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Engaging Parents in Special Education: An Examination of Knowledge and Access to Resources

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ABSTRACT

Parental engagement in special education promotes positive student outcomes and parent-school relationships. In order to promote engagement, parents must possess a basic knowledge and understanding of special education processes and parent and student rights. Little is known regarding parental knowledge about special education or how they learn about and access information on the special education process. This exploratory study surveyed 133 parents of students with disabilities to identify how they received special education related information, specific information received or searched across primary special education topics, and their perceived current and retrospective understanding of these topics as well as how these may differ based on specific parent and special education status characteristics. Findings indicate that parents gain the majority of information from personal communication (i.e., conversations with special education teachers, other parents), often independently search out additional information on key aspects of special education, and feel most knowledgeable about Individualized Education Programs (IEPs) and least knowledgeable about the legal aspects of special education. Significant differences were noted on some family characteristics in areas of satisfaction with resources, overall special education knowledge, and ways in which parents obtain information (e.g., school or on their own). Limitations, implications, and future research are discussed.

Supported by an extensive empirical base of over 118 studies indicating moderate to large effects, the efficacy of parental engagement in school has long been recognized as an important factor in improving student educational outcomes (Fan & Chen, 2001; Jeynes, 2005, 2007). It is also well documented parental engagement differs based on certain parent and child characteristics (e.g., child school level, parent education level; Drummond & Stipek, 2004; Hayes, 2011; McQuiggan & Megra, 2017; Shumow & Miller, 2001). Parental engagement in school is defined as parents and school staff working together to support and improve the learning, development, and health of students and includes a multitude of school and home-based activities as well as various members of a student's educational team (Burke, 2012; Centers for Disease Control and Prevention, 2012; Family Empowerment and Disability Council, 2012; Spann et al., 2003).

In recognition of this unique and powerful role, the Every Student Succeeds Act (Elementary and Secondary Education Act, 2015) and the Individuals with Disabilities Education Act (Individuals with Disabilities Education Act, 2004), two primary legislative acts affecting students with disabilities, directly identify parental roles in their child's educational programming. IDEA (2004) specifically emphasizes parental engagement in special education including provisions for communication

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between parents and the school, inclusion of parents in student-level decision making and planning, granting parents access to information, and involving parents in systems-level decision making and planning. They also specifically mandate the allocation of a proportion of federal funding for implementing strategies and services to promote parental engagement. Congress further supports IDEA and ESSA by funding parental involvement programs and training centers (i.e., Parent Training Centers) to provide parents of students with disabilities the necessary information and skills to promote parental involvement in their child's special education services (U.S. Department of Education, 2019).

Parental engagement in school is particularly important for students with disabilities as the academic, behavioral, physical, or mental health challenges that impede their educational success may benefit from a knowledgeable and skilled parent that can advocate for optimal individualized supports (Burke & Hodapp, 2016; Family Empowerment and Disability Council, 2012; A. P. Turnbull & Turnbull, 2001). Thus, in addition to the basic activities considered to constitute school parental engagement (e.g., attending parent-teacher conferences, monitoring homework), parents of students with disabilities also play a critical role in making sure that their child's educational needs are met.

Key parental engagement skills such as determining and advocating for school-based services are fostered, in part, by adequate knowledge about the special education process (Fish, 2006, 2008; Lytle & Bordin, 2001). Specifically, obtaining a high level of parental engagement requires a basic working knowledge of topics such as state and federal guidelines, the initial evaluation process, IEPs, and services and accommodations available to students with disabilities (Burke et al., 2016). Furthermore, when parents understand the special education process, they can contribute to the IEP in a more equitable manner (e.g., making decisions for placement, developing goals, and identifying necessary services; Fish, 2008) resulting in improved parent and teacher partnerships and student outcomes (Bryan & Burstein, 2004; Burke, 2012; Fish, 2008; Goldman & Burke, 2017). For these reasons, it is important to ensure parents feel supported and have mechanisms to increase their knowledge and understanding of special education. Additionally, recognizing how to tailor these supports or resources based on certain child or family characteristics (e.g., parent education level, child school level) may provide an important step to fully engaging parents in the special education process.

Several factors may impede a parent's ability to gain adequate knowledge in the complex special education process. One important aspect relates to contextual factors such as feeling knowledgeable about the special education process, procedures, or supports. For example, if parents do not feel adequately informed about the purpose and format of the IEP meeting, they may be less likely to offer input about their child's needs during the IEP meeting. Several studies report that parents who do not possess the knowledge of school special education and legal policies, procedures, and terminology are less likely to become involved in the special education process (Burke, 2012; Fish, 2006, 2008; Newman, 2005). For instance, if a parent attends an IEP meeting motivated to obtain services for their child but does not feel knowledgeable about the special education process, they may not be as confident in advocating for these services and may lose their motivation to remain engaged in their child's educational programming.

There are also additional factors that may impede parental engagement in school linked directly to certain family or special education status characteristics. For example, parents' school involvement has been reported to decline between elementary and secondary school as most parents are heavily involved during the child's earlier years but tends to shift as the child moves to secondary settings (Drummond & Stipek, 2004; Shumow & Miller, 2001). Moreover, studies have established differences in parental engagement based on parent educational level with those attaining a bachelor's degree or higher to be significantly more involved in their child's school (e.g., attend class event, volunteer at school, serve on school committees; Child Trends, 2013; McQuiggan & Megra, 2017). There are also factors specific to the child's special education status and services that might impact parental engagement such as when the child was deemed eligible for services. Studies reveal those who are identified earlier in life often have higher rates of parental engagement, particularly with accessing services and communicating with school professionals or service providers (Akemoglu & Acar, 2014; Duchnowski et al., 2012; Odom & Wolery, 2003). Yet, it remains unclear is how these factors may relate to access, satisfaction, and understanding of special education resources and processes.

To enhance parental knowledge in the special education process, schools may implement strategies such as in person trainings, handouts, phone calls, or dissemination of web-based materials to improve parental knowledge about special education programming and processes (Fish, 2008; Stoner et al., 2005). Although these strategies are designed to increase parents' knowledge of the special education process, little is known about methods for increasing parental knowledge, which strategies parents report engaging in (e.g., topic areas parents feel most and least knowledgeable, kinds of information parents seek, resources used), or if there are differences in parental knowledge based on certain family characteristics. This information is needed to better inform and support school districts and educators in providing parents with relevant and accessible information to better prepare parents as partners in the special education process.

This study sought to explore the experiences and preferences of parents in accessing resources about special education services and systems. Specifically, we surveyed parents of students with disabilities to identify how they acquire information regarding special education services and systems, specific topic areas in which they seek out and/or are provided with information by their child's school, and their perceptions of understanding across these topic areas. The following research questions guided this work: (1) What types of resources (conversations with teachers, websites) do parents access to build an understanding of special education and does this differ based on parent and special education status characteristics? (2) Do parents receive information on special education topics from schools or their own efforts? (3) How well do parents feel they currently understand special education topics and does this differ based on parent and child characteristics?

Method

Participants

Participants included parents of children receiving special education services. This included families with children in early childhood through secondary settings. Nearly all participants recruited lived in two Midwestern states, and represented urban, suburban, and rural areas. A total of 155 individuals consented to participate in survey completion, however, we only included those who complete at least 80% of the survey for analyses (*N* = 133). Most participants were female (70.2%) and 42% were between the ages of 35 and 44, while 38.2% were 45 or older. Nearly two thirds held a Bachelor's degree (37.9%), or Master's, Ph.D., or other Professional Degree (26.5%), and 77.6% had a household income of $50,000 or more. Approximately 72% lived in urban areas and 50% had a child in elementary school. Most (78%) indicated that their child was identified for special education prior to Kindergarten. When asked what which categories (they were asked to select all that apply) your child was deemed eligible for special education the following were reported: Autism (40.6%); Intellectual Disability (38.3%); Speech (33.1%); Other Health Impairment (17.3%); Specific Learning Disability (16.5%); Multiple Disabilities (14.3%); Visual Impairment (12.8%); Orthopedic Impairment (6.8%); Emotional Disturbance (6.0%); Hearing Impairment (5.3%); Deaf-Blindness (5.3%); Traumatic Brain Injury (3.0%); and Deafness 91.5%). Parents reported that the number of years their student had received services ranged from 0–13 (*M* = 5.8, *SD* = 4.5). Approximately 94.7% were determined eligible in one of the two Midwestern States in which the survey was administered and the remaining 5.3% indicated "Other" state.

Materials

Research questions were addressed through two domains of the *Parent Knowledge and Resources in Special Education – Parent Version* (PKRSE-PV) survey. The PKRSE-PV was developed through a multistage process used in previous surveys written by the research team (Huscroft-D'Angelo et al., 2013, Trout et al., 2014). This process began with an extensive review of the literature, as well as a comprehensive review of informational resources provided on all state Department of Education websites (Farley et al., 2020) which informed the initial design of the survey. Then, peer reviews of the survey were conducted by colleagues in special education, educational administration, and researchers. Next, pilot tests were administered with parents who have a child receiving special education services. Minor revisions were made to the survey instrument following feedback from each of these activities. The final survey instrument included four domains (i.e., Obtaining Special Education Resources, Special Education Topics and Knowledge, Preferences for Receiving Information, and Barriers for Receiving Information). This study focuses on only two of the domains (Obtaining Special Education Resources and Special Education Topics and Knowledge) to begin to explore these areas further and address the primary study research questions.

The *Obtaining Special Education Resources* domain includes 13 items that identify how parents' access information (e.g., conversations with special education teachers, paper handouts provided by the school, websites, or conversations with other parents (Applequist, 2009; Farley et al., 2020; Fish, 2008; Salend, 2006; Stoner et al., 2005). Parents rated how frequently they used these sources to access information about special education processes and services (never, once or twice, several times, frequently). Items within this theme were grouped into three topics: (1) conversations (e.g., conversations with teachers, conversations with administrators; seven items, α = .784), (2) handouts (e.g., paper handouts provided by the school; one item), and (3) websites (e.g., school district website, state department of education website; five items, α = .690). Internal consistency was also examined for each of the theme areas. There were three additional items within this domain. First, parents were asked if they believe resources about special education are readily available to parents (yes, no). Second, they were asked if they have found any specific resources to be helpful (yes, no) and if so, to describe the resource (open ended). Third, parents were asked to summarize their overall satisfaction with special education related informational resources received from the school by choosing one of five categories (very satisfied, satisfied, neither satisfied nor dissatisfied, unsatisfied, or very unsatisfied).

The *Special Education Topics and Knowledge* domain was comprised of three sections which addressed the availability of information on targeted special education topics, parental knowledge of these topics, and parental preferences for information by topic. The first section included 15 items related to obtaining information on targeted special education topics (e.g., legal rights of the parent, how special education services work, how to advocate for my child; (Burke, 2012; Burke et al., 2016; Fish, 2008, 2006; Newman, 2005). Parents rated each item into one of three categories (yes, no, I don't remember) as to whether they received information on the topic from the school and if the parent sought out the information on their own. Internal consistency was examined for both the 15 items indicating "received information from the school" and the 15 items indicating the information was "found on their own." These 15 items were further organized into the three categories which included (1) rights (e.g., my legal rights as a parent, the rights of my child; four items, for school provided α = .705; for found on own α = .847), (2) IEP (e.g., IEPs, classroom placement options; seven items, for school provided α = .840; for found on own α = .915), and (3) communication (e.g., how I can advocate for my child; four items, for school provided α = .770; for found on own α = .566).

The second section included 12 items, each of which asked parents to rate their knowledge (very little, some, adequate, a lot, I don't know) of specific topics in special education (e.g., legal rights as a parent, IEPs, school communication, advocacy). This section also included an additional item that measured parent's current understanding of special education services (excellent understanding, good understanding, adequate, poor understanding, not well at all). Finally, the third section of this domain included one item, in which parents reflected back to when their child was first identified for special education services and indicated which topics (e.g., how special education services work, the IEP meeting process, the legal process, advocating for your child) would have helped to improve their knowledge of special education at the time.

Parent demographic and special education characteristics items. Given that the purpose of this study was to understand parental knowledge of special education, participants were asked to respond to specific items about themselves as well as those related to their child's special education status. Specifically, we included five parent demographic items (i.e., age, gender, education, household income, and zip code) and five pertaining to their child's special education status (i.e., grade identified, current grade, eligibility category, state identified, years in special education).

Procedure

The University's Institutional Review Board approved study procedures. Participants were eligible to participate if they had a child who had received or was currently receiving special education services. Recruitment efforts consisted of partnering with school districts and community agencies in the Midwest, which serve parents of students enrolled in special education. Information regarding the study, and access to the anonymous on-line survey link were provided to contacts at participating schools or agencies who in turn shared the information and link with parents of students receiving special education services either through e-mail or social media (e.g., Facebook). Both the identity of the participant and the agency through which the participant learned of the study were unknown to the research team. Informed consent was obtained prior to participants completing the survey. A total of 155 individuals provided consent and completed the survey. Once participants reached the end of the survey, an option was provided to receive a stipend for their time, in the form of a $10 gift card.

Data analysis

Data were exported from Qualtrics and imported into IBM SPSS Statistics 24 for cleaning and analyses. Descriptive statistics were computed for all item-level data. Independent samples *t*-tests were used to compared scale scores for sources of information and knowledge between categories of age at identification (before Kindergarten vs. K-12), school level (elementary vs. secondary), and parent's level of education (college degree vs. no college degree). Hedges' *g* effect sizes were computed for *t*-test analyses. McNemar chi-square tests were used to compare how parents obtained knowledge – whether they more likely to receive it from schools or find it on their own. The McNemar test differs from the "conventional" chi-square test of independence because it assumes that data represent related samples rather than independent samples and therefore only uses the two discordant cells in the contingency table (e.g., got information from school and *not* on own; got information on own and *not* from school) to compute the test statistic. Relative risk ratio effect sizes were computed for the McNemar tests. In this case, a relative risk ratio indicates the *increase in probability* that a parent would have found the information on their own compared to receiving it from the school. For example, if 50% of parents reported that finding information on their own and 25% of families reported receiving the information from schools, then the relative risk ratio would be 2.0 – we could interpret this effect size as indicating that twice as many families reported finding the information on their own or that families were 100% *more* likely to find the information on their own. Chi-square tests of independence were used to compare dichotomous items (e.g., perception of resource availability) across the demographic and special education status groups (e.g., age at identification, school level, parents' level of education). Relative risk ratio effect sizes were also computed for these tests. All inferential statistical tests were evaluated at the .05 per test alpha level.

Results

Population

One-hundred thirty-three participants completed at least 80% of the survey – participants who completed less than 80% of the survey were excluded from the study (n = 22). The majority of participants were female (70.2%) and 42% were between the ages of 35 and 44, while 38.2% were 45 or older. Nearly two thirds held a bachelor's degree (37.9%), or Master's, Ph.D., or other Professional Degree (26.5%), and 77.6% had a household income of $50,000 or more. Approximately 72% lived in urban areas and 50% had a child in elementary school. Most (78%) indicated that their child was identified for special education prior to Kindergarten. Parents reported that the number of years their student had received services ranged from 0–13 (M = 5.8, SD = 4.5).

Obtaining special education resources

Results indicate that parents access information specific to special education processes and services from a variety of sources. The source most often reported was conversations with teachers, which were used by parents *several times* or *frequently* (84.2%) to obtain information (See Table 1). Just over half of the parents reported *several times* or *frequently* receiving paper handouts from school (54.9%) or had conversations with other parents several times or frequently (52.6%). Sources of information that parents most often indicated that they *never* used included websites for both the State Department of Education (56.4%) and the school building (44.0%).

Three scale scores – one for each content area in Table 1 – were computed to evaluate differences in the frequency with which parents obtained knowledge between: (1) parents of students who were identified for special education services before Kindergarten (n = 103) versus after Kindergarten (n = 28), (2) parents of students in elementary school (n = 61) versus secondary school (n = 56), and (3) parents with a college degree (n = 84) versus parents without a college degree (n = 46). The score for frequency of conversations did not differ significantly by age at identification (t = 0.36, p = .723, g = 0.08), school level (t = −0.89, p = .376, g = −0.17), or parental education level (t = −1.05, p = .298, g = −0.20). The score for frequency of web resources did not differ significantly by age at identification (t = 0.25, p = .803, g = 0.05), school level (t = 0.49, p = .625, g = 0.09), or parental education level (t = 0.18, p = .859, g = 0.03). Lastly, the score for frequency of paper resources did not differ significantly by age

Table 1. Sources of information about special education accessed by parents.

Source of information	Never	Once or twice	Several times	Frequently
Conversations				
Conversations with teachers	1.5%	13.5%	42.1%	42.1%
Conversations with other parents at my child's school and in our community	24.1%	23.3%	33.1%	19.5%
Conversations with local parent support agency staff	32.3%	24.8%	23.3%	19.5%
Conversations with school administrators	17.3%	35.3%	39.1%	8.3%
In-person trainings or workshops for parents of students in special education	41.4%	26.3%	21.8%	9.8%
Conferences for parents of children receiving special education services	44.4%	25.6%	16.5%	12.8%
Conversations with the school secretary or office administrator	42.1%	32.3%	18.0%	6.0%
Websites				
Regional or national websites for families of students receiving special education services	28.6%	30.8%	27.8%	12.8%
Local parent support agency websites	39.8%	27.8%	27.8%	4.5%
School district website	39.1%	31.6%	19.5%	9.0%
School building website	44.0%	32.3%	17.3%	6.0%
State Department of Education website	56.4%	27.1%	12.0%	4.5%
Handouts				
Paper handouts provided by the school	12.8%	32.3%	36.1%	18.8%

at identification ($t = 1.45$, $p = .150$, $g = 0.31$), school level ($t = 0.27$, $p = .792$, $g = 0.05$), or parental education level ($t = 0.26$, $p = .794$, $g = 0.05$). The effect sizes indicate trivial to small differences between the groups.

Parent perceptions regarding availability of resources and supports were nearly split, with 55.6% ($n = 74$) reporting that they believe resources and supports to better understand special education are readily available to parents and 44.4% ($n = 59$) indicating that this is not the case. Parent's perception of the availability of resources did not differ significantly by age at identification ($\chi^2 = 2.39$, $p = .122$, $RR = 0.72$), school level ($\chi^2 = 0.05$, $p = .942$, $RR = 0.99$), or parental education level ($\chi^2 = 2.39$, $p = .122$, $RR = 0.93$). The effect size for age at identification indicates that parents of students who were identified in K-12 were less likely to perceive that resources were readily available (42.9% vs. 59.2%). The effect sizes for the other two comparisons indicate only trivial differences.

Participants reported if information or resources on specific special education topics (e.g., parental rights, the purpose of an IEP meeting, how to advocate for my child) were provided by their child's school by rating each topic of information (yes, no, I don't remember; Table 2). Overall, high percentages of parents reported receiving information from the schools. The greatest proportion of parents reported that schools provided information about the school services or accommodations provided to their child (85.0%), the purpose of an IEP (83.5%), and their legal rights (81.2%). The lowest reported frequencies of receiving information from the schools were in explaining different disability categories (33.1%), advocating for child (37.6%), resolving disagreements with the school (40.6%), and classroom placement options (45.9%).

Participants also reported which special education topics of information they sought out on their own by rating each topic in one of three categories (yes, no, I don't remember; Table 2). The greatest proportion of parents reported seeking information related to advocacy (60.2%). Over 40% of parents also reported seeking information on the legal rights of their children (46.6%), the purpose of an IEP (44.4%), and the people who can and will attend the IEP meeting (44.4%).

McNemar chi-square tests were used to examine the extent to which parents were more likely to get information from the school or find information on the own for an analytic sample of parents who completed both sets of items ($n = 81$). The results of these tests indicated that parents were significantly more likely to get information from the school about services or accommodations ($\chi^2 = 5.60$, $p = .018$, $RR = 1.37$) and frequency of IEP meetings ($\chi^2 = 9.63$, $p = .002$, $RR = 1.43$)

Table 2. Sources of information on special education topics.

	Received from school			Found on my own		
Topic	Yes	No	I don't know	Yes	No	I don't know
Rights						
My legal rights as a parent.	81.2%	13.5%	3.8%	43.6%	15.8%	3.0%
The legal rights of my child.	67.7%	21.1%	7.5%	46.6%	14.3%	3.0%
Classroom placement options.	45.9%	44.4%	8.3%	36.1%	21.1%	4.5%
How any disagreements I have with the school regarding services would be resolved.	40.6%	48.1%	7.5%	39.8%	21.1%	2.3%
IEPs						
The services or accommodations the school will provide to my child.	85.0%	11.3%	3.0%	32.3%	23.3%	1.5%
The purpose of an Individual Education Program (IEP).	83.5%	12.0%	3.0%	44.4%	13.5%	3.0%
The people who can and will attend the IEP meeting.	77.4%	20.3%	0.8%	44.4%	15.8%	1.5%
How often IEP meetings will occur.	78.2%	18.8%	1.5%	30.1%	26.3%	2.3%
How my child would be evaluated to see if they quality for special education services.	74.4%	18.0%	6.0%	42.9%	12.8%	5.3%
How my child's progress will be tracked and reported.	74.4%	20.3%	4.5%	32.3%	23.3%	1.5%
How I will be notified about any changes in my child's education or IEP.	63.9%	31.6%	3.%	32.3%	26.3%	1.5%
Communication						
How I can best communicate with the school.	69.9%	20.3%	6.8%	39.8%	21.8%	0.8%
An explanation of how special education services work.	69.9%	16.5%	12.0%	44.4%	13.5%	6.8%
How to advocate for my child.	37.6%	48.9%	6.8%	60.2%	6.0%	1.5%
An explanation of the different disability categories.	33.1%	50.4%	12.8%	35.3%	22.6%	7.5%

compared to finding the information on their own. Specifically, parents were 37% more likely to receive information about special education services or accommodations from the school than to find the information on their own, and were 43% more likely to receive information about the frequency of IEP meetings from the school than to find the information on their own. On the other hand, parents were significantly more likely to find information on their own about classroom placement options ($\chi^2 = 5.60$, $p = .018$, $RR = 1.48$), ways to resolve disagreements ($\chi^2 = 5.95$, $p = .015$, $RR = 1.59$), ways to advocate for their child ($\chi^2 = 38.94$, $p < .001$, $RR = 3.09$), and about disability categories ($\chi^2 = 18.58$, $p < .001$, $RR = 2.67$) compared to getting it from the school. Specifically, parents were 48% more likely to find information on their own about classroom placement options than get that information from the school, 59% more likely to find information on their own about ways to resolve disagreements, 209% more likely to find information on their own about ways to advocate for their child, and 167% more likely to find information on their own about disability categories.

Parents also rated their level of satisfaction with the special education information they received from the school. Most of the parents felt satisfied (43.5%) or very satisfied (23.3%) while 9% indicated they were neither satisfied nor dissatisfied, 20.3% were unsatisfied, and 3.0% were very unsatisfied. Parent's satisfaction differed significantly by age at identification ($\chi^2 = 5.15$, $p = .023$, $RR = 2.05$) where parents of students identified in K-12 were 105% more likely (44.0% vs. 21.5%) to report that they were satisfied or very satisfied compared to parents of students identified prior to Kindergarten. Satisfaction did not differ significantly by school level ($\chi^2 = 1.51$, $p = .219$, $RR = 1.49$) or parental education level ($\chi^2 = 0.01$, $p = .920$, $RR = 1.03$).

Special education topics and knowledge

Parents indicated their level of knowledge on several special education topics (very little, some, adequate, a lot). Parents reported *a lot* of knowledge related to the IEP process, specifically how often IEP meetings will occur (59.4%) and the people who can and will attend IEP meetings (57.1%; see Table 3). The greatest proportion of parents reported knowing *very little* about how any disagreements with the school will be resolved (17.3%).

Parents were also asked how well they currently believe they understand how special education services work at their child's school by rating their understanding in one of five categories from *not well at all* to *excellent understanding*. Over half reported having an *excellent* (22.6%) or *good understanding* (40.6%) and nearly one fourth reported an *adequate understanding* (24.8%). Just over ten percent indicated their understanding was *poor* (9.0%), or *not well at all* (2.3%). Parents' perceptions of their knowledge differed significantly by age at identification ($\chi^2 = 6.45$, $p = .011$, $RR = 1.23$) where parents of students identified prior to Kindergarten were 23% more likely (92.2% vs. 75.0%) to report

Table 3. Parents' current knowledge of topics in special education.

Topic	Very little	Some	Adequate	A lot
Rights				
My legal rights as a parent	6.8%	15.8%	36.8%	37.6%
The legal rights of my child	7.5%	20.3%	33.1%	36.1%
Classroom placement options	15.0%	21.1%	29.3%	27.1%
How any disagreements I have with the school will be resolved	17.3%	27.1%	27.8%	21.8%
IEPs				
The people who can and will attend IEP meetings	5.3%	6.0%	27.8%	57.1%
How often IEP meetings will occur	6.0%	8.3%	23.3%	59.4%
IEPs	5.3%	9.0%	33.1%	50.4%
How my child would be evaluated to see if they qualify for services	4.5%	15.8%	36.8%	39.8%
How special education services work	5.3%	17.3%	40.6%	34.6%
How I will be notified about any changes in my child's education or IEP	8.3%	18.0%	35.3%	33.1%
Communication				
How I can advocate for my child	5.3%	15.0%	21.8%	52.6%
How I can best communicate with the school	6.8%	10.5%	35.3%	43.6%

that they had at least adequate knowledge compared to parents of students identified in K-12. Parents' perception of their knowledge did not differ significantly by school level ($\chi^2 = 1.72$, $p = .190$, $RR = 1.09$) or parental education level ($\chi^2 = 0.944$, $p = .331$, $RR = 1.07$).

Parents were also asked to reflect upon when their child was first identified for special education and indicate which topics (e.g., how special education service work, student's rights, special education team meetings) they would have liked to learn more about. Topics most often identified included information about instruction in the regular classroom (61.7%), advocacy (60.9%), and how special education services work (51.9%).

Discussion

Decades of literature acknowledge the importance of parental engagement in the special education process for the educational outcomes of students with disabilities. However, less is known about how parents understand the services and supports provided to their children through special education, or if this would differ based on parent and special education status characteristics. To better engage parents as partners, it is necessary to understand the type of information parents receive regarding special education and from whom. Further, we must take into consideration parent perceptions regarding their opportunities to access and understand the information they receive. This information is necessary to inform practice and improve mechanisms for dissemination of special education related information to better promote parent engagement from student identification to transition.

Obtaining special education resources

With respect to obtaining special education resources, just over half of participants felt that informational resources are readily available to parents. This finding demonstrates that additional work is necessary to address the parents who do not perceive resources to be readily available. Given that most parents also reported being most likely to obtain information from the school (e.g., conversations, handouts) it is logical for schools to serve as the primary resource. To build parent knowledge and promote engagement, schools could consider using additional methods (e.g., newsletters, e-mails, parent information groups, conversations during parent-teacher conferences) to increase the visibility and accessibility of existing resources and assist parents in gaining the special education knowledge necessary to increase parent engagement, promote advocacy, and foster positive parent/school relationships (Fish, 2006, 2008; Lytle & Bordin, 2001). Additional research should also be conducted to explore perspectives of other stakeholders (teachers, administrators, specialists) on approaches currently used by schools to provide resources to parents and strategies that schools might consider to better promote resource accessibility. parents also reported that conversations with other parents in the school or community was a source frequently used to access information regarding special education. Existing studies reveal that having support from other parents instills a sense of hope, empowerment, belonging, reduction in isolation, and skill development to advocate for their child (Douglas et al., 2016; Kingsnorth et al., 2011; Skotko & Bedia, 2005). To better empower parents, parent-to-parent programs such as Parent Connectors (Kutash et al., 2011, 2013) have been developed and implemented across various settings to better provide parents with a "veteran" parent who has been through the special education process. It is important for future research to explore how parents of students receiving special education services connect with peers in formal and informal settings and discover how to best leverage this important source of information to improve parental knowledge and advocacy skills.

Results indicate that 50% of parents or more receive information from the school on the majority (11 of 15) of topics provided. However, it is important to note that except for four items, more than one third of the sample indicated they also located information on their own about the topic, which could simply reflect the parent's desire to learn more about a given area. In this study we also found that parents were significantly more likely to get information from the school on topics specific to

IEPs, but significantly less likely to get information related to topics involved in "Special Education Rights." It may be the case that parents find some of the information on certain topics complex and confusing (Fish, 2008; Lytle & Bordin, 2001), or that they have additional questions after initial meetings, conversations, or specific interactions with the school. It could also be that the information provided by the school is routine (e.g., annual written notice documentation) and not something that they recall receiving aside from getting documents from the school. It is also possible that these types of routine paperwork did not even come to mind when completing the survey questions or some issues, such as dealing with disagreements with the school have not been an issue for many families, so they do not recall that information. Nonetheless, parents are engaged in their child's education and seek out information on their own related to special education. The field needs to continue to develop methods for sharing quality information of the special education process with parents that is easily accessible.

Special education topics and knowledge

Several findings were of interest when inquiring about special education content areas parents feel most and least knowledgeable about. First, it is encouraging that most parents felt they have a good or excellent understanding of special education overall, especially in knowledge of the IEP. This is not too surprising, as most of the students had been receiving special education services for more than one year with the majority starting before kindergarten (78%). This was pleasantly surprising, given that they indicated this was an area in which they wanted more knowledge about when their child was first identified. It is promising that this sample reported feeling the most knowledgeable about IEPS, as the IEP is the primary mechanism by which parents engage in the special education process (Family Empowerment and Disability Council, 2012). It is also encouraging that IEPs are an area where they have gained knowledge since their child was first identified. However, replication is needed across a broader sample as most participants (i.e., 78%) indicated their child was identified before kindergarten. In contrast to elementary, middle, and high school special education programming, early childhood special education services typically are able to provide services in one-on-one formats, often in the home, with time for educators to talk frequently with parents and explain the special education process and services. As such, these findings may not replicate with parents whose children are identified in elementary or secondary school and may not have as much access to educators to explain the special education process or services.

Second, the topic area where 47% of parents reported having only some or very little knowledge pertained to how to resolve disagreements with the school. While limited availability of resources may be one factor affecting parental understanding, it is possible that these findings are related to the limited use of procedural safeguards by parents (Burke, 2012). For example, during 2015–16, there were 5,319 special education complaints filed across all 50 states and the District of Columbia (U.S. Department of Education, 2017a, 2017b), representing less than 1% of special education students and their families. As such, parents may report limited knowledge of dispute mediation because they likely have not been in a situation that requires them to fully understand this legal aspect of special education. Existing literature identifies integral elements of special education parents could benefit from knowing (e.g., state, and federal guidelines, initial evaluation, Individualized Education Plans [IEPs], services, accommodations) to better support engagement in their child's education. (Burke, 2012; Burke et al., 2016; Fish, 2006, 2008; Newman, 2005). In all, it is promising that parents report understanding the IEP and their basic legal rights as a parent, but it will be important for future research to explore when parental understanding of more specific policies (e.g., dispute mediation) may be beneficial and if parents know where to go to find information regarding specific issues that may arise with their child's special education services.

Third, parents also indicated that they would like information and knowledge related to advocating for their child. This was a topic where nearly 90% of parents reported they also sought out information on their own. Effective advocacy requires parents to be informed about special education policies, IEPs, and services (Burke et al., 2016), yet often, in research and practice advocacy is embedded with the struggle for appropriate services and dispute resolution (Burke, 2012; Burke et al., 2016; Fish, 2006; Public Agenda, 2002; Stoner et al., 2005). In addition to having knowledge about special education policies and services, advocacy also requires effective communication skills and confidence in the parent's ability to bring about change. Additional research is needed regarding innovative strategies (e. g., parent-to-parent mentoring) to help parents build their knowledge, communication skills, and confidence to be able to speak-up and provide their perspectives on the educational services their child receives.

Differences by family characteristics

Overall, there were few statistically significant differences between targeted parent and special education status characteristics within the specific areas of understanding special education topics, overall knowledge, satisfaction, and availability of resources. This might be related to the constituency of this sample and could benefit from replicating with samples that specifically include representation of all disability categories and diverse experiences of parental engagement (urban/rural, high/low engagement with schools, high/low satisfaction with services). Areas in which there were significant differences included parents who had a child that was deemed eligible for special education at some point during K-12 were more satisfied with resources provided by the school than those identified prior to Kindergarten. One on hand, this seems paradoxical, as there is literature supporting high levels of parent support provided to those who have a child that was either identified early in life (Akemoglu & Acar, 2014; Odom & Wolery, 2003). Often, parents are connected to a plethora of resources during this period and receive direct support many times in the home environment (Akemoglu & Acar, 2014; Odom & Wolery, 2003), which promotes the building of foundational special education knowledge early in the child's life. This is supported by our finding that this group of parents reported higher levels of overall special education knowledge than the parents with a child who was identified in K-12. It is intriguing that this group then expressed lower levels of satisfaction with services despite having more knowledge of services. It may be that the group of parents of children identified more recently for services are more satisfied overall, as their child is receiving some sort of assistance. Future research needs to replicate these findings with other groups to explore these differences. Contradictory findings such as these serves as a reminder that schools can continue to meet families where they are at; tailoring resources that can either build foundational knowledge or continue to promote more advanced knowledge of special education (Keels, 2009; Keilty & Galvin, 2006; Sheehey, 2006).

Limitations

Five primary limitations should be acknowledged and addressed in future research. First, states offer various approaches and preparation for parents to engage in the process of special education. As participants included parents across two states in the Midwest, national replication is needed to determine the generalizability of these findings to parents across the United States. Second, while our study provides new information on potential differences in parent knowledge of special education based on certain family characteristics, the inferential analyses were limited due to sample size constraints, which restricted our ability to conduct robust statistical analyses examining differences in knowledge or access across demographic characteristics. Future research should include larger and more diverse samples, which would provide sufficient statistical power to examine possible differences across variables in the target groups. Important differences in parental knowledge of special education may be found when examining other characteristics of families and students. This would include distinct differences based on child specific disability categories, household income, cultural or linguistic background, levels of involvement in advocacy groups, or even by specific parental role (e.g., mother, father, grandparent, adoptive parent, etc.). By collecting a national sample, it is possible that researchers may find meaningful differences by geographic location (i.e., rural, urban, suburban), regions (e.g., Northeast, South, Midwest, West) or by school type (e.g., public, private, charter). Third, with respect to examining where parents obtained resources (school or on their own), we had a relatively small analytic sample (N = 81) for the inferential tests due to missing data. While these analyses highlight important differences about the types of information parents get from schools compared to finding on their own, the generalizability of these findings is further limited because only a subset of parents responded to both sets of items, and therefore, future research should replicate these findings with larger and more representative samples. Fourth, as with any self-report or survey response, bias due to self-selection to participate in the survey, social desirability, inaccurate recall, or a parents' ability to respond to questions may have influenced outcomes (Rosenman et al., 2011). Moreover, the self-reports are limited to parent perspectives of school practices providing resources to parents. Given services were often provided for many years specific recall may have been difficult at times. Additional research, including qualitative approaches with parents, education professionals, and administrators would provide important perspective of these practices. Finally, while the survey inquired about the resources parents used, the survey did not evaluate the content or quality of the resources. Recognizing that not all resources are comparable, nor is the mechanism of delivery (e.g., information provided by teachers, web-based, parent training centers) it is necessary to conduct additional research to understand the content and quality of information provided to parents.

Conclusions

Parents should be knowledgeable about the special education processes and services available to their child. The knowledge and understanding of special education may be supported by informational resources and topics provided by schools or existing resources available via the internet, parent support groups, or state departments of education. Parent participation is important because parents understand their child better than anyone else and have important information for the IEP team to consider when developing an educational plan (Burke et al., 2016; Burke & Hodapp, 2016; Lytle & Bordin, 2001). This study provides information on the knowledge of parents regarding the special education process and highlights potential areas in which child or parent characteristics may influence satisfaction with resources or overall knowledge. While this information provides preliminary information for improving parental engagement in special education, additional work is necessary to fully understand the best methods to support parents in the acquisition of this knowledge and how to improve advocacy for their child.

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