Autism Support Teachers' Attitudes about Inclusion for Children with Autism

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Abstract

This study examined autism support teachers' attitudes about inclusion, as well as perceived barriers and resource needs. A survey was developed for this study and administered to 27 elementary teachers in autism support (AS) classrooms in a large, urban district. Approximately 75% of students in the sample were educated primarily in self-contained settings, although 70% had teachers who recommended more inclusion. AS teachers were more concerned about the readiness of general education teachers and their classrooms than the readiness of their students. The greatest needs were school-wide training (47%), acceptance of students with autism (38%), smaller class sizes (31%) and more support staff (31%). AS teachers' attitudes about student placement were somewhat conflicted, underscoring the need to build school-wide capacity and promote greater acceptance.

Keywords: *autism, inclusion, teacher attitudes, special education, placement*

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According to the American Psychiatric Association (2013), ASD is a developmental disorder characterized by impairment in basic areas of functioning that include social, communication, and behavioral domains, with delays in functioning often present before the age of three. The proportion of students with autism spectrum disorders (ASD) included in general education settings is increasing (National Center for Educational Statistics [NCES], 2013). From 2000 to 2011, the percentage of students with ASD spending 80% or more of the school day in a general education setting has increased from approximately 25% to nearly 40% (NCES, 2013). Most children with ASD still spend the majority of their time in segregated education settings, however. As of 2011, 43% of students with autism between the ages of 6 and 21 were educated primarily in self-contained classrooms or in more restrictive settings, while approximately 18% spent between 21% and 60% of their school day outside of the general education classroom (NCES, 2013). Little is known regarding the factors that affect placement decisions. Special education teachers (specifically autism support teachers) are critical stakeholders in this process who provide recommendations for student placement. Given autism support teachers' specialized training and knowledge of their students' needs, it is important to understand their perspective on the barriers to inclusion within the urban context and the resource needs they identify at the child, teacher, classroom, parent and school levels.

Research on key stakeholders' attitudes about inclusion has resulted in mixed findings, and has not examined the attitudes of special education teachers, nor has it focused on the placement decision process for students with ASD. Studies on this topic have considered teachers' attitudes about inclusion from a broader, hypothetical standpoint, rather than for specific students with whom they work. Principals and teachers more strongly favored inclusion of children with mild disabilities (Avramidis & Norwich, 2012; Cook, Semmel, & Gerber, 1999) and had more positive beliefs on inclusion when they had more training and knowledge of disabilities (Beacham & Rouse, 2012; Fazal, 2012; Praisner, 2012). Special educators, on the other hand, seemed to be more enthusiastic about the opportunities inherent in inclusion, but lacked confidence in the academic benefits of inclusive classrooms (Cook, Semmel, & Gerber, 1999; Familia-Garcia, 2001).

Child, classroom, and school-level variables all may play a role in the process of placement decision-making. Needs driven placement decisions should first consider the child's level of functioning. Child-level variables that have been found to be associated with educational placement for students with ASD are age, cognitive ability, academic achievement, and the severity of autistic behavior (Avramidis & Norwich, 2002; Avramidis & Norwich, 2012; Eaves & Ho, 1997). Other research has shown that while children with ASD often are able to meet the academic demands of a general classroom setting, the social aspects present much more of a challenge (Chamberlain, Kasari, & Rotheram-Fuller, 2007; Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011; Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010). While children with ASD display more prosocial behavior in an inclusive setting than they do in a segregated classroom (Carr & Darcy, 1990; Eldar, Talmor, & Wolf-Zuckerman, 2010; Garfinkle & Schwartz, 2002; 1994; McGregor & Vogelsberg, 1998; Ryndak, Downing, Jacqueline, & Morrison, 1995), they also are rejected more often by their typical peers, perceive fewer friendships, and report more loneliness (Church, Alisanski, & Amanullah, 2000; Locke, Ishijima, Kasari, & London, 2010).

Classroom level considerations that may affect placement decisions include class size, the degree of structure within the classroom environment, empathy and openness of peers related to the inclusion of a student with a disability, and teacher attitudes and prior experience with inclusion. A meta-analysis by Scruggs and Mastropieri (1996) of 28 studies found that while 65% of general education teachers claim to support inclusion, only 29% feel prepared to support it in their classrooms. Avramidis and Norwich (202) identified teacher support (including supports from parents, other teachers, specialists, and administrators, as well as technology and instructional resources) as most influential in attitudes about inclusion. Large classroom enrollment in many urban settings can create challenges both for children with ASD used to receiving more individualized support and also for general education teachers who need to divide their resources among students with a wider variety of needs.

School-level considerations for placement decisions include financial constraints, teacher and staff training, principals' attitudes toward inclusion, and the current pressure of the standards movement being faced in schools across the nation based on No Child Left Behind (Voltz, Sims, Nelson, & Bivens, 2008). Schools in large, urban districts often struggle to raise student test scores, and their challenge of meeting accountability standards may be exacerbated by a lack of

resources (Voltz et al., 2008). The current test-driven culture of many urban schools has been associated with increased referrals to special education, demonstrating teachers' concerns that student test scores and their own teaching skills may be adversely affected by having students with disabilities in the classroom (Defur, 2002). Principals' belief that children with ASD should be included in general education settings has been found to be one of the most important factors predicting the attitudes of other stakeholders within the school, as well as how many recommendations are made for inclusive placement (Eldar et al., 2010).

Special education teachers may offer a unique perspective on the skills and readiness of a child with ASD, as well as the general education and school environments. Prior research also indicates that teachers need additional resources, including training and broader structural changes (e.g. smaller class size), to make inclusion more successful (Buell, Hallam, & Gamel-McCormick, 1999). However, the specific resources needed to support students with ASD in inclusive classroom settings from the perspective of AS teachers have not yet been explored. The majority of the research on stakeholder attitudes has focused on general education teachers, who are primarily responsible for the implementation of inclusion, and on principals, who are seen as key supervisors of special education classrooms at the building level (Horrocks, White, & Roberts, 2008). The purpose of this study was to examine the attitudes of AS teachers about the inclusion of students with high-functioning ASD, to determine what AS teachers perceive to be the barriers of inclusion at the child, classroom, and school-wide levels, and to identify what resources AS teachers think would make inclusion more successful within this unique context.

Methods

Study Context. Data collection for this project was part of a larger study, the Autism Instructional Methods Study (AIMS), which comprised a three-year randomized controlled trial of two classroom-based instructional programs for students with autism in kindergarten through second grade autism support classrooms (Mandell et al., 2013).

Sample and Procedure. The researchers administered a survey to autism support teachers working in elementary public school classrooms participating in AIMS. Teacher volunteers were asked to respond about specific children, who were selected because they had a General Conceptual Ability (GCA) score of 80 or above on the Differential Ability Scale, 2nd edition (see measures). The GCA score is a composite score that measures reasoning and conceptual abilities. This cutoff was selected because the research team agreed that a score >80 would make the student a more likely candidate for inclusion. Teachers could complete a survey for more than one child in their classrooms. The teacher survey took approximately 15 minutes to complete for each student. Teachers were given the surveys to complete during the final round of data collection for AIMS, which took place in May, 2011. Surveys were either mailed out to individual teachers or delivered in-person by AIMS consultants traveling to various school sites during the process of collecting student data. Completed surveys were then collected by these consultants during subsequent visits to the school sites.

Measures
<u>Child Cognitive Ability</u>. The *Differential Ability Scales, Second Edition* (DAS-II; Elliott, 2007) was used to measure the cognitive ability of the students with ASD participating in AIMS. This

measure is designed for use with children between the ages of 2 years 6 months and 17 years 11 months. It produces an overall General Conceptual Ability (GCA) composite score, which serves as a broad indicator of cognitive functioning. Scores from the final administration of the DAS-II during the third year of AIMS (May 2011) by trained clinicians were used to identify the students for whom teachers would complete surveys for this study.

<u>Teacher Attitudes Survey</u>. A range of measures have been developed to help determine teacher attitudes' toward inclusion. A vast majority of these measures rely on self-report that follow a Likert-type format. No validated measure explores teacher attitudes towards the inclusion of students with ASD specifically. We therefore developed a measure for this study based on the framework for synthesizing the literature on teachers' attitudes about inclusion used by Avramidis and Norwich (2002), who organized their literature review into 'child-related,' 'teacher-related,' and 'educational environment-related' variables. A copy of the survey is available from the authors. After the students with ASD who met the criteria for being higher-functioning (score of 80 or above on the DAS-II) were identified, their teachers were asked to complete a survey for that specific child. Instructions stated that teachers should "think specifically about <u>this child's</u> level of functioning in relation to the specific resources or challenges present" in their school setting.

In Part 1 of the survey, teachers were asked to provide demographic information about themselves, their classrooms, and their students to identify child, classroom, and school-level factors. In Part 2, teachers were asked to provide their own perceptions about the child's current and future educational placement. Specifically, they were asked about the appropriateness of the current placement, as well as how likely they would be to recommend the student for more time in a general education setting in the next year. In Part 3, teachers were asked about various child, classroom, teacher, and school factors that they might consider when making placement decisions for the child. They had to rate how much they would consider each item (e.g. "I would consider this a lot/little/not at all") on a 3 point Likert-scale. In Part 4, teachers were asked to think specifically about their school and which of the factors (identified in Part 3) were currently in place. This part also included a four point Likert-type scale with options ranging from "Strongly Disagree" to "Strongly Agree." Part 5 was an open-ended section asking AS teachers to identify what resources would make inclusion more successful at the student, classroom, and school-wide levels.

Analysis. Means and standard deviations or percentages were calculated for teacher and classroom demographic variables, as well as for teachers' ratings of appropriateness and future recommendations for student placement. Items in Part 3 and Part 4 of the survey were conceptualized as clusters of child and context-related variables described in the literature as impacting attitudes about inclusion. Means and standard deviations were computed for each cluster (i.e., child, classroom, teacher, parent, school), as well as for each individual item. T-tests were used to check for significant differences between items. Open-ended responses from the final section of the survey were independently coded by three raters for themes, with inter-rater reliability ranging from 0.91 to 0.97 across items. Percentages were then calculated by survey (child) for each barrier or resource need identified at the child level, and by teacher for each barrier or resource need identified at the classroom and school-wide levels.

Results

Thirty-seven surveys were completed by 27 AS teachers. Teacher experience varied widely in length of time they had been teaching (M = 10.1 years, SD = 11.3) and length of time they had worked specifically with students with ASD (M = 3.1 years, SD = 2.6). Teachers' current class size averaged 7.6 students (SD = 1.5), though some classrooms had as few as 3 students and others as many as 11. The number of classroom assistants or paraprofessionals assigned to work with an individual student within each class ranged from 1 to 7.

Approximately 75% of students in the sample spent more time in self-contained AS classrooms than in the general education setting, while 14% of students spent most of their school day in a general education classroom. Eleven percent was included for half of the school day. For 73% of students, teachers thought that the current placement was somewhat or completely appropriate. For 70% of students, teachers indicated that they probably or definitely would recommend more time in a general education setting within the next year.

Teachers rated how much they would consider each of the child, teacher, classroom, school, and parent-related factors when making a decision about whether to recommend a particular student for more time in an inclusive setting (see Table 1). Overall, there were no statistically significant differences in how much each cluster of factors was considered; however, significant differences did occur at the individual item level. Teachers ranked classroom structure and organization as most influential (M = 2.9, SD = 0.3) among classroom variables in their decision to recommend the student for more time in the general education setting. Peer academic levels, or the academic levels of other students in the class, was rated as significantly less important (M = 1.8, SD = 0.6) than all other variables. Teachers' recommendation for more inclusion for a specific student was statistically significantly correlated with how much the teacher weighted the following considerations: a well-structured and organized environment (r = 0.37), a calm classroom environment (r = 0.34), and friendly students (r = 0.36). The recommendation for more time in general education by AS teachers was also correlated with how much the teacher considered the extent to which the general education teacher and classroom peers make an effort to speak with the child (r = 0.58).

Table 1
AS Teacher Considerations about Placement Decisions and Factors Currently in Place at Their Schools

Factors	Decision Considerations[a]	Factors Currently in Place[b]
	M (SD)	*M (SD)*
Classroom-related factors	2.6 (0.4)	3.0 (0.7)
Number of students	2.5 (0.6)	2.0 (1.2)
Well-structured and organized	2.9 (0.3)	3.5 (0.6)
Calm environment	2.7 (0.5)	3.2 (0.8)
Well-behaved students	2.7 (0.5)	3.1 (0.8)
Friendly students	2.6 (0.5)	
Peer academic levels	1.8 (0.6)	

Teacher/peers speak with child	2.8 (0.4)	
Teacher-related factors	2.6 (0.3)	2.9 (0.8)
Supportive of inclusion	2.8 (0.5)	3.1 (1.0)
Prior experience	2.2 (0.7)	2.3 (0.8)
Available support staff	2.7 (0.5)	2.6 (1.1)
Experience differentiating instruction	2.6 (0.6)	3.5 (0.8)
Child-related factors	2.7 (0.5)	3.3 (0.5)
Adequate social functioning	2.7 (0.5)	
Inappropriate behavior		2.5 (1.0)
Appropriate academic levels		3.4 (0.9)
Sufficient communication skills		3.4 (0.9)
Social functioning will improve		3.7 (0.4)
Parent-related factors	2.7 (0.5)	3.5 (0.7)
Parent-teacher communication	2.7 (0.5)	
Want child included		3.5 (0.7)
Active involvement		3.5 (0.9)
School-related factors	2.4 (0.7)	2.9 (1.1)
Common planning time	2.4 (0.7)	2.9 (1.1)

Note. Blanks indicate that the item was not included in the scale.
[a] Would consider a lot=3, Would consider a little=2, Would not consider=1
[b] Strongly agree=4, Somewhat agree=3, Somewhat disagree=2, Disagree=1

Teachers then ranked the extent to which they agreed or disagreed that certain components of inclusion were already in place at their schools (see Table 1). AS teachers rated parent ($M = 3.5$, $SD = 0.7$) and child ($M = 3.3$, $SD = 0.5$) factors as higher than classroom ($M = 3.0$, $SD = 0.7$), teacher ($M = 2.9$, $SD = 0.8$), or school ($M = 2.9$, $SD = 1.1$) level variables. Among classroom variables, AS teachers reported on average that appropriate class size was not in place in their school ($M = 2.0$, $SD = 1.2$). They reported that general education classrooms in their school had appropriate structure for inclusion ($M = 3.5$, $SD = 0.6$). AS teachers also indicated that while the general education teachers were mostly supportive of inclusion ($M = 3.1$, $SD = 1.0$) and knew how to differentiate instruction ($M = 3.5$, $SD = 0.8$), they lacked experience with ASD ($M = 2.3$, $SD = 0.8$) and the necessary support staff to assist in incorporating these students into their classes ($M = 2.6$, $SD = 1.1$). Overall, AS teachers perceived parents to be actively involved ($M = 3.5$, $SD = 0.9$) and that the students were prepared in terms of their academic ($M = 3.4$, $SD = 0.9$) and communication skills ($M = 3.4$, $SD = 0.9$). There was a significant association between the recommendation for more time in a general education setting and AS teacher's belief that the child's social functioning would improve from increased exposure to his or her typically developing peers ($r = 0.40$).

In the final portion of the survey, teachers identified the resources they felt were needed to make inclusion more successful at the child, classroom, and school-wide levels. AS teachers independently generated responses within this section and could list as many resources as they wanted. At the child-level, teachers indicated that student behavior issues required the most

intervention (59%), followed by academic needs (41%). Teachers cited other areas around which their students with ASD may require supports if they were included in the general education setting, although these areas – communication skills (8%), social skills (8%), sensory needs (5%), transitions (5%), and motor skills (3%) – do not appear to be as much of a concern to AS teachers in determining placement (see Figure 1).
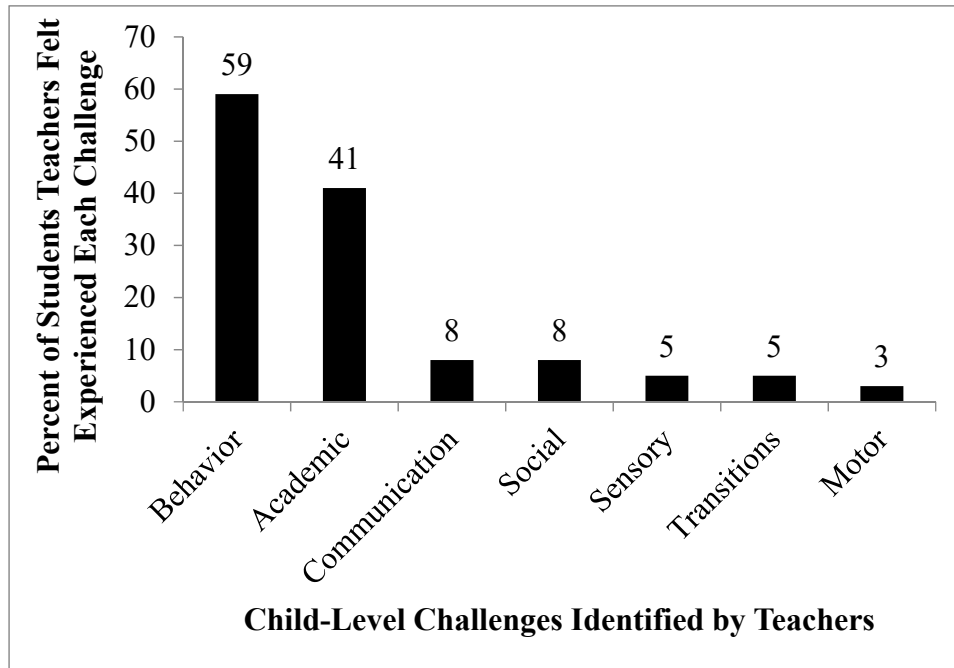

Figure 1. Child-level challenges

At the classroom level, 31% of teachers wanted smaller class size, and 31% of AS teachers also indicated the need for additional personnel within the general education classrooms at their schools. Additional identified needs within the general education classrooms included support with behavior management (24%), autism-specific training (21%), and support with differentiating instruction in the classroom (21%; see Figure 2).
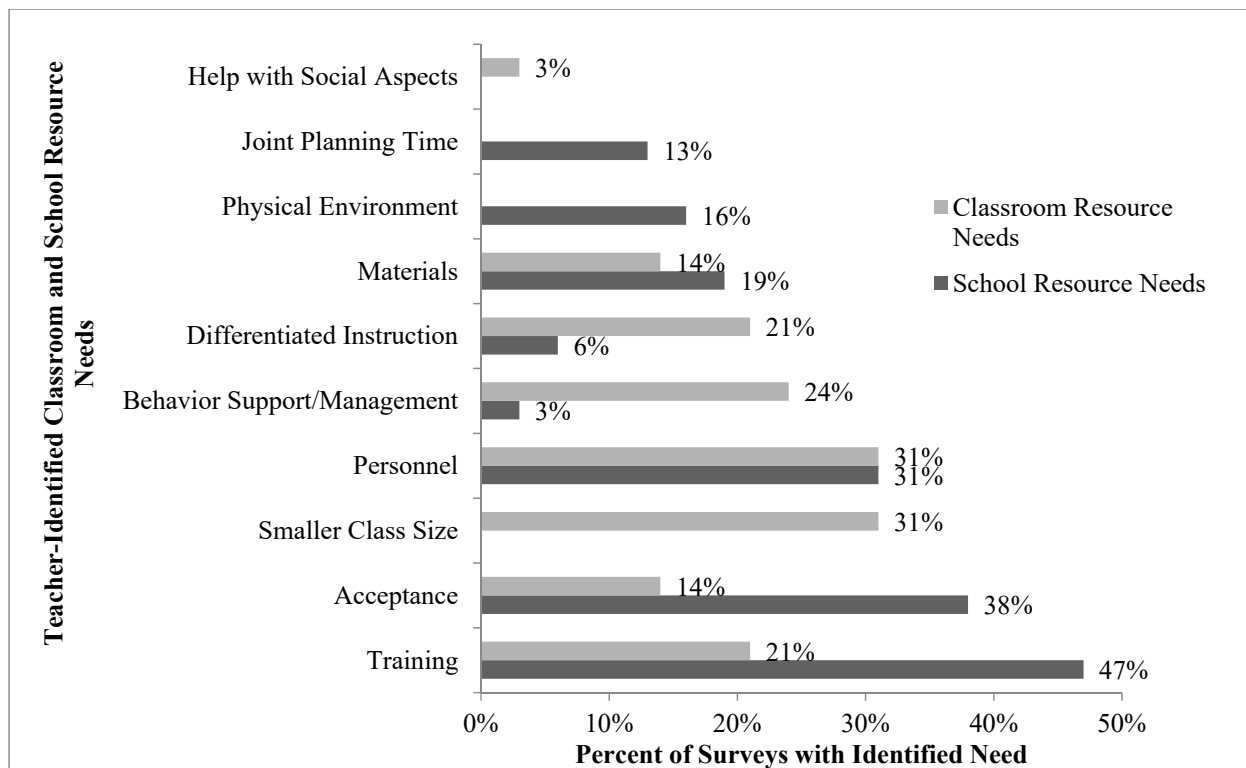
Figure 2. Resource needs at the classroom and school levels

Training, while mentioned as a classroom-level need, was the highest ranked support need at the school-wide level (47%), followed by the need for all school staff and students to have an understanding of ASD (38%). Personnel was again mentioned as a school-wide need by 31% of teachers, followed by needing additional materials (endorsed by 19% of teachers), changes to the physical environment (16%), joint planning time (13%), instructional differentiation (6%), and a school-wide behavior management system (3%).

Discussion

The results of this study indicate that AS teachers believe that many of their students with ASD and average or above average cognitive ability are ready for inclusion. Student readiness was not the sole consideration, however, in recommending a placement in the general education classroom. Teachers considered a variety of other child, classroom, school, and parent factors in making these decisions.

Many teachers' responses suggested conflicting thoughts, in that they recommended that their students spend more time in inclusive settings, despite indicating that the current placement was appropriate. AS teachers may believe that ideally, their students should be included more in the general education setting, yet given the existing barriers and resources available, the present placement of their students is best. Teachers may also be avoiding the cognitive dissonance that may accompany the claim that a student's current placement is inappropriate.

Another potential explanation of this apparent contradiction may relate to the current push for inclusion in schools. Schools are under increasing pressure to include students, in part due to

legal mandates (Hyatt & Filler, 2011), but also because of its social justice implications and its potential to better prepare students with disabilities for life beyond schooling. For some, inclusion may be an ethical consideration that has a clear significance for quality of life outcomes. All AS teachers thought that the social functioning of the child would improve in a more inclusive environment. Social interaction and social communication tend to be the main areas of impairment for the children with ASD described in the present study (Kasari & Rotheram-Fuller, 2005), and skills in these areas are necessary in order to maximize one's opportunities in life beyond schooling. Despite the potential of inclusion, however, placement decision-making must consider the extent to which the system-wide supports for this educational model are in place.

Teachers reported that they would consider a broad range of contextual factors when deciding whether their students should spend more time in an inclusive setting. The highest-rated classroom factor was the structure and organization of the general education classroom, which makes sense given that children with ASD tend to function much better in a stable and predictable environment (Ferraioli & Harris, 2011). The academic achievement of the classroom peers was a variable that AS teachers would not strongly consider, perhaps because of the individualized nature of their students' programming and AS teachers' greater concern about the extent to which the general education teacher can differentiate instruction effectively, a need identified by 21% of AS teachers.

In regard to the current barriers related to inclusion at their schools, concerns were mainly targeted at the general education teachers and their classrooms, rather than at the students with ASD. While AS teachers perceived that general educators at their schools were open to including students with ASD, they also thought that these general educators lacked sufficient prior experience with this population of students. AS teachers were also concerned about staff-to-student ratios in general education classrooms and the availability of support staff. While the average class sizes in the AS classrooms surveyed was only 7.6 students, the average public elementary school class size in Pennsylvania (in 2011-2012) was 22.4 students (NCES, 2013). The general education setting, by design, will always have a higher class size than an AS classroom. Yet, it may be that the appropriateness of this placement depends on the level of structure and organization that has been achieved, hence the identification of this latter component as most critical in recommending inclusion by AS teachers.

AS teachers' greatest concern at the child-level was student behavior. For students with ASD, the behaviors that manifest in the classroom can vary widely. Training and support have the potential to improve teacher attitudes towards inclusion (Avramidis & Norwich, 2002), as well as their skills in working with this population of students. Thus, the fact that training was identified by AS teachers as the most critical resource need was not surprising.

What was most notable about the need for training, however, was that AS teachers identified it primarily as a school-wide need. Multiple teachers expressed this need, not only for general education teachers expecting to have students with ASD in their classrooms, but for the entire school staff. Training has broad implications, particularly in terms of fostering competence, as well as greater acceptance for students with ASD. Acceptance was, in fact, identified as the second greatest need at the school-wide level. This aligns with the underlying philosophy of

inclusion, which AS teachers seem to have recognized as a school-wide attribute. Thus, it is not the students with ASD that need to be "ready" for inclusion, but rather the school and classroom that need to be prepared to meet the needs of these children.

Limitations

Overall sample size in this study was small due to the study's criteria in evaluating the perceptions of teachers who were presently teaching students with ASD. Additionally, the student criteria (i.e., GCA cutoff score of 80 on the DAS-II) further restricted the sample of teachers able to participate in this study, as only a subgroup of teachers involved in the larger AIMS study (Mandell et al., 2013) had eligible students in their classrooms.

The fact that the surveys used in this study were student-specific meant that some teachers completed multiple surveys, depending on the number of students in their classrooms that met our eligibility requirements. Nineteen teachers in our study only completed one survey, while seven teachers completed two surveys each, and one teacher completed four surveys. Although this was a minority of our sample overall, it is important to mention in consideration of our results, particularly for questions that were not specifically asking about an individual child. Within the open-ended section of the survey, the responses of teachers who completed more than one survey were only counted once, unless they differed across surveys. This occurred for one teacher only.

Our consideration of teachers' schedules and workload led us to keep the survey fairly brief. As a result, we limited the number of survey items, particularly in sections three and four of the survey. Survey items in these sections were grouped into teacher, classroom, child, parent, and school-related variables. Each domain contained between two and four survey items that were thought to best capture its key components related to this high-stakes decision. Given this limited number of items, however, results should be considered with caution.

While the teachers that participated in this study received training and coaching as part of the broader AIMS study, this support was not related to students' placement or inclusionary practices. Rather, it was specifically focused on developing teachers' skills to implement instructional methods for students with autism, and to do so with fidelity (Mandell et al., 2013). Thus, while teachers did receive additional resources to support their students, it is unlikely that their responses to the survey described in the current study reflect the provision of these resources.

Finally, social desirability cannot be ruled out within the context of this survey, since inclusion is considered a deeper philosophical issue in which equal opportunity is at stake. In asking these teachers whether they think students with ASD should be included, the role of this potential bias cannot be known. It is also likely that during the course of their educational training, AS teachers were taught about the potential positive outcomes of inclusion. Thus, even if teachers had not yet seen inclusion implemented successfully at the time of this study, they may have had the inclination to support it for its possibilities.

Conclusions

The unique training and perspective of AS teachers allowed a good understanding of not only some of the variables that go into the placement decision-making process, but the importance of such variables in making these high stakes decisions. Considering how the placement decision-making process differs across stakeholders, however, we hope to not only replicate this study in an effort to validate our measure and expand our sample, but also to adapt the measure in order to ask some of the same questions to parents, administrators, general education teachers, and students. By doing so, we hope to gain more insight about inclusion-related decisions for students with ASD, as well as a more well-rounded view of the complex dynamics of this process.

Beyond the decision-making process itself, this study reiterated the need to place greater focus on preparing teachers and schools for inclusion. This is something that needs to happen at both the pre-service and in-service levels. Traditionally, special education and general education teachers have been trained separately, yet more and more programs are merging these two tracks as a result of the growing need to prepare all teachers for an increasingly diverse student population.

For teachers already out in the schools, ongoing training and support is imperative. Not only is there a need for training specifically about ASD, but on differentiation, behavioral principles and interventions, and methods for improving students' social skills within an inclusive environment. AS teachers, as well as other specially-trained professionals, such as school psychologists, counselors, and behavior specialists, are well-positioned to provide consultation, training, and support to general education teachers and other school staff in these areas. As inclusion continues to become a more widespread practice, these efforts can help ensure that it is also best practice.

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