Social Acceptance and Paraprofessional Support for Students with Severe Disabilities

Jenna L. Lequia,
Westchester Institute for Human Development
New York Medical College
Valhalla, NY, USA
(jlequia@wihd.org)

Abstract

In the United States, federal mandates require local education agencies to provide education to students with disabilities in the least restrictive environment. As a result, students with disabilities are included in the general education classroom for varying amounts of the school day depending on their educational goals and individual needs. For students with severe disabilities, placement in a general education classroom is often paralleled with the assignment of a paraprofessional. Research suggests paraprofessional support can cause unintended adverse effects. The current study describes the social acceptance of students with severe disabilities who receive paraprofessional support and explores the intersection of social acceptance and paraprofessional support. Findings suggest students with severe disabilities who receive paraprofessional support have average levels of social acceptance and initial evidence that students receiving more frequent paraprofessional support have lower levels of social acceptance. Practical implications and suggestions for future research are discussed.

Keywords*: severe disabilities; paraprofessionals; social inclusion*

Introduction

In the United States (US), the Individuals with Disabilities Education Act (IDEA, 2004) mandates local education agencies (LEAs) provide educational programming in the least restrictive environment (LRE), as well as access to the general education curriculum for all students with disabilities. Educational placements for students with disabilities are individually determined to meet the unique educational goals and needs of each student. As such, students with disabilities are increasingly included with their general education peers for a small portion or majority of the school day (Damore & Murray, 2009). The language used in the federal LRE mandate offers flexibility in the interpretation of LRE (Taylor, 2004), and thus, implementation across schools, districts, and states varies, in particular for students with severe disabilities (Janney & Snell, 1997; Kavale & Forness, 2000). Regardless the extent to which LEAs encourage the inclusion of students with severe disabilities (i.e., full inclusion or periodic inclusion throughout the school day), educational professionals are charged with the task of creating a classroom and school climate that is welcoming of all children and provides opportunities for meaningful participation throughout the school day, as placement in the general education setting does not guarantee membership or meaningful participation (de Boer, Pijl, Post, & Minnaert, 2012; Downing & Peckham-Hardin, 2007; Naraian, 2010).

According to the National Dissemination Center for Children with Disabilities (NICHCY, 2004), students with severe disabilities require extensive support in order to participate in major life activities (e.g., domestic, leisure, community use, vocational). In educational contexts, students with severe disabilities are often provided a paraprofessional to meet these support needs (Douglas, Chapin, & Nolan, 2015; Giangreco, 2010; Kilanowski-Press, Foote, & Rinaldo, 2010). Giangreco (2010) refers to paraprofessional support as a "mechanism" for the inclusion of students with significant support needs. Research demonstrates the negative impact of the overreliance on paraprofessionals, such as limiting academic and social opportunities (Giangreco, 2010; Naraian, 2010; Suter & Giangreco, 2009; Tews & Lupart, 2008). Because paraprofessionals receive minimal training (Hughes & Valle-Riestra, 2008), due to district financial, time and implementation restraints (Riggs, 2001; Stockall, 2014), they may lack the requisite knowledge and skills to support the academic and social participation of students in inclusive settings (Kent-Walsh & Light, 2003).

Acceptance of students with disabilities by peers is critical to the implementation of high quality inclusive environments. There are several theories on opinion formation and/or the social acceptance of individuals within a group, most notably Contact Hypothesis (CH). While initially applied to racial prejudice and/or segregation, CH has also been used to explain other pressing social issues, such as the inclusion of diverse students (e.g., students with disabilities) in educational settings (Pettigrew & Tropp, 2011). As with most theories of opinion formation, CH includes a necessary condition of exposure to a certain group or individual with specific characteristics, but emphasizes the context and quality of the exposure as better determinants of positive contact effects or social acceptance (Allport, 1979; Pettigrew & Tropp, 2006). Equal status, common goals, intergroup cooperation, and institutional/authority support are considered necessary conditions for positive contact effects. In educational settings, equal status is established through a school and classroom climate that values diversity (Downing, Eichinger, & Williams, 1997), promotes a sense of belonging (Joerdens, 2014), provides opportunities for meaningful participation throughout the school day (Downing & Peckham-Hardin, 2007) and offers support to all students (Kurth, Lyon, & Shogren, 2015). Common goals are addressed

through differentiating instruction allowing students with severe disabilities to work on tasks similar to their peers, while receiving individualized instruction and supports to promote successful attainment of educational goals specific to the student (Grenier, 2011; Janney & Snell, 1997). In addition, there must be opportunities for students with severe disabilities to work with their peers towards a common goal (Kurth et al., 2015; Wilkerson & Lequia, 2015), encouraging students to identify strengths in all of their peers. Finally, authority support refers to the attitudes and behaviors of all professional staff (Kavale & Forness, 2000). With appropriate adult models, peer attitudes are positively influenced, increasing their confidence to interact with students with severe disabilities (Silberman, 1969).

While literature evaluating social acceptance of students with disabilities exists, a limited number of studies focus specifically on students with severe disabilities and factors that impact their acceptance. For example, previous research evaluating peer attitudes towards students with disabilities in general, anecdotally suggests peers become more accepting of students with disabilities when they are included in general education settings (Idol, 2006) as opposed to confined to segregated settings. de Boer, Pijl, Post, and Minnaert (2012) examined factors that impact peer attitudes of students with disabilities and found that older, female peers hold more positive attitudes towards students with disabilities. In addition, peers have lower acceptance of students with behavior problems. The studies that consider severity of disability typically compare social acceptance of students by severity of disability rather than focusing on factors that may impact the social acceptance unique to the population of students with severe disabilities. For example, Cook and Semmel (1999) found that students with severe disabilities were least likely to be nominated as a play partner, work partner, or everyday playmate by their peers than students with mild disabilities or no disability.

A cornerstone of inclusive education is creating a positive and caring community – or school climate – in which all students are valued and considered members of a community or establish a sense of belonging (Billingsley, Gallucci, Peck, Schwartz, & Staub, 1996; Carter, Asmus, & Moss, 2013; Kozleski, Yu, Satter, Francis, & Haines, 2015; Schnorr, 1990; Test, Smith, & Carter, 2014). Given the literature characterizing the negative impact of paraprofessional support on social opportunities (Giangreco, Edelman, Luiselli, & MacFarland, 1997), such support may also directly affect a student's social status within the classroom and/or school (Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006). Thus, the current study aimed to describe the social acceptance of students with severe disabilities and explore the intersection of paraprofessional support and peer social acceptance of students with severe disabilities at the elementary level. Specifically, the following research questions were addressed:

(1) How accepting are classroom peers of students with severe disabilities who receive paraprofessional support?
(2) Are there differences in social acceptance of students with severe disabilities by intensity of paraprofessional support they receive across the school day?

Methods

Sampling Procedures

A total of 5 school districts (14 schools) in a Midwest state in the US participated in the study. Each school had between one and three focus students participate and each district had between one and nine focus students participate. The Student Information Form (See Measurement section) were used to verify severity of disability. When initially contacted about the research opportunity, districts were notified of the inclusion criteria for focus students:

between 4 and 11 years of age; IDEA label of autism, intellectual disability, multiple disabilities, or other health impairment; included in a general education class for a portion of the school day; and receives support from a paraprofessional. For most districts, recruitment packets were sent home to parents in the eligible focus students' backpacks. One district required a targeted mailing of recruitment packets directly to eligible focus students' homes.

Measurement

***Student Information Form*.** To gather demographic information about the focus students, special educators completed a Student Information Form (SIF) for each participating focus student. The SIF requested the following information: age, gender, ethnicity, special education label, and medical diagnoses; educational programming information, such as percent of the school day that the educator estimates that the student spends in the general education setting, a description of the support arrangements used, whether the student has a behavior intervention plan; and information about students' learner characteristics, such as communication mode, level of engagement, motor abilities. The items pertaining to the students' learner characteristics were adapted from the Learner Characteristics Inventory (LCI; Kearns, Kleinert, Kleinert, & Towles-Reeves, 2006), specifically those items regarding students' expressive communication, receptive communication, motor ability, engagement, and attendance. A copy of the SIF is available from the author upon request.

***Social Inclusion Survey*.** To measure social acceptance, the Social Inclusion Survey (SIS; Frederickson & Graham, 1999) was administered to the entire class in which the focus student with severe disabilities was included. The SIS is part of the Social Skills and Emotional Intelligence section of the Psychology in Education Portfolio (PIEP) and consists of one item asking students to rate how much they would like to play with each of their classmates. Each student in the class rated all of his or her peers by selecting one of the following responses: a smiling face (i.e., happy to play with), a neutral face (i.e., don't mind either way), a frown face (i.e., rather not play with), or a question mark (i.e., don't know him/her well enough to decide). Test-retest reliabilities for acceptance and rejection have been reported between .70 and .78 and agreement of assigning social acceptance as popular, average, or rejected was 68% (kappa = 0.43; Frederickson & Furnham, 1998). This type of measure (i.e., forced choice probability) has the best reliability of commonly used instruments in this area (e.g., peer nomination procedures and rating scale measures; (Asher & Dodge, 1986; Coie & Dodge, 1983).

Data Collection Procedures

Participating schools engaged in a Social Acceptance and Learning exercise. Per Institutional Review Board (IRB) approved protocol, each participating school individually defined the Social Acceptance and Learning exercise which consisted of determining the details of the SIS administration (i.e., what scales to administer, who administered scales). After obtaining consent from parents of focus students (see Sampling Procedures for recruitment details), the SIF and SIS were administered. The SIS was administered to the focus students' class and the special educator of participating focus students completed the SIF. When a member of the research team administered the SIS, the peers of the focus students individually went into a separate classroom or hallway to complete the survey form. When school staff administered the SIS, students individually went to the back of the classroom to complete the survey form. Each school staff member responsible for administering the survey was informed to have the students complete the survey individually in a private location so as to ensure confidentiality and privacy.

The person administering the survey informed the students that they were rating how much they like to play with each of their classmates. If necessary, the researcher or the school staff member read the names of the peers for students who required this assistance.

Data Analysis

For each focus student, a social acceptance index (SAI) was calculated by dividing the number of smiley faces by the sum of the smiley, neutral and sad faces. Additionally, the SIS provided categorical results of social acceptance rating each focus student as popular, average, or rejected. For the first research question, descriptive statistics were calculated (i.e., average SAI; percentage of participants rated popular, average, and rejected) to evaluate the social acceptance of students with severe disabilities. For the second research question, cross tabs were calculated to evaluate the SAI and percentage of participants rated as popular, average and rejected were calculated across intensity of paraprofessional support (i.e., occasionally, half day, most of the day, all day).

Results

Participants

Twenty-two students with severe disabilities participated in this study. The majority of focus students received special education services under IDEA (2004) category of Autism (40.9%) or Intellectual disability (54.5%); 16 of the students (72.7%) had multiple special education labels. On average focus students were 8.0 years old (range, 5 to 11) and were male (59.1%). The focus students spanned Kindergarten through fifth grade, with the majority in first grade (22.7%) or third grade (22.7%). The average class size was 20 students (range, 12 to 28 students) and, on average, there were four students with disabilities (range, 1 to 8 students) in participating classrooms. Focus students received varying levels of paraprofessional support during the school day – occasionally (n = 3; 12.5%), half of the day (n = 3; 12.5%), most of the day (n = 2; 8.3%), or all day (n = 14; 58.3%). All students who use AAC and/or have a behavior intervention plan (BIP) receive paraprofessional support either most of the day or all day. See Table 1 for a summary of demographic information of focus students.

Table 1. Demographic Information of Focus Students

		Intensity of Paraprofessional Support			
Variable	Total Sample	Occasionally (n = 3)	Half Day (n = 3)	Most Day (n = 2)	All Day (n = 14)
Grade					
Kindergarten	3 (13.6%)	1 (33.3%)	-	-	2 (14.3%)
First	5 (22.7%)	-	-	1 (50.0%)	4 (28.6%)
Second	3 (13.6%)	1 (33.3%)	-	1 (50.0%)	1 (7.1%)
Third	5 (22.7%)	-	2 (66.7%)	-	3 (21.4%)
Fourth	4 (18.2%)	1 (33.3%)	1 (33.3%)	-	2 (14.3%)
Fifth	2 (9.1%)	-	-	-	2 (14.3%)
Race					
Caucasian	18 (81.8%)	2 (66.7%)	3 (100.0%)	1 (50.0%)	12 (85.7%)
Hispanic	1 (4.5%)	-	-	-	1 (7.1%)
African American	1 (4.5%)	1 (33.3%)	-	-	-
Asian	1 (4.5%)	-	-	-	1 (7.1%)
Two or more	1 (4.5%)	-	-	1 (50.0%)	-
Gender					
Male	13 (59.1%)	1 (33.3%)	2 (66.7%)	-	10 (71.4%)
Female	9 (40.9%)	2 (66.7%)	1 (33.3%)	2 (100.0%)	4 (28.6%)

Uses AAC device	8 (36.4%)	-	-	1 (50.0%)	7 (50.0%)
Behavior intervention plan	6 (27.3%)	-	-	-	6 (42.9%)
% of day included[1]	62.2 (24.8)	67.5 (24.1)	50.0 (0.0)	67.5 (17.7)	62.9 (28.9)
Social Acceptance Index[1]	0.52 (0.21)	0.60 (0.24)	0.78 (0.33)	0.40 (0.02)	0.48 (0.17)

Note. [1] Mean and standard deviation.

In addition to paraprofessional support, consulting teacher model was used with 95.5% (n = 21) of the focus students, peer mediated interventions were used with 90.1% (n = 20) of focus students, resource room was used with 81.8% (n = 18) of focus students, and co-teaching was used with 36.4% (n = 8) of focus students.

According to the SIF, half of the focus students (50.0%) respond to social interaction, but do not initiate or sustain these interactions. The majority of the focus students (59.1%) use symbolic language, while about one-third (36.4%) use intentional communication but not at the symbolic level. Eight students (36.4%) use augmentative and alternative communication (AAC). The majority of focus students (72.7%) required additional cues to follow 1-2 step directions. Approximately one third (31.8%) of students required adaptations to support motor functioning. Most of the focus students (90.9%) were reported to have high levels of attendance at school (i.e., at least 90% of the time). Special educators reported two focus students (9.1%) attended 75% of school days with absences being mostly health related. See Table 2 for a summary of the learning characteristics of the focus students.

Table 2. Learning Characteristics of Focus Students

Variable	Total Sample	Intensity of Paraprofessional Support			
		Occasionally (n = 3)	Half Day (n = 3)	Most Day (n = 2)	All Day (n = 14)
Expressive communication[1]					
Uses symbolic language	13 (59.1%)	3 (100.0%)	3 (100.0%)	1 (50.0%)	6 (42.9%)
Uses intentional language	8 (36.4%)	-	-	1 (50.0%)	7 (50.0%)
Uses cries, facial expressions	1 (4.5%)	-	-	-	1 (7.1%)
Receptive communication[1]					
Follows 1-2 step directions	5 (22.7%)	1 (33.3%)	2 (66.7%)	-	2 (14.3%)
Cues to follow 1-2 step directions	16 (72.7%)	2 (66.7%)	1 (33.3%)	2 (100.0%)	11 (78.6%)
Physical assistance to follow directions	1 (4.5%)	-	-	-	1 (7.1%)
Motor ability[1]					
No significant motor dysfunctions	14 (63.6%)	3 (100.0%)	3 (100.0%)	-	8 (57.1%)
Adaptations to support functioning	7 (31.8%)	-	-	2 (100.0%)	5 (35.7%)
Personal assistance for most activities	1 (4.5%)	-	-	-	1 (7.1%)
Engagement[1]					
Initiates and sustains social interactions	8 (36.4%)	2 (66.7%)	3 (100.0%)	-	3 (21.4%)
Responds to initiations	11 (50.0%)	-	-	2 (100.0%)	9 (64.3%)
Alerts to others	3 (13.6%)	1 (33.3%)	-	-	2 (14.3%)
Attendance[1]					
Attends at least 90% of school days	20 (90.1%)	3 (100.0%)	3 (100.0%)	2 (100.0%)	12 (85.7%)
Attends 75%, absences health related	2 (9.1%)	-	-	-	2 (14.3%)

Note. [1]Items and responses were adapted from the Learner Characteristics Inventory (LCI).

Social Acceptance and Paraprofessional Support

Overall, the majority (63.6%) of focus students had average levels of social acceptance; one focus student (4.5%) was rated as rejected, and seven students (31.8%) were rated as popular. According to the SAI calculated for each focus student, those who receive

paraprofessional support (as indicated by the special educator on the SIF) had a SAI of 0.53 (range, 0.1 – 1.0). This suggests that, on average, focus students received about as many smiley face ratings as neutral or sad face ratings from their classmates.

Across levels of paraprofessional support, two focus students (66.7%) receiving occasional (i.e., 1-25% of the school day) support from a paraprofessional were rated popular and one focus student (33.3%) was rated as average. Of the focus students receiving paraprofessional support for half of the day (i.e., 26-50% of the day), two (66.7%) were rated as popular and one (33.3%) was rated as average. All of the focus students (n = 2; 100%) receiving paraprofessional support for most of the school day (i.e., 51-75%) were rated as average. Of the students who receive paraprofessional support all day (i.e., 76-100% of the school day), the majority (n = 10; 71.4%) were rated as average, with one focus student (7.2%) rated as rejected, and three focus students (21.4%) rated as popular. When pulling out the students who have a BIP (n = 6), one focus student (16.7%) was rated as popular and five (83.3%) were rated as average. Of the focus students who use AAC (n = 8), three (37.5%) were rated as popular and five (62.5%) were rated as average. Figure 1 displays the social acceptance category across varying intensities of paraprofessional support.

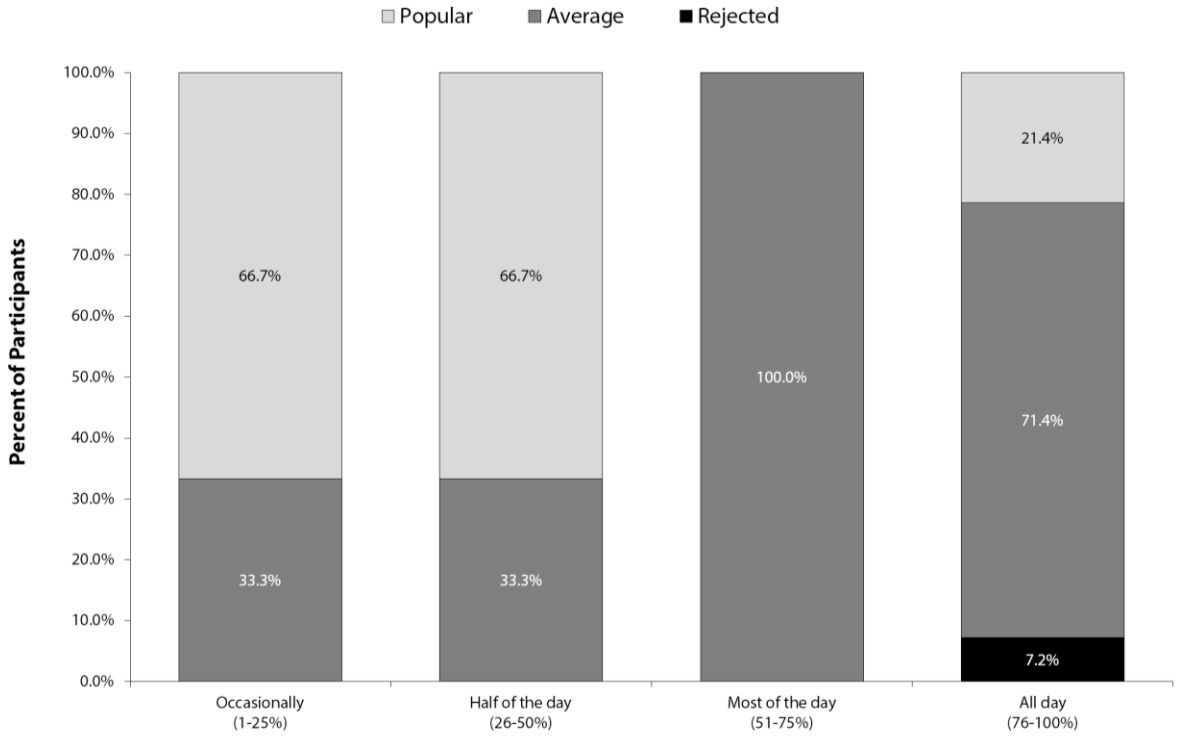

Figure 1. Category of social acceptance across frequencies of paraprofessional support

Focus students receiving occasional (i.e., 1-25% of the school day) support from a paraprofessional had an average SAI of 0.60 (range, 0.35 to 0.84) suggesting that, on average, focus students in this group received more smiley face ratings than neutral or sad face ratings. Those receiving paraprofessional support for half of the day (i.e., 26-50% of the day) had an average SAI of 0.78 (range, 0.40 to 1.0) which suggests, on average, focus students in this group received more smiley face ratings than neutral or sad face ratings. The average SAI for students receiving paraprofessional support for most of the school day (i.e., 51-75%) was 0.40 (range,

0.39 to 0.41), suggesting that on average focus students in this group received fewer smiley face ratings than neutral or sad face ratings. Of the students who receive paraprofessional support all day (i.e., 76-100% of the school day), average SAI was 0.48 (range, 0.13 to 0.71), which suggests, on average, focus students in this group received fewer smiley face ratings than neutral or sad face ratings. When pulling out the students who have a BIP (n = 6), average SAI was 0.50 (range, 0.13 to 0.71). Of the focus students who use AAC (n = 8), average SAI was 0.56 (range, 0.39 to 0.71). Figure 2 displays average SAI by intensity of paraprofessional support.

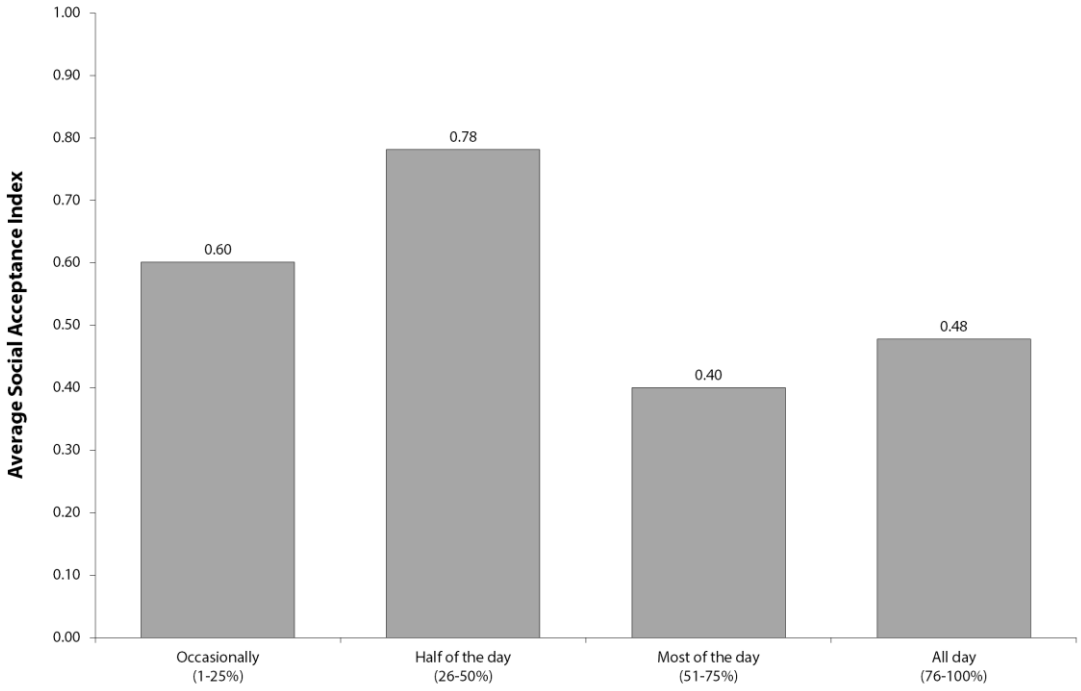

Figure 2. Average social acceptance index across frequencies of paraprofessional support

Discussion

Students with severe disabilities require extensive support to participate in everyday activities (i.e., daily living, community involvement; NICHCY, 2004). As educators, it is important to remember that one of these activities is developing friendships or networks of supports (Carter et al., 2013; Heiman, 2000; Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011). Including students with severe disabilities with their peers provide endless opportunities to foster friendship and capitalize on natural supports. An essential component of high quality inclusive educational settings is establishing a classroom climate that is accepting of diversity so all students,

regardless of disability status, are considered a member of the class (Billingsley et al., 1996; Kozleski et al., 2015; Schnorr, 1990; Test et al., 2014). Findings from the current study corroborate and extend evidence from previous research that while students with severe disabilities have average acceptance by their peers overall (Janney, Snell, Beers, & Raynes, 1995), certain contextual factors have an impact on a student's social acceptance by their peers. As with previous research evaluating peer attitudes towards students with disabilities (de Boer et al., 2012), findings from the current study provide additional evidence that focus students who

receive paraprofessional support have average social acceptance and students who have BIPs have lower social acceptance. Furthermore, Cook and Semmel (1999) found that contextual factors impacted peer acceptance of students with severe disabilities. Similarly, the current study found trends in peer acceptance based on the intensity of paraprofessional support. The results provide initial evidence that students with severe disabilities who receive more frequent paraprofessional support have lower social acceptance than their counterparts who do not receive as frequent support from paraprofessionals.

There are several plausible explanations as to why focus students who receive more frequent paraprofessional support have lower social acceptance. CH (Allport, 1979; Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006) suggests the quality of exposure or contact with specific populations directly impacts the formation of positive attitudes towards them. Using this logic, findings from the current study may be attributed to the quality of supports provided by paraprofessionals when students with severe disabilities are included with their peers. Previous research evaluating educators' attitudes towards students with disabilities suggests professionals may hold the belief that a student's disability makes them vulnerable, requiring protection (Berry, 2006). When supporting students with severe disabilities, paraprofessionals may take more of a protective approach to providing support to these students, rather than fostering meaningful participation and actively creating socialization opportunities with peers during activities in the various educational contexts where they are exposed to their peers. Furthermore, instead of being fully included, the student may simply be integrated into a certain setting without appropriate planning for the participation of the student in planned activities. For example, while the student with severe disabilities may be in the same classroom as peers, they may not be actively engaged in the activities their peers are doing, but rather working on separate tasks in a separate portion of the classroom. Such practices limit the exposure peers have and impede naturally occurring social opportunities (Giangreco, 2010; Giangreco, Edelman, Luiselli, & MacFarland, 1997).

In addition to quality of exposure, CH (Allport, 1979; Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006) suggests that providing peers with information about the physical, communication, and/or behavioral characteristics that students with severe disabilities may demonstrate, in addition to offering opportunities to interact with students with severe disabilities who receive appropriate supports, will result in positive contact effects. Findings from the current study may be a manifestation of limited knowledge of paraprofessionals regarding the social benefits of inclusion and/or strategies to facilitate social opportunities for students with severe disabilities. Paraprofessionals are charged with providing individualized support to students with severe disabilities when they are included with their peers, which involves the development of skills of students with severe disabilities, as well as sharing relevant information with those in their immediate environment to make them comfortable approaching and interacting with them. For example, when supporting students with severe disabilities in inclusive settings, paraprofessionals may be hesitant to encourage peers to provide support to the student because they are uncomfortable having other students providing supports they believe they are supposed to be providing to the student. This role confusion is detrimental to the overall goal of inclusion. Paraprofessionals need to be cognizant of how their presence affects the natural social opportunities for the students they support and overcome this by facilitating interactions and capitalizing on social opportunities.

Practical Implications for the Field

When an educator learns that a student with severe disabilities will be included in their classroom, there is a period of information gathering they undergo to prepare for having the student in their classroom. One step that is just as important to the success of inclusion is sharing information and/or preparing the peers, much as they prepare their professional team. Such planning is directly related to creating a classroom climate that is accepting of diversity. Information shared with peers can be specific to an individual student or generic information about diversity in certain domains (e.g., communication, behavior, motor skills). Determining what information to share can be accomplished in a variety of ways: (a) reflect on what information peers will need to understand how to communicate with a student, (b) consider whether there are unique behaviors that peers may need to be aware of to reduce fear, (c) ask the peers what questions they have, and/or (d) ask the student and/or parent(s) what information to share. There are also several options for delivering this information to peers: (a) the student can share information about themselves; (b) peers can directly ask questions either to the student, parent or teacher as they naturally arise or in a structured context; (c) teacher can share information; and/or (d) parents can share information. Ensuring peers have sufficient information regarding the behavioral and/or communication challenges students with severe disabilities experience will increase their confidence and likelihood of interacting with students with severe disabilities across the school day. Such information can also be incorporated as part of school initiatives to improve school climate by including disability as a specific category of diversity that all students are provided information on generally. Adding this to school climate initiatives provides educators and staff administrative support for their efforts to create inclusive environments for all students and will be reflected in peers' attitudes.

When utilizing paraprofessional support as a way to support students with severe disabilities in inclusive settings, it is imperative to consider the amount of training a paraprofessional has related to supporting students in inclusive settings. To effectively support students with severe disabilities, paraprofessionals need training on the social purpose of inclusion, understanding their role in an inclusive classroom, and specific strategies to facilitate socialization between students with severe disabilities and their peers in both structured and unstructured educational settings. Data from the current study suggests that training specific to facilitating opportunities for students who use augmentative and alternative communication (AAC) systems and students who have behavior intervention plans (BIPs) may be even more important, as both of these subgroups of students made up the majority (87.5%) of the focus students who received more frequent paraprofessional support and lower social acceptance in the sample. Ensuring adequate training will reduce the likelihood of role confusion paraprofessionals experience when supporting students with severe disabilities in general education settings and will maximize the benefits of inclusion for the students they support.

Furthermore, when determining necessary supports for inclusive programming for students with severe disabilities, thoughtful consideration must be given to the goals of these experiences and how the support will improve the experience for all members of the classroom, especially the student receiving the support. While paraprofessionals are integral to the provision of special education services (Dillon & Ebmeier, 2009; Giangreco, Edelman, & Broer, 2001), several negative effects of paraprofessional supports for students with disabilities in inclusive classrooms have been cited (Giangreco, 2010; Giangreco, Yuan, McKenzie, Cameron, & Fialka, 2005.; Suter & Giangreco, 2009). Therefore, districts must consider potential detrimental effects of certain support options and make a plan to assess whether they occur in each unique situation

and how to adjust the support if they do occur. For example, the Department of Education in New York State recently passed new requirements for the assignment of a one-to-one paraprofessional (Geary, 2016). Some of the requirements include explicitly outlining the skills and goals for the student to increase independence; identifying harmful effects that might result from the support; listing alternative supports, accommodations, or services; and specifying the training that will be provided to the paraprofessional to ensure they understand the student's disability and support needs. These types of regulations by states will help improve these issues systemically and ensure that supports provided are effective for each individual student across different contexts.

Limitations and Suggestions for Future Research

When interpreting the results of the current study, there are limitations that need to be considered. First, this study is descriptive and exploratory in nature and is intended to only provide initial evidence of the relationship between paraprofessional support and social acceptance of students with severe disabilities. Replication with a larger sample and more rigorous analyses is needed to validate the generalization of the findings. Second, use of a sociometric instrument to quantify social acceptance does not allow for consideration of the quality of acceptance. Future studies utilizing qualitative measures in addition to the sociometric instrument will help the field better understand the contributing factors to peers' attitudes towards their peers with severe disabilities.

Because professionals' knowledge is directly related to the implementation of strategies (Clarke & Hollingsworth, 2002), future research evaluating the training needs of paraprofessionals is warranted. Specifically, information is needed on paraprofessionals' knowledge of various aspects and benefits of inclusion, perception of their role in inclusive educational settings, and the types of training and support desired related to supporting students with severe disabilities when they are included with their peers. Future research is also needed to examine the is a threshold of exposure required to develop positive attitudes towards students with severe disabilities. In ideal contexts, when peers are provided sufficient information and paraprofessional effectively facilitate socialization opportunities between students with severe disabilities and their peers, how long does it take before positive contact effects (i.e., acceptance) occur? Such data would help inform whether interventions aimed at improve this issue are effective. Lastly, it is common for LEAs to have initiatives aimed at improving school climate and increasing acceptance of diverse populations. It is unclear the extent to which disability is included as a category of diversity in such efforts. Future research should consider the impact of initiatives to improve school climate on peer acceptance of students with severe disabilities.

References:

Allport, G. W. (1979). *The nature of prejudice*. Reading, MA: Addison-Wesley.

Asher, S. R., & Dodge, K. A. (1986). Identifying children who are rejected by their peers. *Developmental Psychology*, *22*(4), 444.

Berry, R. A. W. (2006). Beyond Strategies Teacher Beliefs and Writing Instruction in Two Primary Inclusion Classrooms. *Journal of Learning Disabilities*, *39*(1), 11–24.

Billingsley, F., Gallucci, C., Peck, C., Schwartz, I., & Staub, D. (1996). "But Those Kids Can't Even do Math:" An Alternative Conceptualization of Outcomes for Inclusive Education. *The Special Education Leadership Review*, *3*, 44–55.

Carter, E., Asmus, J., & Moss, C. (2013). Fostering friendships: Supporting relationships among youth with and without developmental disabilities. *The Prevention Researcher*, *20*(2), 14–17.

Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, *18*, 947–967.

Coie, J. D., & Dodge, K. A. (1983). Continuities and change in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly*, *29*(3), 261–282.

Cook, B., & Semmel, M. (1999). Peer Acceptance of Included Students with Disabilities as a Function of Severity of Disability and Classroom Composition. *The Journal of Special Education*, *33*(1), 50–61.

Damore, S. J., & Murray, C. (2009). Urban Elementary School Teachers' Perspectives Regarding Collaborative Teaching Practices. *Remedial and Special Education*, *30*(4), 234–244. https://doi.org/10.1177/0741932508321007

de Boer, A., Pijl, S. J., Post, W., & Minnaert, A. (2012). Which variables relate to the attitudes of teachers, parents, and peers towards students with special educational needs in regular education? *Educational Studies*, *38*(4), 433–448. https://doi.org/10.1080/03055698.2011.643109

Dillon, A., & Ebmeier, H. (2009). The development and field test of an employment interview instrument for school paraprofessionals. *Journal of Special Education Leadership*, *22*(2), 93–104.

Douglas, S. N., Chapin, S. E., & Nolan, J. F. (2015). Special Education Teachers' Experiences Supporting and Supervising Paraeducators Implications for Special and General Education Settings. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 0888406415616443.

Downing, J. E., Eichinger, J., & Williams, L. J. (1997). Inclusive education for students with severe disabilities comparative views of principals and educators at different levels of implementation. *Remedial and Special Education*, *18*(3), 133–142.

Downing, J. E., & Peckham-Hardin, K. D. (2007). Inclusive education: What makes it a good education for students with moderate to severe disabilities. *Research & Practice for Persons with Severe Disabilities*, *32*(1), 16–30.

Frederickson, N., & Graham, B. (1999). *Social Skills and Emotional Intelligence: Psychology in Education portfolio*. Windsor: NFER-Nelson.

Frederickson, N. L., & Furnham, A. F. (1998). Sociometric classification methods in school peer groups: A comparative investigation. *Journal of Child Psychology and Psychiatry*, *39*(6), 921–933.

Geary, P. (2016, June). New Requirements for Special Education Programs and Services: Amendment of Sections 200.4, 200.16 and 200.20 of the Commissioner's Regulations Relating to Recommendations for One-to-One Aides for Preschool and School-Age Students with Disabilities and Preschool Special Education Programs and Services. Special Education Field Advisory. Retrieved from http://www.p12.nysed.gov/specialed/publications/documents/new-regs-for-one-to-one-aides.pdf

Giangreco, M., Edelman, S., & Broer, S. (2001). Respect, Appreciation, and Acknowledgment of Paraprofessionals who Support Students with Disabilities. *Exceptional Children*, *67*(4), 485–498.

Giangreco, M. F. (2010). One-to-one paraprofessionals for students with disabilities in inclusive classrooms: Is conventional wisdom wrong? *Intellectual and Developmental Disabilities*, *48*(1), 1–13. https://doi.org/10.1352/1934-9556-48.1.1

Giangreco, M. F., Edelman, S. W., Luiselli, T. E., & MacFarland, S. Z. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children*, *64*(1), 7–18.

Giangreco, M., Yuan, S., McKenzie, B., Cameron, P., & Fialka, J. (2005). "Be Careful what You Wish for...": Five Reasons to be Concerned about the Assignment of Individual Paraprofessionals. *TEACHING Exceptional Children*, *37*(5), 28–34.

Grenier, M. (2011). Coteaching in physical education: A strategy for inclusive practice. *Adapted Physical Activity Quarterly*, *28*(2), 95–112.

Heiman, T. (2000). Friendship quality among children in three educational settings. *Journal of Intellectual & Developmental Disability*, *25*(1), 1–12.

Hughes, M. T., & Valle-Riestra, D. M. (2008). Responsibilities, preparedness, and job satisfaction of paraprofessionals: Working with young children with disabilities. *International Journal of Early Years Education*, *16*(2), 163–173. https://doi.org/10.1080/09669760701516892

Idol, L. (2006). Toward Inclusion of Special Education Students in General Education: A Program Evaluation of Eight Schools. *Remedial and Special Education*, *27*(2), 77–94.

Individuals with disabilities education act (IDEA), § 20 U.S.C. § 1400 (2004).

Janney, R. E., & Snell, M. E. (1997). How teachers include students with moderate and severe disabilities in elementary classes: The means and meaning of inclusion. *Journal of the Association for the Severely Handicapped*, *22*, 159–169.

Janney, Rachel E., Snell, M. E., Beers, M. K., & Raynes, M. (1995). Integrating students with moderate and severe disabilities: Classroom teachers' beliefs and attitudes about implementing educational change. *Educational Administration Quarterly*, *31*(1), 86–114.

Joerdens, S. H. (2014). "Belonging means you can go in": Children's perspectives and experiences of membership of Kindergarten. *Australasian Journal of Early Childhood*, *39*(1), 12–21.

Kasari, C., Locke, J., Gulsrud, A., & Rotheram-Fuller, E. (2011). Social Networks and Friendships at School: Comparing Children with and Without ASD. *Journal of Autism and Developmental Disorders*, *41*(5), 533–544. https://doi.org/10.1007/s10803-010-1076-x

Kavale, K. A., & Forness, S. R. (2000). History, rhetoric, and reality analysis of the inclusion debate. *Remedial and Special Education*, *21*(5), 279–296. https://doi.org/10.1177/074193250002100505

Kearns, J., Kleinert, H., Kleinert, J., & Towles-Reeves, E. (2006). *Learner Characteristics Inventory*. Lexington, KY: University of Kentucky, National Alternate Assessment Center. Retrieved from http://uknowledge.uky.edu/gradschool_theses/128/

Kent-Walsh, J., & Light, J. (2003). General Education Teachers' Experiences with Inclusion of Students who use Augmentative and Alternative Communication. *Augmentative and Alternative Communication*, *19*(2), 104–124. https://doi.org/10.1080/0743461031000112043

Kilanowski-Press, L., Foote, C., & Rinaldo, V. (2010). Inclusion classrooms and teachers: A survey of current practices. *International Journal of Special Education*, *25*(3), 43–56.

Kozleski, E. B., Yu, T., Satter, A. L., Francis, G. L., & Haines, S. J. (2015). A Never -Ending Journey Inclusive Education Is a Principle of Practice, Not an End Game. *Research and Practice for Persons with Severe Disabilities*, *40*(3), 211–226. https://doi.org/10.1177/1540796915600717

Kurth, J. A., Lyon, K. J., & Shogren, K. A. (2015). Supporting Students with Severe Disabilities in Inclusive Schools A Descriptive Account from Schools Implementing Inclusive Practices. *Research and Practice for Persons with Severe Disabilities*, *40*(4), 261–274. https://doi.org/10.1177/1540796915594160

Naraian, S. (2010). "Why not have fun?": Peers make sense of an inclusive high school program. *Intellectual and Developmental Disabilities*, *48*(1), 14–30. https://doi.org/10.1352/1934-9556-48.1.14

NICHCY Disability Fact Sheet: Severe/Multiple Disabilities. (2004, January). National Dissemination Center for Children with Disabilities.

Pettigrew, T. F., & Tropp, L. R. (2011). *When in groups : The dynamics of intergroup contact*. New York: Psychology Press.

Pettigrew, Thomas F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90*(5), 751–783. https://doi.org/10.1037/0022-3514.90.5.751

Riggs, C. G. (2001). Ask the paraprofessionals: What are your training needs? *TEACHING Exceptional Children*, *33*(3), 78–83.

Schnorr, R. (1990). "Peter? He comes and goes...:" First graders' perspectives on a part-time mainstream student. *TASH*, *15*(4), 231–240.

Silberman, M. (1969). Behavioral Expression of Teachers' Attitudes Towards Elementary School Students. *Journal of Educational Psychology*, *60*(5), 402–407.

Stockall, N. S. (2014). When an Aide Really Becomes an Aid: Providing Professional Development for Special Education Paraprofessionals. *TEACHING Exceptional Children*, *46*(6), 197–205. https://doi.org/10.1177/0040059914537202

Suter, J. C., & Giangreco, M. F. (2009). Numbers that count: Exploring special education and paraprofessional service delivery in inclusion-oriented schools. *The Journal of Special Education*, *43*(2), 81–93. https://doi.org/10.1177/0022466907313353

Taylor, S. (2004). Caught in the continuum: A critical analysis of the principle of the least restrictive environment. *Research & Practice for Persons with Severe Disabilities*, *29*(4), 218–230.

Test, D. W., Smith, L. E., & Carter, E. W. (2014). Equipping youth with autism spectrum disorders for adulthood: Promoting rigor, relevance, and relationships. *Remedial and Special Education*, 0741932513514857.

Tews, L., & Lupart, J. (2008). Students with disabilities' perspectives of the role and impact of paraprofessionals in inclusive education settings. *Journal of Policy and Practice in Intellectual Disabilities*, *5*(1), 39–46.

Wilkerson, K., & Lequia, J. L. (2015). Maximizing the benefits of working cooperatively with peers. In K. R. Harris & L. Meltzer (Eds.), *The Power of Peers in the Classroom: Enhancing learning and social skills* (pp. 224–250). New York: Guildford Press.