School Based Occupational Therapists Report on Collaboration with Parents of Students
who are Beginning Occupational Therapy Services in Public Schools

May 12, 2013

This research, submitted by Maia Richardson, has been approved and accepted in partial fulfillment of the requirements for the degree of Master of Science in Occupational Therapy from the University of Puget Sound

Committee Chairperson: Yvonne Swinth, PhD, OTR/L

Reader: Martins Linaats, PhD

Director, Occupational Therapy Program: Yvonne Swinth, PhD, OTR/L

Dean of Graduate Studies: Sunil Kukreja, PhD
Abstract

OBJECTIVE: Many occupational therapists work in public schools, where best practices and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) require collaboration with parents of students. However, there is limited research indicating the benefits and barriers to this collaboration. The present study explores the nature and extent of contact and collaboration between school-based occupational therapists and parents of children who are beginning occupational therapy services in public schools. It includes therapists’ perceptions of facilitators and barriers to and beliefs about collaboration.

METHOD: Descriptive surveys were mailed to a random national sample of 250 occupational therapists members of the Early Intervention and Schools Special Interest Section of the American Occupation Therapy Association.

RESULTS: The response rate was 40.4%, with 75 useable surveys out of 101 total responses. Most respondents believed that collaboration with parents improves student outcomes. Despite busy schedules, they reported taking time and using effective approaches to increase parent collaboration for information exchange and building trusting relationships. Therapist and parent availability were frequently seen as barriers to collaboration.

CONCLUSIONS: More research and education on strategies for overcoming barriers to parent collaboration could improve outcomes for children receiving school-based occupational therapy and build trust between their parents and the school teams.
School-Based Occupational Therapists Report on Collaboration with Parents of Students who are Beginning Occupational Therapy Services in Public Schools

According to a 2010 American Occupational Therapy Association (AOTA) Occupational Therapy Compensation and Workforce Study, 21.6% of occupational therapy practitioners work in schools. School-based occupational therapists help children facing challenges with client factors or performance skills to participate more fully in areas of occupation at school, including education, play, and social participation (AOTA, 2008). These therapists are involved in the evaluation of a child’s needs and in the selection of corresponding interventions, often as part of a collaborative school team (Swinth, 2009).

There are many reasons that school-based occupational therapists should collaborate with the parents of children receiving therapy, yet the reality of the constraints in the public school setting may make this difficult. Barriers include limited time availability of both occupational therapists and parents (Brown, Katz, & Klein, 1994), the school staff’s use of technical language (Harris, 2010), and cycles of conflict between parents and school teams (Tucker, 2009). Often, when a child has a disability, many experts are involved in the child’s education and care, but parents still want to participate in meaningful ways. One way to achieve this is through family-centered care, an approach that may involve empathetic listening or collaborating with the parents to choose goals for the child (Dunst, Trivette, & Hamby, 2007). Dunst et al. (2007) found that family-centered care resulted in the best outcomes for children in a variety of settings. The Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) requires that parents be involved in decisions about their child’s education.
The holistic, psychosocial, and across-the-lifespan training of occupational therapists can help them to work effectively with parents, recognizing the parents’ need to be involved as well as the children’s needs for specific interventions. Occupational therapists can draw on their therapeutic use of self to improve the relationship between the parents and school teams. They can help the parents better support their children’s educational role by suggesting strategies for issues that occur at both home and school (Swinth, 2009), a broad scope of practice but one that is covered by IDEA 2004 and desired by parents (Barber, 1998). Better collaboration between parents and school-based occupational therapists could increase positive school-family interactions and improve the occupational performance of both children and parents.

Background

According to the occupational therapy (OT) practice framework (OTPF-II), social and physical environments and cultural, personal, and temporal contexts are part of the domain of OT (AOTA, 2008). While external to the client, environments affect the client’s participation in occupations. Child rearing and social participation in a family are areas of occupation that involve multiple family members and which can be negatively affected by a child’s disability (AOTA, 2008). Pediatric clients are strongly affected by their family environment. Parents determine much of the context and environment of a child at home. For young children, most of their social participation is within the family environment.

Through understanding and working with their clients’ families, occupational therapists may best be able to help adapt their clients’ home environments, thereby improving occupational performance. A meta-analysis of studies from many disciplines (including early childhood special education, psychology, and nursing) indicated that
family-centered care for children with disabilities correlates with improved behavior and functioning of the child and family (Dunst et al., 2007). This orientation to services correlated most strongly with parents’ increased feelings of self-efficacy and satisfaction with services received (Dunst et al., 2007). Increased self-efficacy could improve parenting motivation and skill, which could benefit the child.

Many pediatric OT settings involve parents in their children’s therapy. A national survey of pediatric occupational therapists found “that working with parents … had the greatest impact on the progress of a child with disabilities” (Hinojosa, Sproat, Mankhetwit, & Anderson, 2002, p. 556). Parents should be able to ask occupational therapists to help their child meet goals that will help the child at home and make parenting easier, such as increasing independence or finding strategies for dealing with challenging behavior. A practical reason for involving parents is that when children transition to new schools or new occupational therapists, parents and families remain as a consistent factor and can provide the new professionals with insight into the child, strengthening continuity of interventions. According to IDEA 2004, “strengthening the role and responsibility of parents and ensuring that families of such children have meaningful opportunities to participate in the education of their children at school and at home” (§ 1400 (a)(5)(B)) are important aspects of special education services.

**School-based occupational therapy.** School is an influential context and environment for children in terms of time, areas of occupation, and formation of identity. Under IDEA 2004, occupational therapy is a “related service … as may be required to assist a child with a disability to benefit from special education” (§ 1401 (26)(A)). Some children who are eligible for special education need occupational therapy services to help them in
areas such as activities of daily living, handwriting, organization, transition planning, motor
skills, play, leisure, and social participation (Swinth, 2009). Historically, OT services have
generally been delivered through direct 1:1 intervention with a student in a therapy room,
but since IDEA 1997, best practices recommend collaboration with teachers and other staff
to provide OT services in the general education classroom when possible (Swinth, 2009).

“Almost 30 years of research and experience has demonstrated that the education of
children with disabilities can be made more effective by having high expectations for such
children and ensuring their access to the general education curriculum in the regular
classroom, to the maximum extent possible” (IDEA 2004, § 1400 (a)(5)(A)). Occupational
therapists need to discover what will work across educational environments to increase
children’s occupational participation at school. Collaboration with teachers may be the best
way to accomplish this goal because it can elicit from the teacher information about the
child and ideas about what would be feasible to implement in the classroom (Barnes &
Turner, 2001; Hanft & Shepherd, 2008; Sayers, 2008). While many teachers and
occupational therapists state that they value collaboration, barriers such as lack of time, lack
of mutual respect, and communication failure often prevent effective collaboration (Bose &
teachers in planning around a skill being taught by a specialist makes it more likely that the
approach selected will work in the general education classroom and that the teacher will be
able to implement and monitor it there.

All stakeholders should be considered when planning services for a child, because
they can offer insights, influence the child, and offer opportunities to practice and generalize
skills (Blosser & Kratcoski, 1997; Hanft & Shepherd, 2008). Stakeholders include school
staff working with a child with disabilities such as teachers (general education, special education, music, physical education and more), paraprofessional aides, a speech language pathologist, a school psychologist and a school principal. In addition, parents are important stakeholders in their child’s education even though they spend little time at school. Interventions are more effective if all stakeholders have a chance to provide their insights, brainstorm ideas, and to offer feedback about feasibility of ideas. Decisions are then based on more information about what works for all stakeholders, and all stakeholders are more invested in the decisions.

Similarly, involving parents in the special education process and goal setting allows the parent to share their knowledge of what has worked for their child in the past, and what they will be able to support at home. This may be particularly important around areas of occupation that occur at home as well as at school, such as activities of daily living, emotional regulation, homework, and use of assistive technologies. Interventions will be most effective if a consistent approach is used at home and at school, something best achieved through collaboration.

**Parental involvement in special education.** It is widely believed that parental involvement with school improves a student’s behavior and academic achievement, a view that is generally supported by research (Fan, 2001; Jeynes, 2007). For special education students aged 3-21, school teams are required to meet with parents for initial assessment, then annually to determine the Individualized Education Program (IEP), with additional meetings for periodic reassessments, for transitions between schools or for any program changes (IDEA 2004). A school team is determined by the needs of the child and may
include special and general education teachers, the principal, a school psychologist, a speech and language pathologist, and an occupational therapist.

The IEP team must also include the child’s parents (IDEA 2004, § 1414), but their presence may or may not result in productive collaboration. While Fish (2008) found that parents felt their input was valued, other studies in a systematic review found that parents had negative experiences with IEP meetings (Reiman, Beck, Coppola, & Engiles, 2010). Though parents with limited English proficiency felt particularly shut out of the IEP process (Lo, 2008; Salas, 2004), many other parents do as well (Harris, 2010). When analyzing nine videotaped IEP meetings from a variety of settings in Ohio, Harris (2010) found that the format and technical language used in the meeting kept parents passive. This study used a small regional sample including mostly parents new to the special education process (Harris, 2010).

Bezdek, Summers, and Turnbull (2010) found that many school staff blamed parents for collaboration difficulties, and complained that the parents were too much or too little involved. Other themes voiced by the staff included not having enough time to listen to parents, feeling that parents are unreasonable, or being afraid of lawsuits (Bezdek et al., 2010). Cycles of increasing conflict can develop as both parents and school staff members feel the other side is undermining their effectiveness (Tucker, 2009). There are approaches for helping teachers encourage parent involvement, such as focusing discussions on the student’s strengths (Weishaar, 2010) and encouraging parent involvement with the school outside of IEP meetings (Staples & Diliberto, 2010).

To better understand the group dynamics within the IEP team, it is important to understand the evolution of interpersonal interactions that may occur. Tuckman (1965)
described four stages of teaming: forming, storming, norming, and performing. The first three stages describe emotional and interpersonal interactions while establishing roles in the group – forming establishes relationships, storming involves resistance to the group or task, and norming becomes a cohesive group with set roles (Shepherd & Hanft, 2008; Tuckman, 1965). Once these issues have been worked through, a group in the performing stage can focus on functional tasks (Shepherd & Hanft, 2008; Tuckman, 1965). Open discussion and sharing of information around a shared purpose helps new team members develop trust and move through these stages to set the stage for collaboration and a performing group (Shepherd & Hanft, 2008). In the school setting, a team forms when a student is referred for evaluation (Swinth, 2009). The team must include parents, general education teacher, special education teacher, school district administrator, and appropriate related service personnel (IDEA 2004, § 1414). The team meets to decide areas to evaluate and then assigns tasks to members (Swinth, 2009). After individual team members have assessed the student, the team meets to discuss the results and decide if the student is eligible for special education (IDEA 2004, § 1414). If the student is found to be eligible, the team meets again to write the IEP (IDEA 2004, § 1414).

Many of the other team members will have worked together before, and may shut the parents out (Harris, 2010) in order to keep the familiar team at the efficient performing stage under pressures of limited time and many legal requirements. From the parents’ perspective, both the people and the process are usually completely new, and for them the steps of referral, evaluation, and first IEP are part of the team forming stage. At this stage, parents may be enthusiastic and looking for direction, so open discussion about expectations is especially important during the team forming stage (Shepherd & Hanft, 2008). The storming
stage may also occur during this time period, and listening, encouraging participation, and constructive handling of conflict will help the group move on to the norming and performing stages of the group (Shepherd & Hanft, 2008).

**School-based occupational therapist and parent collaboration.** A literature search revealed three single case studies each involving a school-based occupational therapist collaborating with parents to improve a child’s occupational performance in multiple contexts. These studies described extensive discussions between families and school teams to prepare for transitions to preschool (Knight & Hawkins, 2011), kindergarten (Henry & McClary, 2011), and high school (Juan & Swinth, 2010). In each case the needs of the family and the child at school, home, and in the community were addressed. Transitions are especially important times to understand the full occupational profile of children in their current context and for teams to discuss and imagine the upcoming context. Although it is difficult to generalize from the results of single case studies, they show what is possible when collaboration between families and school-based occupational therapists takes place.

Through surveys and interviews, Barber (1998) asked the parents of children receiving school-based occupational therapy in Connecticut about their priorities and satisfaction with services. Parents reported many positive aspects of services, but wished for more communication with the occupational therapist and more help with issues at home (Barber, 1998). Brown, Katz, and Klein (1994) surveyed school-based occupational therapists in New England about their attitudes and interactions with parents, including frequency of contact and amount of collaborative goal-setting. Almost all occupational therapists stated that parent involvement had a positive effect on the child and helped with goals; however, most spent very little time on contact with parents, due to limited
availability of parents and therapists alike (Brown et al., 1994). Many occupational therapists who affirmed the importance of collaborative goal-setting rarely contacted parents for that purpose (Brown et al., 1994).

Brown et al. (1994) yielded important information about the limited contact between school-based occupational therapists and parents. However, updating and refocusing this study with a nationwide sample of occupational therapists may help lead to a deeper exploration of issues surrounding collaboration with parents in this setting. Therefore, the purpose of the present study was to explore the methods, extent, and purposes of contact and collaboration between school-based occupational therapists and parents of children who are beginning occupational therapy services in public schools, including facilitators and barriers to and beliefs about collaboration.

**Method**

**Research design**

A descriptive survey, adapted from the Sallant and Dillman (1994) approach, was used to determine the extent of collaboration between school-based occupational therapists and parents in the time period between the initial referral for occupational therapy assessment and writing the first IEP. This time period was referred to as the team forming stage (Shepherd & Hanft, 2008; Tuckman, 1965), as it would have been the first time that the occupational therapist and parents have worked together. A survey approach was appropriate for this study since the answers to the research questions were unknown. It gathers information from many therapists. A well-designed survey of a random sample of school-based occupational therapists is a valid and reliable method to determine the actual practices of this population (Sallant & Dillman, 1994). Variables of interest included the
amount of contact time between parents and occupational therapists, the methods and purposes of contact, facilitators and barriers to collaboration, parent factors that affect collaboration, and beliefs about collaboration and what might improve collaboration. A few open-ended questions, places to write in responses and space at the end of the survey to add additional information were included. It was anticipated that these would allow for clarification and additional analysis.

**Participants**

The participants were a random sample drawn from occupational therapists working in public school settings in the United States who are members of American Occupational Therapy Association (AOTA). There are 4,619 AOTA member occupational therapists who listed Early Intervention and Schools Special Interest Session (EISSIS) as their primary special interest session (C. Foster, personal communication, February, 22, 2013). A random sample of 250 occupational therapists was taken from this group. For inclusion, a participant must have worked as an occupational therapist in a public school setting in the United States during the past 12 months and been involved in at least one initial assessment in the past year that resulted in an IEP with occupational therapist involvement.

**Instrumentation**

A survey was developed by the author and the research committee, piloted with three school-based occupational therapists to check for face and content validity, and revised based on feedback (Appendix). It included demographic questions such as years of occupational therapy experience, years working in the public school system, number of hours per week working in schools, age range of students, number of students on their caseload, and number of new evaluations the occupational therapist has participated in
during the past twelve months. Participants were requested to stop at this point if they had not participated in new evaluations in the past twelve months.

Estimates for total hours spent on a new case and hours of contact time with parents during the team forming stage (initial evaluation, eligibility, first IEP) were requested. Questions about the method and nature of contact with the parents and factors that hinder contact with parents were adapted from Brown et al. (1994). New questions were developed by the author and research committee to update and expand on the earlier survey and increase insight into occupational therapist contact with parents during the team forming stage while the roles and relationships of team members are established. It was hoped that this information about common practices among school-based occupational therapists would provide insights that could help these therapists decide how to allocate their time to this aspect of their practice.

**Procedures**

Following Institutional Review Board approval, the survey was piloted by three local school-based occupational therapists referred by a faculty member. Revisions were made to the survey based on feedback, including an additional option for improving collaboration and adjusting the options for amount of contact with parents for better differentiation. Addresses were procured from AOTA. A cover letter explaining the study was mailed along with the survey (*Appendix*) to the random sample of 250 AOTA members listing EISSIS as their primary special interest session, and a postage-paid return envelope was included in the mailing. The surveys were coded to a second copy of each address label. A second mailing of the survey was sent 17 days later to those who did not respond to the first. To maintain confidentiality, the coding was kept in a secure location and destroyed once the second
mailing was sent. Attrition was documented. Respondents were asked to stop during the survey if they did not meet inclusion criteria and mail the survey back. Responses to questions about age of students, number of new referrals, and written comments were analyzed to ensure all included surveys met the inclusion criteria. The first and second responder groups were first analyzed separately to check for response bias and then pooled together for analysis. Responses to each question were coded numerically on the survey form and entered into a spreadsheet for analysis using SPSS (Version 19). Data entry was repeated to check for errors. All written comments were recorded for qualitative analysis.

Data Analysis

Descriptive statistics were generated for each question to look for central tendencies. Mean, maximum, minimum, and standard deviation were calculated for each numerical question. Frequencies of responses to Likert scales and other non-numeric questions were counted. Associations between variables indicating availability for collaboration with parents and selected attitudes and beliefs were investigated using chi-square analysis.

All written comments were analyzed. Written in responses to partially close-ended questions were recorded along with the provided answer choices. Longer comments were inductively grouped by themes and used to gain qualitative insight regarding numerical results.

Results

Response Rate

There were 101 respondents to the survey, a response rate of 40.4%. Of these, 75 surveys met the inclusion criteria and were analyzed. Surveys were not included if the respondent only worked in early intervention, was retired, or was otherwise not currently
working in public schools. Surveys with some missing responses were included in the analysis and reported. According to Sallant and Dillman (1994), a sample size of 94 would be required for issues that are closely divided in responses, or a sample size of 61 for a less varied population in order to obtain a 10% sampling error from a population the size of AOTA EISSIS. Many questions had more than 80% of respondents agree and would qualify.

A t-test indicated that responses from the first and second mailings were not significantly different and could be pooled.

Participants

Work and degree history. Most respondents (80%) had a bachelors or an entry-level masters degree as their most recent occupational therapy degree (Figure 1) and began working in the public schools as early as 1973 (Table 1). Most respondents (76%) worked 30 hours or more as an occupational therapist in public schools in a typical week (Figure 2) and worked with students of many different age ranges (Figure 3). The caseload for each occupational therapist ranged from 15 to over 100 students, with a mean of 41 students.

Descriptive Statistics

Number of new referrals. The survey asked how many new referrals for OT evaluation they had had in the past twelve months and how many of these referrals resulted in an IEP with OT involvement (Table 2). Most therapists (83.6%) estimated the average amount of time spent on the referral to first IEP process for one student between 2 to 9.9 hours (Figure 4).

Time and method of contact with parents. Therapists were asked how much time they spent contacting parents by email, phone, individual meetings, and team meetings (Table 3). Most respondents (78.7%) spent more than one hour in team meetings and many
(53.3%) spent at least one half hour meeting with parents individually. Phone calls and e-mail were used less frequently than in-person meetings. Nine respondents wrote in that they also contacted parents by registered mail, communication notebook, handwritten notes, letters, questionnaire, or sensory survey.

**Purposes of contact with parents.** The survey asked respondents about several possible purposes of contact with parents. The most commonly reported purposes were to discuss their child’s performance, give parents information, and interview parents about their child’s history (Table 4), purposes that involve exchange of information. Additionally respondents wrote in, “make sure they remember their appointment or information (past reports, doctor prescription/notes)” and “give home program to prevent referral.” A therapist who “works with students with complex medical needs” wrote, “discuss other health care providers and get permission to contact them.” The weakest agreement was for helping with issues at home and explaining the special education process.

**Facilitators to collaboration.** The survey listed several approaches that could improve collaboration with parents, and respondents indicated the extent of their agreement with each approach (Table 5). Agreement was high with all approaches, from 92% strongly agree with use empathetic or active listening to 66.7% strongly agree with encourage carryover at home. Respondents wrote in additional approaches including involvement in Special Olympics, “make sure they have my contact information,” “give suggestions and home programs at meeting,” “give weekly home program [and] web access for home program,” “acknowledge their efforts and try to complement them,” “encourage collaboration with private OTs,” “carry over in the classroom too,” and “explain jargon to parents.” Several respondents wrote longer comments about ways that they improved
communication with parents. “I utilize an OT binder for homework and communication to parents. If the student brings back the binder signed on the next section, they get to go to the prize bucket,” said one therapist. A second therapist “started a parent support group for children with autism in my area.” Another said, “I just want to be available when parents want to discuss something about their child.”

**Parent factors and barriers to collaboration.** The survey listed factors such as language and cultural differences, and asked respondents to rate the extent to which these factors might affect collaboration with parents (Table 6). Many respondents (58.7%) disagreed that racial differences affected collaboration. One respondent mentioned the effect on “ADLs for children of Indian cultures – they do for children much longer than other cultures.” Another therapist commented, “I've worked in very wealthy districts and inner city urban districts. Moms who don’t have to work to survive are more involved. That being said, inner city moms who do make an effort are more grateful.”

Respondents rated the extent that they experienced certain barriers to collaboration with parents (Table 7). Time limitations were frequently mentioned as a barrier to collaboration. Many respondents agreed that parents’ availability (81.3%) and therapist’s own lack of time (74.6%) were barriers to collaboration with parents. “Time constraints limit parent collaboration. Most of mine is at IEP meetings or parent conferences.” “The process for referral --> evaluation --> IEP in our district is very impersonal and strictly money driven.” A therapist whose caseload was spread across fifteen schools said that this “impacts availability for solid active ongoing relationships.”

While in the minority, some therapists reported that school policies obstructed collaboration with parents. While most therapists (72%) disagreed that school policy was a
barrier to parent collaboration with school-based occupational therapists, 24% of therapists did report experiencing this barrier to parent collaboration. One therapist said that an administrator “told me it was not my place to talk with parents. She reproached me that I was sharing my cell phone number with parents.” Another therapist shared, “I work in a very low-income school district. It is for our ‘safety’ that we don't meet with the parents, plus they don't allow for parents to come in for follow-up visits with therapist. I find this very sad and difficult for parents to carry over our work.” Some therapists indicated that their schools had barriers to parent collaboration such as “not valued by administration” and “district protocol for referral process – I do not typically have any contact with parents up to the IEP meeting – only central office and case manager [do].”

Value of collaboration and improving collaboration. Therapists responded that they strongly agreed (81.3%) or mildly agreed (13.3%) that collaboration with parents leads to better student outcomes. No therapists disagreed with that statement, 2.7% were undecided, and 2.7% did not respond.

When asked about what changes would increase their collaboration with parents, time set aside for this purpose was selected by 78.7%. Some respondents underlined or starred this option. Other options selected by therapists were translator availability (22.7%), school administration policy change (17.3%), meetings in evenings with childcare (12.0%), and nothing would make it more likely (4.0%). A few respondents did not check any of the options, but wrote in that they already had some of these options such as translators or time set aside for collaboration. Some respondents elaborated on barriers that they experienced. One respondent wrote, “I would love to give parent evening talks but not allowed.” “Paid
time to communicate [and] access to phone/internet to interact,” said another therapist.

“More opportunities to collaborate as a team,” was another suggestion.

Another respondent suggested, “If there was a system in place for parents to easily request a meeting/time. I think many parents don’t even think that it is an option for them to meet with the OT although I invite them to do so.” One therapist wrote, “Sometimes it is not driven by time – I just say what I think they are ready to hear and then the next time I talk with them they have had some new perspective that they have questions about – it is ongoing throughout the time I serve their child.”

**Inferential Statistics**

Chi-square analysis was used to investigate associations between three variables indicating availability for collaboration with parents and nine variables indicating attitudes and beliefs about collaboration with parents. In addition, year of most recent OT degree and meeting with parents for the purpose of explaining IDEA 2004 were compared. To reduce the degrees of freedom, results for each variable were recoded into two groups before analysis. Out of 34 chi-square tests for independence, four pairs were found to have significant association.

Variables that might indicate availability for collaboration included caseload, hours spent on new evaluation through first IEP, and time in individual meetings with parents. The total hours spent on the evaluation was associated with the amount of time in individual meetings with parents, $\chi^2 (1, N = 67) = 4.20, p < .05$.

Attitudes and beliefs that could facilitate collaboration with parents included contacting parents for the purposes of developing trust, finding out about parent priorities, helping with issues at home, and encouraging carryover at home. An association was found
between the amount of time in individual meetings with parents and contacting parents to help with issues at home, \( \chi^2 (1, N = 68) = 4.16, p < .05 \).

Associations between the availability variables and barriers to collaboration with parents were investigated through chi-square analysis. Barrier variables included beliefs about therapist’s own lack of time, parent work commitment, parent availability, parents’ interests are not educationally relevant, and limits placed by school policies. Chi-square analysis found statistically significant associations between hours spent on the process of new evaluation through first IEP and two measures of parent availability. For the belief that parent work commitments affect collaboration, \( \chi^2 (1, N = 73) = 6.831, p < .05 \) and for parent availability as a barrier to collaboration, \( \chi^2 (1, N = 73) = 11.868, p < .05 \). Additionally, chi-square analyses were run between these barrier variables and agreement that meetings in the evening with childcare would increase collaboration with parents. None of these were found to have significant associations.

**Qualitative Analysis**

Of the 28 longer comments, many closely followed the written questions, describing respondents’ strategies to improve collaboration, feelings of value for collaboration, and barriers to collaboration with parents. A few respondents described how their situations uniquely affected collaboration with parents. Themes that came out of qualitative analysis were that collaboration would be improved “if parents cared more” and that “good relationship with ALL team members is crucial.”

The theme “if parents cared more” came out of written responses to two partially close-ended questions. Barriers to collaboration experienced by therapists included parent “responsiveness,” “current information not available, phone’s disconnected, etc…,” and
“parents do not call back.” Some therapists would collaborate more with parents if “parents would respond,” “more interest by parents to be involved or who care to participate with carry-over,” and “parents cared more.” One therapist elaborated “I believe parents who are actively involved in their child's well being communicate with me,” said another therapist. “There are many families that do not take an active interest in what happens at school. They sign off on the IEP process, but accept their child’s delays. There is not carry over of IEP goals at home.”

As for the theme that “a good relationship with ALL team members is crucial,” one therapist wrote, “Another barrier between OTs/PTs and parents can be how staff treat one another during meetings. If one or more staff members is not respectful to the OT/PT it can completely ruin a parent's perception of that therapist, especially if the parent looks up to the team member that is not supportive of the therapist(s).” According to a second therapist, “There is a fundamental issue because educators do not understand our role purpose to promote collaboration with parents. I also have worked hard to educate teachers who can communicate with parents more consistently due to increased interactions with parents naturally.”

**Discussion**

The present study sought to explore the methods, extent, and purposes of contact and collaboration between school-based occupational therapists and parents of children who are beginning occupational therapy services in public schools, including therapists’ perceptions of facilitators and barriers to and beliefs about collaboration. Survey respondents valued collaboration with parents, made time for it, and used effective strategies to encourage collaboration. They also reported experiencing barriers to collaboration with parents,
including limited parent availability and therapists’ time, language difference, school policies, and feelings that parents’ interests are not relevant.

**Methods and Purposes of Contact with Parents**

Many survey participants reported that time constraints are a barrier to collaboration with parents. This is understandable, since the respondents had a mean caseload of 40 students and more than 10 new referrals and often 10 new students added to their caseload each year. Many respondents did make time for collaboration with parents when evaluating a new student. “There is considerable opportunity for collaboration with parents through the team process in initial referral etc… but not once child is on caseload,” according to one therapist. A few respondents did not answer the questions about contacting parents by email and individual meetings, which may or may not indicate that they never use those methods of contacting parents.

Therapists who reported spending more time on the referral process were more likely to meet individually with parents, but they were also more likely to report parent availability as a barrier to collaboration. It appears that when therapists spend less time on the referral process, their own availability is the limiting factor and they are less affected by parent availability.

Team meetings were the most common way to interact with parents. One therapist wrote, “Parents are required at [meetings] … gives me the chance for collaboration.” Most respondents (78.7%) reported spending one hour or more in team meetings with new parents during the referral process, a use of time that is consistent with research on the importance of collaboration with the whole school team (Hanft & Shepherd, 2008). Another therapist wrote about the importance of attending all IEP meetings “in their entirety to build rapport
with parents, ...hear whole picture, build rapport with team as well, and offer OT perspective.”

When asked about possible purposes for contact with parents, respondents agreed most strongly with purposes that involved exchange of information and could help the therapist develop an occupational profile of the child (AOTA, 2008). There was mild agreement on the purposes of building relationship with parents, developing trust, and finding out about parent priorities. It would appear that these purposes would encourage collaboration with parents, but they may not seem as directly related to documentation of the evaluation process. IDEA 2004 supports incorporating parent priorities, yet 50.7% of respondents in this study mildly agreed rather than strongly agreed with this purpose. The questions about purposes of contact had higher non-response rates than other sections of the survey, perhaps because purposes are harder to identify and quantify. It is possible that some purposes were left blank when respondents used them more or less than they felt that they should.

There was weaker agreement among respondents for purpose of contact with parents to help with issues at home. Helping with issues at home may seem outside the scope of school-based occupational therapy, less directly relevant to the referral process, or of lower priority to busy therapists; however, this role for school-based occupational therapists is supported by IDEA 2004 and desired by parents (Barber, 1998). Home and school are related, and helping with home issues could help build trust with the family and improve the child’s functioning in broader contexts. Respondents who met with parents individually for at least half an hour were more likely to contact parents to help with issues at home.
Explaining the IDEA 2004 process was the only purpose with which equal numbers of respondents agreed and disagreed, and 8% of respondents did not answer this question. This may indicate that many school-based therapists feel uninformed or uncomfortable with IDEA 2004 or they may have other reasons for not discussing it with parents. Wording this question as “the IDEA process” instead of special education process may have been confusing and contributed to low agreement and high non-response. More recent graduates were no more likely to agree with this purpose than respondents who had graduated before 1997, when special education law was changed to support more parent involvement (Swinth, 2009).

**Factors that Affect Collaboration**

School-based occupational therapists value collaboration with parents. Ninety-four percent of respondents agreed that collaboration with parents leads to better student outcomes, similar to the 96% agreement from an earlier survey (Brown et al., 1994). One therapist commented, “I think I make myself available for parent collaboration pretty well. I just think it is part of my job as a public servant.” Another therapist wrote, “I love working with the entire family, parents, and siblings.” In contrast to the more general focus of Brown et al. (1994), the present survey focused on the parent-therapist interactions during the team-forming stage and considered smaller intervals of contact time, and thus found that most therapists do make time for contact with parents.

There was generally strong agreement with most of the suggested approaches to improve collaboration with parents, although this may indicate more what therapists feel they should do and may not entirely reflect their actual practice. Respondents expressed the strongest agreement with approaches that should help build relationships leading to better
collaboration with parents, or as one therapist wrote, “When you build trust the rest is easy.” Literature supports the idea that trust and collaboration in schools correlate, although the correlation appeared stronger between two staff members than between school staff and parents (Mitchell, Ripley, Adams, & Raju, 2011).

The lowest agreement was for encouraging carryover at home, although the majority of respondents still strongly agreed. One therapist commented, “I have found it very helpful to get the parents on board. As a school OT, a lot of work is completed outside of school.” Literature supports this role for school-based therapists (Barber, 1998; Swinth, 2009), but some may feel that it is beyond the scope of school-based practice.

There was a wide variety of agreement in respondents’ beliefs about parent factors that affect collaboration, especially if socioeconomic status and race affect collaboration. Many therapists (58.7%) disagreed that racial differences affect collaboration, while other therapists (33.4%) agreed that it did. The high variability could be due to different experiences in different communities, different levels of awareness of the effects of socioeconomic status and race, or different degrees of discomfort with the topic.

Most therapists believe that collaborating with parents is part of their job, and a number of respondents voiced frustrations about limits on collaboration with parents. “OTs working in public school settings are limited by time, administration, and equipment to successfully complete their jobs,” wrote one. Misunderstandings of the role of occupational therapy or poor relationships with other staff members can be a barrier to parent communication. The comments around the qualitative theme that “a good relationship with ALL team members is crucial” are consistent with the literature about the importance of and barriers to collaboration with teachers (Bose & Hinojosa, 2008; Huang et al., 2011).
Most respondents said that time set aside for collaboration with parents would increase collaboration with parents. Other changes that would increase collaboration with parents included translator availability, school policy change, and meetings in evenings with childcare. Although language differences were reported as a barrier by 34.7% of respondents, more therapists (53.3%) disagreed. Some therapists wrote that they had access to translators to help with the language differences. All of these changes would require school districts to promote parent collaboration with special education staff and allocate more scarce resources to increase such collaboration. The frustration expressed in some respondents’ comments indicated that they experienced school policy as fixed and difficult to change.

The qualitative theme “if parents cared more” was shared by several respondents, indicating that some therapists feel frustrated with parent as a barrier to collaboration. This was consistent with the findings of Bezdek et al. (2010) that school staff may blame parents for collaboration difficulties. Therapists may feel frustrated by barriers and lack of resources to solve these problems and blaming parents could be a coping mechanism. Some of the barriers to collaboration in the parents’ lives may be beyond the reach of the school, but it is worth considering the parents’ ability to engage in their parenting occupation, and adopting more facilitators to collaboration might help some of these parents become more involved. Almost half of respondents (48%) indicated that parents’ interests were not educationally relevant. Maybe parents want more help with issues at home (Barber, 1998), while many school-based occupational therapists focus only on issues at school. It is possible that more collaborative discussion could help therapists and parents find common interests.
Implications for Occupational Therapy

Most school-based occupational therapists believe in collaboration with parents, as supported by IDEA 2004, yet many therapists encounter barriers of limited parent and therapist availability. Therapists should advocate for more time to meet with parents and develop strategies to help overcome barriers such as limited parent availability. These barriers cause frustration for both therapists and parents and affect their ability to work together. Hanft and Shepherd (2008) have some suggestions for improving therapists’ collaboration with school teams, including parents. Making it easier for parents to collaborate despite any limitations should be part of the job of school-based occupational therapists.

Setting aside time for collaborating with parents and meeting with parents individually during the evaluation process could help build more effective trust between parents and school staff. The present study indicated that many therapists give helping parents with issues at home and encouraging carryover at home relatively low priority, even though these are important to parents (Barber, 1998) and included in the scope of special education by IDEA 2004. Including home issues in special education planning could increase parent involvement and improve collaboration between parents and the school team. Educating school-based occupational therapists about this larger scope of IDEA 2004 and putting schools in the context of the OTPF-II (AOTA, 2008) could help therapists advocate for prioritizing home issues as well to support better occupational performance of students across contexts. Developing interventions that can be supported across both environments could greatly increase the effectiveness of school-based occupational therapy and lead to greater improvements in the child’s occupational performance.
Limitations

Self-report surveys have strong external validity, although lower internal validity, and the validity of the present study was enhanced by using a nationwide random sample of the target population. Even though the response rate was over 40%, therapists who did not respond to the survey could differ from those who did respond in terms of workload or attitudes. The sample did not include therapists who work in the public schools but do not have AOTA membership, who may differ from AOTA members. With a sample size below 100, sampling error could be above 10% for issues about which participants are more equally divided (Sallant & Dillman, 1994).

Some questions were not responded to as frequently as others. These questions may have been skipped because of visual presentation, difficulty of interpretation, or they did not apply, or therapists found them uncomfortable to answer. A revised survey could address these limitations.

Future Research

Further research could investigate issues suggested by respondents, such as differences between staff and agency occupational therapists working in schools or the impact of covering multiple schools on the ability of school-based occupational therapists to collaborate with parents and with other staff members. These issues were beyond the scope of the current survey.

While there is agreement with the importance of collaboration with parents, further research should explore how to make this collaboration happen. Advocating for more time and resources is one challenge. Another issue is that therapists need to be careful about blaming parents for difficulties in collaboration. Strategies on how to increase parent
involvement are needed. These could address improving therapeutic use of self when interacting with parents and how to address parent factors that impact collaboration.

Occupational therapists may benefit from more continuing education, or sharing ideas around how to overcome barriers of parent factors such as parent work commitments, language differences, or parent education level. Respondents appeared to have strong and differing opinions about the effect of racial and socioeconomic status differences on collaboration with parents, and further research exploring this area could help therapists collaborate better with diverse parents.

Conclusions

While most school-based occupational therapists say they value collaboration with parents, many experience barriers to collaboration. Advocating for the importance of collaboration with parents and its place in IDEA 2004 may help overcome barriers of school policy and make it easier for therapists to make time to meet with parents. If lack of parent involvement is a problem, school teams need to determine why and find ways to increase it. Feelings that parent priorities are not relevant and giving home issues a low priority are barriers that may require a shift in therapists’ attitudes. Therapists’ helping parents with issues at home may make the parents’ ideas seem more relevant to special education, thus increasing trust and collaboration between parents and the school team. Therapists may need education to improve therapeutic interactions with parents and to widen the scope of school-based practice to include the student’s participation at home and in the community.
Acknowledgments

This research was funded by University of Puget Sound University Enrichment Grant SR1318 63030 and a School of Occupational Therapy departmental grant. Thank you to Yvonne Swinth for serving as my research advisor, and to Martins Linauts for providing many suggestions throughout the study design and writing process. Alex Silverman and Brianna Richardson assisted with editing the survey and manuscript.
References


SPSS (Version 19) for Windows [Computer software]. Armonk, NY: IBM.


Appendix

Date: March 2013

Dear Participant:

As an occupational therapist working in public schools, you interact not only with students, but with many other people as well, including the parents of the students you work with. When a student is evaluated for occupational therapy services at school, the first few meetings with the parents may set the tone for the future relationship. A better understanding about how school-based occupational therapists interact with parents during the process of referral, evaluation, and first IEP of a student will help us learn how to build better relationships between parents and the school team.

You are one of a small number of occupational therapists who are being asked to give their opinion about this topic by completing the attached survey. The following questionnaire will require approximately 10-15 minutes to complete. Please answer all questions as honestly as possible. Participation is strictly voluntary and you may skip questions or refuse to participate at any time. You may be assured of complete confidentiality. Your name will not appear on the questionnaire and will not be connected with the results. Please return the survey promptly in the provided envelope, even if you are not able to complete all of it.

The data collected will provide useful information regarding interactions between occupational therapists and parents of children beginning occupational therapy, including what makes collaboration with parents easier or more difficult for school-based occupational therapists.

Completion and return of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me by email or at the number listed below.

Sincerely,

Maia T. Richardson, OTS
253-879-3514
mtrichardson@pugetsound.edu
Survey

School-Based Occupational Therapists’ Interactions with New Parents

Maia Richardson, OTS
University of Puget Sound
School of Occupational Therapy
February 2013
This survey attempts to find out more about interactions between school-based occupational therapists and parents of students who are being evaluated for and beginning occupational therapy services in public schools.

First I will ask you questions about your background and case load as a school-based occupational therapist.

Q1. In what year did you begin working as an occupational therapist in a public school?
   __________ (year)

Q2. What is your most recent occupational therapy degree and in what year did you receive it?
   (check one)
   □ 1) bachelors __________ (year)
   □ 2) entry level masters __________ (year)
   □ 3) post professional masters __________ (year)
   □ 4) entry level OTD __________ (year)
   □ 5) post professional OTD __________ (year)
   □ 6) PhD __________ (year)

Q3. Do you have another advanced degree?
   _________________ (degree) ____________ (year)

Q4. How many hours do you estimate that you actually work as an occupational therapist in public schools in a typical week? (check one)
   □ 1) Less than 20
   □ 2) 20-29
   □ 3) 30-39
   □ 4) 40+

Q5. What age of students do you work with? (check all which apply)
   □ 1) birth to 3
   □ 2) preschool
   □ 3) elementary
   □ 4) middle school
   □ 5) high school and above
Q6. How many students are currently on your case load?  
__________ students

Q7. In the past twelve months, approximately how many new referrals for OT evaluation have you had? (check one)  
☐ 1) Less than 10  
☐ 2) 10-19  
☐ 3) 20-39  
☐ 4) 40-59  
☐ 5) 60+

Q8. Of these new referrals, approximately how many resulted in an IEP with OT involvement? (check one)  
☐ 1) Less than 10  
☐ 2) 10-19  
☐ 3) 20-39  
☐ 4) 40+

If you have not been involved in any new referrals for public school OT evaluations in past twelve months, you are done with the survey. Please return the survey in the enclosed envelope.

The process of referral, evaluation, and writing the first IEP for one new student who may be eligible for special education services may take considerable time. The school team must comply with the IDEA 2004 requirements when determining the student’s needs. Please answer the following questions about the approximate average time involved for most students going through this process of referral, evaluation, and writing the first IEP.

Q9. For one student, what is the approximate average of total hours that you spend on this process? (check one)  
☐ 1) less than 2 hours  
☐ 2) 2 - 4.9 hours  
☐ 3) 5 - 9.9 hours  
☐ 4) 10 hours or more
The next two questions ask you to describe your contact with parents during an average process of a new referral and initial evaluation, through writing the first IEP. Please circle how much you use each of the following methods and purposes using the scale below:

N = I NEVER USE THIS CONTACT METHOD  
S = SELDOM OR UP TO 0.5 HOURS  
O = OCCASIONALLY OR BETWEEN 0.5 TO 1 HOUR  
1 = 1 TO 1.5 HOURS  
2 = MORE THAN 1.5 HOURS

Q10. I contact parents …

(please circle your answers)

A. by e-mail ........................................ N  S  O  1  2
B. by phone ................................. N  S  O  1  2
C. individual meeting in person ........ N  S  O  1  2
D. during team meetings ............... N  S  O  1  2
E. other (please list) ________________ S  O  1  2

Please indicate the extent to which each of the following statements describes your interactions with parents during this process:

SA = STRONGLY AGREE  
MA = MILDLY AGREE  
U = UNDECIDED  
MD = MILDLY DISAGREE  
SD = STRONGLY DISAGREE

Q11. When I contact parents, the purpose is to …

(please circle your answers)

A. have parents fill out questionnaires   SA  MA  U  MD  SD
B. interview parents about their child’s history .................. SA  MA  U  MD  SD
C. build relationship with parents ...... SA  MA  U  MD  SD
D. develop trust ............................. SA  MA  U  MD  SD
E. discuss their child’s performance .... SA  MA  U  MD  SD
F. explain the IDEA process ............... SA  MA  U  MD  SD
G. give parents information .............. SA  MA  U  MD  SD
H. find out about their priorities ........ SA  MA  U  MD  SD
I. help with issues at home ............. SA  MA  U  MD  SD
J. other (please list and rate) 

______________________________  SA  MA  U  MD  SD

______________________________  SA  MA  U  MD  SD
“School-based collaboration is an interactive team process that focuses student, family, education, and related services partners on enhancing the academic achievement and functional performance of all students in school.” (Hanft & Shepherd, 2008, p.3)

The following questions are about approaches from the literature that may help improve collaboration with parents during the referral, evaluation, and first IEP process. Please indicate the extent to which you agree with the following statements:

SA = STRONGLY AGREE
MA = MILDLY AGREE
U = UNDECIDED
MD = MILDLY DISAGREE
SD = STRONGLY DISAGREE

Q12. To improve collaboration with parents, I …

(please circle your answers)

A. avoid using “jargon” ………………
B. use empathetic or active listening…..
C. encourage open discussions ………..
D. discuss expectations ………………
E. try to see all sides of issues ………
F. keep a positive approach to conflicts
G. discuss team goals …………………
H. encourage carryover at home ……. I. other (please list and rate)

Q13. I believe the following factors may affect collaboration with parents:

(please circle your answers)

A. parent work commitments……….. B. parent education level …………..
C. socioeconomic status …………….
D. language differences ………………
E. cultural differences ………………..
F. racial differences ………………..
Literature also reports many barriers to collaboration with parents of children on IEPs at any time. Thinking about an average process of referral and evaluation, through writing the first IEP, please indicate the extent to which you agree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>MA</th>
<th>U</th>
<th>MD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. my lack of time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. parents’ availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. parents’ interests are often not educationally relevant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. it is the case manager’s role, not mine, to talk with parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. school policy or attitudes limits communication with parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. communication with parents is unpaid or not part of my contract</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. language differences make it difficult to communicate with parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. other barriers include …</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(please list and rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q15. I believe collaboration with parents leads to better student outcomes. SA  MA  U  MD  SD

Q16. I would collaborate more with parents if there were … (check all that apply)

- [ ] 1) time set aside for this purpose
- [ ] 2) meetings in evenings with childcare
- [ ] 3) translator availability
- [ ] 4) school administration policy change
- [ ] 5) nothing would make it more likely
- [ ] 6) other (please list) __________________________
Q17. Is there anything else you would like to add?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

__________________________________
__________________________________

Thank you for your time and participation. Please return this questionnaire promptly in the addressed, postage-paid reply envelope provided.

Reference:
Table 1

*Range of Years in Which Respondents Received Their Most Recent Occupational Therapy Degree and Began Working in Public School*

<table>
<thead>
<tr>
<th></th>
<th>Earliest</th>
<th>Most Recent</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received most recent OT degree</td>
<td>1970</td>
<td>2013(^{a})</td>
<td>1995</td>
</tr>
</tbody>
</table>

*Note:* n = 74.

\(^{a}\)Post-professional degree received while working in public school.
Table 2

*Number of New Referrals for Evaluation and Number of New Referrals Resulting in IEP with OT Involvement in the Past Twelve Months as a Percentage of Sample*

<table>
<thead>
<tr>
<th>Number of new referrals</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10</td>
<td>22.7</td>
<td>53.3</td>
<td>20.0</td>
</tr>
<tr>
<td>10 - 19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: N=75.*
Table 3

*Time Spent on Various Methods of Contact with Parents as a Percentage of Sample*

<table>
<thead>
<tr>
<th>Method</th>
<th>Average time (hours)</th>
<th>0</th>
<th>0.5 - 0.99</th>
<th>1 - 1.5</th>
<th>&gt; 1.5</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>During team meetings</td>
<td>1.3</td>
<td>2.7</td>
<td>13.3</td>
<td>52.0</td>
<td>26.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Individual meetings in person</td>
<td>18.7</td>
<td>20.0</td>
<td>26.7</td>
<td>25.3</td>
<td>1.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Phone</td>
<td>2.7</td>
<td>45.3</td>
<td>34.7</td>
<td>12.0</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>E-mail</td>
<td>22.7</td>
<td>41.3</td>
<td>24.0</td>
<td>1.3</td>
<td>0.0</td>
<td>10.7</td>
</tr>
</tbody>
</table>

*Note:* N = 75. NR = no response. Listed in order of decreasing time calculated by mean Likert value.
Table 4

*Purpose for Contact with New Parents During the Process of New Referral, Initial Evaluation, and Writing the First IEP as a Percentage of Sample*

<table>
<thead>
<tr>
<th>Purpose</th>
<th>SA</th>
<th>MA</th>
<th>U</th>
<th>MD</th>
<th>SD</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss their child’s performance</td>
<td>53.3</td>
<td>30.7</td>
<td>8.0</td>
<td>1.3</td>
<td>2.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Give parents information</td>
<td>44.0</td>
<td>40.0</td>
<td>6.7</td>
<td>4.0</td>
<td>1.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Interview parents about child’s history</td>
<td>49.3</td>
<td>33.3</td>
<td>2.7</td>
<td>9.3</td>
<td>1.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Build relationship with parent</td>
<td>45.3</td>
<td>36.0</td>
<td>6.7</td>
<td>5.3</td>
<td>2.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Develop trust</td>
<td>42.7</td>
<td>40.0</td>
<td>6.7</td>
<td>4.0</td>
<td>2.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Find out about their priorities</td>
<td>34.7</td>
<td>50.7</td>
<td>4.0</td>
<td>2.7</td>
<td>2.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Have parents fill out questionnaires</td>
<td>29.3</td>
<td>38.7</td>
<td>5.3</td>
<td>8.0</td>
<td>12.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Help with issues at home</td>
<td>16.0</td>
<td>38.7</td>
<td>18.7</td>
<td>16.0</td>
<td>6.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Explain the IDEA process</td>
<td>6.7</td>
<td>32.0</td>
<td>14.7</td>
<td>20.0</td>
<td>18.7</td>
<td>8.0</td>
</tr>
</tbody>
</table>

*Note:* N =75. SA = strongly agree, MA = mildly agree, U = undecided, MD = mildly disagree, SD = strongly disagree, NR = no response. Listed in order of decreasing agreement calculated by mean Likert value.
### Table 5

*Extent of Agreement with Approaches Used to Improve Collaboration with Parents as a Percentage of Sample*

<table>
<thead>
<tr>
<th>Approach</th>
<th>SA</th>
<th>MA</th>
<th>U</th>
<th>MD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use empathetic or active listening</td>
<td>92.0</td>
<td>6.7</td>
<td>0.0</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Try to see all sides of issues</td>
<td>89.3</td>
<td>8.0</td>
<td>1.3</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Encourage open discussion</td>
<td>88.0</td>
<td>9.3</td>
<td>1.3</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Avoid using jargon</td>
<td>88.0</td>
<td>8.0</td>
<td>0.0</td>
<td>4.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Keep a positive approach to conflicts</td>
<td>81.3</td>
<td>17.3</td>
<td>0.0</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Discuss expectations</td>
<td>74.7</td>
<td>21.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Discuss team goals</td>
<td>72.0</td>
<td>18.7</td>
<td>5.3</td>
<td>2.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Encourage carryover at home</td>
<td>66.7</td>
<td>30.7</td>
<td>1.3</td>
<td>1.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*Note: N=75. SA = strongly agree, MA = mildly agree, U = undecided, MD = mildly disagree, SD = strongly disagree. Listed in order of decreasing mean Likert value.*
Table 6

*Belief that Parent Factors Affect Collaboration as a Percentage of Sample*

<table>
<thead>
<tr>
<th>Factor</th>
<th>SA</th>
<th>MA</th>
<th>U</th>
<th>MD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent work commitments</td>
<td>61.3</td>
<td>25.3</td>
<td>2.7</td>
<td>10.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Language differences</td>
<td>45.3</td>
<td>36.0</td>
<td>6.7</td>
<td>10.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Parent education level</td>
<td>38.7</td>
<td>37.3</td>
<td>8.0</td>
<td>12.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Cultural differences</td>
<td>26.7</td>
<td>44.0</td>
<td>5.3</td>
<td>22.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>29.3</td>
<td>28.0</td>
<td>13.3</td>
<td>24.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Racial differences</td>
<td>10.7</td>
<td>22.7</td>
<td>8.0</td>
<td>36.0</td>
<td>22.7</td>
</tr>
</tbody>
</table>

*Note: N=75. SA = strongly agree, MA = mildly agree, U = undecided, MD = mildly disagree, SD = strongly disagree. Listed in order of decreasing mean Likert value.*
Table 7

Perception of Barriers to Collaboration and Communication with Parents as a Percentage of Sample

<table>
<thead>
<tr>
<th>Barriers</th>
<th>SA</th>
<th>MA</th>
<th>U</th>
<th>MD</th>
<th>SD</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ availability</td>
<td>33.3</td>
<td>48.0</td>
<td>6.7</td>
<td>9.3</td>
<td>2.7</td>
<td>0.0</td>
</tr>
<tr>
<td>My lack of time</td>
<td>33.3</td>
<td>41.3</td>
<td>1.3</td>
<td>13.3</td>
<td>9.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Parents’ interests not relevant</td>
<td>10.7</td>
<td>37.3</td>
<td>17.3</td>
<td>25.3</td>
<td>8.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Language differences</td>
<td>2.7</td>
<td>32.0</td>
<td>12.0</td>
<td>36.0</td>
<td>17.3</td>
<td>0.0</td>
</tr>
<tr>
<td>School policy or attitudes</td>
<td>4.0</td>
<td>20.0</td>
<td>4.0</td>
<td>37.3</td>
<td>34.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Not my role</td>
<td>1.3</td>
<td>8.0</td>
<td>9.3</td>
<td>34.7</td>
<td>45.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Not part of my contract</td>
<td>5.3</td>
<td>5.3</td>
<td>1.3</td>
<td>21.3</td>
<td>65.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Note: N=75. SA = strongly agree, MA = mildly agree, U = undecided, MD = mildly disagree, SD = strongly disagree, NR = no response. Listed in order of decreasing mean Likert value.
Figure 1. Most Recent Occupational Therapy Degree Received by Respondents

*Figure 1.* Expressed as percent of total respondents, N = 75. No one had received a PhD or an entry level OTD.
Figure 2. Hours Per Week Worked

Expressed as percent of total respondents, n = 74. Respondents reported hours per week that they work as an occupational therapist in public schools in a typical week.
Figure 3. Ages of Students With Whom Respondents Reported Working

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 3</td>
<td>10%</td>
</tr>
<tr>
<td>Preschool</td>
<td>70%</td>
</tr>
<tr>
<td>Elementary</td>
<td>90%</td>
</tr>
<tr>
<td>Middle school</td>
<td>60%</td>
</tr>
<tr>
<td>High school and above</td>
<td>50%</td>
</tr>
</tbody>
</table>

Figure 3. Percentage of respondents working with each age group, N=75. Most (81%) occupational therapists worked with students from more than one of these age ranges, with therapists working a mean of three of the age ranges.
Figure 4. Average Total Hours Spent For One New Student on Process of Referral, Evaluation, and Writing the First IEP

*Figure 4.* Percentage of sample (n = 73) reporting these average total hours spent for one new student on process of referral, evaluation, and writing the first IEP.