

How Is Parental Educational Involvement Related to School Satisfaction for Parents of Young Autistic Children?

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Abstract

Many parents of young autistic children¹ report wanting to be more involved in their child's education. Parental involvement is positively correlated with school satisfaction, yet how various involvement activities are differentially related to satisfaction has not been extensively investigated. This study aimed to learn more about satisfaction with and involvement in education using quantitative and qualitative survey data. Parents ($N = 45$) of young children with autism generally agreed that they were satisfied with their child's education. However, qualitative data highlighted that school-based involvement options were sometimes limited and that involvement could be difficult for busy families. The amount of time parents spent implementing strategies learned from school into everyday life was significantly related to school satisfaction. This finding points to the importance of involvement for generalization of skills across contexts and will hopefully encourage more parent–teacher communication on this topic.

Key Words: autism spectrum disorder, parental involvement, school satisfaction, skill generalization, autistic children, families

Introduction

Under the Individuals with Disabilities Education Act (IDEA, 2004), children with disabilities three years and older are eligible to receive specialized

school-based services. A key tenet of IDEA is the involvement of parents in their child's education. However, beyond including parents in the development and oversight of the Individualized Education Program (IEP), there is no clear mandate as to how parents should be involved in their child's schooling, and teachers and school districts have many choices available to them in terms of how to include parents. Furthermore, families have different desires and capacities for involvement (Granger et al., 2012), making parent involvement a complicated construct to study, with it often being conceptualized too generally (Boonk et al., 2018). Broadly, parent involvement has been linked to academic achievement in general education (see Castro et al., 2015 for a meta-analysis). However, Hampden-Thompson and Galindo (2017) found that the link between school-family partnerships (a construct related to and sometimes used interchangeably with "parent involvement") and academic achievement was mediated by parents' satisfaction with their child's school. Given that parental involvement in and satisfaction with schooling may contribute to desirable student outcomes, it is necessary to learn more about the relationship between the two, particularly with regards to different kinds of involvement. This is especially salient for parents of children on the autism spectrum, as parent involvement is recommended for autism intervention (National Research Council, 2001). This article presents a pilot investigation into various kinds of parental educational involvement and how they are differentially related to school satisfaction for parents of autistic children.¹

School Satisfaction Amongst Parents of Children With Autism

Children with autism make up about 11% of students receiving special education services (U.S. Department of Education, 2020). Studies of parents of autistic children have shown that they generally report being satisfied with their child's education. For example, Saggars et al. (2016) surveyed almost 1,000 parents of children with autism in Australia and found that the average rating of satisfaction with educational services was 3.21 out of 5. Parents in Renty and Roeyers' (2006) study in Belgium also rated their satisfaction between 3–4 out of 5 depending on the age and educational placement of their child. Similar results have been found in the United States (Montes et al., 2009).

However, to say that parents of autistic children are, overall, satisfied with education would be an overstatement. Parents of children with autism have been found to be less satisfied with education than children with other disabilities (Bitterman et al., 2008; Montes et al., 2009; Zablotzky et al., 2012). When forced to make a dichotomous choice between satisfied or unsatisfied, many parents report being unsatisfied. For example, Starr et al. (2006) found that roughly a quarter of parents of children with autism reported dissatisfaction

with their child's education. Similarly, in a survey of parents of children with autism or another pervasive developmental disorder, Spann and colleagues (2003) found that only 31% of parents of 4–9 year-olds were highly satisfied with the school's ability to meet their child's needs, while 34% felt that their school was doing little or nothing to work on their priorities. McIntyre and Zemantic (2017) also found that the number of parents of children with autism satisfied with their child's education varied drastically by the child's age.

Relationship Between Parental Involvement and Satisfaction

An important potential correlate of satisfaction with education for parents of children with autism is parental involvement. IDEA mandates parental involvement in the development of the IEP, but how parents are actually involved in the IEP varies (Jung, 2011; Spann et al., 2003). Beyond the IEP, parental involvement is determined by teacher and staff practices, parental advocacy, and possibly negotiations between the teachers and parents if disagreements regarding amount and type of involvement arise. Parental involvement in non-school behavioral services has received considerable attention (e.g., Factor et al., 2019; Oono et al., 2013; Stahmer & Pellicchia, 2015), with most behavioral services provided in the home in collaboration with the parent. This close proximity of parents to the actual instruction may play a role in parents' desire for these types of behavioral services. Less attention, however, has been paid to the school-based involvement of parents of autistic children (Goldman & Burke, 2019).

Several studies have shown a positive relationship between educational involvement and satisfaction amongst parents of typically developing children (Friedman et al., 2007; LaForett & Mendez, 2010) and those with disabilities. One study found that parents' perceived involvement in their child's education was one of the significant predictors of satisfaction with education in a Down Syndrome student sample (Laws & Millward, 2001). The same finding has also been found in autism-specific studies (Garbacz et al., 2016; Renty & Roeyers, 2006). In their analysis of a national survey that included parents of typically developing and disabled children, Zablotsky et al. (2012) also found a significant association between parent involvement and satisfaction (although when the sample was broken up into typically developing, nonautism disabilities, and autism, the relationship was no longer significant for the autism group).

The aforementioned studies point to a positive relationship between parental involvement and satisfaction with education for parents of autistic children (excepting Zablotsky et al., 2012). While this information is promising for those hoping to intervene upon either involvement or satisfaction, it is important to note that the operationalization of involvement was limited in some of

the above studies. For example, one study used two general questions to assess involvement (Laws & Millward, 2001) and another used only one Likert-type question (Renty & Roeyers, 2006). While Zablotsky et al. (2012) used answers to multiple questions to come up with an overall involvement score (i.e., they counted the number of activities parents endorsed participating in over the past year), the activities were mostly related to attending meetings and school events. Garbacz et al. (2016), on the other hand, used the Family Involvement Questionnaire (Fantuzzo et al., 2000), a 46-item questionnaire covering home involvement, school involvement, and home–school communication.

Because parental involvement is a complex topic, when it is measured too globally, it is unclear what kind of involvement is actually leading to satisfaction. Parents of autistic children may have opportunities to be involved in the classroom (e.g., parent–teacher conferences, volunteering), but they often also need to devote considerable time at home to educational activities (Benson et al., 2008). Indeed, the Family Involvement Questionnaire (Fantuzzo et al., 2000) covers school, home, and communication between the two. In the realm of at-home behavioral intervention, parental involvement can also mean many different things, including application of principles in everyday life, helping interventionists, and communicating between different service providers (Granger et al., 2012). The lack of clarity surrounding what exactly parental involvement entails, and what about involvement is actually important to parents, may be why involvement intervention studies do not always appear effective (Goldman & Burke, 2017). Another unknown factor is the dose of involvement needed in order for parents to be satisfied with their child’s education—for example, is it enough to communicate with teachers on a weekly basis, or is daily communication essential?

Some studies, particularly qualitative inquiries, have delved deeper into the relationship between parental involvement and satisfaction, though not necessarily as an explicit research question. Research has found that satisfaction is greater if parents meet with staff frequently and have more input in their child’s education plan (Rattaz et al., 2014), parents have higher levels of parent–school connectedness (Slade et al., 2018), communicate and collaborate more with school staff (Starr & Foy, 2012), and participate more in IEP staffing meetings (Witt et al., 1984). Parents who are dissatisfied with their child’s education describe wanting more of an active role in their child’s education plan, and some parents feel their expertise is not valued (Robert et al., 2015). Involvement’s impact on satisfaction may also be mediated by improved mental health, as Benson (2015) found that educational involvement led to decreased distress for mothers of autistic children.

The relationship between involvement and satisfaction may partly stem from the fact that some parents are unhappy specifically about their level of involvement (McWilliam et al., 1999). For example, Iadarola et al.'s (2015) interviews with 35 parents of autistic children revealed that parents wanted more involvement, a sentiment echoed by participants in Saggars et al. (2016). Teachers, on the other hand, may be wary of requesting more parental involvement due to perceived lack of follow-through from families (Azad et al., 2018; Iadarola et al., 2015). This mismatch in perceptions and expectations between parents and teachers has been reflected in other studies as well. LaBarbera (2017) interviewed 28 parents and 102 teachers of children with autism and found that only 53% of parents felt informed about their child's education, whereas 100% of teachers felt they had informed parents properly. Similarly, just over a fifth of parents felt that teachers had suggested strategies for parents to use at home, whereas 99% of teachers did. Azad et al. (2018) also found that parents wanted more information from teachers, including "concrete, tangible" advice. Research conducted during the COVID-19 pandemic suggests that online teaching may have exposed special education teachers to the lack of generalization to students' homes and highlighted areas in need of increased parent-teacher communication (Schuck & Lambert, 2020; Schuck et al., 2021). Lack of generalization of strategies from school to home may be a particularly salient factor when considering the interplay between involvement and satisfaction, as autistic children sometimes struggle with applying skills learned in one setting to another (Carruthers et al., 2020). If children need additional support from parents to generalize skills learned at school to home, but parents do not know how to provide that support, they may feel less satisfied with their child's education.

Current Study

Further investigation into the relationship between parental involvement and satisfaction in education of children with autism is warranted, particularly how diverse types of involvement differentially contribute to satisfaction. The current study surveyed parents of young autistic children to learn more about their involvement in their child's school and how that involvement was related to satisfaction. We aimed to gain preliminary insight into the following research questions using both quantitative survey questions and open-ended text responses: (1) How satisfied are parents with their child's education? (2) How much time do parents spend involved in different school-based activities? and (3) How are these different types of involvement related to satisfaction with education?

Method

This study was approved by the San Jose State University Institutional Review Board. All participants gave informed consent before completing any study activities and could withdraw from participating at any time.

Procedure

The authors developed a questionnaire regarding parental involvement in and satisfaction with school-based services for autistic children (the questionnaire also asked about at-home behavioral intervention, but the current paper focuses only on questions related to school). During development of the questionnaire, input from three parents of children with autism were consulted for feedback regarding question relevance and clarity.

To recruit participants, study advertisements were sent to a variety of autism organizations across the United States. Advertisements included a link to the study consent form and study questionnaire. Some organizations allowed for the advertisements to be posted directly by the researcher (e.g., by posting on a Facebook page or sending out a message to a listserv), whereas others indicated they would send the advertisement out in their organizational newsletter. Many organizations did not respond to contact by the authors, so it is unknown how many potential participants saw the advertisement and where exactly participants were located. After completing the survey, parents were offered a chance to win one of two \$25 Amazon gift cards.

Participants

To be eligible to participate, potential participants needed to be a parent of an autistic child who was enrolled in school or received at-home behavioral intervention and was between the ages of 3–8. The age range was chosen to include parents whose children would be within the ages where parent involvement is recommended by the National Research Council (2001) as well as covered by Part B of IDEA (2004). Sixty-four parents consented; 17 were ineligible or had unusable data (10 did not meet inclusion criteria; 6 only partially completed the questionnaire; 1 had nonsensical strings of letters in response to open-ended questions). Two parents reported their child was only receiving at-home behavioral intervention and not attending school. The final sample for the current analyses focusing on school involvement and satisfaction was therefore comprised of 45 parents (39 mothers, 5 fathers, 1 unknown). Children were mostly male ($n = 39$) and had an average age of 5.77 ($SD = 1.56$) years. The most common school setting was a special education classroom (42.2%), followed by general education (31.1%), combination special and general education (20.0%), and homeschool (6.7%).

Parents ranged in age from 25–69. Due to the anonymous nature of the study, it was not possible to ascertain the geographical location of participants. Most (68.9%) parents identified as Caucasian, 13.3% as Hispanic, 8.9% as Asian, and 4.4% as mixed race. Ethnicity for the remaining participants is unknown. All 43 parents who answered the question about education level attended at least some college; 33.3% attained a graduate/professional degree. Of the 42 participants who answered the question about income, 46.7% reported a yearly income of over \$100,000, 22.2% reported \$50,000—\$100,000, and 24.4% reported less than \$50,000.

Parent Questionnaire

The questionnaire was accessible via Qualtrics; all responses were completely anonymized. Participants were asked demographics questions about their child and themselves, as well as information about their child's educational placement/services, including questions about their involvement in and satisfaction with it.

Satisfaction

Participants were asked about satisfaction with their child's education using two 6-point Likert-type questions (one question asked them to rate how much they agreed that they liked their child's education, the other asked about their satisfaction with it; these two similar questions were included as an internal reliability check). Answer choices ranged from strongly disagree to strongly agree.

Involvement

One open-ended question asked participants to estimate how many hours per week they were involved in their child's school program. Next, participants were asked using a 6-point Likert-type scale to indicate how much time they spent involved in the following activities: classroom volunteering, helping with homework, attending school meetings/conferences, communication with schoolteachers, generalizing strategies to everyday life, and relaying information between service providers. These activities were chosen based on literature review and the fact that they represent examples of school- and home-based involvement and home-school communication (Benson, 2008; Fantuzzo et al., 2000). Because time spent in each involvement type was not equivalent (e.g., no one would expect a parent to have a parent-teacher conference as often as they would expect a parent to communicate with a teacher), the answer choices for questions differed slightly and can be found in Figure 1 in the Results section.

Open-Ended Questions

Lastly, parents were presented with two open-ended questions where they were asked to fill in a text box. The two questions were: Please describe in what

ways you are happy or unhappy with the amount and type of involvement requested of you by your child's educators/interventionists; and Please share any comments related to your involvement in your child's school, out-of-school intervention program, and/or your child's services in general.

Data Analysis

Satisfaction With Education

Scores to the two questions asking about satisfaction were averaged (responses to the two questions were strongly correlated, $r = .925$, $p < .001$). Descriptive statistics regarding participants' overall satisfaction ratings are reported.

Parental Involvement

Descriptive statistics are presented regarding amount of parental involvement, both in terms of number of hours involved per week and how often parents endorsed engaging in each school-based activity.

Relationship Between Involvement and Satisfaction

All statistical analyses conducted were of an exploratory nature, due to the fact that this was a pilot inquiry and that there were no hypotheses regarding the complex relationship between involvement and satisfaction. Spearman rank-order correlation coefficients were used to assess the relationship between satisfaction and involvement (both in terms of number of overall hours involved in school and ratings of time involved in each school activity). Because time spent volunteering and helping with homework were skewed and could both be conceptualized as dichotomous variables (i.e., volunteering versus never volunteering; helping versus never helping, including those whose children did not have homework), these variables were also investigated dichotomously using Mann-Whitney U tests.

Open-Ended Questions

Participant text responses were analyzed using thematic analysis (Maguire & Delahunt, 2017). Due to similarity in topics brought up in response to both questions, participants' answers to the two questions were combined and analyzed together. Responses that solely referenced behavioral intervention were excluded from the current analysis. Each participants' response could be coded with more than one code and thus contribute to multiple themes. Coding was completed by the first author and reviewed by the second author in order to reach consensus.

Results

Satisfaction With Education

Overall, parents rated themselves as satisfied with their child's education, with a mean score of 4.59 (SD = 1.25) out of 6. This corresponded to parents somewhat agreeing to agreeing that they were satisfied. Only 17.8% of parents indicated dissatisfaction.

Parental Involvement

Participants ($n = 43$; two participants did not answer this question) reported spending between 0–70 hours per week involved in their child's school ($M = 7.90$, $SD = 11.27$). Because being involved 70 hours per week was an outlier (and potentially too high to be considered valid), statistics were run again without the outlier: the range was 0–25 hours ($M = 6.42$, $SD = 5.82$).

An overview of time spent involved in each specific educational activity can be found in Figure 1. Several highlights should be noted. First, of the parents whose children had homework ($n = 28$), nearly all ($n = 23$) helped with homework daily. On the other hand, classroom volunteering was fairly rare in this sample, with over half ($n = 25$) reporting never volunteering in their child's classroom. All parents reported having parent–teacher conferences or meetings, though the vast majority ($n = 39$) had them monthly or less frequently. Frequent parent–teacher communication was common, with a large proportion of participants reporting daily communication ($n = 17$), though there was variation. Implementation of strategies learned from school into everyday life was the most evenly distributed activity, with some parents reporting never doing this ($n = 7$), some doing it here and there, and some doing it multiple times a day ($n = 16$). Relaying information between service providers was also quite common, with 28 participants indicating they did this once a week or more, though 9 participants did this less than once a month or never.

Figure 1. Frequency of Different Involvement Activities

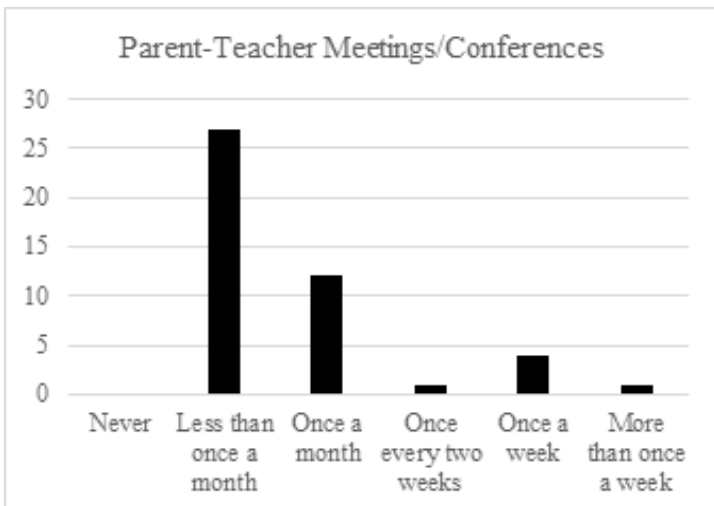
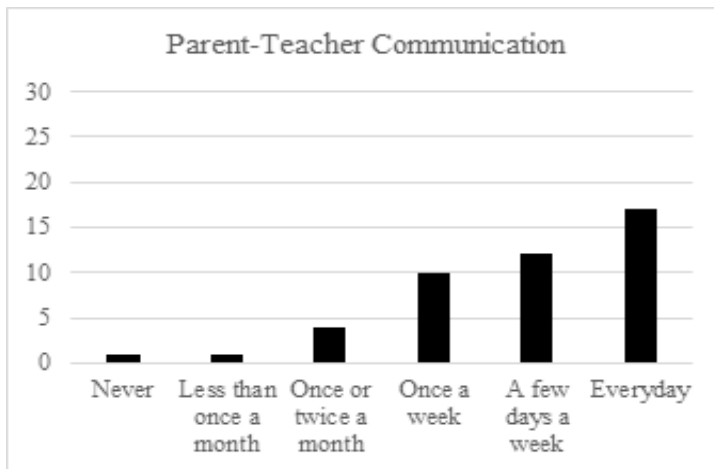
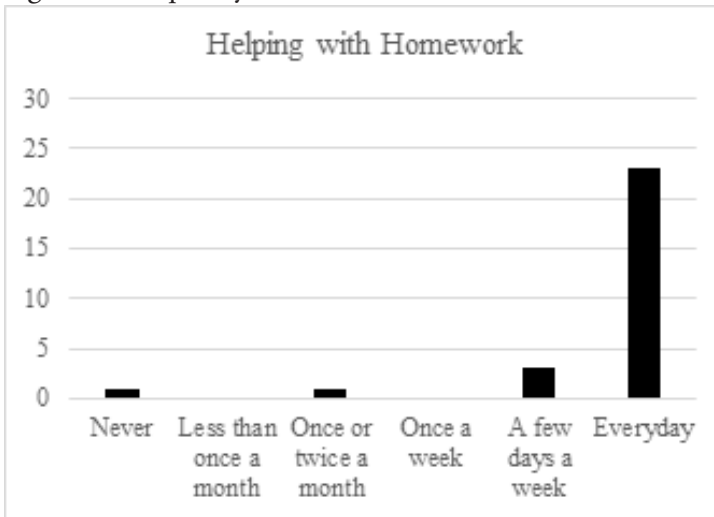
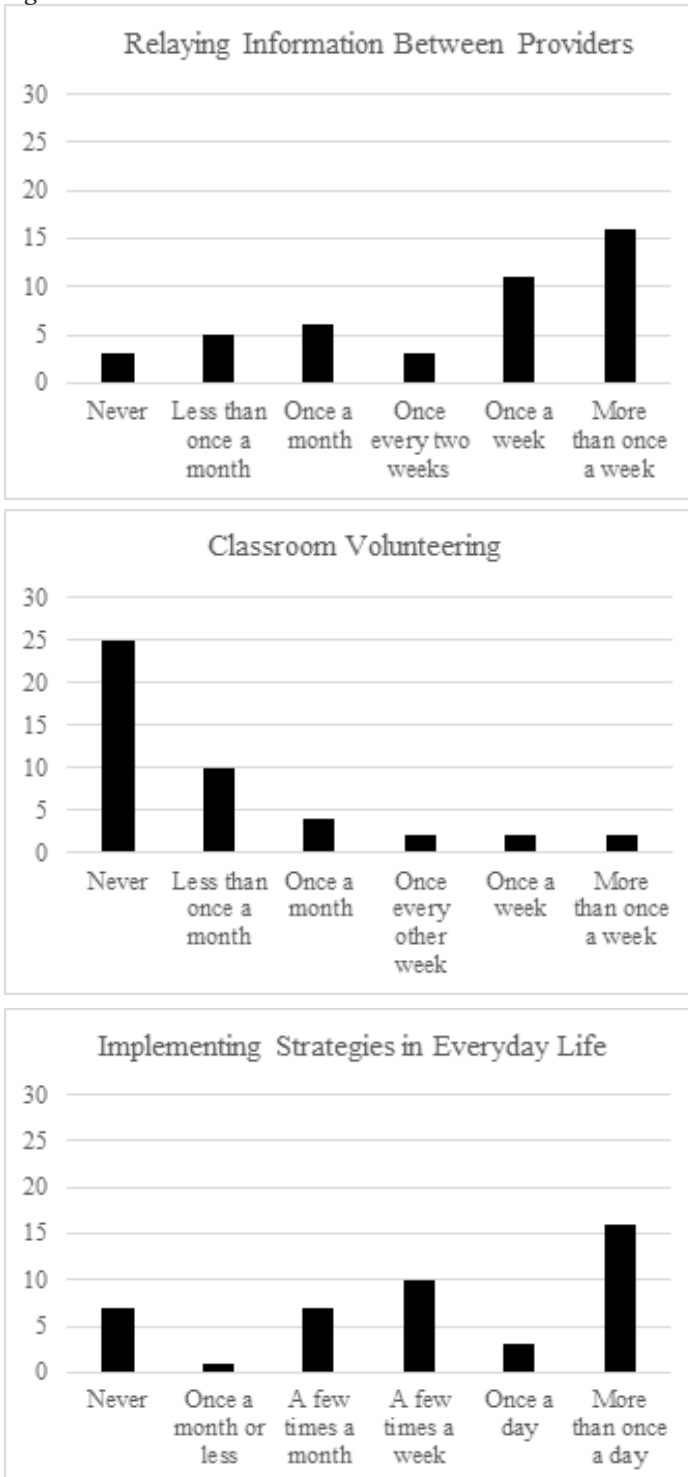


Figure 1, Continued



Note. Y-axis indicates number of participants who chose each answer choice. The “Helping with Homework” graph only shows data for those who indicated that their child has homework (n = 28; 17 participants indicated it was not applicable).

Relationship Between Involvement and Satisfaction

There was no significant relationship between school satisfaction and the number of hours involved in school per week ($r = -0.162, p = 0.299$). This held when the outlier of 70 hours per week was removed ($r = -0.226, p = 0.150$). The only involvement activity significantly correlated with school satisfaction was time spent implementing strategies learned from school in everyday life ($r = 0.715, p < 0.001$). Time spent volunteering ($r = 0.119, p = 0.436$), in conferences or IEP meetings ($r = 0.145, p = 0.341$), communicating with the teacher ($r = 0.129, p = 0.400$), and helping with homework ($r = -0.070, p = 0.725$) were all nonsignificant. See Table 1 for a summary of results. When recoded into dichotomous variables, again neither volunteering nor helping with homework were significantly related to satisfaction (volunteering: $U = 214.5, p = 0.413, Z = -0.828$; homework: $U = 219.0, p = 0.579, Z = -0.568$).

Table 1. Correlations Between Overall School Satisfaction and Time Spent Involved in Different Activities

	<i>r</i>	<i>p</i>
Total hours (43)	0.162	0.299
Classroom volunteering (45)	0.119	0.436
Attending meetings and/or conferences (45)	0.145	0.341
Communicating with teacher (45)	0.129	0.400
Implementing strategies in everyday life (44)	0.715**	<0.001
Helping with homework (28)	-0.070	0.725

Note. All correlation coefficients are Spearman rank-order coefficients. Some participants skipped questions; the total number of participants who contributed to each correlation is given in parentheses. ** $p < .001$

Open-Ended Questions

Thematic analysis of text-entry responses generated five themes: lack of involvement opportunities; happy with involvement and services; services not meeting child's needs; barriers to involvement; and lack of communication. Each theme is discussed in detail below.

Lack of Involvement Opportunities

Eleven participants included comments regarding their desire for more involvement. Some participants stated general wishes for more involvement, such as, "I would like to be able to help more in the classroom as we struggle with behaviors," and "I feel like I'm very much left out, and I'd like to know what's going on to better help him learn and to help me learn, too." Five parents indicated that opportunities for helping out in the classroom were

limited: “Not involved a lot in classroom because mainstream teachers often don’t want special needs children in their classes. It’s extra work and sometimes disruptive. This stops me from volunteering”; “Educators do not ask for help, volunteers, etc.” One participant highlighted that “very little information on applying classroom skills to home is given,” whereas another indicated that her child’s school “shows no respect for parent input or input from home team or researchers.”

Happy With Involvement and Services

Eleven participants mentioned feeling satisfied with their level of involvement or commented with only positive statements in response to the open-ended questions. One parent, for example, was happy that she got to volunteer in her child’s classroom. Another commented that she was “asked to help but still allowed to be her [daughter’s] mom, not her therapist or teacher,” while another said, “I am very satisfied, I have created a relationship with my child’s teacher, other representatives, and the school community to support a quality education and opportunities for my child.”

Services Not Meeting Child’s Needs

Though the questions were asking about parental involvement in their child’s education, nine parents brought up in their responses that their child was not getting their needs met by the school. One parent indicated her child’s school emphasizes behavior over academics: “I have no idea how my child is doing academically. I only know and hear about behaviors. I have no idea if he learns anything ever.” Several parents brought up fighting for services within the education system: “I wish that [the school district] would provide a 1:1 aid to help with [my son’s] dysgraphia instead of my having to hire an attorney to sue.” Another similarly stated,

We want to apply for more ABA insurance coverage for in the classroom. IEP, FBA [functional behavioral assessment], BIP [behavioral intervention plan] so far has not been overly effective for us....Dealing with anxiety and behaviors daily. Fight for more services and 1 on 1 aide is a major struggle.

Barriers to Involvement

Six parents expressed wanting to be more involved but not being able to due to a variety of barriers. These barriers often took the form of employment and household responsibilities, for example: “I would wish to spend more time being involved with the intervention programs at school and at home, but I have to work full time and also run a household.” Another parent stated, “I could be better with studying with him a little bit more...sometimes my two-year-old

and doing clothes, cooking, and cleaning—time beats me.” One parent mentioned that providers were placing undue pressure on parents to be involved: “School and therapists expect too much from parents—I have more than one child with special needs, and husband and I both work full time to pay for therapies for all 3 kids!”

Lack of Communication

Four parents brought up provider communication difficulties. One parent described having trouble communicating directly with service providers: “School educators and interventionists are hard to get information from so it takes more work on my part.” The other three parents described lack of communication between different service providers. One parent described herself as a “case manager.” Another said there is “not enough information flow between home, ABA, and school.” Another parent highlighted that her attempts to support communication exchange were futile: “I used to try so hard to get everyone on the same page, but all the therapists/educators, etc. are not concerned with that at all.”

Discussion

This study aimed to gain a preliminary understanding regarding the relationship between parental satisfaction with and involvement in educational services for young autistic children, using both quantitative and qualitative survey data. Here, we touch first on our findings regarding satisfaction, then move to a discussion on the involvement reported by our participants and how different involvement activities were (or were not) related to satisfaction.

Parents of children with autism in the current study rated themselves as fairly satisfied with their child’s educational program, on average slightly agreeing to agreeing that they were satisfied. Satisfaction ratings were closely in line with previous research (e.g., Renty & Roeyers, 2006; Sagers et al., 2016). It should be encouraging for educators that over 80% of participants at least somewhat agreed that they were satisfied. However, it is important to consider that a sizeable number of parents were not satisfied with other aspects of their child’s school. This finding is supported by analysis of participants’ text responses, as some parents felt the school was not providing enough supports for their child. These findings highlight the complex nature of satisfaction with education as well as the necessity of teachers and school administrators carefully assessing satisfaction with multiple aspects of parents’ experiences at school in order to better understand areas of need. It is insufficient to simply ask broadly whether parents are satisfied.

Results regarding amount of involvement were also in line with previous research (e.g., Benson et al., 2008), particularly with regards to the amount parents reported volunteering and communicating with teachers. Over half of the parents in the current study reported never volunteering in their child's classroom, and over 13% reported communicating with their child's teacher only once or twice a month or less. Though these are sizeable proportions, it is also important to keep in mind that neither of these involvement variables was related to parents' satisfaction with education. This may indicate that neither volunteering nor parent-teacher communication is a salient factor when considering satisfaction. However, the explanation likely requires more nuance. Firstly, our lack of statistical power resulting from a small sample size likely limits our ability to detect significant findings. Secondly, regardless of statistical significance, this finding brings up multiple questions: For example, for the parents who never volunteered and those who rarely communicated with the teacher—why was this? Were parents longing for more involvement (as were some parents who indicated in their text responses that their child's classroom did not encourage or even allow volunteering), or were they too busy to even consider visiting the classroom or talking to the teacher more often (which, again, some parents wrote about in their text responses)? This should signal to teachers that conversations with parents about the type and amount of involvement expected and desired must be held early in the teacher-parent relationship. Instead of being wary that some parents might not follow through with involvement requests (Azad et al., 2018; Iadarola et al., 2015), teachers can give more targeted involvement opportunities/requests based on those that specific parents find desirable and feasible.

Our findings regarding time spent helping with homework paint a similar picture. The vast majority of parents whose children received homework reported helping them with it every day. Yet this variable was unrelated to satisfaction, indicating that simply increasing involvement time may not increase satisfaction. Given that parents enter the school system with differing backgrounds and access to capital (Barton et al., 2004), it may not be useful to invite/expect the same involvement from all parents and expect the same enthusiasm and satisfaction from everyone. It is therefore crucial for teachers and administrators to be aware of the interplay between parental involvement, parental expectations, and school invitations for involvement. A one-size-fits all "more involvement is better" approach is not necessarily the way to go.

Interestingly, the only involvement activity variable significantly related to satisfaction was time spent implementing strategies learned from school into everyday life. While the lack of significant findings amongst the other involvement activity variables could again be attributed to lack of power, the strength

of the correlation between time spent implementing strategies and satisfaction is quite strong ($r = 0.715$). It is perhaps surprising that of all the involvement types inquired about, the only one affecting satisfaction was one that took place completely separately from school. While certainly preliminary, this finding is potentially important, as previous research has shown that parents of children with autism want to know what their child is doing at school and want to know more about how to incorporate those techniques at home (Azad et al., 2018; Iadarola et al., 2015; Saggars et al., 2016). The current study highlights just how important generalization of skills is to parents.

Though the topic of skill generalization is often brought up within the context of behavioral intervention (Carruthers et al., 2020), the subject is less often emphasized within the schools. One reason for this may be that parent involvement in autism intervention has been recommended by the National Research Council (2001) and is a cornerstone of many behavioral interventions. In fact, parent-mediated interventions (i.e., interventions where parents act as the treatment provider) for children with autism are considered an evidence-based practice (Wong et al., 2015). Some of the most effective interventions for autistic children (see Sandbank et al., 2020 for a review) use naturalistic teaching methods (e.g., teaching in the home environment using activities available to the child in everyday life) and heavily incorporate parental involvement (e.g., Naturalistic Developmental Behavioral Interventions; Schreibman et al., 2015). These interventions include parents specifically in order to promote generalization of skills to children's everyday environment. School, on the other hand, has not been designed to incorporate this type of parental involvement.

Even teachers who feel they are adequately sharing strategies with parents may not be doing so in a manner amenable to parents (LaBarbera, 2017). This disconnect between what teachers are doing in the classroom and what parents are doing at home has led researchers to design an intervention, *Partners in School*, to help ensure parents and teachers are on the same page (Azad, Williams, et al., 2020). This intervention consists of consultant–parent and consultant–teacher meetings, as well as a consultant–facilitated meeting with both parents and teachers to develop a home–school intervention plan based on evidence-based practices. Implementation of the plan included completion of daily notes back-and-forth between parents and teachers, as well as a more in-depth check-in at week's end. Results from the pilot study indicated fairly good fidelity from both parents and teachers, and alignment between the two was related to parent–teacher relationships (Azad, Minton, et al., 2020).

Interventions such as these are likely to increase the social validity (Wolf, 1978) of educational programming, since both parents and teachers are involved

in the decision and planning process from the beginning, and the evidence-based practices chosen are likely to be meaningful to families' daily lives. Though satisfaction and social validity were not outcomes in Azad and colleagues' pilot, the findings from the current study suggest that this type of intervention is likely to improve parental satisfaction with school. Explicit focus on teaching preservice teachers how to best collaborate with families (e.g., by including family members in educator roles in teacher education classes, see Accardo et al., 2020; Collier et al., 2015; Murray et al., 2013) may also help bridge this gap. Even in the absence of these kinds of coordinated intervention programs, teachers and teacher educators should consider more specifically targeting ways in which to help parents generalize skills taught at school to home settings.

Limitations and Future Directions

This study corroborates past research with regards to parental satisfaction and involvement in educational activities for autistic children. It also adds to the literature by emphasizing the potential importance of generalizing school-based techniques into everyday life and highlighting the desire for more opportunities for involvement. However, it is not without limitations. First, the questionnaire used was researcher-developed so as to address a variety of pertinent topics, and several items about amount of involvement were skewed, which likely affected our ability to detect significant relationships amongst variables. The modest sample size also impacted our ability to look for potential subgroup (e.g., race/ethnicity) differences. Future research should also be conducted longitudinally in order to understand more about the relationship between involvement (particularly generalization of skills outside the classroom) and satisfaction. Intervention studies (e.g., Azad, Minton, et al., 2020) will also be able to investigate this question.

Another limitation of the current study is that the sample was predominantly White and affluent, with all parents having attended at least some college. It is well established that autism research has a history of being conducted with this demographic (Pierce et al., 2014; West et al., 2016), a trend that future research must rectify. It is up to researchers to do a better job of increasing the diversity of our participant samples. For example, the lack of any Black participants in the current study could have potentially been ameliorated by targeted recruitment to Facebook groups for Black parents of autistic children. Additionally, outreach to minority community organizations is necessary even if there is no active study recruitment in order to build lasting, trusting relationships (Shaia et al., 2020). Community partnerships, including participatory action research, is necessary to ensure minority families are aware of and welcomed to participate in research projects. This is especially relevant for

the topic of involvement, since the amount and type of involvement desired by and feasible for parents likely varies with factors such as socioeconomic status, employment, and access to other resources. It is imperative the findings of the current study are replicated to know whether the relationship between generalization of techniques and satisfaction holds in other demographics.

Conclusion

While it is reassuring that many parents in the current study were satisfied with their child's education, it is necessary to dig deeper to find out with what exactly they are satisfied and dissatisfied. We must know more about what contributes to parental satisfaction with education, especially when it comes to how and whether involvement in their child's education plays a role. It is necessary for educators to encourage parental involvement that will have a positive impact not just on child outcomes, but also on parents and the family as a whole (Wainer et al., 2017). Incorporating parent feedback and measures of social validity are crucial when determining how and why to include parents. This study constitutes a small but potentially meaningful step forward in that it highlights the importance of parents generalizing strategies learned from school into their everyday life with their autistic child. Though this is something teachers may already be trying to encourage, it may be necessary to reevaluate their practices in order to ensure parents' needs regarding generalization are being met. For parents who have limited time and means to get involved in their child's education, teaching them basic strategies they can implement at home may be an effective way of increasing both involvement and satisfaction.

Endnote

¹Though the American Psychological Association recommends person-first language (i.e., "person with autism"), recent research has shown that individuals diagnosed with autism often prefer identity-first language (i.e., "autistic person"; Bury et al., 2020; Kenny et al., 2016). Because preferences differ, person-first and identity-first language is used interchangeably in this paper.

References

- Accardo, A. L., Xin, J. F., & Shuff, M. (2020). Special education teacher preparation and family collaboration. *School Community Journal*, 30(2), 53–72. <https://www.adi.org/journal/2020fw/AccardoEtAIFW2020.pdf>
- Azad, G. F., Minton, K. E., Mandell, D. S., & Landa, R. J. (2020). Partners in school: An implementation strategy to promote alignment of evidence-based practices across home and school for children with Autism Spectrum Disorder. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-020-01064-9>

- Azad, G. F., Williams, B. J., Minton, K. E., Sheridan, S. M., & Mandell, D. S. (2020). Partners in school: An example of care coordination to ensure consistency of evidence-based practices across home and school for youth with Autism Spectrum Disorder (ASD). In M. B. McClain, J. D. Shahidullah, & K. R. Mezher (Eds.), *Interprofessional care coordination for pediatric Autism Spectrum Disorder: Translating research into practice* (pp. 153–167). Springer International. https://doi.org/10.1007/978-3-030-46295-6_11
- Azad, G., Wolk, C. B., & Mandell, D. S. (2018). Ideal interactions: Perspectives of parents and teachers of children with Autism Spectrum Disorder. *School Community Journal*, 28(2), 63–84. <https://www.adi.org/journal/2018fw/AzadWolkMandellFall2018.pdf>
- Barton, A. C., Drake, C., Perez, J. G., St. Louis, K., & George, M. (2004). Ecologies of parental engagement in urban education. *Educational Researcher*, 33(4), 3–12. <https://doi.org/10.3102/0013189X033004003>
- Benson, P. (2015). Longitudinal effects of educational involvement on parent and family functioning among mothers of children with ASD. *Research in Autism Spectrum Disorders*, 11, 42–55. <https://doi.org/10.1016/j.rasd.2014.11.011>
- Benson, P., Karlof, K. L., & Siperstein, G. N. (2008). Maternal involvement in the education of young children with autism spectrum disorders. *Autism*, 12(1), 47–63. <https://doi.org/10.1177/1362361307085269>
- Bitterman, A., Daley, T. C., Misra, S., Carlson, E., & Markowitz, J. (2008). A national sample of preschoolers with Autism Spectrum Disorders: Special education services and parent satisfaction. *Journal of Autism and Developmental Disorders*, 38(8), 1509–1517. <https://doi.org/10.1007/s10803-007-0531-9>
- Boonk, L., Gijsselaers, H. J. M., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, 24, 10–30. <https://doi.org/10.1016/j.edurev.2018.02.001>
- Bury, S. M., Jellet, R., Spoor, J. R., & Hedley, D. (2020). “It defines who I am” or “It’s something I have”: What language do [Autistic] Australian adults [on the Autism Spectrum] prefer? *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-020-04425-3>
- Carruthers, S., Pickles, A., Slonims, V., Howlin, P., & Charman, T. (2020). Beyond intervention into daily life: A systematic review of generalisation following social communication interventions for young children with autism. *Autism Research*, 13(4), 506–522. <https://doi.org/10.1002/aur.2264>
- Castro, M., Expósito-Casas, E., López-Martín, E., Lizasoain, L., Navarro-Asencio, E., & Gáviria, J. L. (2015). Parental involvement on student academic achievement: A meta-analysis. *Educational Research Review*, 14, 33–46. <https://doi.org/10.1016/j.edurev.2015.01.002>
- Collier, M., Keefe, E. B., & Hirrel, L. A. (2015). Preparing special education teachers to collaborate with families. *School Community Journal*, 25(1), 117–136. <https://www.adi.org/journal/2015ss/CollierKeefeHirrelSpring2015.pdf>
- Factor, R. S., Ollendick, T. H., Cooper, L. D., Dunsmore, J. C., Rea, H. M., & Scarpa, A. (2019). All in the family: A systematic review of the effect of caregiver-administered Autism Spectrum Disorder interventions on family functioning and relationships. *Clinical Child and Family Psychology Review*, 22(4), 433–457. <https://doi.org/10.1007/s10567-019-00297-x>
- Fantuzzo, J., Tighe, E., & Childs, S. (2000). Family Involvement Questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, 92(2), 367–376. <https://doi.org/10.1037/0022-0663.92.2.367>

- Friedman, B. A., Bobrowski, P. E., & Markow, D. (2007). Predictors of parents' satisfaction with their children's school. *Journal of Educational Administration*, 45(3), 278–288. <https://doi.org/10.1108/09578230710747811>
- Garbacz, S. A., McIntyre, L. L., & Santiago, R. T. (2016). Family involvement and parent-teacher relationships for students with Autism Spectrum Disorders. *School Psychology Quarterly*, 31(4), 478–490. <https://www.apa.org/pubs/journals/features/spq-spq0000157.pdf>
- Goldman, S. E., & Burke, M. M. (2017). The effectiveness of interventions to increase parent involvement in special education: A systematic literature review and meta-analysis. *Exceptionality*, 25(2), 97–115. <https://doi.org/10.1080/09362835.2016.1196444>
- Goldman, S. E., & Burke, M. M. (2019). The perceptions of school involvement of parents of students with Autism Spectrum Disorders: A systematic literature review. *Review Journal of Autism and Developmental Disorders*, 6(2), 109–127. <https://doi.org/10.1007/s40489-019-00157-y>
- Granger, S., des Rivières-Pigeon, C., Sabourin, G., & Forget, J. (2012). Mothers' reports of their involvement in early intensive behavioral intervention. *Topics in Early Childhood Special Education*, 32(2), 68–77. <https://doi.org/10.1177/0271121410393285>
- Hampden-Thompson, G., & Galindo, C. (2017). School-family relationships, school satisfaction, and the academic achievement of young people. *Educational Review*, 69(2), 248–265. <https://doi.org/10.1080/00131911.2016.1207613>
- Iadarola, S., Hetherington, S., Clinton, C., Dean, M., Reisinger, E., Huynh, L., Locke, J., Conn, K., Heinert, S., Kataoka, S., Harwood, R., Smith, T., Mandell, D. S., & Kasari, C. (2015). Services for children with Autism Spectrum Disorder in three, large urban school districts: Perspectives of parents and educators. *Autism: The International Journal of Research and Practice*, 19(6), 694–703. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4483151/pdf/nihms702453.pdf>
- Jung, A. W. (2011). Individualized Education Programs (IEPs) and barriers for parents from culturally and linguistically diverse backgrounds. *Multicultural Education*, 19(3), 21–25.
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442–462. <https://doi.org/10.1177/1362361315588200>
- LaBarbera, R. (2017). A comparison of teacher and caregiver perspectives of collaboration in the education of students with Autism Spectrum Disorders. *Teacher Education Quarterly*, 44(3), 35–56.
- LaForett, D. R., & Mendez, J. L. (2010). Parent involvement, parental depression, and program satisfaction among low income parents participating in a two-generation early childhood education program. *Early Education and Development*, 21(4), 517–535. <https://doi.org/10.1080/10409280902927767>
- Laws, G., & Millward, L. (2001). Predicting parents' satisfaction with the education of their child with Down's syndrome. *Educational Research*, 43(2), 209–226. <https://doi.org/10.1080/00131880110051173>
- Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9(3), Article 3. <https://ojs.aishe.org/index.php/aishe-j/article/view/335>
- McIntyre, L. L., & Zemantic, P. K. (2017). Examining services for young children with Autism Spectrum Disorder: Parent satisfaction and predictors of service utilization. *Early Childhood Education Journal*, 45(6), 727–734. <https://doi.org/10.1007/s10643-016-0821-y>
- McWilliam, R. A., Maxwell, K. L., & Sloper, K. M. (1999). Beyond “involvement”: Are elementary schools ready to be family-centered? *School Psychology Review*, 28(3), 378–394. <https://doi.org/10.1080/02796015.1999.12085972>

- Montes, G., Halterman, J. S., & Magyar, C. I. (2009). Access to and satisfaction with school and community health services for U.S. children with ASD. *Pediatrics*, *124*(Supplement 4), S407–S413. <https://doi.org/10.1542/peds.2009-1255l>
- Murray, M. M., Mereoiu, M., & Handyside, L. M. (2013). Building bridges in teacher education: Creating partnerships with parents. *The Teacher Educator*, *48*(3), 218–233. <https://doi.org/10.1080/08878730.2013.795636>
- National Research Council. (2001). *Educating children with autism*. Washington, DC: National Academy Press.
- Oono, I. P., Honey, E. J., & McConachie, H. (2013). Parent-mediated early intervention for young children with Autism Spectrum Disorders. *Evidence-Based Child Health: A Cochrane Review Journal*, *8*(6), 2380–2479. <https://doi.org/10.1002/ebch.1952>
- Pierce, N. P., O'Reilly, M. F., Sorrells, A. M., Fragale, C. L., White, P. J., Aguilar, J. M., & Cole, H. A. (2014). Ethnicity reporting practices for empirical research in three autism-related journals. *Journal of Autism and Developmental Disorders*, *44*(7), 1507–1519. <https://doi.org/10.1007/s10803-014-2041-x>
- Rattaz, C., Ledesert, B., Masson, O., Ouss, L., Ropers, G., & Baghdadli, A. (2014). Special education and care services for children, adolescents, and adults with Autism Spectrum Disorders in France: Families' opinion and satisfaction. *Autism*, *18*(2), 185–193. <https://doi.org/10.1177/1362361312460952>
- Renty, J., & Roeyers, H. (2006). Satisfaction with formal support and education for children with Autism Spectrum Disorder: The voices of the parents. *Child: Care, Health, and Development*, *32*(3), 371–385. <https://doi.org/10.1111/j.1365-2214.2006.00584.x>
- Robert, M., Leblanc, L., & Boyer, T. (2015). When satisfaction is not directly related to the support services received: Understanding parents' varied experiences with specialised services for children with developmental disabilities. *British Journal of Learning Disabilities*, *43*(3), 168–177. <https://doi.org/10.1111/bld.12092>
- Saggers, B., Klug, D., Harper-Hill, K., Ashburner, J., Costley, D., Clark, T., Bruck, S., Trembath, D., Webster, A., & Carrington, S. (2016). *Australian autism educational needs analysis: What are the needs of schools, parents, and students on the autism spectrum?* Cooperative Research Centre for Living with Autism. <https://www.autismcrc.com.au/sites/default/files/inline-files/Educational%20needs%20analysis%20-%20Final%20report.pdf>
- Sandbank, M., Bottema-Beutel, K., Crowley, S., Cassidy, M., Dunham, K., Feldman, J. I., Crank, J., Albarran, S. A., Raj, S., Mahbub, P., & Woynaroski, T. G. (2020). Project AIM: Autism intervention meta-analysis for studies of young children. *Psychological Bulletin*, *146*(1), 1–29. <https://doi.org/10.1037/bul0000215>
- Schreibman, L., Dawson, G., Stahmer, A. C., Landa, R., Rogers, S. J., McGee, G. G., Kasari, C., Ingersoll, B., Kaiser, A. P., Bruinsma, Y., McNerney, E., Wetherby, A., & Halladay, A. (2015). Naturalistic developmental behavioral interventions: Empirically validated treatments for Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, *45*(8), 2411–2428. <https://doi.org/10.1007/s10803-015-2407-8>
- Schuck, R. K., & Lambert, R. (2020). “Am I doing enough?” Special educators' experiences with emergency remote teaching in spring 2020. *Education Sciences*, *10*(11), 320. <https://doi.org/10.3390/educsci10110320>
- Schuck, R. K., Lambert, R., & Wang, M. (2021). Collaborating with parents during COVID-19 online teaching: Special educator perspectives. *Education*, 3–13. <https://doi.org/10.1080/03004279.2021.1967421>
- Shaia, W. E., Nichols, H. M., Dababnah, S., Champion, K., & Garbarino, N. (2020). Brief report: Participation of Black and African-American families in Autism research. *Journal of Autism and Developmental Disorders*, *50*(5), 1841–1846.

- Slade, N., Eisenhower, A., Carter, A. S., & Blacher, J. (2018). Satisfaction with Individualized Education Programs among parents of young children with ASD. *Exceptional Children*, 84(3), 242–260. <https://doi.org/10.1177/0014402917742923>
- Spann, S. J., Kohler, F. W., & Soenksen, D. (2003). Examining parents' involvement in and perceptions of special education services: An interview with families in a parent support group. *Focus on Autism and Other Developmental Disabilities*, 18(4), 228–237. <https://doi.org/10.1177/10883576030180040401>
- Stahmer, A. C., & Pellecchia, M. (2015). Moving towards a more ecologically valid model of parent-implemented interventions in autism. *Autism*, 19(3), 259–261. <https://doi.org/10.1177/1362361314566739>
- Starr, E. M., & Foy, J. B. (2012). In parents' voices: The education of children with Autism Spectrum Disorders. *Remedial and Special Education*, 33(4), 207–216. <https://doi.org/10.1177/0741932510383161>
- Starr, E. M., Foy, J. B., Cramer, K. M., & Singh, H. (2006). How are schools doing? Parental perceptions of children with Autism Spectrum Disorders, Down Syndrome, and learning disabilities: A comparative analysis. *Education and Training in Developmental Disabilities*, 41(4), 315–332.
- Wainer, A. L., Hepburn, S., & McMahon Griffith, E. (2017). Remembering parents in parent-mediated early intervention: An approach to examining impact on parents and families. *Autism*, 21(1), 5–17. <https://doi.org/10.1177/1362361315622411>
- West, E. A., Travers, J. C., Kemper, T. D., Liberty, L. M., Cote, D. L., McCollow, M. M., & Stansberry Brusnahan, L. L. (2016). Racial and ethnic diversity of participants in research supporting evidence-based practices for learners with Autism Spectrum Disorder. *The Journal of Special Education*, 50(3), 151–163. <https://doi.org/10.1177/0022466916632495>
- Witt, J. C., Miller, C. D., McIntyre, R. M., & Smith, D. (1984). Effects of variables on parental perceptions of staffings. *Exceptional Children*, 51(1), 27–32. <https://doi.org/10.1177/001440298405100104>
- Wong, C., Odom, S. L., Hume, K. A., Cox, A. W., Fettig, A., Kucharczyk, S., Brock, M. E., Plavnick, J. B., Fleury, V. P., & Schultz, T. R. (2015). Evidence-based practices for children, youth, and young adults with Autism Spectrum Disorder: A comprehensive review. *Journal of Autism and Developmental Disorders*, 45(7), 1951–1966. <https://doi.org/10.1007/s10803-014-2351-z>
- Zablotsky, B., Boswell, K., & Smith, C. (2012). An evaluation of school involvement and satisfaction of parents of children with Autism Spectrum Disorders. *American Journal on Intellectual and Developmental Disabilities*, 117(4), 316–330. <https://doi.org/10.1352/1944-7558-117.4.316>

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