Special Education Teacher Preparation and Family Collaboration

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Abstract

Special education teacher collaboration with families is essential to supporting students with disabilities, yet such partnerships often fall short in practice, and teachers report they are not adequately prepared to work with families. In order to prepare competent teachers for working with families, a Family Collaboration Project was incorporated into a special education teacher education program course taken concurrently with clinical practice in the field. Teacher candidates were assigned to intervention and comparison groups, with and without implementing the project, and their learning outcomes were compared through a pre–post survey and written reflection. Results show that candidates who participated in the intervention group increased their understanding of teacher–parent collaboration and increased their learning of communication skills in comparison to candidates who did not complete the Family Collaboration Project. In addition, compared to those in the comparison group, candidates in the intervention group provided more positive comments on the project reflection regarding their experience working with families and on the impact of collaboration with families on special education student outcomes.

Key Words: teacher preparation, family collaboration, special education, families, parent–teacher relationships, clinical field practice, comparison group

Introduction

In the U.S., the Every Student Succeeds Act (ESSA, 2015) requires school districts to elicit parent and family engagement, and the Individuals with Disabilities Education Act (IDEA, 2004) requires a collaboration among schools, parents, and professionals to ensure that students with disabilities have access to equal educational opportunities. The High-Leverage Practices in Special Education developed by the Council for Exceptional Children and the CEEDAR Center (McLeskey et al., 2017) emphasize the need for teachers to *organize and facilitate effective meetings with professionals and families* and *collaborate with families to support student learning and secure needed services*. Such parent–teacher collaboration has been found to affect student–teacher relationships and to impact student outcomes (Coots, 2007). Thus, encouraging family empowerment in relation to the special education services for their children is a key element to achieving excellence in special education (President's Commission on Excellence in Special Education [PCESE], 2002). In addition, of the special education professional standards provided by the Council for Exceptional Children (CEC, 2015), one is *collaboration*, which emphasizes that collaborative efforts should be made among special education teachers, general education teachers, and parents in order to successfully support students with disabilities. Use of the term "parent" throughout this article refers to any adult caregiver responsible for a child.

Parents of children with disabilities face unique challenges across the lifespan, placing stress on the family unit (Burke & Hodapp, 2014). For example, mothers of children with developmental disabilities exhibit increased maternal stress, while lower stress is reported by those with strong parent–teacher relationships. Differences in social/emotional behaviors and adaptive functioning of children with disabilities have been found to impact parent perceptions of their own effectiveness (Kim et al., 2013). Such perceptions may increase as children age, and families with an adolescent with disabilities have been found to face increased levels of stress at the critical stage of postschool transition (Neece et al., 2009). It is also reported that parents' beliefs that they can enhance the adaptive functioning and behavior of their children are positively impacted by strong parent–teacher relationships; likewise, teacher understanding of the causes of family stress are essential to building successful parent–teacher relationships and support systems (Kim et al., 2013).

Theoretical Framework and Literature Review

Parent–teacher partnerships are considered using an ecological–social system perspective (Keyes, 2000). Through ecological systems theory, emphasis is

placed on understanding the influences of home and school environments and the intersecting relationships on the child (Bronfenbrenner, 1992). Through a social system perspective, emphasis is placed on understanding the relationship between parent and teacher experiences, roles, expectations, and values (Keyes, 2000). For example, parents of individuals with disabilities face unique challenges across the individual's lifespan (Burke & Hodapp, 2014), and teacher understanding of the causes of family stress may be a precursor to building successful parent–teacher relationships (Kim et al., 2013).

Positive family–school relationships are associated with student success; however, creating successful relationships with parents may be a difficult task for teachers (Collier et al., 2015), and teachers report they are unprepared to engage parents in their child's education (Wagner et al., 2012). For instance, parents are members of their child's IEP team but often provide little or no input in development of the IEP goals, and teachers report they are not prepared to work with families or to implement strategies to engage parents in participation in meetings and school activities (Summers et al., 2005). Moreover, many teachers report fear of communicating with parents and view working with parents as anxiety provoking and as a challenge that induces stress (Gartmeier et al., 2017).

Current teacher preparation programs hold the responsibility for preparing teacher candidates to learn how to collaborate with parents (Collier et al., 2015). Learning to support, encourage, and empower parents of children with disabilities is a complex task for teacher candidates (Coots, 2007), yet parent–teacher partnerships lead to improved outcomes for children with disabilities and at-risk learners (Murray et al., 2018). Forming partnerships between educators and parents continues to be difficult to achieve and successfully sustain (Murray et al., 2013). Partnership skills (e.g., family-centered beliefs, integrity, commitment, professional communication) should be considered essential components of teacher training (Collier et al., 2015). However, teacher candidates may only learn parental collaboration skills when they are placed in local schools for their clinical practice, and rigorous rules established in schools tend to block opportunities for their parental contact. Not being the "real teacher" in school is another barrier preventing teacher candidates from participating in parent–teacher conferences or other meetings with families. As a result, teacher candidates often feel hesitant to contact parents, lack skills for building relationships with parents, and lack learning experiences working with families. Hesitation to work with families may continue when teacher candidates enter employment to start their teaching career because they are not prepared for such collaboration and not competent in communication with families of students with disabilities (Collier et al., 2015).

A review of literature about parental collaboration indicates few teacher preparation programs provide teacher candidates with adequate skills to establish effective partnerships between parents and teachers (Dotger & Bennett, 2010), and few programs offer opportunities for teacher candidates to directly interact with parents (Collier et al., 2015; Hedges & Gibbs, 2006). It appears essential to add teacher candidate–parent collaboration activities to university teacher preparation programs. Providing teacher candidates with opportunities to contact families during their clinical practice may support their understanding of family expectations and of individual student needs.

Technology-based simulations have been used in some teacher preparation programs to address the gap in opportunities for teacher candidate and parent interactions. For example, programs such as Teacher Moments (Thompson et al., 2019) provide a digital simulation to practice parent–teacher communication, and programs such as TeachLivE™ provide teacher candidates with a simulated environment to interact with a parent avatar via a projection screen (Dieker et al., 2014). Through simulation technology teacher candidates have practiced communicating with parents in IEP meetings and reflected upon effective communication skills (Walker & Dotger, 2012). However, not all teacher preparation programs have access to such technology, and researchers (e.g., Walker & Dotger, 2012) conclude that teacher candidates need real face-to-face opportunities with parents to put communication skills into action. Although technology-based simulations have supported teacher candidates to interact with a simulated parent avatar at the entrance level (e.g., Accardo & Xin, 2017), real world experiences during clinical practice seem important for teacher candidates to further their communication and collaboration skills with parents and families.

Purpose

Considering the needs of interacting with parents and families, in the present study a Family Collaboration Project was added to a senior clinical seminar course taken concurrently with clinical practice/student teaching in a special education teacher preparation program. The purpose of the present study was to provide teacher candidates an opportunity to interact with parents, as well as to reflect upon their learning in the area of family collaboration and communication. To evaluate teacher candidates' learning outcomes in the areas of parental collaboration and communication, as well as their reflection on understanding family and student needs, the following research questions were investigated:

1. Is there a difference in the survey measurement scores of teacher candidates in the intervention and control groups in the two areas of collaborating

with parents and communicating professionally with parents?

2. Is there a difference in the self-reflection scores of teacher candidates in the intervention and control groups in the two areas of collaborating with parents and communicating professionally with parents?

Method

Teacher candidates were students of a university located in the Northeastern United States. A control and experimental group design was conducted to compare the teacher candidates' pre and post survey responses and to evaluate their perceptions on collaboration with families. The Parent–Teacher Relationship Scale (PTRS; Vickers & Minke, 1995) served as a pre and post survey to evaluate teacher candidates' perceptions and to identify group differences. In addition, candidates completed a self-reflection assignment after participating in the Family Collaboration Project. Their assignment scores were analyzed and compared. Teacher candidates' narrative comments were presented as additional data to support learning outcome evaluations.

Course

The Family Collaboration Project was integrated into the course Clinical Seminar in Special Education (CSSE). All participants were students completing a school-related field experience as CSSE is taken concurrently with the final clinical practice in special education. The seminar course focuses on three major areas: content related to the candidate's areas of specialization, application of effective teaching strategies, and analysis and evaluation of the clinical practice experience. This course is considered a capstone experience for all candidates in the Teacher of Students with Disabilities Endorsement Program. One instructor (not the primary authors) taught both sections of the course each semester, of which one section was randomly selected as a comparison completing a traditional Pupil Impact Assignment and one as the intervention group completing the new Family Collaboration Project.

Participants

The participants were 77 teacher candidates enrolled in CSSE. Of these, 31 were enrolled in the fall semester, and 46 were enrolled in the spring semester of the academic year. Of the 77 students, 95% were Caucasian, 80% were female, and all were under the age of 30 (majority 21–25); 66% majored in elementary education and 34% in secondary subject areas. Table 1 presents the general information of participating teacher candidates in the course.

Table 1. General Information of Participating Teacher Candidates in the Course

Semester	CSSE Course	Male	Female	Elementary	Secondary
Fall	15 (I)	0	15	14	1
	16 (C)	7	9	8	8
Spring	24 (I)	2	22	15	9
	22 (C)	6	16	14	8

Note. I = Intervention group, C = Comparison group

The Family Collaboration Project

The comparison group was taught the same content as the intervention group, using the same CSSE syllabus to complete the required signature assignment. The comparison group was provided directions to complete an existing course Pupil Impact Assignment (PIA). The PIA requires CSSE students to work with the mentoring teacher in the field to complete an assignment with four components: (1) identify a student with an academic and/or behavioral concern; (2) establish and analyze baseline data to understand causative factors related to the academic need or behavior; (3) design and implement an intervention using evidence-based practices to positively impact student learning outcomes; and (4) report and reflect upon the effectiveness of the intervention. An overall assignment direction was to work with the mentoring teacher to consider parental needs and ways to involve families in their children's education plans.

The PIA was completed over a period of eight weeks. Teacher candidates were directed to identify a student and family in collaboration with the mentoring teacher and to identify an area of concern (behavioral or academic). Teacher candidates were required to take baseline data on the concern over at least a three-day period. Teacher candidates were directed to determine causative factors and to design an intervention to positively impact the concern in collaboration with the mentoring teacher. Interventions were required to be carried out for a minimum of three weeks, during which time student performance logs were to be maintained. Teacher candidates were directed to evaluate the effectiveness of the intervention, to adjust interventions with collaboration from the mentoring teacher, and to write a culminating report outlining the concern, the intervention, and the overall student outcome. The mentoring teacher was directed to support the teacher candidate in completing the four project components as well as to support the teacher candidate in involving families in PIA completion.

The family collaboration items explicitly requiring the teacher candidate to interact with a child's parent or family member as a guardian were added as

additional components to the PIA for the intervention group only, with the intervention group project referred to as the Family Collaboration Project. As such, the Family Collaboration Project requires CSSE students to complete six components (added content beyond the PIA italicized): (1) identify a student with academic and/or behavioral concern; (2) *interview the student's parent to gain an understanding of his/her needs and what supports are already in place and to build a relationship that emphasizes the collaborative role of the teacher candidate and parent in the project;* (3) establish and analyze baseline data to understand causative factors related to the academic need or behavior, *and share the data with the parent;* (4) design and implement an intervention using evidence-based practices to positively impact student learning outcomes *in collaboration with the parent;* (5) *share progress with the parent weekly, collaborating to make intervention adjustments as appropriate;* and (6) report and reflect upon the effectiveness of the intervention.

The Family Collaboration Project is also completed over a period of eight weeks. Mirroring the PIA, the mentoring teacher was again directed to support the teacher candidate in completing the project components as well as to support the teacher candidate in connecting with families for project completion. Teacher candidates were directed to identify a student and family in collaboration with the mentoring teacher, and to identify an area of concern (behavioral or academic). *Teacher candidates were then required to interview the students' parents, either in-person, through online conferencing, or over the phone, to gather additional data and decide upon a target behavior with input and agreement from the parent.* Teacher candidates were required to take baseline data on the concern over at least a three-day period. Teacher candidates were directed to determine causative factors and to design an intervention to positively impact the behavior in collaboration with the mentoring teacher *and parent input.* Interventions were required to be carried out for a minimum of three weeks, during which time student performance logs were to be maintained. *Teacher candidates were required to share data with parents at a minimum of once per week and to consider parent insight for intervention adjustments.* Teacher candidates were directed to evaluate the effectiveness of the intervention; to adjust interventions with collaboration from the mentoring teacher, student, and parent as needed; and to write a culminating report outlining the concern, the intervention, and the overall student outcome. While the traditional PIA directed students in the comparison group to consider parental needs and involve families in the child's education with support of the mentoring teacher, the Family Collaboration Project added explicit steps of parental interview, parent data sharing, and parent progress sharing for the intervention group to ensure this process occurred.

Measurements

Two measurements were implemented, a survey measurement and a self-reflection rubric, both to assess teacher candidates' outcomes in the areas of (1) collaborating with parents, and (2) communicating professionally with parents. As a second component of the rubric, teacher candidate open-ended reflections were obtained.

Survey Measurement

The Parent–Teacher Relationship Scale (PTRS), a 24-item measurement developed by Vickers and Minke (1995), was adopted as a survey to assess parent–teacher relationships. The measurement includes two subscales: (1) collaboration, referred to by the PTRS as *joining* (the joining together of parents and teachers), and (2) communication. The PTRS is a measure with established validity, with Cronbach's coefficient alpha reported as .98 for the joining subscale and .85 for the communication subscale (Vickers & Minke, 1995). Nineteen of the 24 items relate to the joining subscale, and five statements relate to the communication subscale.

The PTRS begins with the direction: *The following statements are about your relationship with your student's parents.* PTRS items are rated on a 5-point scale, with 1 representing *almost never* and 5 representing *almost always*. Example statements in the joining subscale include: *We trust each other*; *I respect these parents*; *These parents respect me*; *We are sensitive to each other's feelings*; *We understand each other*; and *We have similar expectations for the student.* Example statements in the communication subscale include: *I tell this parent when I am pleased*; *I tell this parent when I am concerned*; *I ask this parent's opinion about the student's progress*; and *I ask this parent for suggestions.* Minor revisions to the survey to meet the purpose of the present study include changing the title to Teacher Candidates' Relationship With Parents and changing the word "child" to "student." This survey was given to all teacher candidates in both the comparison and intervention groups at the beginning and end of the CSSE course to compare the difference in their perceptions of collaboration with parents and families.

Self-Reflection Rubric

All teacher candidates completed a rubric designed to capture their perspectives in the two areas of parental collaboration (joining) and professional communication during the clinical practice (see Appendix). The rubric was previously developed by a group of faculty based on components of the Charlotte Danielson framework for teacher evaluation (4c, communication with families, and 4f, professionalism; Danielson, 2007) and the elements of a successful parent–teacher conference (Walker & Dotger, 2012). This rubric was

assigned to teacher candidates at the end of the eighth week of implementing the PIA for the comparison group and the Family Collaboration Project for the intervention group. The rubric included nine statements organized into the two areas of (1) establishing interpersonal collaboration (joining) with parents and families, and (2) maintaining professional communication with families. Teacher candidates were again provided with a Likert scale ranging from 5 to 1 (5 for strong agreement, 4 for agreement, 3 for undecided, 2 for disagreement, 1 for strong disagreement).

Example statements in the area of collaboration (joining) included: I initiated contact with my student's parent(s) with a goal of establishing a collaborative partnership; I asked prepared and meaningful questions to gather data to better understand the student; and I reached collaborative agreement with the parent in developing the intervention. Example statements in the area of professional communication included: I advocated for providing a specific evidence-based practice to support the student's need(s), to come to shared decisions and gain consensus of the parent(s) and collaborating teacher; and, I took a leadership role with the parent in considering and complying with school and district regulations and in developing, implementing, and evaluating the intervention. The self-evaluation scores of each teacher candidate were totaled, ranging from 9 to 45, with five statements relating to parental collaboration and partnership and four statements relating to professional communication. A total score was calculated, as well as subscores in the two areas respectively in order to compare group differences. A rubric prompt for open-ended reflection statements was also included in each area for narrative comments. Teacher candidates' responses to the open-ended reflection were reviewed and compared to examine if there were any differences.

Data Analysis

Teacher candidates' perspectives of parental collaboration (joining) and communication were measured by the PTRS which served as a pre and post survey. Their reflection on interaction with parents and families was evaluated by the rubric scores, and their narrative responses to the open-ended questions listed in the rubric were examined.

Survey

Because of the small class size in each semester (fewer than 20 teacher candidates), to reduce statistical errors in analysis, candidate responses across semesters were combined into comparison and intervention groups for data analysis. All responses to the survey were analyzed using an ANOVA with a repeated measure condition (comparison vs. intervention) serving as a between-subject factor and testing time (pre vs. post) serving as a within-subject factor.

Self-Reflection

Teacher candidates in both groups were required to complete their reflection related to parental collaboration using the rubric for self-scoring. A one-way ANOVA was used to compare possible differences in each item listed in the rubric, as well as the total scores of the assignment between the two groups.

Results

Survey

Table 2 presents the means and standard deviations of teacher candidate responses across the two groups and semesters. Mean scores more than 3 represent *always*, whereas those below 3 indicate *not always*. Results show that there was no significant difference of the pre survey scores between the two groups (comparison vs. intervention), yet a significant interaction of these two groups from pre to post was found, which indicates that both groups increased scores through their learning in the course when compared to their pre survey responses. Notably, the intervention group's increase was much higher. Results also show that there was a significant difference (F = 8.69, $p < .05$) between the two groups on post survey scores of Factor 1: joining.

Table 2. Means and Standard Deviations of Student Responses to the Survey (PTRS)

Factor	Pre (Comparison) Mean SD	Post Mean SD	Pre (Intervention) Mean SD	Post Mean SD
1. Collaboration (Joining)	3.36 .29	3.28 .43	3.22 .22	3.76* .78
2. Communication	3.98 .78	4.00 .77	4.20 .68	4.21 .68

Note. * F = 8.69, $p < .05$

Self-Reflection

Tables 3 and 4 present the self-reflection results. There was a significant difference on one item in the first component of Establishing a Collaborative Parent–Teacher Relationship (F = 4.29, $p < .05$) in favor of the intervention group (i.e., maintaining communication for positive relationships). There was a significant difference on one item in the second component of Professional Communications (Advocacy) in favor of the intervention group (F = 3.45, $p < .05$). Although the intervention group obtained higher scores in other items compared to the comparison group, there were no other significant differences between the two groups.

Table 3. Means and Standard Deviations of Teacher Candidates' Self-Reflection Rubric Scores

Collaboration With Parents	Mean (SD) Group I	Mean (SD) Group C
Initiated a collaborative partnership	4.7 (.88)	4.5 (.73)
Gathered and considered information from parent(s)	4.7 (.88)	4.6 (.51)
Shared student evidence (not opinion) with parent(s)	4.7 (.88)	4.4 (.70)
Reached collaborative agreement regarding intervention	4.8 (.86)	4.3 (.98)
Maintained positive relationship and ongoing collaboration	4.9 ** (.29)	4.3 (.98)

Note. **$F = 4.29$, $p < .05$; Group I = intervention group; Group C = Comparison group

Table 4. Means and Standard Deviations of Teacher Candidates' Self-Reflection Rubric Scores

Professional Communication With Parents	Mean (SD) Group I	Mean (SD) Group C
Conveyed commitment to students with diverse needs	4.92 (.28)	4.88 (.33)
Advocated for a specific EBP to support the student	5.00** (0)	4.74 (.54)
Communicated to come to shared decisions	5.00 (0)	4.68 (.78)
Displayed professional leadership throughout intervention	5.00 (0)	4.60 (.75)

Note. ** $F = 3.45$, $p < .05$; EBP = evidence-based practice

Reflections

In response to the open-ended questions, teacher candidates in the intervention group provided more detailed narratives when reflecting upon their learning experiences in collaborating and communicating with parents, while those in the comparison group primarily mentioned their experience with their classroom teachers. The following examples show the difference between the two groups.

Establishing a Collaborative Parent–Teacher Relationship (Intervention)

The following are example reflections representative of teacher candidate perspectives on parent–teacher collaboration after completing the Family Collaboration Project.

> I found the project to be a useful and beneficial assignment as a student teacher because it gave me an opportunity to communicate and collaborate with parents.

> We communicated weekly to discuss progress, reactions, and next steps. Both the grandma, my teachers, and I were pleased with the continued growth.

Similarly, another teacher candidate noted satisfaction with the parent relationship formed.

> The parent that I communicated with during the Pupil Impact Plan was very kind and receptive to everything I had to say during the entire process. She had valuable input that I added to my intervention, and I am thankful for the relationship we built during the process.

Establishing a Collaborative Parent–Teacher Relationship (Comparison)

In contrast, examples of teacher candidate reflections from the comparison group note the lack of opportunity to interact with parents.

> The only interaction I had with a parent during student teaching was sending out emails letting them know I was taking over the class. Some of them responded back saying good luck and if you have any questions or concerns please contact me.

> I was at the student's IEP meeting where I explained to the parents what I was going to do with the student, and they seemed to really like the fact I was going to help the student.

One teacher candidate noted the forming view that parents do not take the time to recognize the work they are doing in the classroom.

> I sent a note home with the student I was working with to inform the parent of how well she was doing during our intervention sessions. In addition, I sent home work samples for the parent to see. However, the parent never responded to the note or the work samples. I did not expect the parent to send back a lengthy note, but just recognition of how well her daughter was doing would have been nice. I guess if I were given the opportunity and felt appropriate/comfortable doing it, I would call the parent to discuss over the phone her daughter's improvement during the intervention process.

Professional Communication (Intervention)

In terms of communication, teacher candidates in the intervention group expressed feelings of confidence.

I feel that my professional communication was very good with the parents. I was always available to the parent. Being that the parent did not speak English, I brought in a translator to communicate with her better.

I communicated with parents and colleagues in the school in a professional manner. I always had the student's best interest in discussing the intervention with my cooperating teacher and the student's parents.

I held a high level of professionalism when communicating with my cooperating teacher and my student's parent. I took on an important leadership role and executed it efficiently.

Professional Communication (Comparison)

In contrast, teacher candidates in the comparison group limited reflections to experiences communicating professionally with their cooperating teacher.

During the project, I was always in communication with my teacher to best help my student. If my student was not working well with the intervention, then I would speak with my teacher before making a change.

Many of the positive interactions occurred between my collaborating teacher and myself. I often expressed intervention ideas and made time throughout the day to work with the student, which my teacher commended me on.

The teacher candidates did note the importance of collaborating with both special education and general education teachers in an inclusive setting; however, consideration of reaching out to parents did not come up in any of the reflections.

One thing I did very well was creating the intervention and sharing it with the teachers. The teachers really liked my idea and said that it would be a good thing for the student to have. Another thing that was positive was working with the general education teacher to find a good way to assess and grade the student. We were able to come up with a rubric for him and show him how he was doing and what he needed to improve upon.

All teacher candidates in both comparison and intervention groups provided their reflection specific to their success collaborating professionally with their mentoring teachers in their school setting; however, it seems only teacher candidates participating in the Family Collaboration Project considered parent collaboration as important enough to mention.

Discussion

Involving parents in their child's education is very important to the child's success in school, and it is the responsibility of teachers to create reciprocal relationships with parents and families (Ratcliff & Hunt, 2010). However, teachers are hesitant to contact parents, especially to communicate with those who have children with disabilities. According to Collier et al. (2015), teachers reported that it was difficult to establish a relationship with parents because they were not prepared in this area and lacked opportunities for developing parental collaboration skills in their teacher training programs. Teacher education programs need to provide opportunities for teacher candidates to gain necessary skills to establish and promote these important teacher–family relationships; yet, one of the most frequently mentioned barriers is the lack of teacher preparation in the area of promoting teacher–family involvement (Ratcliff & Hunt, 2010). This may indicate that the curricula of teacher preparation programs need to be examined to include experiences focusing on teacher–family relationships.

Collaboration is considered as an important topic because of popular inclusion classrooms in school where general and special education teachers are placed together to teach all students. Often, this collaboration is emphasized for teacher candidates to learn co-teaching strategies and to work with general education teachers, while teacher–parent collaboration is only embedded in class discussion and lectures without real world experiences in working with families or parents during candidates' clinical practice and placement. There is no doubt, our curricula need to be examined to include field experiences focusing on teacher–family relationships. Our study demonstrates attempts to add such experiences into our existing course work by involving our teacher candidates in completing a family project to learn and practice communication skills, to develop collaborative relationships with parents of children with disabilities, and to collaborate with their classroom teacher in the clinical field to embed the child's needs in teaching.

Our purpose was to prepare special education teachers to work with parents and families to develop partnerships for providing better services and instruction for students with disabilities. Through completion of the family project, our teacher candidates contacted the family of one of their students, formed a relationship with a parent, and learned from the parent about the child's experiences at home as well as family expectations for the child at school. Teacher candidates obtained some insight into the family's life with a child with disabilities and learned from parents about their knowledge and skills to support the child across environments. This experience was evident in teacher candidates' responses to open-ended questions related to parent–teacher relationships, as well as in gained scores on their reflection assignment.

Results show that the post survey scores of teacher candidates completing the Family Collaboration Project are significantly higher than those in the comparison group. Corroborating reports by Collier et al. (2015), this implies teacher candidates are not provided opportunities to work with parents through the school clinical practice—unless explicitly directed to do so. Our findings indicate teacher candidates working with families had greater perceptions of parental support, dependability, and availability and developed shared expectations and stronger beliefs in the parent–teacher relationship when compared to those who were not involved in the family project. Results align with prior research suggesting a focused approach may be needed to build teacher–parent partnerships (e.g., Murray et al., 2013). Results may indicate that the clinical practice in teacher preparation programs should form teacher–parent relationships at the preservice level to impact teacher candidate perceptions of the importance of home–school collaboration and to learn and improve their communication skills in the field to prepare them to be competent to work with families. As noted by Collier et al. (2015), teachers report it is difficult to establish relationships with parents. Our results suggest teacher preparation program practices forming such relationships at the preservice level can impact teacher candidate perceptions of the importance of home–school collaboration (i.e., joining).

ESSA (2015) mandates teachers elicit meaningful two-way communication with parents. Our results show that teacher candidates' reflection scores on maintaining communication/forming positive relationships are significantly higher than those in the comparison group not implementing the family project. By completing the project, our teacher candidates realized the importance of communication with parents to understand the child and family and the importance of establishing a relationship with parents to understand their expectations and their child's needs. They report the desire to continue to share knowledge with parents and to consider the child and family's needs for providing appropriate service and instruction as future teachers. The communication with parents has also strengthened our teacher candidates' use of communication to advocate for children with disabilities and their families, with reflection scores on their professional skills significantly higher than those in the comparison group in the area of advocacy.

Limitations

The data collected for this study was limited to the perceptions of 77 teacher candidates, primarily White females, in one university in the Northeastern United States. While the study gleans insight into the benefits of parent–teacher candidate assignments embedded into teacher preparation programs, we

recognize results cannot be generalizable to the experiences of teacher candidates in other geographic locations. Another consideration is the tendency for teacher candidates to complete explicit course requirements and to follow the lead of their mentoring teacher. In our traditional student PIA, we assumed mentoring teachers would guide teacher candidates to parental collaboration based on direction to support them in considering parental needs and in involving families in the child's education; however, we found that more explicit direction to interview parents and systematically discuss data and student progress was needed to establish real parent–teacher candidate experiences. While this may seem obvious, the finding has important implications for teacher preparation programs and suggests a need to provide both teacher candidates and mentoring teachers with expectations that are detailed, purposeful, and explicit. This study was also limited to the perceptions of teacher candidates. We did not elicit feedback from parents regarding their perceptions of parent–teacher relationships and recognize future investigation will benefit from feedback from teacher candidates, mentoring teachers, and parents participating in assignments like the Family Collaboration Project.

Implications

Teacher candidates participating in the Family Collaboration Project reported parents to be "very supportive and easy to communicate with." These responses demonstrate the importance of providing opportunities to work with parents in teacher preparation programs to both increase teacher candidate valuing of parent–teacher relationships and to reduce their anxiety surrounding parent interaction (see Kim et al., 2013). Our study demonstrates that a replicable parent–teacher candidate assignment led to increased collaboration (i.e., joining) with parents and to increased communication leading to positive relationships for teacher candidates as well as positive outcomes for their students. We recommend university faculty in teacher preparation programs work with clinical practice placement schools and mentoring teachers to request increased opportunities for teacher candidates to become involved with parents, families, and communities. Likewise, we recommend universities establish guidelines and requirements for teacher candidates to evidence success in multiple family collaboration experiences (e.g., role play, virtual, and in the field) as mandatory components of teacher preparation programs.

There remains a dearth of research on parent–teacher candidate collaboration, and it is not known if the results of the present study are generalizable to other university teacher preparation programs. Further research is recommended to explore the impact of parent collaboration assignments, including role play, virtual simulations, and real-world collaboration on learner outcomes.

Thus, teacher candidates can work together with parents to increase their experience and generalize best practices into their own future classrooms.

Conclusion

Building a partnership with families is important for special education teachers to support students with disabilities, yet teachers may not be adequately prepared to collaborate with parents. Through the introduction of a Family Collaboration Project into clinical practice, special education teacher candidates rated their own collaboration experiences higher and rated their perceptions about relationships with parents more positively when compared to those in a comparison group not implementing such a project. It is our recommendation for teacher preparation programs to provide an opportunity for teacher candidates to learn and practice in developing collaborative relationships with parents of students with disabilities within and prior to clinical practice, so that they can be prepared to be competent to work with parents and families and to provide better services and instruction for students with disabilities.

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Appendix. Project Self-Reflection Rubric

ESTABLISHING INTERPERSONAL COLLABORATION with Parents & Families (adapted from Walker & Dotger (2012); considering Danielson component 4c)		
strongly disagree/ ineffective = 1.............. 2 ….....… 3 ….......… 4 …....…… 5 = strongly agree/ highly effective		
Element	**Measure of Effectiveness**	**Rating (1–5)**
Established a partnership	I initiated contact with my student's parent/parents with the goal of establishing a collaborative partnership.	
Gathering information from parents and families	I asked prepared and meaningful questions to gather data to better understand the student, and to gain expertise from the parent as to how to better support their child in the school setting. Information provided by the parent was considered and I asked follow up questions to elicit additional information, as needed.	
Sharing information with parents and families	I exhibited a high level of professionalism in sharing relevant information regarding what is happening in school with the parent. Information shared was specific, and included evidence (not opinion). I referred to documents and data as appropriate.	
Collaborating regarding intervention	I collected information, and reached collaborative agreement with the parent in developing the intervention.	
Maintaining positive relationships with parents and families	I fostered and maintained a positive relationship with the parent(s) throughout the project. I encouraged parent–teacher collaboration, and showed sincere interest in the student's well-being and success.	
Open-ended self-reflection related to PROFESSIONAL COLLABORATION WITH PARENT(S): *(form will expand below)*		

(Appendix continued next page)

MAINTAINING PROFESSIONAL COMMUNICATION		
Showing Professionalism in Language and Actions (adapted from Danielson Component 4f)		
strongly disagree/ ineffective = 1.............. 2 ….....… 3 …..….… 4 …....…… 5 = strongly agree/ highly effective		
Element	**Measure of Effectiveness**	**Rating (1–5)**
Service to students	I was highly proactive and conveyed that I am a teacher committed to serving students with diverse needs.	
Advocacy	I advocated for the student throughout the project/intervention process. I advocated for providing a specific evidence-based practice to support the student's need(s).	
Decision making	I took a leadership role in the project development, communicating professionally to come to shared decisions and gain consensus of the parent(s) and collaborating teacher. I ensured that decisions were based on the highest professional standards and focused on the student's best interest.	
Integrity, ethical conduct, and compliance	I took a leadership role with the parent and collaborating teacher in considering and complying with school and district regulations and in developing, implementing, and evaluating the project and outcomes.	
Open-ended self-reflection related to your PROFESSIONAL COMMUNICATION: *(form will expand below)*		