



Partners in School: Optimizing Communication between Parents and Teachers of Children with Autism Spectrum Disorder

Gazi F. Azad^a, Steven C. Marcus^b, and David S. Mandell^b

^aColumbia University and New York State Psychiatric Institute; ^bCenter for Mental Health, Perelman School of Medicine, University of Pennsylvania

ABSTRACT

Partners in School: is a consultation model with the goal of enhancing communication between two of the most important stakeholders in children's lives – parents and teachers. Using a single-group pre-post design, this preliminary study examined the effect of *Partners in School* on parent-teacher communication outcomes and the factors associated with these outcomes. Participants were 26 teachers and 49 parents of children with autism spectrum disorder (ASD). Parents and teachers completed surveys before and after participating in *Partners in School*. Teachers reported an increase in their communication to parents. However, parents did not report an increase in their communication to teachers. Teachers' self-efficacy, expectations, and intervention fidelity were associated with increased communication to parents. Parental self-efficacy and teacher experience were associated with parents' reports of communication to teachers. Our findings suggest that family-school consultation services may be used to enhance teachers' communication with parents.

ARTICLE HISTORY

Received 27 February 2020

Revised 28 August 2020

Accepted 23 September 2020

Home-school collaboration refers to parents and teachers working together to promote the academic, socio-emotional, and behavioral outcomes of children (Collier, Keefe, & Hirrel, 2015; Cox, 2005; Stroetinga, Leeman, & Veugelers, 2019). Although home-school collaboration is important for all children, it is legally mandated for students receiving special education services. Unfortunately, meaningful home-school collaborations are challenging to foster (Ishimaru, 2019), particularly for children with autism spectrum disorder (ASD). Many parents of children with ASD report frustrations with the special education planning process (Tucker & Schwartz, 2013). An increase in ASD-related special education litigation provides additional evidence of this dissatisfaction (Bitterman, Daley, Misra, Carlson, & Markowitz, 2008; Bolourian, Tipton-Fisler, & Yassine, 2020; Katsiyannis, Counts, Popham, Ryan, & Butzer, 2016).

CONTACT Gazi F. Azad  gfa2111@cumc.columbia.edu; gazi.azad@nyspi.columbia.edu  New York State Psychiatric Institute and Columbia University, New York, NY 10032

© 2020 Taylor & Francis

Improving communication between parents and teachers of children with ASD has been proposed as one mechanism to enhance home–school collaboration (Azad, Kim, Marcus, Sheridan, & Mandell, 2016; Azad & Mandell, 2016). However, few studies have examined factors associated with such improvement, and even fewer interventions have been tested to improve parent–teacher communication. The purpose of this study is to report on *Partners in School*, an innovative family–school consultation model with the goal of enhancing communication between parents and teachers. In this preliminary study, we examined the effect of *Partners in School* on parent–teacher communication outcomes and the factors associated with these outcomes.

Parent–teacher communication: definition and theoretical underpinnings

Effective communication between parents and teachers is important for optimizing special education service provision and the generalization of skills. However, parent–teacher communication is a complex, multi–faceted concept with several dimensions. Some scholars define the concept broadly, such as any verbal or written dialogue between the parent and teacher that conveys information about the child (Epstein, 2001; Goldman & Burke, 2019; Manz, Fantuzzo, & Power, 2004; Vickers & Minke, 1995). Examples of general communication include parents calling teachers to tell them about something that happened at home or the school sending home progress notes or report cards (Burke, 2012; Goldman & Burke, 2019; Stoner et al., 2005). Others define communication more narrowly. For example, Azad and colleagues differentiate between communication about content (e.g., communication about ASD) versus communication about process (e.g., communication about problem-solving, Azad et al., 2016; Azad, Marcus, Sheridan, & Mandell, 2018).

Regardless of scope, the concept of parent–teacher communication is grounded in ecological systems theory, which identifies five distinct areas that contribute to children’s development and well-being. In this theoretical approach, families or schools are situated in the area characterized by direct contact, called the microsystem. The mesosystem focuses on the relationship between these different systems (Bronfenbrenner, 1992), and communication across home and school occurs in this mesosystem. According to this theory, a child’s success is highly contingent on the quality of the interface between home and school in relationship with one another (Sheridan, Ryoo, Garbacz, Kunz, & Chumney, 2013).

Given its theoretical underpinnings, benefits of effective communication have been repeatedly emphasized (Azad et al., 2016; Sheridan et al., 2013, 2017). Research suggests that promoting parent–teacher communication may be most useful when there is discontinuity (i.e., parents and teachers are conducting different, or even conflicting, practices) across home and school

settings (Azad et al., 2018; Azad, Williams, Minton, Sheridan, & Mandell, 2020). Effective communication within the context of home–school collaboration entails supporting parents and teachers to effectively communicate in order to align their practices across home and school. Improved communication that promotes alignment across settings allows children with ASD to experience continuity in their care (Azad & Mandell, 2016; Azad et al., 2020). Alternatively, effective communication supports parents and teachers in developing a shared understanding of their beliefs, expectations, and child needs in order to work together to support the child.

Parent-teacher communication: needs and opportunities

Unfortunately, teachers are seldom trained on parent-teacher communication during teacher preparation programs, and both parents and teachers often find such interactions stressful and ineffective (Lemmer, 2012). Preservice teachers have limited opportunities to practice interacting with parents; parent–teacher interactions are primarily addressed through occasional readings, lectures, or observations of conferences (Dotger, Harris, & Hansel, 2008; Epstein, 2001). Novice teachers report that establishing relationships with families is the most significant challenge when entering the teaching profession (Evans, 2013). Indeed, only 24% of teachers demonstrated high competence on parent–teacher communication (Gartmeier, Gebhardt, & Dotger, 2016). Not only is the quality of parent–teacher communication poor, but the quantity is also limited. Murray et al. (2011) reported that parent–teacher communication decreased as children moved from early childhood settings to elementary schools. Better training and professional development on parent–teacher communication is necessary, and aligned with the National Council for Accreditation of Teacher Education (NCATE), which considers family and community contexts as a critical part of teachers’ professional knowledge (NCATE, 2018).

The challenges facing children with disabilities make parent–teacher communication even more critical. A study by Bourke-Taylor, Cotter, Johnson, and Lalor (2018) indicated that it is imperative for teachers to include parents’ advice and support to optimize the experiences of children in self-contained classrooms. The increasing number of students with ASD presents significant challenges to schools. By law, parents are mandated to participate in shared decision-making with schools (IDEA, 2004). For the large number of students with ASD on Individualized Education Programs (IEPs), schools are challenged with determining the most effective ways to communicate with these families on educational services. Zablotsky, Boswell, and Smith (2012) reported that parents of children with ASD are dissatisfied with the level of communication provided by the school. Common barriers include very few opportunities to provide input to IEP teams (Tucker & Schwartz, 2013). Other

studies have shown that although parents and teachers agree on the concerns they have for children with ASD, they frequently have difficulty communicating about them (Azad & Mandell, 2016). Many parent-teacher dyads struggled to generate solutions about their concerns (Azad et al., 2016). In addition to individual-level barriers facing teachers and parents, systems-level factors may further exacerbate communication attempts, such as a lack of trust in the school system and systemic inequities maintaining hierarchical relationships, particularly for families from under-served communities (Azad, Gormley, Marcus, & Mandell, 2019; Cheatham & Ostrosky, 2011).

A collaborative partnership orientation (Lemmer, 2012) defined as mutual understanding and one that incorporates parents' feedback (Kamimura & Ishikuma, 2007) is necessary to improve parent-teacher communication. There are many formal (IEP meetings and parent-teacher conferences) and informal (e.g., pick-up/drop-off) opportunities for parents and teachers to interact when children with ASD receive special education services. In a recent systematic review, Goldman and Burke (2019) found that parents of children with ASD participate in all four types of parent involvement defined in the literature – home-school communication, advocacy, collaborative partnership, and school-based participation. With communication deficits being a defining characteristic of ASD, it is possible that parents of children with ASD are highly motivated to communicate and collaborate with their child's teacher (Azad et al., 2016; Goldman & Burke, 2019).

Interventions targeting parent-teacher communication

One potential mechanism by which parent-teacher communication may be enhanced is through consultation. Randomized controlled trials of parent-teacher consultation models, such as Conjoint Behavioral Consultation (CBC), have shown improvements in home-school communication. Sheridan and colleagues suggest that consultation equips parents with skills (e.g., setting goals for their child, identifying and implementing strategies, gathering information to evaluate progress) that promotes active communication and collaboration with teachers (Sheridan et al., 2013). In a more recent study, Sheridan et al. (2017) showed that CBC had a significant impact on parent-teacher relationships. Although communication was not examined specifically in this study, it is likely that parent-teacher communication is enhanced when the quality of the relationship is improved.

There are limited studies that target communication, especially in parents and teachers of children with ASD. Empirical investigations to date have shown inconsistent findings. For example, Wolraich, Bickman, Lambert, Simmons, and Doffing (2005) aimed to improve communication between caretakers of children with ADHD (i.e., parents, teachers, providers); however, their model did not lead to significant changes in communication. A more

recent study with Latino parents of young children found that their approach enhanced parent–teacher communication, but only among parents with higher initial goal intentions for their child (Arriaga & Longoria, 2011). For children with ASD, Garbacz and McIntyre (2016) found inconclusive evidence on whether their consultation framework improved communication between parents and teachers.

Factors associated with parent-teacher communication

There are limited studies that examine factors associated with parent–teacher communication, particularly within the context of consultation. It is likely that the characteristics and/or skills of parents and teachers play a role in the extent to which consultation may enhance communication between them. For example, self-efficacy has been linked – albeit inconsistently – to parental involvement (of which communication is a part). Some studies find that parental self-efficacy is related to educational involvement in preschool (Pelletier & Brent, 2002), while other studies find no association between self-efficacy and involvement in the elementary grades (Anderson & Minke, 2007) for typically developing children. In Murray, Ackerman-Spain, Williams, and Ryley (2011) descriptive study with parents and professionals of children with ASD, socio-economic status and home language were not predictors of communication. Other studies have shown that parent education is associated with home–school communication in a sample of typically developing elementary-aged students (Manz et al., 2004). The racial background of parents may impact their communication with teachers. For example, Cherng (2016) showed that among typically developing high-school students, teachers are more likely to contact parents of Black and Latino adolescents about disruptive behavior than parents of White adolescents. Teachers are also less likely to contact minority parents about their children’s accomplishments.

Teacher characteristics also have been linked to parental involvement. For example, teacher expectations have been shown to mediate the relationship between parental involvement and academic adjustment in Latino middle and high school youth (Kuperminc, Darnell, & Alvarez-Jimenez, 2008). The mutual activities in which parents and teachers engage in may play a role in their communication. Cox’s (2005) review showed that the most effective interventions targeting home–school collaborations were those involving home-school notes. Finally, teachers’ race also has been shown to play an important role in parent–teacher communication. In 2018, Azad and colleagues reported that when elementary teachers were White, parents of elementary-aged children with ASD less engaged with them (regardless of their own race; Azad et al., 2019). Although the aforementioned studies examined aspects related to parent-teacher communication (i.e., parental involvement or home-school collaboration), limited studies to our knowledge have

examined factors that may be associated with improved communication between parents and teachers of children with ASD.

The purpose of this preliminary study is to examine the effects of *Partners in School*, a consultation model designed for use with parents and teachers of children with ASD. *Partners in School* is a problem-solving model to help parents and teachers identify a mutual concern, collaboratively develop a student intervention plan, and then implement the same student intervention plan across home and school. This model was developed by drawing from the literature on school consultation, business negotiation, health communication, and implementation science. This multidisciplinary research was merged with qualitative and quantitative data gathered from parents and teachers of elementary-aged children with ASD. For example, our observations of parent-teacher communication suggested that teachers talked significantly more than parents during their exchanges, and this was particularly true for White teachers (Azad, Williams, Minton, Sheridan, & Mandell (2020)). Therefore, in the *Partners in School* model, parents and teachers were provided with notes (see methods for more in-depth description) to encourage a more equitable exchange.

Partners in School is similar to other consultation models (e.g., behavioral consultation, conjoint behavioral consultation) because it is based on the problem-solving process; however, it is different in content (e.g., asks parents and teachers to identify a strength in the other person, a strategy identified from the business negotiation literature, Daniels, Walker, & Emborg, 2012) and process (i.e., includes both phone and in-person components, preferences reported by parents and teachers during qualitative interviews). Preliminary findings on *Partners in School* has focused on child outcomes, noting that this approach can lead to meaningful changes in student behavioral outcomes (Azad, Marcus, Sheridan, & Mandell, 2018). There is still a need to examine the extent to which this model leads to changes in parent and teacher communication outcomes.

Our aim in the present study is to examine the communication impact of *Partners in School* with the following research questions: (a) To what extent does *Partners in School* improve different dimensions of parent-teacher communication, including general communication, communication about ASD, and communication about problem-solving?; and (b) What characteristics of parents and teachers (e.g., self-efficacy, expectations, education, years teaching, etc.) are associated with changes in communication?

Method

Participants

Participants were 26 teachers and 49 parents of children with ASD. Each teacher worked with 1–3 parents in his/her classroom. Only one parent (i.e.,

the parent who interacted with the teacher more) participated per child to provide standardization across parent-teacher dyads. A dyad was defined as one parent and one teacher participating in a consultation about one child with ASD. Parents and teachers were from 26 autism support classrooms across 18 schools in a large urban public school district in the northeast of the United States. In the district, 53% of the elementary schools (i.e., 79 schools) had autism support classrooms. Autism support classrooms were self-contained special education classrooms designated for students with an educational classification of autism. The 18 schools in the present study included students that were 10.4% White, 52.4% African American/Black, 21.2% Latino, 6% Asian, 0.1% Pacific Islander, 0.1% American Indian, and 9.6% other races. Additionally, 13.4% of students were receiving special education services. In the 18 participating schools, traditional approaches for home-school communication were utilized, such as monthly newsletters, back to school nights, parent-teacher conferences, etc.

The first author recruited teachers at a school district in-service. Recruitment entailed doing a short presentation about the project to potential teachers, and then setting up a recruitment table to consent interested teachers. E-mails also were sent to teachers that participated in a previous study on home-school collaborations for children with ASD. Thirty-one teachers from 27 schools provided written consent to participate. Study information was sent home with all students of the consented teachers. Criteria for involvement were: (a) participant must be a parent/legal guardian; (b) child with ASD must be in K-5 grades; and (c) parent/legal guardian must be English-speaking. We distributed 235 study packets. Of the 90 parents who returned recruitment packets, 20 were not interested in participating, 10 could not be contacted, three had moved to a different district, and four did not speak English. Two parents dropped out of the study because they were in litigation with the district and two more parents were dropped because they did not keep their first phone interview. Four teachers were excluded because the parents in their classroom either did not return the consent form or were ineligible. One teacher was excluded from the study because she did not keep her first phone interview.

As presented in [Table 1](#), most teachers were female (92.3%) with an average age of 36.6 years ($SD = 9.7$); 80.9% identified as White, 11.5% as African American/Black, 3.8% as Hispanic/Latino, and 3.8% as Asian. All teachers taught in self-contained special education classrooms, referred to as autism support classrooms. There were seven different types of classroom arrangements, with two to four grades grouped together (e.g., K-1 or K-3). More than half of the teachers (57.9%) taught in some arrangement of a kindergarten through third-grade class. On average, teachers reported teaching special education for 9.3 years ($SD = 5.9$) and autism support for 5.6 years ($SD = 3.1$). The teachers in the present study were similar in demographic

Table 1. Demographic characteristics of teachers and parents.

Variable	Mean (SD) or Percentage	Variable	Mean (SD) or Percentage
Teachers (n = 26)		Parent (n = 49)	
Male	7.7	Fathers	6.1
Female	92.3	Mothers	89.8
Age (in years)	36.6 (9.7)	Age (in years)	38.1 (7.8)
White	80.9	White	30.6
African American/Black	11.5	African American/Black	36.7
Asian	3.8	Asian	4.1
Hispanic/Latino	3.8	Hispanic/Latino	24.5
K – 3 rd Grade	57.9	Middle Eastern	2.0
1 st – 3 rd Grade	11.5	American Indian	2.0
2 nd – 5 th Grade	30.6	High School or Less	67.4
Years Teaching SPED	9.3 (5.9)	Income Less than 45 K	73.5
Years Teaching AS	5.6 (3.1)	Receiving Medicaid	67.3
		Unemployed	44.9
		Not married	60.4

SPED refers to Special Education and AS refers to Autism Support.

characteristics (e.g., age, gender, years of teaching experience, etc.) to the teachers participating in a larger trial in the district.

Parents were primarily mothers (89.8%) who averaged 38.1 years of age (SD = 7.8). Approximately 30.6% identified as White, 36.7% as African American/Black, 24.5% as Hispanic/Latino, 4.1% as Asian, and 4% as other. About two thirds (67.4%) had a high school/vocational degree or less; and 73.5% reported an annual income of less than 45,000 USD. Almost half (44.9%) were unemployed, 60.4% were not married, and 67.3% were enrolled in Medicaid.

The students with ASD (n = 49) averaged 7.3 years of age (SD = 1.6), ranged in grade from kindergarten to fifth, with 71.4% in the early grades (i.e., either K, 1st, or 2nd grade); and 69.4% were boys. Students were on average, 32 months old (SD = 12.6) when they were diagnosed with an ASD. Most (79.6%) were enrolled in free or reduced lunch programs and received school-based services (93.9%), including speech (85.4%) and occupational therapy (66.7%). The consultant for *Partners in School* was a female, Asian-American, doctoral-level school psychologist.

Measures

Parent–teacher relationship scale – second edition

The *Parent–Teacher Relationship Scale* (PTRS-II) is a 24–item measure on the degree of connection felt between parent and teacher pairs using two aspects – joining and communication–to–other. For the present study, we only used the latter scale, which is composed of two subscales (i.e., sharing of emotion and sharing of information). Respondents were asked to indicate the degree to which a series of statements were applicable to their relationship, using a five–

point Likert scale (Minke, Sheridan, Kim, Ryoo, & Koziol, 2014; Vickers & Minke, 1995). For the present study, Cronbach's alpha on the communication-to-other scale for parents was .93 (pre) and .83 (post). For teachers, Cronbach's alpha on the communication-to-other scale was .90 (pre) and .91 (post). We used the communication-to-other scale as a measure of general communication to the other person.

Participation in problem-solving scale

The *Participation in Problem-Solving Scale* (PPSS; Sheridan et al., 2013) has two sections. In the first section, respondents were asked to answer five yes/no questions regarding their communication about ASD specific problems and solutions (e.g., *During the last three months, did you communicate about your child's social skills?*). In the second section, respondents were asked to think about the most recent concern they brought up with the other person and answer eight problem-solving questions about that experience (e.g., *I gathered specific information to measure my child's progress*). The items are rated on a six-point Likert scale. For the present study, Cronbach's alpha for parent PPSS was .83 (pre) and .81 (post). For teachers, Cronbach's alpha on the PPSS was .90 (pre) and .88 (post). The first section of the PPSS was used as a measure of communication about ASD and the second section was used as a measure of communication about problem-solving.

Parent-teacher communication questionnaire

The *Parent-Teacher Communication Questionnaire* (PTCQ; parent and teacher versions) was developed for the present study. The first four questions were related to self-efficacy in communication (e.g., *How confident are you in communicating with your child's teacher?*). These questions were from Benson, Karlof, and Siperstein (2008) interview protocol on parent involvement, of which self-efficacy was a component. Questions were adapted using expert feedback and piloted with parents and teachers prior to administration. The fifth question on the PTCQ pertains to expectations regarding communication (e.g., *Are your expectations for communicating with your child's teacher being met?*). This item score was used as a measure of expectations. Respondents were asked to rank their responses on a five-point Likert scale. Cronbach's alpha for parent PTCQ was .82 (pre) and .76 (post). Cronbach's alpha for teacher PTCQ was .78 (pre) and .82 (post).

Home-school notes

The steps of the intervention plan were written on a daily home-school note. Teachers reported whether they completed each of the intervention steps. Child progress was monitored by asking teachers to rate how much progress the child made using goal attainment scaling (i.e., -1 = situation somewhat worse; 0 = no progress, +1 = situation somewhat better, etc.) Teachers signed

the home-school note and sent it home. Parents were asked to provide the same information and return the signed home-school note to the teacher. The consultant provided the teacher with 15 forms for the three-week intervention. The number of home-school notes returned by parents and teachers was used as a measure of intervention fidelity. Other than the home-school notes (collected daily), the remaining measures on communication were collected pre – and post – consultation.

Procedure

The university's institutional review board and school district's research review committee approved all research activities. Parent pre-consultations were conducted prior to teacher pre-consultations, which were then followed by the in-person parent-teacher consultation meetings. Demographic information was collected over the phone during the pre-consultations. Pre-consultation surveys were distributed to classrooms after participants completed their pre-consultation interviews. Parents and teachers brought their completed surveys to the consultation meeting. All consultation meetings were conducted at schools and audiotaped. Post-consultation interviews were conducted over the phone (separately for parents and teachers) approximately four weeks after the parent-teacher consultation meeting. Post-consultation surveys were delivered to classrooms after the parents and teachers completed their post-consultation phone interviews. Consultation procedures were conducted over a 6–8 month window during one school year.

Partners in school pre-consultation

The objectives of the pre-consultation stage were to build rapport, encourage parents and teachers to reflect on the other person's role, and gain information on the child (e.g., reinforcers). There were five parts to the pre-consultation phone interview (conducted separately with parents and teachers). First, parents and teachers were asked to report on strengths in the other person. Second, they were asked to determine what is challenging about the other person's role. Third, child's preferences (i.e., what is reinforcing for the child) were discussed. Fourth, parents and teachers were asked if they endorsed eight possible concerns regarding the child. These eight concerns were selected by directly partnering with parents and teachers during model development (Azad, Williams, Minton, Sheridan, & Mandell, 2020). The following concerns were addressed: (a) expressing needs (29.3%), (b) staying on task (29.3%), (c) aggression (14.6%), (d) rigidity/difficulty with change (14.6%), (e) completing assignments (7.3%), and (f) following directions (4.9%). Fifth, parents and teachers were asked to rank order their top three concerns, and then rate the

frequency (i.e., “*How often does this occur?*”) and severity (i.e., “*How much does this impact home or school functioning?*”) of each concern.

Partners in school consultation

The objectives of the consultation stage were to preview information shared during the individual pre-consultations, as well as develop a student intervention plan and parent-teacher communication plan. At this in-person meeting, parents and teachers were given notes about what they reported during the pre-consultation interviews. They were asked to share their concerns about the child, as well as the strengths and challenges that they identified in the other person. The overlapping concern endorsed by both parents and teachers from the pre-consultation interview (e.g., following directions) became the target concern. If there were no overlapping concerns, the consultant used qualitative information gathered during the phone interviews to help identify a mutual area of concern. For example, both the parent and teacher may have described difficulties the child has in transitioning from preferred to non-preferred activities during their pre-consultation interviews. Although “difficulty with transitions” may not have been endorsed by the parent or teacher as one of their top three concerns, it became the target concern because it was an overlapping difficulty across home and school. The target concern was defined and goals were set. Parents and teachers were asked to provide more information on the target concern (e.g., “*Tell me what happens right before and right after this problem*”), and strategies that were effective at home and at school, respectively.

Using information provided from parents and teachers, as well as the expertise of the consultant on evidence-based practices for ASD, an individualized student intervention plan was collaboratively developed. Student intervention plans had shared (e.g., visual supports) and non-shared aspects. They were drawn from the 27 EBIs from the National Professional Development Center on Autism Spectrum Disorder (2014). Example student intervention plans included antecedent strategies (e.g., reminders and timers), cognitive reframing, structured choices, task analyses, communication supports, replacement behaviors, prompting, redirection, academic modifications, self-monitoring tools, etc. (For more in-depth discussion of the student intervention plans and/or child outcomes of *Partners in School*, please refer to Azad, Marcus, Sheridan, & Mandell, 2018). All materials needed for the intervention were provided by the consultant at the end of the school day. The consultant traveled with a laptop, printer, laminator, Velcro, and reinforcers for the child to generate materials after the consultation meeting. These materials were used to create the student interventions (e.g., visual supports) and to develop the parent-teacher communication plan (i.e., daily home-school notes). In a minority of cases where the consultant did not have the

materials, implementation was delayed by a day or two in order to acquire the specialized materials.

There were two parent–teacher communication plans in place – home-school notes and weekly check–ins. Parents and teachers completed the home-school notes for three weeks. We chose three weeks as the intervention period because in our prior work, parents and teachers of children with ASD indicated that this was the ideal amount of time to implement interventions across home and school settings (Azad, Williams, Minton, Sheridan, & Mandell, 2020). There also was a weekly check–in. Participants were told that they could use any method to check–in, including phone calls, text messages, etc. At the end of the first and second week, the consultant emailed the teacher a reminder about the parent check–in. Teachers initiated the weekly check–ins with parents using three standardized questions. The consultant picked up the home–school notes at the end of the third week. Parents and teachers rated how much progress the child made toward their goal on the daily home–school notes. Using these data, students’ progress toward their pre–determined goals were graphed prior to the post–consultation meeting.

Partners in school post–consultation

The objectives of the post–consultation stage were to discuss outcomes of the intervention plan and communication plans, develop maintenance strategies or revise the student intervention plan, and obtain feedback on the entire *Partners in School* process. There were three components to the post–consultation phone interviews. First, parents and teachers reported on the frequency and severity of the same three concerns that they reported on during the pre–consultation interview. Second, they were asked about what parts of the student intervention plan worked or did not work and the next steps (i.e., maintenance strategies). Third, parents and teachers were asked about the home–school notes and the check–ins. Future communication plans were discussed. Fourth, the consultant elicited feedback from parents and teachers about their general experiences with the consultation services.

Consultant fidelity was examined with a checklist coded by two independent raters. Both raters listened to 20% of the consultation sessions to establish reliability standards. The remaining sessions were coded individually. Percent agreement was 98.5%. The consultant adhered to 98% of the protocol. (Protocol is available from the first author upon request).

Data analyses

We used paired samples *t*–tests to address our first research question, “To what extent does *Partners in School* improve different dimensions of parent–teacher communication.” The parent–teacher communication outcomes of interest were: (a) general communication to the other person, (b)

Table 2. Correlation matrix between independent and dependent variables.

Parent Variables	Parent Education	Family Income	Teachers' Race	Parents' Race	Years Teaching AS	Difference in Self-Efficacy	Difference in Expectations	Home-School Notes Completed
Difference in General Communication	-.163	-.222	-.086	-.253	-.230	.219	.059	.074
Difference in Communication about ASD	-.208	.076	.137	-.127	.233	.382*	.262	.153
Difference in Communication about Problem-Solving	.094	-.190	.071	-.233	.248	-.036	-.088	.114
Teacher Variables								
Difference in General Communication	-.159	.001	.071	-.071	-.144	-.076	.343*	.190
Difference in Communication about ASD	-.189	.010	-.099	.153	-.059	.318*	.175	.365*
Difference in Communication about Problem-Solving	-.132	-.063	.039	.018	-.231	-.082	.305	.142

* $p < .05$

communication about ASD, and (b) communication about problem-solving. We computed grouped pre – and post – consultation means for descriptive purposes. For each child, we then calculated the change between their pre – and post – consultation periods for each outcome and examined, via paired sample *t*-tests, whether the average for each difference score was significantly different from 0.

Our second research question was, “What characteristics of parents and teachers are associated with changes in communication?” Linear regression models were used to understand the characteristics associated with parent-teacher communication. For the parent model, independent variables were education, income, and race. For the teacher model, independent variables were teachers’ race and number of years teaching in autism support classrooms. We coded race as 0 = not White and 1 = White and used the former as the reference variable. Additional independent variables were parents’ and teachers’ change in self-efficacy and expectations from the pre – to post – consultation period, as well as the number of home-school notes completed. The dependent variables were the parent-teacher communication variables.

We examined the unadjusted and adjusted associations between the independent and dependent variables separately for parents and teachers. In the unadjusted analyses, models included each independent variable as the sole predictor of each dependent variable. In the adjusted models, we entered all of the variables with a *p*-value less than .20 (in the unadjusted model) as

independent variables. Difference scores were used for the self-efficacy and expectation independent variables and all the dependent variables. See Table 2 for associations between independent and dependent variables.

It is important to note that there was clustering in our data. More specifically, teachers may have worked with between 1–3 parents in their classrooms. Given the clustering, we computed the interclass correlation coefficient, and found it to be ICC = .44. This moderate ICC indicates that the experience of parent-teacher dyads within classrooms was somewhat different from the experience of parent-teacher dyads across classrooms. To account for this teacher effect, our analyses were conducted using Complex Samples in SPSS. Complex Samples uses generalized estimating equations (GEE) to adjust standard errors to account for the non-independence created by clustering (Huang, 2016).

Results

To what extent does *partners in school* improve different dimensions of parent-teacher communication?

Table 3 shows that for all three communication variables examined on the Parent-Teacher Relationship Scale (i.e., general communication) and Participation in Problem-Solving (i.e., communication about ASD and communication about problem-solving), we found significant increases reported by teachers. Teachers reported a significant increase in their general communication to parents from pre – to post – consultation (difference score = 1.3, $p = .017$). Subscales scores suggested that teachers reported a significant increase in their sharing of information to parents from pre – (M = 7.5, SD = 2.2) to post – (M = 8.5; SD = 1.4) consultation (difference score = .9, $p = .014$). Teachers also reported a significant increase in their communication about ASD from pre – to post – consultation (difference score = .5, $p = .004$).

Table 3. Parent-teacher communication outcomes.

Variable	Parent			Teacher		
	M	SD	p	M	SD	p
General Communication to the other person						
Pre-Consultation	21.7	4.6		20.4	4.0	
Post-Consultation	24.0	9.0		21.9	3.0	
Difference	2.1	9.7	.191	1.3*	2.9	.017
Communication about ASD						
Pre-Consultation	4.2	1.5		4.3	.9	
Post-Consultation	4.6	.8		4.7	.5	
Difference	.4	1.4	.064	.5**	1.0	.004
Communication about Problem-Solving						
Pre-Consultation	40.1	5.8		39.1	8.0	
Post-Consultation	42.2	5.0		42.8	4.1	
Difference	1.4	5.8	.233	2.6**	6.0	.009

* $p < .05$ ** $p < .01$

Finally, teachers reported a significant increase in their communication about problem-solving from pre – to post – consultation (difference score = 2.6, $p = .009$). Parents did not report increases in their communication to teachers. These findings suggest that *Partners in School* facilitated teachers' communication with parents, but not vice versa.

What characteristics of parents and teachers are associated with changes in communication?

We used the variables in the demographic form (e.g., race, parents' education, teachers' years teaching) and the Parent-Teacher Communication Questionnaire (i.e., self-efficacy and expectations) as characteristics for parents and teachers. As seen in Table 4, the unadjusted model suggested that teachers' race ($B = .7, p = .006$) was significantly associated with changes in communication about ASD for parents. This suggests that parents' communication about ASD with teachers may be impacted by teachers' race. However, this effect was diminished in the adjusted model when all of the variables are considered together. In the adjusted models, three variables were significantly important for parents. Parental reports of their self-efficacy ($B = 1.0, p = .024$) was significantly associated with changes in general communication to teachers. A one-point increase in the difference score on parental self-efficacy was associated with a one-point increase in the difference score on general communication to the other person. Self-efficacy also was significantly associated with changes in communication about ASD, ($B = .4, p <$

Table 4. Predictors of parent communication.

Variables	Difference in general communication to the other person				Difference in communication about ASD				Difference in communication about problem-solving			
	Unadjusted		Adjusted		Unadjusted		Adjusted		Unadjusted		Adjusted	
	B	p	B	p	B	p	B	p	B	p	B	p
Parent Education												
HS or less	-	-	-	-	-	-	-	-	-	-	-	-
More than HS	-3.3	.201	-	-	-.5	.249	-	-	1.1	.551	-	-
Family Income												
45 K or less	-	-	-	-	-	-	-	-	-	-	-	-
Over 45 K	-4.5	.285	-	-	2.0	.686	-	-	-2.3	.305	-	-
Teachers' race												
Not White	-	-	-	-	-	-	-	-	-	-	-	-
White	-3.0	.093	-2.5	.179	.7*	.006	.5	.289	1.4	.369	-	-
Parents' race												
Not White	-	-	-	-	-	-	-	-	-	-	-	-
White	-5.0	.186	-5.6	.111	-.3	.452	-	-	-2.8	.212	-	-
Years teaching AS	.7	.345	-	-	.1	.130	.1*	.025	.5	.253	-	-
Difference in self-efficacy	.9	.095	1.0*	.024	.2	.079	.4***	<.0001	-.10	.917	-	-
Difference in expectations	.8	.565	-	-	.4	.182	-.2	.199	-.6	.779	-	-
Home-school notes completed	.2	.353	-	-	.1	.320	-	-	.2	.627	-	-

* $p < .05$ ** $p < .01$ *** $p < .001$

Ranges for the continuous variables are as follows: Self-Efficacy (4–20); Expectations (1–5); Communication to the other person (5– 25); Communication about ASD (0–6); Communication about problem-solving (8–48)

Table 5. Predictors of teacher communication.

Variables	Difference in general communication to the other person				Difference in communication about ASD				Difference in communication about problem-solving			
	Unadjusted		Adjusted		Unadjusted		Adjusted		Unadjusted		Adjusted	
	B	p	B	p	B	p	B	p	B	p	B	p
Parent Education												
HS or less	-	-	-	-	-	-	-	-	-	-	-	-
More than HS	-.9	.384	-	-	-.4	.202	-	-	-1.6	.414	-	-
Family Income												
45 K or less	-	-	-	-	-	-	-	-	-	-	-	-
Over 45 K	1.1	.154	.5	.641	.02	.953	-	-	-.8	.769	-	-
Teachers' race												
Not White	-	-	-	-	-	-	-	-	-	-	-	-
White	-.9	.196	-1.8	.153	.6	.273	-	-	.4	.863	-	-
Parents' race												
Not White	-	-	-	-	-	-	-	-	-	-	-	-
White	.4	.627	-	-	-.2	.599	-	-	.5	.849	-	-
Years teaching AS	-.1	.404	-	-	-.02	.730	-	-	-.5	.316	-	-
Difference in self-efficacy	.4*	.026	.5	.091	.1	.251	-	-	.8*	.043	.7*	.043
Difference in expectations	.7	.181	.1	.973	.5*	.049	.6*	.019	1.2	.326	-	-
Home-school notes completed	-.2	.201	-	-	.1*	.049	.1*	.038	-.2	.508	-	-

*p <.05 **p <.01 ***p <.001

Note. Ranges for the continuous variables are as follows: Self-Efficacy (4–20); Expectations (1–5); Communication to the other person (5– 25); Communication about ASD (0–6); Communication about problem-solving (8–48)

.001). A one-unit increase in the difference score on self-efficacy was associated with a .4 point increase in the difference score on communication about ASD. The number of years that teachers taught in autism support classrooms were associated with changes in communication about ASD for parents, (B = .1, p = .025). A one-unit increase in the number of years that teachers taught in autism support were associated with a .1 point increase in the difference score on communication about ASD.

For teachers, the unadjusted models indicated that three variables (i.e., self-efficacy, expectations, number of home-school notes) were important for their communication to parents (see Table 5). In the adjusted models, the impact of all of the variables remained. Teacher reports of their expectations (B = .6, p= .019) was significantly associated with changes in communication about ASD. A one-point increase in the difference score on expectations was associated with a .6 point increase in the difference score on communication about ASD. The number of home-school notes that teachers completed (B = .1, p= .038) also was significantly associated with changes in communication about ASD. A one-point increase in the number of home-school notes was associated with a .1 point increase in the difference score on communication about ASD. For communication about problem-solving, teachers' report on their self-efficacy was the only variable with a p-value of less than .20. Therefore, the adjusted results were the same as the unadjusted results, such that a one-point increase in the difference score on self-efficacy was associated

with a .8 point increase in the difference score on communication about problem-solving.

Discussion

In this preliminary study, we examined whether a pre-post implementation of *Partners in School* led to improvements in parent-teacher communication and what factors were associated with such improvements. We found that teachers reported a significant increase in their communication to parents, although parents did not report the same increase with teachers. Teachers' reports of their self-efficacy, expectations, and intervention fidelity were associated with increased communication to parents. Parental self-efficacy and teacher experience was associated with parents' reports of communication with teachers.

We investigated three different types of communication: (a) general communication to the other person, (b) communication about ASD, and (c) communication about problem-solving. Our findings indicated that teachers reported a significant increase in all three communication types. However, parents did not report a significant increase in any of these communication outcomes. One reason that teachers may have reported a significant increase in communication is because teachers perceive it as their responsibility to communicate with parents (Mahmood, 2013). The support provided through *Partners in School* may have been sufficient for teachers to effectively communicate with parents. Prior studies have indicated that when teachers receive additional support through consultations, they report improved relationships with parents (Sheridan et al., 2017).

The lack of significant findings related to parents' report of communication to teachers also warrants attention. It is likely that in a low-SES, racially diverse sample of parents like those enrolled in the present study, teachers or other school-mental health staff need to adopt more culturally responsive strategies to ensure that parents know that their voices are welcome, valued, and essential for problem-solving. Another reason may be that parents had difficulty interpreting the survey questions. Approximately two-third of our parent sample reported an educational attainment of high school/vocational school or less. The demographic composition of parents in the present study is a strength, but it is precisely the population that is often disengaged from research. Perhaps to enhance parents' communication with teachers, it is important to go deeper and address race and other systemic factors that may impact the change process. Prior research indicates that teachers often do not welcome, expect, or advance power-sharing relationships with African American and/or Latino parents (Abrams & Gibbs, 2002; Azad et al., 2019; Cooper, 2009). A history of one-sided relationships may have altered parents' attitudes about home-school communication. This may stem from being part of a larger educational system that caters to the majority, and not the minority

(Cheatham & Ostrosky, 2011). Collectively, these factors may have facilitated teachers' communication, but impeded parents' communication. Finally, it is possible that the limited nature of *Partners in School* was not robust enough to detect changes. More work is needed to understand how consultation services may be designed to improve parents' communication, especially low-SES and/or racially minoritized parents' communication with teachers.

Although parents did not report any communication differences, prior work with *Partners in School* (Azad, Marcus, Sheridan, & Mandell, 2018) suggested that parents reported more child-related outcomes after participating in consultation compared to teachers. Given the minimal support that parents receive at home for their children, and the limited support that teachers receive about communicating with parents, it may be that parents and teachers were capitalizing on different aspects of the *Partners in School* model.

We also examined what factors were related to changes in parent-teacher communication. For both parents and teachers, we found that self-efficacy was related to changes in communication. For teachers, an increase in communication self-efficacy was related to an increase in communication about problem-solving. For parents, an increase in communication self-efficacy was related to an increase in general communication and communication about ASD. Our results are consistent with Ozkan, Dalli, Bingol, Metin, and Yarali (2014) who showed a positive association between teacher self-efficacy and their communication skills. According to Hoy and Spero (2005), teachers' self-efficacy declines during the first years of teaching and this decline is related to a lack of support. The literature on parental self-efficacy indicates that support in parenting is important for fostering mothers' capacity to care for children with ASD (Chong & Kua, 2016). Our findings suggest that self-efficacy may be an important target for professional development or parent training programs, as this characteristic may play a vital role for parent-teacher communication.

There also were additional variables unique to teachers' or parents' reports of their communication with each other. For teachers, an increase in communication expectations and intervention fidelity were associated with increases in communication about ASD. Although limited research examines teacher expectations for communication, the literature suggests that expectations are likely low. Teachers report that they lack the time, support, and structure to effectively partner with parents (Jivanjee, Kruzich, Friesen, & Robinson, 2007). It is possible that *Partners in School* helped teachers heighten their expectations regarding parent-teacher communication, which was associated with increased communication about ASD. Finally, teachers who completed more home-school notes may have had more ASD-specific information to communicate about with parents. Anecdotal observations from parents and teachers indicated that they preferred using a pre-populated, structured home-

school note rather than open-ended, unstructured communication logs that were previously used. Future research may examine whether structured versus unstructured communication modalities impacts the quality and quality of parent–teacher communication. Furthermore, *Partners in School* may be enhanced by addressing systemic issues in education (e.g., targeting culture and prior experiences with education more explicitly during pre-consultations) that have perpetuated inequities and outcome disparities.

For parents, the only additional variable that was associated with communication was teachers' experience. More specifically, parents reported an increase in communication about ASD with teachers who had taught in autism support classrooms for more years. One explanation for this finding is that teachers with more experience may create more awareness and opportunities for parent engagement (Williams & Sánchez, 2013), and thus allow parents to communicate more frequently with them. Fishman and Nickerson (2015) showed that teacher invitations for involvement were a significant predictor of whether parents were engaged in the special education of their children with disabilities. Interestingly, parents' communication about ASD with teachers was impacted by teacher's race in the unadjusted model; however, this effect diminished when teachers' race was considered in the adjusted model with all of the variables. It is important to note that the variation in parents' pre – and post – consultation reports of general communication, as evidenced by the standard deviation, suggests that there were other unmeasured variables affecting how parents responded to *Partners in School*. The present study examined individual characteristics (e.g., education, income, self-efficacy); however, in future studies it may be important to examine how dyadic characteristics (e.g., concordance of race, expectations, etc.) and/or how child-related characteristics (e.g., behavioral problems) influences the extent to which parents' communication with teachers may be enhanced through consultation.

It is interesting to note that for both parents and teachers, communication about ASD emerged as important. For parents, general communication also was important, while for teachers communication about problem-solving was critical. With *Partners in School*, parents may have seen their role as participating in more general communication with teachers and providing ASD specific content about their child. However, they may have expected teachers to do more of the “heavy” problem-solving. Given teachers' skills, they may have seen their role as providing ASD specific content and engaging in the process of problem-solving. Parent–teacher interactions are often characterized as hierarchical, in which parents assume the role of advice-recipient and teachers assume the role of advice-giver (Azad et al., 2016; Cheatham & Ostrosky, 2011). *Partners in School* may help parents move beyond their passive role into a more descriptive role (i.e., describing the child's ASD-

related challenges), but the consultation approach may not be sufficient for parents to become collaborative problem-solvers with teachers.

Limitations

There are important limitations to note about the present study. First, we did not have direct observations to corroborate our findings. According to Azad et al. (2016) parent and teacher reports of their communication can be inflated relative to their actual communicative behaviors. Second, the consultation meetings took place at school. The consultant had more informal contact with teachers and as a result, teachers may have felt more supported. Third, some of our measures were developed for the purposes of the present study, and therefore, there are limited data about reliability and validity (e.g., Parent-Teacher Communication Questionnaire). Without this information, it may be difficult to compare our findings with those from other studies. Fourth, our results are preliminary given the single group pre-post, non-experimental design with a small sample size. Fifth, there are potential threats to internal validity (e.g., maturation, history) that may have influenced participants' ratings, especially teachers. Future studies with a more rigorous design and methodology are needed to replicate the findings.

Implications

The results from the present study have important implications for educational consultation. A short, family-school consultation approach can lead to changes in parent-teacher communication as reported by special education teachers. However, more research is needed to understand how family-school consultations may support parents in their communication with teachers. It is imperative that consultation research and practice take a more culturally-competent approach (i.e., in agreement with the cultural values, beliefs, worldview, and practices of stakeholders, Purnell, 2016) to meet the complex communicative needs of low-SES and/or racially minoritized parents. Perhaps including parents' perspectives using a community-partnered approach in the design of consultation models may close the gap between what we know works in research and what actually happens in practice.

Our findings also highlight other factors related to parent-teacher communication. For example, the literature on self-efficacy suggests that it is related to emotional exhaustion in teachers (Boujut, Popa-Roch, Palomares, Dean, & Cappe, 2017) and fatigue in parents (Giallo, Wood, Jellet, & Porter, 2013). Our results add to this literature by showing that self-efficacy is related to parent-teacher communication. Our findings also indicate the need to address teachers' expectations about communication, which may be addressed during teacher preparation

programs or professional development workshops. School-based staff who conduct consultation services (e.g., school psychologists) may encourage teachers to actively engage parents using home-school notes, which may further enhance teachers' communicative behaviors. Parents may feel more comfortable interacting with teachers who have more experience with ASD. Therefore, it is important for consultation services to provide additional support for parents who have teachers that are newer to the profession. Engaging in collaborative communication through family-school consultation is the first step to establishing a strong and meaningful home-school connection (Leenders, de Jong, Monfrance, & Haelermans, 2019), and ultimately, enhanced outcomes for children with ASD.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the National Institute of Mental Health National Research Service Awards, Grant # F32-MH101994 (PI Azad) and the Autism Science Foundation Research Enhancement Mini Grant # REG 14-01 (PI Azad). Preparation of this article was supported in part by a grant from the National Institute of Mental Health (7K23MH119331-02; GA; PI: Azad).

Notes on contributors

Gazi Azad, PhD, is an Assistant Professor, Licensed Psychologist, and Nationally Certified School Psychologist. Her research uses implementation science to optimize continuity of evidence-based interventions across home and school for children with autism.

Steven Marcus, PhD, is an epidemiologist, statistician, computer scientist, and mental health services researcher studying the outcomes, quality of care, and pharmacoepidemiology of patients with serious mental disorders.

David Mandell, ScD, is a psychiatric epidemiologist and mental health services researcher. The goal of his research is to improve the quality of care individuals with psychiatric and developmental disabilities receive in their communities.

References

- Abrams, L. S., & Gibbs, J. T. (2002). Disrupting the logic of home-school relations: Parent involvement strategies and practices of inclusion and exclusion. *Urban Education, 37*(3), 384–407. doi:10.1177/00485902037003005
- Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *Journal of Educational Research, 100*(5), 311–323. <http://dx.doi.org/10.3200/JOER.100.5.311-323>

- Arriaga, X. B., & Longoria, Z. N. (2011). Implementation intentions increase parent–teacher communication among Latinos. *Basic and Applied Social Psychology*, 33(4), 365–373. doi:10.1080/01973533.2011.614142
- Azad, G., & Mandell, D. S. (2016). Concerns of parents and teachers of children with autism in elementary school. *Autism*, 20(4), 435–441. doi:10.1177/1362361315588199
- Azad, G. F., Gormley, S., Marcus, S., & Mandell, D. S. (2019). Parent–teacher problem solving about concerns in children with autism spectrum disorder: The role of income and race. *Psychology in the Schools*, 56(2), 276–290. <https://doi.org/10.1002/pits.22205>
- Azad, G. F., Kim, M., Marcus, S. C., Sheridan, S. M., & Mandell, D. S. (2016). Parent-teacher communication about children with autism spectrum disorder: An examination of collaborative problem-solving. *Psychology in the Schools*, 53(10), 1071–1084. <https://doi.org/10.1002/pits.21976>
- Azad, G. F., Marcus, S. C., Sheridan, S. M., & Mandell, D. S. (2018). Partners in school: An innovative parent-teacher consultation model for children with autism spectrum disorder. *Journal of Educational and Psychological Consultation*, 28(4), 460–486. <https://doi.org/10.1080/10474412.2018.1431550>
- 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. In *Interdisciplinary Care Coordination for Pediatric Autism Spectrum Disorder* (pp. 153–167). Springer.
- 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. doi: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. <http://dx.doi.org/10.1007/s10803-007-0531-9>
- Bolourian, Y., Tipton-Fisler, L. A., & Yassine, J. (2020). Special education placement trends: Least restrictive environment across five years in California. *Contemporary School Psychology*, 24(2), 164–173. doi:10.1007/s40688-018-00214-z
- Boujut, E., Popa-Roch, M., Palomares, E. A., Dean, A., & Cappe, E. (2017). Self-efficacy and burnout in teachers of students with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 36, 8–20. <http://dx.doi.org/10.1016/j.rasd.2017.01.002>
- Bourke-Taylor, H., Cotter, C., Johnson, L., & Lalor, A. (2018). Belonging, school support and communication: Essential aspects of school success for students with cerebral palsy in mainstream schools. *Teaching and Teacher Education*, 70, 153–164. <http://dx.doi.org/10.1016/j.tate.2017.11.016>
- Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187–248). Philadelphia, PA: Jessica Kingsley.
- Burke, M. M. (2012). Examining family involvement in regular and special education: Lessons to be learned for both sides. *International Review of Research in Developmental Disabilities*, 43, 187–218. <https://doi.org/10.1016/B978-0-12-398261-2.00005-2>
- Cheatham, G. A., & Ostrosky, M. M. (2011). Whose expertise?: An analysis of advice giving in early childhood parent-teacher conferences. *Journal of Research in Childhood Education*, 25(1), 24–44. doi:10.1080/02568543.2011.533116
- Cherng, H.-Y. (2016). Is all classroom conduct equal? Teacher contact with parents of racial/ethnic minority and immigrant adolescents. *Teachers College Record*, 118(11), 1–36.
- Chong, W. H., & Kua, S. M. (2016). Parenting self-efficacy beliefs in parents of children with autism. *American Journal of Orthopsychiatry*, 87(3), 365–375. doi:10.1037/ort0000169

- Collier, M., Keefe, E. B., & Hirrel, L. A. (2015). Preparing special education teachers to collaborate with families. *School Community Journal*, 25(1), 117–136. Retrieved from: <https://files.eric.ed.gov/fulltext/EJ1066210.pdf>
- Cooper, C. W. (2009). Parent involvement, African American mothers, and the politics of educational care. *Equity & Excellence in Education*, 42(4), 379–394. doi:10.1080/10665680903228389
- Cox, D. D. (2005). Evidence-based interventions using home-school collaboration. *School Psychology Quarterly*, 20(4), 473–497. <http://dx.doi.org/10.1521/scpq.2005.20.4.473>
- Daniels, S. E., Walker, G. B., & Emborg, J. (2012). The unifying negotiation framework: A model of policy discourse. *Conflict Resolution Quarterly*, 30(1), 3–31. doi:10.1002/crq.21045
- Dotger, B. H., Harris, S., & Hansel, A. (2008). Emerging authenticity: The crafting of simulated parent–teacher candidate conferences. *Teaching Education*, 19(4), 337–349. doi:10.1080/10476210802438324
- Epstein, J. L. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press.
- Evans, M. P. (2013). Educating preservice teachers for family, school, and community engagement. *Teaching Education*, 24(2), 123–133. doi:10.1080/10476210.2013.786897
- Fishman, C. E., & Nickerson, A. B. (2015). Motivations for involvement: A preliminary investigation of parents of students with disabilities. *Journal of Child and Family Studies*, 24(2), 523–535. <http://dx.doi.org/10.1007/s10826-013-9865-4>
- Garbacz, S. A., & McIntyre, L. L. (2016). Conjoint behavioral consultation for children with autism spectrum disorder. *School Psychology Quarterly*, 31(4), 1–17. <http://dx.doi.org/10.1037/spq0000114>
- Gartmeier, M., Gebhardt, M., & Dotger, B. (2016). How do teachers evaluate their parent communication competence? Latent profiles and relationships to workplace behaviors. *Teaching and Teacher Education*, 55, 207–216. <http://dx.doi.org/10.1016/j.tate.2016.01.009>
- Giallo, R., Wood, C. E., Jellett, R., & Porter, R. (2013). Fatigue, wellbeing and parental self-efficacy in mothers of children with an autism spectrum disorder. *Autism*, 17(4), 465–480. doi:10.1177/1362361311416830
- 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*, 1–19. <https://doi.org/10.1007/s40489-019-00157-y>
- Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343–356. <http://dx.doi.org/10.1016/j.tate.2005.01.007>
- Huang, F. L. (2016). Alternatives to multilevel modeling for the analysis of clustered data. *The Journal of Experimental Education*, 84(1), 175–196. doi:10.1080/00220973.2014.952397
- Ishimaru, A. M. (2019). From family engagement to equitable collaboration. *Educational Policy*, 33(2), 350–385. doi:10.1177/0895904817691841
- Jivanjee, P., Kruzich, J. M., Friesen, B. J., & Robinson, A. (2007). Family perceptions of participation in educational planning for children receiving mental health services. *School Social Work Journal*, 32(1), 75–92. Available from: <https://eric.ed.gov/?id=EJ901937>
- Kamimura, E., & Ishikuma, T. (2007). Teachers' process of building rapport in parent-teacher conferences: Analysis of teachers' speech based on a grounded theory approach. *Japanese Journal of Educational Psychology*, 55(4), 560–572. https://doi.org/10.5926/jjep1953.55.4_560
- Katsiyannis, A., Counts, J., Popham, M., Ryan, J., & Butzer, M. (2016). Litigation and students with disabilities: An overview of cases from 2015. *NASSP Bulletin*, 100(1), 26–46. doi:10.1177/0192636516664827

- Kuperminc, G. P., Darnell, A. J., & Alvarez-Jimenez, A. (2008). Parent involvement in the academic adjustment of Latino middle and high school youth: Teacher expectations and school belonging as mediators. *Journal of Adolescence*, 31(4), 469–483. <http://dx.doi.org/10.1016/j.adolescence.2007.09.003>
- Leenders, H., de Jong, J., Monfrance, M., & Haelermans, C. (2019). Building strong parent–teacher relationships in primary education: The challenge of two-way communication. *Cambridge Journal of Education*, 49(4), 519–533. doi:10.1080/0305764X.2019.1566442
- Lemma, E. M. (2012). Who’s doing the talking? Teacher and parent experiences of parent–teacher conferences. *South African Journal of Education*, 32(1), 83–96. <http://dx.doi.org/10.15700/saje.v32n1a460>
- Mahmood, S. (2013). First-year preschool and kindergarten teachers: Challenges of working with parents. *School Community Journal*, 23(2), 55–65. Retrieved from: <https://files.eric.ed.gov/fulltext/EJ1028824.pdf>
- Manz, P. H., Fantuzzo, J. W., & Power, T. J. (2004). Multidimensional assessment of family involvement among urban elementary students. *Journal of School Psychology*, 42(6), 461–475. <http://dx.doi.org/10.1016/j.jsp.2004.08.002>
- Minke, K. M., Sheridan, S. M., Kim, E. M., Ryoo, J. H., & Koziol, N. A. (2014). Congruence in parent–teacher relationships: The role of shared perceptions. *Elementary School Journal*, 114, 527–546. doi:10.1086/675637
- Murray, M. M., Ackerman-Spain, K., Williams, E. U., & Ryley, A. T. (2011). Knowledge is power: Empowering the autism community through parent–professional training. *School Community Journal*, 21(1), 19–36. <https://files.eric.ed.gov/fulltext/EJ932198.pdf>
- Murray, M.M., Ackerman-Spain, Williams, E.U., & Ryley, A.T. (2011). Knowledge is power: Empowering the autism community through parent–professional training. *School Community Journal*, 21(1), 19–36.
- National Professional Development Center on Autism Spectrum Disorder. (2014). *Evidence based practices*. <https://autismpdc.fpg.unc.edu/evidence-based-practices>
- NCATE. (2018). *K-6 elementary teacher standards*. <http://www.ncate.org/Standards/NCATEUnitStandards>
- Ozkan, H., Dalli, M., Bingol, E., Metin, S. C., & Yarali, D. (2014). Examining the relationship between the communication skills and self-efficacy levels of physical education teacher candidates. *Procedia-Social and Behavioral Sciences*, 152, 440–445. <http://dx.doi.org/10.1016/j.sbspro.2014.09.228>
- Pelletier, J., & Brent, J. M. (2002). Parent participation in children’s school readiness: The effects of parental self-efficacy, cultural diversity and teacher strategies. *International Journal of Early Childhood*, 34(1), 45–60. <https://doi.org/10.1007/BF03177322>
- Purnell, L. (2016). Are we really measuring cultural competence? *Nursing Science Quarterly*, 29(2), 124–127. doi:10.1177/0894318416630100
- Sheridan, S. M., Ryoo, J. H., Garbacz, A., Kunz, G. M., & Chumney, F. L. (2013). The efficacy of conjoint behavioral consultation on parents and children in the home setting: Results of a randomized controlled trial. *Journal of School Psychology*, 51, 717–733. <https://doi.org/10.1016/j.jsp.2013.09.003>
- Sheridan, S. M., Witte, A. L., Holmes, S. R., Coutts, M. J., Dent, A. L., Kunz, G. M., & Wu, C. (2017). A randomized trial examining the effects of conjoint behavioral consultation in rural schools: Student outcomes and the mediating role of the teacher–parent relationship. *Journal of School Psychology*, 61, 33–53. <http://dx.doi.org/10.1016/j.jsp.2016.12.002>
- Stoner, J. B., Bock, S. J., Thompson, J. R., Angell, M. E., Heyl, B. S., & Crowley, E. P. (2005). Welcome to our world: Parent perceptions of interactions between parents of young children with ASD and education professionals. *Focus on Autism and Other Developmental Disabilities*, 20(1), 39–51. doi:10.1177/10883576050200010401

- Stroetinga, M., Leeman, Y., & Veugelers, W. (2019). Primary school teachers' collaboration with parents on upbringing: A review of the empirical literature. *Educational Review*, 71(5), 650–667. doi:10.1080/00131911.2018.1459478
- Tucker, V., & Schwartz, I. (2013). Parents' perspectives of collaboration with school professionals: Barriers and facilitators to successful partnerships in planning for students with ASD. *School Mental Health*, 5(1), 3–14. <http://dx.doi.org/10.1007/s12310-012-9102-0>
- U.S. Department of Education (2004). Individuals with disabilities education act. Retrieved from <http://sites.ed.gov/idea/>
- Vickers, H. S., & Minke, K. M. (1995). Exploring parent-teacher relationships: Joining and communication to others. *School Psychology Quarterly*, 10(2), 133–150. <http://dx.doi.org/10.1037/h0088300>
- Williams, T. T., & Sánchez, B. (2013). Identifying and decreasing barriers to parent involvement for inner-city parents. *Youth & Society*, 45(1), 54–74. doi:10.1177/0044118X11409066
- Wolraich, M. L., Bickman, L., Lambert, E. W., Simmons, T., & Doffing, M. A. (2005). Intervening to improve communication between parents, teachers, and primary care providers of children with ADHD or at high risk for ADHD. *Journal of Attention Disorders*, 9(1), 354–368. doi:10.1177/1087054705278834
- 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. doi:10.1352/1944-7558-117.4.316

Copyright of Journal of Educational & Psychological Consultation is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.