Yu et al., 2016). However, measures corresponding to the most updated research on strategies to reduce stigma are lacking. In order to fully understand the present classroom conditions teachers establish, it was imperative to gather an accurate estimate of their use of empirically-based practices.

It was predicted that all teachers would report using at least one method of attempting to address stigma in the classroom in the past year, although not all would report an empirically-based practice. This research question was answered by analyzing frequency tables generated from teachers' reports of their use over the past year of strategies to increase acceptance in their classrooms.

#### **2.1.2 Research Question 2: Barriers to Implementation**

Commonly reported barriers to implementing efforts to increase acceptance in the classroom include lack of training, administrative support, time, or resources, difficulties with logistics, overabundance of responsibilities, programs that are difficult to sustain, difficulties with student engagement and behavior, and lack of teacher motivation (Bell et al., 2011; Cramer, 2015; Dorsey et al., 2016; Lee, 2014; Segall, 2011; Segall & Campbell, 2012; Weisman et al., 2016; Yu et al., 2016). The previous research on this topic was not related to increasing acceptance of students with disabilities in particular and may be somewhat outdated. For these reasons, gaining an understanding of the most frequently reported barriers could enable recommendations to be made in supporting teachers in implementing empirically-based practices to address stigma of these students.



Based on the literature, it was predicted that the most commonly reported barriers to implementing empirically-based practices to increase acceptance of students with disabilities would be lack of training, administrative support, and time. This research question was answered through descriptive analysis of teachers' responses to items on their experienced barriers to addressing stigma.

## 2.2 Participants

Three hundred and thirty teachers, including 169 from the elementary level and 161 from the secondary level, were surveyed about their attempts to address stigma and barriers to addressing stigma to conduct the analyses necessary to answer the research questions for this study. Based on an a priori power analysis completed using G\*Power 3.1 software with overall power set to 0.80 and an anticipation of a medium effect size (Cohen's [1988]  $f = .25$ ), a sample size of at least ninety six participants was required to answer the research questions (Faul, Erdfelder, Buchner, & Lang, 2009). The intended sample size was larger to ensure more accurate results.

The participants were recruited through a large school district in south Florida, with the approval of the appropriate district officials. Current demographic information on the teaching workforce was obtained and effort was made to approximate these demographics in the participant sample in order to increase the external validity of the findings. The demographics of the participants are presented in Table 1 and with the results. The eligibility criteria for the participants included individuals who currently work in schools as classroom teachers at the elementary, middle, or high school level. Consent forms were presented as an access step to the survey measure. The consent procedures were followed as required for research with human subjects by the University of Delaware Institutional Review Board and the school district Department of Research and Evaluation.

**Table 1. Demographic Characteristics of Participants and Teaching Workforce**

Characteristic	Pilot Study Participants		Research Study Participants		Teaching Workforce <sup>a</sup>	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n (in thousands)	% <sup>b</sup>
Total	142	100	330	100	3,385	100
Gender						
Female	116	82	269	82	2,584	76
Male	25	18	59	18	802	24
Other	1	1	2	1	0	0
Age						
20-39	59	42	135	41	1,497	44
40-59	63	44	162	49	1,632	48

60 or more	12	8	30	9	256	8
Did not provide	9	6	3	1	0	0
Ethnicity/Race						
White	108	76	268	81	2,773	82
Black or African American	12	9	31	9	231	7
American or Alaska Native	1	1	1	0	17	1
Asian or Asian American	1	1	3	1	61	8
Multiracial	9	6	13	4	35	1
Other	11	8	14	4	0	0
Highest Degree						
High School diploma	0	0	1	0	0	0
Associate's degree	1	1	1	0	128	4
Bachelor's degree	64	45	172	52	1,350	40
Master's degree	69	49	136	41	1,614	48
Specialist's degree	3	2	9	3	257	8
Doctorate degree	5	3	11	3	37	1
Years of Teaching Experience						
1-9	47	33	123	37	1,433	43
10-20	60	42	125	38	1,232	36
More than 20	35	25	82	25	720	21
Grades Taught						
Elementary	61	43	169	51	1,726	51
Secondary	81	57	161	49	1,659	49

<sup>a</sup> The figures provided for the "Teaching Workforce" were located in a report published by the National Center for Education Statistics (NCES, 2016).

<sup>b</sup> Percentages are rounded to the nearest number and therefore may not add to 100.

<sup>c</sup> These figures were not provided in the NCES report.

### 2.3 Measures

The Disability Stigma Perspectives and Practice (DSPP) survey measure was developed and pilot tested in a previous, related study (Oates, 2023). The five-part questionnaire focused on teachers' personal attitudes towards students with disabilities, recognition of public stigma, attempts to address stigma, barriers to addressing stigma in the classroom, and background information. Responses from the first and fourth scales were utilized to answer the research questions in the current study.

### 2.4 Procedure

Institutional review board approval was obtained prior to data collection. Permission was then obtained

from the governing body of the school district to recruit their members for this study. Information about the study and invitations to participate were distributed through email to the members of the participating school district. The email invited potential participants to use an included link to participate in the survey via the online survey software Qualtrics or to contact the researchers with any questions. Consent forms were included in the online survey as an access step to the survey measure. Respondents were asked to complete each survey measure involved in the study. Analyses were conducted through a series of statistical tests run on the SPSS and Mplus software to answer the research questions.

### 2.5 Data Analysis

The demographic characteristics of the participants used in the pilot study were compared to those of the respondents used to answer the research questions to ensure consistency and generalizability. Prior to addressing the research questions, differences in responses from elementary as compared to secondary teachers were examined. Data was analyzed by level, as significant differences were apparent. To answer the first question on attempts to address stigma in the classroom, frequency tables were run to examine how commonly empirically-based practices were used and which were most usually implemented. The second research question on barriers to implementing empirically-based practices to reduce stigma was answered using descriptive analysis. This was conducted with participants' responses to the fourth scale.

## 3. Results

### 3.1 Employment of Empirically-Based Practices

Frequencies of reported employment of empirically-based practices for increasing acceptance in the classroom are displayed in Table 2, both by teacher level and combined totals. Of the 330 teachers, 297 (90%) reported using at least one method of attempting to address stigma in the prior year. Nearly all of these indicated use of at least one empirically-based practice (293, 89%). The non-empirically-based practices include those written in as responses to the "other" item that do not align with any empirically-based practice or include enough information to make a determination, such as "bullying," "provide information in students' home language with disability if home language is other than English," and "setting goals for an activity, day, or period of time."

On average, teachers used 6.70 empirically-based practices from the twenty-three listed on the survey measure. The most commonly implemented practices overall included facilitating meaningful contact between students with and without disabilities (201, 61%) and facilitating peer support methods in the classroom between students with and without disabilities (196, 59%). Conversely, the least commonly implemented practices included plays or puppet shows (22, 7%), watching video taped first person narratives (21, 8%), and organization of clubs to increase awareness of disabilities (29, 9%) or to support those with disabilities (32, 10%).

Reported use of empirically-based practices from each of the three primary types, education, social contact, and advocacy, was also examined. Overall, teachers most commonly implemented educational practices (269, 82%), followed by social contact practices (267, 81%), and then advocacy practices (83, 25%).

Teachers were also asked about school-wide practices to address stigma, as well as their involvement in these activities. The most commonly reported school-wide practices included School-Wide Positive Behavior Supports (227, 69%), Pink Shirt Day (192, 58%), National Bullying Prevention Month (175, 53%), Safe School Ambassadors (76, 23%), and Best Buddies (70, 21%). The majority of teachers (235, 71%) reported some involvement in some school-wide practice to address stigma or bullying. Correlational analysis revealed that the presence of school-wide practices was significantly associated with teachers' attempts to address stigma in their own classrooms ( $r_{pb} = .169$ ,  $p = .002$ ), such that teachers were more likely to implement attempts to address stigma in their classroom if there were school-wide practices in place as well. Furthermore, teachers' degree of involvement with such school-wide practices was significantly related to their use of empirically-based practices in their own classrooms ( $r_{pb} = .342$ ,  $p = .001$ ), in that teachers were more likely to implement attempts to address stigma in their own classrooms if they were more involved in school-wide practices.

**Table 2. Reported Use of Empirically-Based Practices for Addressing Stigma**

Practices	Elementary Teachers		Secondary Teachers		Total	
	n	%	n	%	n	%
Total	169	100	161	100	330	100
Facilitate meaningful social contact between students with and without disabilities	114	68	87	54	201	61
Facilitate peer support methods in the classroom between students with and without disabilities	106	63	90	56	196	59
Providing typically developing students with strategies and skills to work with students with disabilities	98	58	69	43	167	51
Ensure that assistants in the classroom are viewed as support for whole class, not individual students	96	57	71	44	167	51
Teaching about strengths and difficulties of students with disabilities	95	56	59	37	154	47
Openly share about personal experience with an	76	45	64	40	140	42

individual with a disability						
Discussing myths and facts about disabilities	74	44	62	39	136	41
Fictional books involving characters with disabilities	104	62	22	14	126	38
Originally developed lesson(s) focusing on disabilities	66	39	52	32	118	36
Embedding mental health awareness into curriculum (i.e. teach about disability as form of diversity in social studies, read and discuss literature about disabilities in language arts, etc.)	57	34	50	31	107	32
Discuss celebrities known to have disabilities	51	30	42	26	93	28
Non-fiction books on disabilities	75	44	11	7	86	26
Discussions or Q & A with an individual with a disability	44	26	38	24	82	25
Packaged curriculum to educate students about disabilities	36	21	28	17	64	19
Reading first person narratives by individuals with disabilities	43	25	17	11	60	18
Videos on disabilities	38	23	22	14	60	18
Discussions about videos on disabilities	33	20	21	13	54	16
Involve students in advocacy campaigns for disability	23	14	23	14	46	14
Facilitate a week dedicated to anti-stigma	27	16	17	11	44	13
Organize or lead club to support those with disabilities	13	8	19	12	32	10
Organize or lead club to increase awareness about disabilities	10	6	19	12	29	9
Watching video taped first person narratives by individuals with disabilities	16	10	11	7	27	8
Plays or puppet shows about disabilities	18	11	4	3	22	7

### 3.1.1 Elementary Teachers

Ninety-three percent (157) of elementary teachers reportedly implemented at least one method of attempting to address stigma. Similarly, 92% (156) of elementary teachers used at least one empirically-based practice.

Elementary teachers used on average 7.77 empirically-based practices from the twenty-three listed. The most commonly implemented practices for elementary teachers included facilitating meaningful contact between students with and without disabilities (114, 68%) and facilitating peer support methods

in the classroom between students with and without disabilities (106, 63%). The least commonly implemented practices included organization of clubs to increase awareness of disabilities (10, 6%) or to support those with disabilities (13, 8%), and watching video-taped first person narratives (16, 10%). In terms of the types of empirically-based practices, elementary teachers most commonly implemented educational practices (152, 90%), followed by social contact practices (146, 86%), and then advocacy practices (44, 26%).

For elementary teachers, the most commonly reported school-wide practices to address stigma included School-Wide Positive Behavior Supports (125, 74%), Pink Shirt Day (104, 62%), and National Bullying Prevention Month (93, 55%). The majority of teachers (132, 78%) reported some involvement in some school-wide practice to address stigma or bullying. Correlational analysis revealed that the presence of school-wide practices was significantly associated with teachers' attempts to address stigma in their own classrooms ( $r_{pb} = .177, p = .021$ ), such that teachers were more likely to implement attempts to address stigma in their classroom if there were school-wide practices in place as well. Teachers' degree of involvement with such school-wide practices was also significantly related to their use of empirically-based practices in their own classrooms ( $r_{pb} = .244, p = .001$ ), in that teachers were more likely to implement attempts to address stigma in their own classrooms if they were more involved in school-wide practices.

### 3.1.2 Secondary Teachers

Eighty-seven percent (140) of secondary teachers used at least one method of attempting to address stigma, a slightly lower percent than elementary teachers. Comparably, 85% (137) of secondary teachers implemented at least one empirically-based practice.

Secondary teachers used 5.58 empirically-based practices of the twenty-three listed on average. Results showed a statistically significant difference between elementary and secondary teachers on reported quantity of implemented empirically-based practices to address disability stigma ( $t = 3.95, df [327], p = .001$ ). The effect size was medium ( $d = .44$ ). The most commonly implemented practices for secondary teachers included facilitating peer support methods in the classroom between students with and without disabilities (90, 56%) and facilitating meaningful contact between students with and without disabilities (87, 54%). Conversely, the least commonly implemented practices for included plays or puppet shows (4, 3%), watching video-taped first person narratives (11, 7%), and non-fiction books on disabilities (11, 7%).

The most commonly implemented types of empirically-based practices by secondary teachers were social contact practices (121, 75%), followed by educational practices (117, 73%), and then advocacy practices (39, 24%).

For secondary teachers, the most commonly reported school-wide practices to address stigma included School-Wide Positive Behavior Supports (102, 63%), Pink Shirt Day (88, 55%), and National Bullying Prevention Month (82, 51%), Best Buddies (62, 39%), and Safe School Ambassadors (51, 32%). The

majority of teachers (91, 57%) reported some involvement in some school-wide practice to address stigma or bullying. Correlational analysis revealed that the presence of school-wide practices was significantly associated with teachers' attempts to address stigma in their own classrooms ( $r_{pb} = .165$ ,  $p = .037$ ), such that teachers were more likely to implement attempts to address stigma in their classroom if there were school-wide practices in place as well. Furthermore, teachers' degree of involvement with such school-wide practices was significantly related to their use of empirically-based practices in their own classrooms ( $r_{pb} = .388$ ,  $p = .001$ ), in that teachers were more likely to implement attempts to address stigma in their own classrooms if they were more involved in school-wide practices.

### 3.2 Barriers to Implementing Empirically-Based Practices

Mean values of endorsed barriers to implementing empirically-based practices for increasing acceptance in the classroom are displayed in Table 3, both by teacher level and combined. Overall, the most highly endorsed barriers included lack of time to implement interventions ( $M = 4.87$ ,  $SD = 1.92$ ), lack of time to create interventions ( $M = 4.78$ ,  $SD = 1.89$ ), class size ( $M = 4.76$ ,  $SD = 2.03$ ), and lack of materials to use with students ( $M = 4.63$ ,  $SD = 1.92$ ). The least endorsed barriers included thinking interventions would not work ( $M = 2.95$ ,  $SD = 1.86$ ), lack of administrative support ( $M = 3.45$ ,  $SD = 2.05$ ), lack of communication/support from school psychologist ( $M = 3.55$ ,  $SD = 1.91$ ), and ineffectiveness of previous interventions suggested ( $M = 3.59$ ,  $SD = 1.83$ ).

Responses were also analyzed by the factors of Lack of Training, Lack of Resources, and Other Barriers, as indicated by the factor analysis. Overall, Lack of Resources was most highly endorsed ( $M = 4.67$ ,  $SD = 1.75$ ), followed by Lack of Training ( $M = 3.91$ ,  $SD = 1.72$ ), and then Other Barriers ( $M = 3.83$ ,  $SD = 1.47$ ).

**Table 3. Barriers to Implementing Empirically-Based Practices for Addressing Stigma**

Barriers	Elementary Teachers		Secondary Teachers		Total	
	Mean	SD	Mean	SD	Mean	SD
<b>Factors</b>						
Lack of Resources	4.76	1.67	4.57	1.83	4.67	1.75
Lack of Training	3.88	1.61	3.93	1.83	3.91	1.72
Other Barriers	3.71	1.43	3.95	1.51	3.83	1.47
<b>Specific Barriers</b>						
Lack of time to implement intervention	4.93	1.88	4.80	1.96	4.87	1.92
Lack of time to create intervention	4.86	1.83	4.68	1.96	4.78	1.89
Class size	4.37	2.06	5.17	1.93	4.76	2.03

Lack of materials to use with students	4.77	1.84	4.48	1.99	4.63	1.92
Lack of time to investigate intervention possibilities	4.75	1.87	4.41	2.06	4.58	1.97
Lack of time to analyze stigma	4.51	1.82	4.48	2.00	4.50	1.91
Overwhelmed or exhausted from teaching duties	4.40	1.99	4.49	2.22	4.45	2.11
Demands to perform nonteaching duties	4.25	2.01	4.29	2.09	4.27	2.04
Lack of training on evidence-based interventions	3.99	1.84	4.19	1.93	4.09	1.88
Lack of training on stigma of children with disabilities	3.86	1.82	4.07	2.02	3.96	1.92
Lack of communication with parents	3.78	1.91	4.02	2.06	3.90	1.98
Lack of training on research procedures	3.95	1.78	3.82	1.99	3.89	1.89
Lack of training on reading and understanding research	3.72	1.74	3.66	1.97	3.69	1.85
Inability of students to benefit from regular instruction	3.59	1.85	3.76	1.91	3.67	1.88
Severity of stigma	3.60	1.83	3.73	1.89	3.66	1.86
Ineffectiveness of previous interventions suggested	3.55	1.77	3.36	1.89	3.59	1.83
Lack of communication/support from school psychologist	3.37	1.79	3.75	2.02	3.55	1.91
Lack of administrative support	3.36	2.06	3.55	2.03	3.45	2.05
Think intervention will not work	2.82	1.78	3.09	1.93	2.95	1.86

### 3.2.1 Elementary Teachers

For elementary teachers, the most highly endorsed barriers to implementing empirically-based practices to address stigma included lack of time to implement interventions ( $M = 4.93$ ,  $SD = 1.88$ ), lack of time to create interventions ( $M = 4.86$ ,  $SD = 1.83$ ), lack of materials to use with students ( $M = 4.77$ ,  $SD = 1.84$ ), and lack to time to investigate intervention possibilities ( $M = 4.75$ ,  $SD = 1.87$ ). The least endorsed barriers included thinking interventions would not work ( $M = 2.82$ ,  $SD = 1.78$ ), lack of administrative support ( $M = 3.36$ ,  $SD = 2.06$ ), lack of communication/support from school psychologist ( $M = 3.37$ ,  $SD = 1.79$ ), and ineffectiveness of previous interventions suggested ( $M = 3.55$ ,  $SD = 1.77$ ).

Lack of Resources was the most highly endorsed factor by elementary teachers ( $M = 4.76$ ,  $SD = 1.67$ ), followed by Lack of Training ( $M = 3.88$ ,  $SD = 1.61$ ), and then Other Barriers ( $M = 3.71$ ,  $SD = 1.43$ ).



### 3.2.2 Secondary Teachers

For secondary teachers, the most highly endorsed barriers to implementing empirically-based practices to address stigma included class size ( $M = 5.17$ ,  $SD = 1.93$ ), lack of time to implement interventions ( $M = 4.80$ ,  $SD = 1.96$ ), and lack of time to create interventions ( $M = 4.68$ ,  $SD = 1.96$ ). The least endorsed barriers included thinking interventions would not work ( $M = 3.09$ ,  $SD = 1.93$ ), ineffectiveness of previous interventions suggested ( $M = 3.36$ ,  $SD = 1.89$ ), and lack of administrative support ( $M = 3.55$ ,  $SD = 2.03$ ).

Lack of Resources was the most highly endorsed factor by secondary teachers ( $M = 4.57$ ,  $SD = 1.83$ ), followed by Other Barriers ( $M = 3.95$ ,  $SD = 1.51$ ), and then Lack of Training ( $M = 3.93$ ,  $SD = 1.83$ ).

## 4. Discussion

The purpose of the current study was to examine the influences on teachers' attempts to address disability stigma in the classroom. Such stigma had been shown to negatively affect children in numerous varied ways and research had provided support for empirically-based practices to reduce it within the classroom. However, evidence had also been found that teachers often were not implementing such practices. Two research questions were addressed in the present study. The first question further assessed the extent to which teachers employ empirically-based practices to address stigma in the classroom. The second question examined the barriers preventing teachers from implementing such practices in their classrooms.

### 4.1 Employment of Empirically-Based Practices

It was hypothesized that all teachers would report using at least one practice to attempt to address stigma, although not all teachers would report implementing an empirically-based practice. Frequency analysis revealed that for each grade level set, approximately 90% of teachers (87% for secondary and 93% for elementary teachers) reported using at least one practice in their classroom to attempt to address stigma, whereas roughly 89% (85% for secondary and 92% for elementary teachers) implemented at least one empirically-based practice. This is consistent with prior findings that every teacher does not implement empirically-based practices in the classroom (Cramer, 2015; Segall, 2011; Weisman et al., 2016; Yu et al., 2016). However, greater percentages of teachers than predicted did report implementing these practices. This study serves as an examination of teachers' use of empirically-based practices specifically to address disability stigma, as previous studies did not provide information about practices for this purpose in particular.

Furthermore, the present study adds to the body of knowledge on teachers' use of empirically-based practices to address disability stigma by providing information on frequency of implementation of specific types of practices. Although research had suggested that advocacy based practices were the least commonly used (Corrigan & Penn, 1999; Corrigan & Shapiro, 2010; Murman et al., 2014), the specific practices and comparison between social contact and educational practices was uncertain. The

current study was consistent with the literature proposing that advocacy practices are the least commonly implemented. Additionally, it revealed that the most frequently implemented practices involved social contact, through meaningful contact within the classroom and peer support methods between students with and without disabilities. Fortunately, research has suggested that social contact may be the most effective type of practice to reduce disability stigma (Corrigan & Shapiro, 2010; Ferrari, 2016; Mann & Himelein, 2008; Staniland & Byrne, 2013).

Another significant finding on use of empirically-based practices to address stigma was that the presence of school-wide efforts for this purpose, as well as teachers' increased involvement in these efforts, made them significantly more likely to implement these practices in their own classrooms. This finding held constant for all grade levels and aligns with research on the positive influence of school-wide initiatives on school climate, and in turn, on classroom climate (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014). In other words, school-wide initiatives increase positive school climate, which is characterized by supportive student teacher relationships, reduced behavior problems, and high academic achievement (Bear, 2010). This improved and more supportive atmosphere both directly improves classroom climate and also encourages teachers to further support their students. Based on the additional evidence from this study, it may be ascertained that an effective way to increase efforts to address stigma in the classroom may be to begin at the school level.

#### *4.2 Barriers to Implementation*

It was hypothesized that the most commonly reported barriers to implementing empirically-based practices to address disability stigma would be lack of training, administrative support, and time. Descriptive analyses revealed that for the overall sample, the elementary sample, and the secondary sample, the highest endorsed barriers included all of the items involving a lack of time, as well as those detailing class size, lack of materials, and being overwhelmed from teaching duties. The presence of the factor of lack of time among the most frequently endorsed barriers is consistent with the literature (Yu et al., 2016). Additionally, the impeding effects of class size, lack of materials, and overabundance of responsibilities have been suggested by previous research (Dorsey et al., 2016; Lee, 2014; Weisman et al., 2016; Yu et al., 2016).

However, it was interesting that these barriers were more highly endorsed than the barriers of lack of training and administrative support, which were predicted to be among the most endorsed. This may be due to progress in these areas in recent years that may not have been captured in prior publications (Bell et al., 2011; Campbell, 2012; Cramer, 2015; Segall, 2011). Therefore, these findings from the current study provide additional, updated information that may be drawn upon in efforts to decrease barriers for teachers to implementing empirically-based practices to address stigma in the classroom.

#### *4.3 Implications for Practice*

The findings from the present study on implementation and barriers to using empirically-based

practices to address stigma have several practical implications for school psychologists, administrators, and educational institutions. The results from the analysis of the types of empirically-based practices already being used by teachers provide implications for future practice in the school setting. In particular, teachers reported the most implementation of several social contact based practices to address stigma. These practices, which have been found to reduce stigma by challenging stereotypes and attitudes through first person interactions, have been identified in some studies as the most effective method to combat stigma (Corrigan & Penn, 1999; Dunn, 2016; Ferrari, 2016; Mann & Himelein, 2008). Due to this previous research and the findings from the present study, school psychologists and administrators should consider simply encouraging the continued use of these practices. Additionally, the school psychologist could guide teachers to discuss with one another how social contact is already being used in their classrooms in order to inspire the remaining teachers to implement these types of efforts. The school psychologist may also explain to teachers, either through professional development or individualized consultation, how to further build on the use of social contact practices by adjusting or adding elements of education or advocacy efforts as well, in order to further contest disability stigma. This focus on social contact efforts should be balanced with additional information on alternative, effective strategies of addressing stigma through educational or advocacy efforts.

Additional implications for school practice may be drawn from the findings on school-wide initiatives to increase acceptance and their association with teachers' use of additional practices in their classrooms. Prior research has also demonstrated the affirmative effect of school-wide initiatives on positive school climate, which in turn affects classroom climate and practices (Bear, 2010; Bear et al., 2015; Emmer & Sabornie, 2015; Harrison & Thomas, 2014). Therefore, implementing school-wide initiatives or advocacy efforts would benefit students both directly by improving student teacher relationships, creating a supportive community, and cultivating social emotional development, and indirectly by increasing teachers' use of further efforts to increase acceptance in their classrooms. These school-wide efforts may include clubs or school-wide campaigns, such as School-Wide Positive Behavior Supports, Pink Shirt Day, National Bullying Prevention Month, Safe School Ambassadors, or Best Buddies, aimed at reducing stigma and stereotypes of individuals with disabilities or those who are diverse in any nature. Although these initiatives should be supported by the administration and school psychologist, engaging teachers in the leadership may further improve their attempts to increase acceptance in their own classrooms, based on the findings in the present study that the level of teacher involvement in school-wide campaigns is related to their use of practices within their classrooms.

Examination of teachers' reported barriers to implementing efforts to address stigma provides further implications for school based practice. This analysis revealed that the constraints of time, limited materials, class size, and feelings of being overwhelmed were barriers to attempting to address stigma in the classroom, consistent with the literature (Dorsey et al., 2016; Lee, 2014; Weisman et al., 2016;

Yu et al., 2016). School psychologists and administration should provide support to teachers in overcoming these barriers. Specifically, professional development led by school psychologists or other experts could help teachers by providing specific examples of how to address disability stigma through education, social contact, or advocacy based practices to prevent teachers from having to spend the time researching empirically-based practices themselves. These sessions could also aid teachers in understanding how to incorporate attempts to address stigma into their class schedule without adding any time burden. For instance, the teachers could integrate instruction about disabilities and related stigma into their already existing subject curriculums (Dunn, 2016; Eisenman & Tascione, 2002; NASP, 2010; Ventieri et al., 2011; Watson, Otey, Westbrook et al., 2004; Weisman et al., 2016). Additionally, professional development sessions could be used as a time to explain how large class sizes may be used as an advantage in this case, by providing opportunities for social contact practices during already scheduled group work for example (Corrigan & Penn, 1999; Dunn, 2016; Ferrari, 2016; Mann & Himelein, 2008). In leading the professional development, the school psychologist could also distribute ready to use materials for implementing empirically-based practices in the classroom or provide information about how to obtain these materials easily and without financial encumbrance. These materials could include curriculums for explicit educational programs for this purpose, such as the Special Friends or Breaking the Silence curriculums (Dorsey et al., 2016; Meyer & Ostosky, 2016; Wahl et al., 2011; Weisman et al., 2016; Yu et al., 2016), books on disabilities or guidelines on selecting effective books to utilize to reduce stigma (Gaffney & Wilkins, 2016), practitioner articles that serve as ready to use instructions of how to apply empirically-based practices, or guidebooks for clubs or advocacy efforts, such as the Let's Erase the Stigma (LETS) organization (Murman et al., 2014). As some of these materials may need to be purchased, administration should consider the vast benefits in investing for this critical need. Finally, the school psychologist should make him or herself available to teachers following the professional development session in order to support their personalization or implementation of empirically-based practices for their classes through continued consultation (Martin, H., 2010; Salas & Cannon-Bowers, 2001). By providing instruction on practices to reduce disability stigma, guidelines on how to overcome time or class size constraints, materials to use in implementing practices, and sustained, individualized support to teachers, the school psychologist may also help teachers to overcome the barrier of feeling overwhelmed by the prospect of engaging in these practices in addition to the more tangible obstacles that each suggestion targets.

#### *4.4 Limitations of the Study*

There are some limitations of the current study in terms of the sample, data collection methods, and factors examined. Specifically, the sample was collected from a single school district and although examination of the demographic characteristics revealed similarities to the teaching workforce across the country, this may still limit the generalizability of the results. Moreover, the low response rate, which may have been due to the distribution of the survey through email, could affect the

generalizability of the results. Additionally, the sampling method may have led to a selection bias in that teachers who may have more negative attitudes towards individuals with disabilities or who do not attempt to address stigma in their classrooms may not have responded to the survey. This may further impact the generalizability of the findings, as a specific subset of the population may have been unintentionally excluded from the sample.

The data collection methods utilized in the current study may also serve as a limitation. Although teachers were asked in the survey to recall and report which practices they had used to address stigma in the past year in their classrooms, they were not actually followed over the course of this year. Therefore, teachers may have over or under reported their use of practices due to simple fault of memory. Alternatively, collecting the data in a longitudinal manner in which teachers were asked to record their use of practices as they were implemented may have provided a more accurate representation of use. Additionally, employing surveys as the data collection method, rather than observation or interview, may have caused a response bias whereby teachers may have tended to over report their use of empirically-based practices in an effort to appear more conscientious. These methods may have therefore affected the validity of the results.

#### *4.5 Conclusions*

The findings of the current study provide information about teachers' present use of empirically-based practices to address disability stigma in the classroom and barriers to the employment of these research based practices. The majority of teachers already attempt to address stigma in some way and almost all use at least one empirically-based practice. Several of the social contact based practices are the most frequently implemented by teachers. Additionally, the most salient barriers teachers experience to implementing empirically-based practices to contest stigma include the constraints of time, materials, class size, and feeling overwhelmed. Overall, this study revealed that there are distinct factors that may be utilized to understand teachers' attempts to address stigma. This finding is critical as this information may be applied by school psychologists, administrators, and educational institutions to develop plans to support teachers across the country in efforts to increase acceptance of individuals with disabilities in order to affect vast improvement for the academic, social, and emotional outcomes of countless students.

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