ABSTRACT

Title of dissertation: PARENTS OF STUDENTS WITH DISABILITIES: WHAT THEY KNOW, WHAT THEY THINK THEY KNOW, AND WHAT THEY WANT TO KNOW ABOUT SPECIAL EDUCATION RIGHTS AND PROCESS

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Parents of students with disabilities play a vital role in the Individualized Education Program (IEP) planning process. Research has shown that parents' engagement and advocacy could benefit students' services. In order for more effective advocacy, parents must know their special education rights and process. Therefore, this dissertation study explored parent's knowledge and understanding of special education rights and process.

Chapter 2 is a research synthesis of how studies have quantifiably measured parents' knowledge and understanding. Chapter 3 is a mixed-method design study that explores whether parents' perceived knowledge and actual knowledge are different constructs through a nationwide survey. The second section of the mixed method study is qualitative design through focus groups, and the purpose of the focus groups was to explore what information parents from culturally and linguistically diverse backgrounds desire to find and how that information should be presented. The findings from the focus groups were used to write a policy paper in Chapter 4. Finally, Chapter 5 summarizes the findings and shares limitations and implications.

PARENTS OF STUDENTS WITH DISABILITIES: WHAT THEY KNOW, WHAT THEY THINK THEY KNOW, AND WHAT THEY WANT TO KNOW ABOUT SPECIAL EDUCATION RIGHTS AND PROCESS

by

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Chapter 1: Introduction

The dissertation aims to examine parents of students with disabilities' (SWD) knowledge of special education rights and process by assessing two different types of knowledge: perceived knowledge and actual knowledge. Additionally, it seeks to explore what information parents want to learn. Parents' knowledge of the special education rights and process is an important foundation for parents to participate in the special education process and advocate for their children. Authors of many studies have explored parents' knowledge of special education rights and process, but their methods, measures, and instruments varied. Some researchers have investigated parents' perceived knowledge of their special education rights, and others assessed parents' actual knowledge.

Due to the collaborative efforts between the parents and school systems, many parents have reported their satisfaction with the special education their children are receiving (Leiter & Krauss, 2004). However, authors of several recently conducted studies report that many parents more frequently reported struggles (Burke et al., 2018; MacLeod, 2017). Of particular note, many of the parents who voice their struggles with special education services are parents of students with severe disabilities (i.e., individuals with cognitive disabilities and have "significant limitations in social, learning, personal, and language skills," Alquarini & Gut, 2012, p. 44), parents from low-resourced communities, and parents with culturally and linguistically diverse backgrounds (Leiter & Krauss, 2004; Kalyanpur et al., 2000; Wolfe & Durán, 2013). Studies have reported cultural differences, communication, and language barriers especially act as hindering factors for some parents to fully understand and participate in the special education process (Kalyanpur et al., 2000; Wolfe & Durán, 2013). Regardless of parents' demographic backgrounds, all parents of SWD have important roles (e.g., advocate for their children and

partner with the IEP team) in their child's special education, and to play these roles, parents must be equipped by knowing their rights and understanding the special education process. Many studies have explored parents' knowledge of special education, but these studies used different approaches to collect parents' knowledge, such as asking parents their perceived knowledge or assessing parents' actual knowledge (Kim, 2024). However, studies revealed some parents reported being knowledgeable about special education rights and process, but when their answers were compared to their responses during interviews or open-ended responses, the authors found that their actual knowledge did not align with their perceived knowledge (Kim, 2024). To date, a few studies have indirectly suggested that parents' perceived knowledge and actual knowledge may be different types of knowledge, but no study has directly tested the differences. Therefore, this dissertation study will reveal if parents' perceived knowledge and actual knowledge of special education rights and process are related.

Outline of the Dissertation

This dissertation is organized into four chapters: Chapter 1– Introduction, Chapter 2 – Research Synthesis, Chapter 3 – Mixed Method Study, Chapter 4 – Policy Paper, and Chapter 5 – Conclusion. The current chapter introduces the problem and the aim of this research proposal. Chapter 2 is a systematic review of the literature on parents' understanding of the special education rights and process. The research questions for the systematic reviews are:

1) What are the features (e.g., study type, characteristics) of research studies that explored, quantified, or assessed parents' understanding and knowledge of special education rights, IEP process, and IEP documents?
2) What do research findings reveal about parents' understanding and knowledge of the special education rights, IEP process, and IEP documents?

Chapter 3 presents the mixed method study. This study is divided into a quantitative survey design and a qualitative focus group study. The research questions for the study are:

1) Is there a difference between parents' perceived knowledge vs. actual knowledge?
    a. What variables (i.e., education, income, child's disability, special education training, and reading procedural safeguards notice) influence parents' perceived knowledge?
    b. What variables (i.e., education, income, child's disability, special education training, and reading procedural safeguards notice) influence parents' actual knowledge?
2) Is there a relationship between parents' knowledge (actual and perceived) and empowerment?
3) Will previous participation in a special education training or reading the procedural documents narrow, widen, or have no effect on actual or perceived special education knowledge gaps between high and low-SES groups?
4) What information do parents want to learn about special education, and what are the best methods to deliver this information?

Chapter 4 includes a policy recommendation paper on practices to support families of culturally and linguistically diverse backgrounds. The paper discusses the issue of disproportionality of students of color in special education and the struggles parents are facing due to their lack of understanding and knowledge of the special education law and process. Then, the paper shared the analysis and findings of Study 1 and recommendations for improving information and resources for parents.

Definitions of Key Terms

Actual Knowledge measure (or factual knowledge): Objective knowledge with correct or incorrect answers (Ladwig et al., 2012; Martinussen et al., 2015; McMahon et al., 2020)

Parents: a "parent" is defined in the special education law as

> 1) A biological or adoptive parent of a child; 2) A foster parent, unless State law, regulations, or contractual obligations with a State or local entity prohibit a foster parent from acting as a parent; 3) A guardian generally authorized to act as the child's parent, or authorized to make educational decisions for the child (but not the State if the child is a ward of the State); 4) An individual acting in the place of a biological or adoptive parent (including a grandparent, stepparent, or other relative) with whom the child lives, or an individual who is legally responsible for the child's welfare; or 5) A surrogate parent who has been appointed (for the full definition, *see* Sec. 300.30 Parent)

Perceived Knowledge measure: subjective self-assessed of one's expertise (Ladwig et al., 2012; Martinussen et al., 2015; McMahon et al., 2020)

Procedural Safeguards notice: documents with an explanation of parental rights under the Individuals with Disabilities Education Act in a parent's native language (for full requirements, *see* Sec. 300.504 Procedural safeguards notice)

Chapter 2: Parents' Knowledge and Understanding of the Special Education Process and Rights: A Systematic Review

Note. Chapter 2 includes research synthesis under preparation for publication submission. The citation will be as follows: Kim, J., Wexler., J., Ross-Benedick, A. (in press). Parents' Knowledge and Understanding of the Special Education Process and Rights: A Systematic Review. *Journal of Special Education Leadership*

One of the cornerstones of the U.S. special education law is the requirement for "the parents of students with disabilities (SWDs) to be meaningfully involved in the special education process" (Yell et al., 2009, p.69). Another cornerstone of U.S. special education is the Individualized Education Program (IEP) which is "a written statement for each child with a disability that is developed, reviewed, and revised in a meeting" (34 C.F.R. §300.320, 2006). The IEP requirements are divided into the IEP team meeting and the IEP document itself (Simon, 2006). The IEP is a multi-step process, and the Individuals with Disabilities Education Act (IDEA) ensures parents or caregivers are afforded the opportunity to be part of the process by providing rights to parents (IDEA, 2004). Parental[1] involvement and advocacy in the IEP process play a critical role in children's education, and appropriate advocacy has shown various positive outcomes such as increased appropriate support and services, appropriate placement, improved IEP goals, decreased drop-out rates, and much more (Goldman & Burke, 2017; Burke, Rios, & Lee, 2019; Childre & Chambers, 2016; Spann et al., 2003).

Due to the nature of the special education system, where many parents have to advocate for services and support for their children, knowing the special education process, including the rights of parents and students, understanding what is being discussed in IEP meetings, and understanding the IEP document are essential to adequate participation in the IEP process. When

[1] "Parent" in this paper will be defined in the same way a "parent" is defined in the special education law (for the full definition, *see* https://sites.ed.gov/idea/regs/b/a/300.30).

parents have knowledge about their rights under IDEA and resources, they can use their knowledge to advocate for their children (Rossetti et al., 2020; Burke, Lee & Rios, 2019). However, despite their rights and procedural safeguards, authors of numerous studies report that many parents experience hardship, and oftentimes, their voices are frequently overlooked during the IEP process (Mueller, 2015; Wolfe & Duran, 2013; Fish, 2008). For some parents, their presence in IEP meetings does not always guarantee being fully involved in the decision-making process due to misunderstandings and lack of knowledge about their rights and responsibilities as parents of students with disabilities (Lo, 2008; Mandic et al., 2012; Salas, 2004).

Previous Research

Researchers have primarily used qualitative research methods to explore parental experiences and perceptions of the special education process, and many studies have revealed the struggles experienced by families of SWDs and the disparity in knowledge and understanding due to families' backgrounds (Wolfe & Duran, 2013). For instance, Lalvani (2012) found that the parents representing higher SES status had a greater understanding of special education laws (Lavani, 2012). These parents also had a better understanding about the range of educational settings than the parents representing lower SES status, and parents in higher SES status advocated for a more inclusive setting (Lavani, 2012). Studies of families with culturally and linguistically diverse (CLD) backgrounds, especially families that had limited English proficiency, have also reported a hard time understanding the IEP meetings (Larios & Zetlin, 2018; Salas, 2004; Park, Turnbull, & Park, 2001; Lo, 2008), the written documents provided by the schools (Sohn & Wang, 2006; Park & Turnbull, 2001), and had limited knowledge of the IEP process and their rights (Larios & Zetlin, 2018; Rivera-Singletary & Cranston-Gingras, 2020).

In recent years, researchers have increasingly investigated ways to improve parents' knowledge of the special education process and their advocacy skills. In 2019, Rios and Burke conducted a systematic review on the effectiveness of special education training programs developed for parents of SWDs to improve special education knowledge, advocacy skills, empowerment, and access to services (Rios and Burke, 2020). They found 21 studies with 12 unique interventions that trained parents of SWDs. They found that, overall, these training programs increased parents' special education knowledge, advocacy skills, empowerment, and increased access to services.

Rios and Burke also explored the culturally responsiveness of the interventions, especially for Latino parents. They found that of the 21 studies, seven studies had predominantly White participants, five studies had racially and ethnically diverse participants, and seven studies specially targeted CLD participants. However, they found that Latino parents were not proportionally represented in the interventions and the majority of the studies were not culturally responsive for Latino parents (Rios and Burke, 2020).

Purpose and Research Questions

As Rios and Burke's systematic review revealed, parents' knowledge and advocacy skills can be learned through training programs (Rios & Burke, 2020). However, special education training programs may not be accessible or effective for some parents due to the lack of culturally responsiveness of training programs (Rios and Burke, 2020). Moreover, not all parents are getting the training on special education needed to be knowledgeable about the special education process. For example, Huscroft-D'Angelo et al. (2021) found that 44% of parents have reported "never" attending in-person training or workshop in special education.

We also know, through many interviews and focus groups, that it is dangerous to assume everyone in the IEP meeting understands the team discussion and decisions because parents' understanding and knowledge of the special education process and special education rights vary greatly. In addition to learning what parents did not know or understand from many previous studies that included interviews and focus groups, other studies also revealed what parents had to do to gain knowledge and advocate for their children (Rossetti et al., 2021; Sheehey, 2006). For instance, parents reported that they had to make significant time to learn about their rights and advocacy skills, and some parents reported the commitment required to learn about the special education process and rights is equivalent to a full-time job (Rossetti et al., 2021). These studies have revealed the diversity in parental knowledge and experiences. It's important to complement these findings with quantitative studies that can further substantiate the challenges and struggles faced by many parents. Furthermore, there has not been a systematic literature review that reviewed only studies that quantifiably explored or assessed parents' understanding of the IEP process, their rights, and what is written in the IEP document. Therefore, the purpose of this systematic literature review is to explore the different features and findings of research studies used to quantifiably estimate parents' understanding and knowledge of the special education rights and special education process, specifically, the IEP process.

I addressed the following research questions:

> What are the features (e.g., study type, characteristics) of research studies that explored, quantified, or assessed parents' understanding and knowledge of special education rights, IEP process, and IEP documents?
>
> What do research findings reveal about parents' understanding and knowledge of the special education rights, IEP process, and IEP documents?

Method

Eligibility Criteria

I included the studies that met the following criteria: 1) studies must have been published between 1997 to 2022; 2) the participants were parents of children between ages 3-21 receiving special education services under the Part B of IDEA; and 3) the studies targeted parents understanding or knowledge of either the IEP process, IEP documents, or special education rights.

I included studies from 1997 because the 1997 IDEA reauthorization included a revision to the IEP requirements to improve results for the students and families (Blackwell & Rossetti, 2014; U.S. Department of Education, 2022). Qualitative studies that used only focus groups or interviews were excluded because there are previously published literature reviews that explored parents' perceptions (e.g., Reiman et al., 2010; Wolfe & Duran, 2013). Moreover, as mentioned earlier, it was difficult to accurately know as a reader how much parents knew about the special education process based on the results presented from qualitative interviews or focus group studies. Many studies have shown parents, especially families with CLD backgrounds and low-income, did not know about the special education process; however, there are also many studies that reported parents advocating for their students and leveraging their special education knowledge for improved services. Given the wide varying special education knowledge and experiences by parents of SWDs, I did not want to report bias and one-sided data, which could also harmfully lead to creating unwanted stereotypes of certain groups of parents among the readers. However, if the interview or focus groups were supported by an additional method such as researchers comparing parents' answers with the actual IEPs or other assessments, the studies were included.

I also excluded any intervention studies also to ensure that the sample reflected the general parent population. The purpose of interventions is to increase the participants' special education knowledge and advocacy skills, but many parents of SWDs do not get intervention training and would not reflect the general population (Huscroft-D'Angelo et al., 2021). Moreover, a systematic review by Rios and Burke was conducted in recent years.

Literature Search

For the systematic literature search, I used EBSCOhost and selected "All Databases." The first search was conducted in January 2021, the second search in October 2021, and the final search was done in March 2022 to locate new publications. I used the following search terms: (special education) AND (iep or individualized education program or individualized education plan) AND (parent* or famil*) AND (understand* or knowledge or comprehension). I did not use the optional "Select a Field" for the search terms to ensure the results could generate the most comprehensive findings.

Using the search terms, I used the following options for the search results: 1) Scholarly (Peer Reviewed) Journals; 2) Academic Journals; 3) Publication Date 1997-2021; and 4) English. The October search resulted in 540 records, but once exact duplicates were removed, the final results had 285 records. After reviewing the abstracts, 35 articles were initially selected. Then I used the snowball search method by searching the references used in the studies. Furthermore, I conducted a "Cited By" search from the research study by Fish (2008) after discovering the study was referenced in many of the articles. This was done by using Google Scholars' option "Cited By" and reviewing the titles of the articles that cited the author.

A total of 14 articles met the study selection criteria. In March 2022, I updated the search using EBSCOhost by using the same search terms and options but changed the Publication Date

to 2021 – 2022, which had 22 results when duplicates were removed. One additional article was added to the final list.

Coding

A Microsoft Word table was used to code the studies with the identifiable categories, and the coding table contained the following information: author, year and title, research question, research interest, sample size, participation's demographic information or sample characteristics, sample recruitment method, research methods and procedure, and summary. I also included the aspect of the special education process to know if the research was focused on the IEP process, IEP document, or related rights required by IDEA. A second coder, a doctoral student, was trained and coded the articles. The inter-rater reliability for the coding was 100%.

Results

The search resulted in 15 studies, and the included studies' publication years ranged from 1999 to 2021. Studies were distributed across the years, and the year 2020 had the largest amount of published studies (n = 3). A summary of the study characteristics is organized in Table 1.

Data Analysis Plan

I first present the synthesized study features organized by study type (i.e., Readability of Special Education Documents and Parents' Reported Knowledge and Understanding). For each study type I present synthesized characteristics (e.g., sample recruitment strategies) of the studies. I then present study findings also organized by study type.

Study Features

Study Types

Readability of Special Education Documents

One indirect way researchers estimated parents' understanding and knowledge of the IEP process was by analyzing the readability of the IEP document or related documents. The search resulted in 5 published studies that measured the readability of special education documents schools are required to provide to parents between the years 2006 and 2019.

Study Characteristics.

In three of the five studies, the researchers analyzed the readability of procedural safeguards (Fitzgerald & Watkins, 2006; Mandic et al., 2012; Gray et al., 2019). One study analyzed the readability of the actual IEPs (Lo, 2014), and one study analyzed the readability of sample IEPs on states' departments of education websites (Rosas & Winterman, 2014). The three studies that analyzed the procedural safeguards had sample sizes ranging from $n = 50$ to $n = 52$ which is a reflection of them trying to gather the procedural safeguards from all 50 states and D.C. The study by Fitzgerald & Watkins (2006), which was the first study to analyze the readability of special education-related documents provided to parents since 1984, used 50 procedural safeguards because Ohio was under revision. Gray et al. (2019) study had $n = 52$ because they also analyzed the U.S. Department of Education's Procedural Safeguard template. Moreover, two studies analyzed the Parental Consent, Due Process Impartial Hearings, and Discipline sections of the procedural safeguards (Manic et al., 2012; Gray et al., 2019), and one study analyzed the Notice, Records, and Mediation sections (Fitzgerald & Watkins, 2006).

One study, Lo (2014), analyzed the readability of 28 actual IEP documents from three school districts for students' grade levels ranging from Kindergarten to 11th grade (Lo, 2014). The disability categories of the IEPs reviewed included Autism, Intellectual impairment, Hearing Impairment, Health Impairment, Specific Learning Disability, and Emotional Impairment. Rosas & Wintermen (2014) analyzed the readability of the sample IEPs and special education

manuals/handbooks provided on the websites of 50 states' departments of education (Rosas & Winterman, 2014).

The readability formulas used in the studies were as follows: Fitzgerald & Watkins used the New Dale-Chall and Flesch Grade Level; Mandic et al. used the SMOG; Gray et al. used the Flesch-Kincaid, Gunning fog index, Flesch Reading Ease, and SMOG; Lo used the Flesch Reading Ease and New Dale-Chall; and Rosas & Winterment used the Fry's Readability Index. In addition to using the readability formulas, three out of four studies looked at other readability characteristics such as print size, sentence length, and much more (see Table 2). Finally, two studies estimated the literacy level of parents of students with disabilities by using the 2003 National Assessment of Adult Literacy (NAAL), SEELS, and NLTS-2 (Mandic et al., 2012), and the U.S. Department of Commerce, Census Bureau for education attainment of adults (Rosas & Winterman, 2014).

Families' Reported Knowledge and Understanding

The systematic review revealed that researchers used surveys to examine families' understanding or knowledge of the special education process and rights (n = 10; see Table 3). The reported studies were published between 1999 and 2021.

Study Characteristics.

A total of 748 parents or guardians participated in the studies, and the range of sample size was 10 to 143. One study also had teachers' responses (n = 98; Simon, 2006), and one study included students' responses (n = 93; Harrison et al., 2017). Four studies compared the parents' responses to other groups (Torres-Burgo et al. (1999) and Burke et al. (2020) compared Hispanic parents' responses with non-Hispanic parents; Simon (2006) compared the parents' responses with teachers' responses; Harrison et al. (2017) compared parents' responses with their

children's responses). Three studies compared parents' initial responses to the surveys with other data. Harrison et al. (2017) compared the qualitative parents' responses to their children's transition goals with the actual IEP documents, Lo (2005) compared parents' responses to the true or false questions on parent rights with the later interviews, and Fisher, Willis & Ransom (2020) compared parents' survey responses to open-ended responses.

Of the ten studies, four studies purposefully targeted CLD parents' knowledge (e.g., Torres-Burgo, Reyes-Wasson, & Brusca-Vega, 1999; Lo, 2005; Burke, Rios, Garcia & Magana, 2020; Rios, Aleman-Tovar & Burke, 2020). Beside the studies that targeted CLD parents, three studies reported the participants' race and ethnicity, which had White/Caucasians as the majority (Fish (2008) had 80% White participants; Harrison et al., (2017) had 59.14% White participants; and Fisher, Willis & Ransom 2020 had 81% White participants. Simon (2006) did not provide a numerical description but reported that the participants were mostly of African-American or Caucasian.

The researchers recruited parents through schools or community agencies. Four studies recruited their participants through schools (Torres-Burgo et al.,1999; Lo, 2005; Simon, 2006; Harrison et al., 2017), and five studies recruited their participants through support groups or communities (Spann et al., 2003; Fish, 2008; Fisher et al., 2020; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020), and one study recruited through both school districts and community agencies (Huscroft-D'Angelo et al., 2021). Only one study used contact database from national organizations such as TASH (Fisher et al., 2020) and other studies recruited through local special education support agencies (Spann et al., 2003; Fish, 2008; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020). Three studies were specific to parents of students with ASD (Spann et al., 2003; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020), and one

study was specific to parents of students with learning disabilities (Torres-Burgo et al.,1999). Of the studies that reported the ethnicity or race of the parents, five studies focused on parents from CLD groups (Torres-Burgo et al.,1999; Simons, 2006; Lo, 2005; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020).

Four studies used the Likert scale to examine parents' perception of their knowledge and understanding of the IEP process (Spann et al., 2003; Simon, 2006; Fish, 2008; Huscroft-D'Angelo et al., 2021). Three studies used dichotomous responses (Torres-Burgo et al., 1999; Lo, 2005; Harrison et al., 2017). Five studies assessed the parents' actual knowledge (Lo, 2005; Harrison et al., 2017; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020; Fisher et al., 2020). For instance, Lo (2005) study used a survey that consisted of 12 true or false questions on parental knowledge of legal rights and used interviews that further revealed how much parents understood. Harrison et al. (2017) assessed parents' knowledge of IEP goals by using a survey with a dichotomous *Yes/No* option for a question item that asked if parents were aware of employment goals and training goals for their children, and those who responded "yes" had to write a qualitative response about the goals, which was compared to the actual IEP documents. Fisher, Willis & Ransom (2020) first used a Likert Scale to know if parents had heard about *Endrew* and then followed up with an open-ended question that required the participants to explain what they knew about the case. Burke et al. (2020) and Rios, Aleman-Tovar & Burke (2020) used 10 multiple choice questions to assess parents' special education knowledge.

Study Findings

Readability of Special Education Documents

All five studies found that most of the documents were written at reading levels that were higher than levels many parents of students in special education could easily understand. For

instance, Fitzgerald & Watkins found only 4% to 8% of the procedural safeguards documents analyzed were at or below the 7th grade or 8th-grade reading level, and 92% to 96% of the documents were written at 9th to 10th-grade or higher reading level (Fitzgerald & Watkins, 2006). Using the New Dale formula, which used word-based to analyze readability showed, they found that 20% of the documents were written at the college level or higher, and with the Flesch Grade Level formula, which used syllable-based, they found that 50% were written at the college or higher level. They also looked at other readability characteristics that could impact readability and found varying outcomes. For instance, the modal print size was 11, but a few documents used points smaller than 8, and the majority of documents did not have a glossary or table of contents.

Mandic et al. analyzed the procedural safeguard documents in 2006, and the documents included some drafts of the procedural safeguards because the regulations of the reauthorized IDEA were made public in June 2005 (Mandic et al., 2012). Using the revised SMOG, they found the mean reading level was grade 16, and while only 6% of all the documents (3 states) were written in the high school reading level, 55% of the procedural documents were in the college level, and 39% were written in graduate level. They also found a mismatch between the readability of the procedural safeguard documents and the estimated reading level for the majority of parents of students with disability.

In 2016, Gray et al. updated the Mandic et al. study, and similar to the previous studies, they found that all documents were written at or above the 11th-grade reading level (Gray et al., 2019). Similar to Mandic et al., the mean of these documents was between 16th and 17th-grade reading levels. Moreover, “74% of the documents scored at a graduate reading level” (p. 377). When the documents were segmented into different sections, the most challenging section was

Disciplining Students with Disabilities, and the least challenging section was *Due Process Impartial Hearing*.

Like the readability of different procedural safeguards, the readability of IEPs was also higher than the intended audience's literacy level. Lo found that when the New Dale-Chall formula was used, all IEP sections were written at the college graduate level, and when the Flesch Reading Ease formula was used, all but one section of the IEP, the Parent Concern section, were written at or above the high school reading level (Lo, 2014). Similarly, Rosas & Winterman found that when Fry's Readability Index was used, the sample IEPs and special education handbooks/manuals were written at the mean grade level of 12.85 and 13.58, respectively (Rosas & Winterman, 2008).

Parents' Reported Knowledge and Understanding

Overall, the majority of parents reported that they were knowledgeable about the IEP process and the legal rights. Spann et al. (2003) examined parents' involvement and perceptions of special education services, and one of the questions asked, "What is your degree of knowledge with the IEP document? (low, moderate, or high)" (Spann et al., 2003). The result showed that 78% believed they had high to moderate knowledge of their children's IEPs, but 27% answered low. More specifically, parents of the age group of 4-5 years represented the highest percentage to report "high" knowledge, and the age group of 6-9 years had the lowest percentage of "high." The parents of the age group of 4-5 years represented the lowest percentage to report "low" knowledge, and the age group of 15-18 years had the lowest percentage of "low."

Lo (2005) assessed Chinese parents' knowledge of special education legal rights using true and false responses (Lo, 2005). The survey results showed that the parents were

knowledgeable about their legal rights, and the mean score was 9.2 out of 12 points. However, the open-ended interview found that parents were not aware of some legal rights.

Fish (2008) surveyed parents to investigate their perceptions of IEP meetings, and one section asked about the parents' knowledge of special education law (Fish, 2008). Fish found that 39% agreed, and 24% strongly agreed that they had a clear understanding of the IEP process. The majority believed that they had sufficient knowledge of special education law, and 44% of parents acquired their knowledge of special education law by self-education.

Fisher, Willis & Ransom (2020) surveyed parents' knowledge about the Endrew vs. Douglas County School Board decision using both the Likert Scale and open-ended responses (Fisher et al., 2020). They found that 57% of parents had never heard of *Endrew,* and 40% reported that they "heard of *Endrew* and want to know more" (p. 6). The open-ended follow-up question asked those participants who answered that they knew about *Endrew* to explain what they knew about the case, and although 36 participants answered the question, the results showed most parents were not knowledgeable about the case.

Rios, Aleman-Tovar & Burke (2020) explored Latina mothers' perceptions of stress regarding the IEP meetings, special education knowledge, and family-professional partnerships using both surveys and interviews (Rios, Aleman-Tovar & Burke (2020). They assessed special education knowledge using ten multiple-choice questions, and each question had one correct answer. The multiple-choice results showed that the percentage of correct responses ranged from 0% to 70%, with 60% as the mode. During the interviews, all mothers reported having insufficient special education knowledge, and of those mothers, three mothers reported having some education knowledge, and six mothers reported attending trainings and support groups to increase their knowledge.

Recently, Huscroft-D'Angelo et al. (2021) examined parents' knowledge about special education and how they access resources (Huscroft-D'Angelo et al., 2021). The survey domains included in the study were *Obtaining Special Education Resources* and *Special Education Topics and Knowledge*. In the *Special Education Topics and Knowledge* section, the survey included availability of information, parents' knowledge, and parents' preference for information (the response options were *Very Little*, *Some, Adequate*, and *A lot*). Overall, the majority of parents reported having "Adequate" or "A lot" in their knowledge of Parents' Rights, IEPs, and Communication. The greatest percentage of parents reporting "A lot" was on "How often IEP meetings will occur" (59.4%), and the greatest percentage of parents reporting "Very Little" was on "How any disagreements I have with the school will be resolved" (17.3%). When asked "how well they currently believe they understand how special education services work at their child's school" (p. 9), they reported having an Excellent (22.6%), Good Understanding (40.6%), Adequate understanding (24.8%), Poor (9.0%) and Not well at all (2.3%).

Comparison of Perceptions. Four studies compared parents' perceptions with either teachers, students, or parents of different ethnicities/races. Torres-Burgo et al. (1999) studied parents' perspectives on the special education process and compared Hispanic parents with non-Hispanic parents (Torres-Burgo et al.,1999). One of the sections of the survey was on the "Knowledge of and involvement in the IEP process," and the section in the survey required a Yes/No response. They found that Hispanic parents (56%) had their rights explained to them less than non-Hispanic parents (90%), professionals asked Hispanic parents (56%) less if they understood their children's IEP than non-Hispanics (91%), Hispanic parents (59%) were less aware of the severity rating assigned to their children's learning disabilities than non-Hispanic

parents (100%), and Hispanic parents (53%) were less aware of the services provided by the school than non-Hispanic parents (100%).

Simon (2006) compared the perspectives of parents and teachers on the IEP requirements and also compared the responses by the students' education levels the participants were associated with. The survey assessed five functions of the IEP requirement: Communication Vehicle, Opportunity for Resolving Difference, Commitment of Resources, Management/Compliance Tool, and Evaluation Device. For example, one item using a five-point Likert scale (from *strongly agree* to *strongly disagree*) asked, "I am supposed to agree with all IEP team decisions." The study used twenty-five sets of contrasting statements. The results showed that teachers had significantly higher average total scores than parents, and significantly higher ratings were reported by the parents at the early childhood level and parents at the secondary level.

Harrison et al. (2017) compared how knowledgeable the students and parents were about the employment and training goals described in the IEPs (Harrison et al., 2017). The researchers asked if the parents and students knew their employment and training goals via survey, and those who answered "yes" had to answer the qualitative response follow-up question. Then the researchers compared the survey to the actual IEPs. The results showed that regarding the awareness of employment goals, 56 parents reported they knew the IEP employment goals for their children, but of the 56, only 29% matched the IEP goals. For awareness of training goals, of the 52 parents who reported knowing the goals, only 37% matched the IEP goals. The results also showed a mismatch between students and parents.

Lastly, Burke et al. (2020) compared Family-Professional Partnership, Special Education Knowledge, and Empowerment among Latino families and white families (Burke et al., 2020).

They assessed special education knowledge using ten multiple-choice questions, and each question had one correct answer. They found a significant difference between the two groups with respect to special education knowledge, and Latino families reported less special education knowledge than White families. The only question that had no significant difference was on question item, “At what level does the federal government fund IDEA?” which had a low correct answer rate from both groups (Burke et al., 2020, p. 79).

Discussion

The primary purpose of this systemic review was to explore the different features and findings of research studies used to quantifiably estimate how much parents of SWDs understand and know about the special education process and their rights. This systematic review only looked at research studies that used quantitative or mixed-method studies and excluded interventions studies because qualitative studies' findings showed widely varying experiences and knowledge of parents of SWDs on special education process and rights (e.g., Rossetti et al., 2021; Salas, 2004) that are not generalizable, and many parents of SWDs also reported not attending special education training programs (Huscroft-D'Angelo et al., 2021). Despite the fact that the special education process and rights is fundamental for effective advocacy for parents of SWDs (Dinnesen & Kroeger, 2018; Rossetti et al., 2021; Simon, 2006), there has not been a systematic review that reviewed only parents' knowledge and understanding of the special education process and rights. Therefore, determining parents' special education knowledge is important for stakeholders such as researchers, teachers, policymakers, and parent support group leaders.

Overall, given the wide timeframe (over 20 years) of this systematic review, parents' understanding and knowledge of the special education process and rights have been sporadically

studied using quantifiable measures (n = 15). The majority of the studies (n = 10) measured parents' knowledge using indirect methods by analyzing the readability of special education documents (Fitzgerald & Watkins, 2006; Lo, 2014; Mandic et al., 2012; Rosas & Winterman, 2014; Gray et al., 2019) or inquiring parents' perceptions (Torres-Burgo et al., 1999; Spann et al., 2003; Simon, 2006; Fish, 2008; Huscroft-D'Angelo et al., 2021).

Readability of Special Education Documents

The readability studies analyzed the essential documents parents receive from the schools: the procedural safeguards and IEP documents. All studies concluded that these documents were written at a level that could be too difficult for parents to comprehend. Fitzgerald & Watkins' study and Mandic et al.'s study analyzed the readabilities of the procedural safeguards documents in the early 2000s, which was around the reauthorization of IDEA 2004, and both studies concluded that the procedural safeguards documents are written at a level that may be too high for parents of students with disabilities to read (Fitzgerald & Watkins, 2006; Mandic et al., 2012). A decade later, however, Gray et al. still found that no procedural safeguard documents in all 50 states and DC were written below the 11th-grade level (Gray et al., 2019). According to Mandic et al., the majority of parents of SWDs are more likely to have a lower level of education and more likely to have limited literacy than the general population (Mandic et al., 2014). Consequently, this mismatch between the high readability level of special education documents and parents' reading levels could lead to impractical use of these documents for many parents.

The purpose of providing the procedural safeguard and IEP documents to parents is to ensure parents understand their outlined rights and their children's education plan so they can be part of their children's education (Gray et al., 2019; IDEA, 2004). However, if these documents

are written at levels that are difficult to comprehend for many parents, these parents would be at risk of not knowing their rights even when they are violated, not being able to fully engage in the IEP meetings, and not being able to advocate for their children. Moreover, the high readability level of these documents could mean that without further assistance or guidance, most parents who are not educated or have language barriers would have limited knowledge about special education rights and their children's IEP documents.

The readability studies' results parallel findings from parents' interviews. Parents of SWDs reported that the procedural safeguards documents were hard to read and impractical (Dinnesen & Kroeger, 2018), and parents want these important documents to be written in everyday language (Fisher, Willis, & Ransom, 2020). These results may also show why parents with lower income, education, or CLD backgrounds have repeatedly reported their lack of special education knowledge even though they were given these special education documents from schools every year.

Parents' Reported Knowledge and Understanding

Of the research studies that examined the parents' perceptions, overall, the majority of parents reported that they knew or understood the IEP process and their rights. Five studies used Likert Scales to explore parents' perceived understanding (Fish, 2008; Fisher, Willis, Ransom, 2020; Simon, 2006; Spann, Kohler & Soenksen, 2003; Huscroft-D'Angelo et al., 2021). However, some studies were collected through parent support groups and community agencies (e.g., Fish, 2008; Spann et al., 2003; Fisher et al., 2020), and additionally, these studies did not have participants that reflected the racial distribution of the general special education population (e.g., Fish, 2008; Fisher et al., 2020) which may not accurately represent the general parent population. Also, parents from support groups may have a greater level of understanding and

resources through support groups than parents who are not associated with parent support groups (Kalyanpur et al., 2000; Cho & Gannotti, 2005; Lalvani, 2012). Additionally, many parents of SWDs have reported that parents do not get resources from support groups. For instance, Huscroft-D'Angelo et al. asked the parents of SWDs if they ever got their sources of information about special education from local parent support agency staff, and 24.8% reported only "once or twice," and 32.3% of parents reported "never" (Huscroft-D'Angelo el al., 2021, p.6). Therefore, the overall synthesized results of parents understanding from perception studies should be interpreted with caution.

Instead of just estimating or seeking parents' perceptions of knowledge, five studies assessed parents' actual knowledge and understanding of the special education process and rights (Lo, 2005; Harrison et al., 2017; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020; Fisher, Willis, Ransom, 2020). These studies measured the parents' knowledge by asking multiple choice questions that had only one right answer (Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020), true or false questions (Lo, 2005), or comparing parents' answers with other data such as the actual IEPs (Harrison et al., 2017) or qualitative answers (Lo, 2005; Fisher et al., 2020). Unlike the studies that only reported the perceptions, overall, these studies showed that parents' actual knowledge and understanding were limited (Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020) or less than parents' perception of their knowledge (Fisher, Willis, Ransom, 2020; Harrison et al., 2017; Lo, 2005). For instance, both in Harrison et al. (2017) and Fisher et al., (2020), the parents reported having knowledge, but the qualitative answers showed that they did not have a good understanding (e.g., Fisher et al. study showed most parents who reported that they knew about *Endrew* were not knowledge about the case, and Harrison et al.'s

study showed most parents had their children's transitions goals wrong when compared to the actual IEP documents).

Finally, the survey studies were also synthesized by sample characteristics, which showed four studies had specifically targeted parents with CLD backgrounds (Torres-Burgo et al.,1999; Lo, 2005; Burke et al., 2020; Rios, Aleman-Tovar & Burke, 2020). All of the studies showed parents with CLD backgrounds were less knowledgeable about the special education process and rights. Two of the four studies (Torres-Burgo et al.,1999; Burke et al., 2020) compared Latino parents with White parents, and both studies had Latino parents being less knowledgeable about special education than White parents. These results align with earlier findings from the readability studies and other qualitative studies that reported parents of SWDs with CLD backgrounds to lack or have limited knowledge about the special education process and their rights.

Limitations

There are several limitations to this review. The systematic review revealed that parents' understanding and knowledge of the special education process had been a very sparsely researched area. For instance, besides the readability studies that met the criteria for this systematic review, the reference search from the readability studies only resulted in two other studies (e.g., Roit & Pfohl (1984) examined the readability of procedural safeguard, and Pizur-Barnekow et al. (2010) examined the readability of Individualized Family Support Plan). However, it may be possible that more changes have been made to the procedural safeguards since Gray et al.'s study, which was conducted in 2016, and dissertations could have already explored the readability of special education documents.

Another limitation of the studies that examined the perspectives of parents is that most of the studies had small sample sizes and included samples that were not racially/ethnically diverse. Moreover, many of the participants were recruited from special education community support groups. Thus, the results may not represent the general population of parents with students in special education.

Summary of Implications and Future Research

Although the majority of parents reported that they knew their rights and had a good understanding of the IEP development process and/or the IEP documents, their perceived knowledge could be mismatched with their actual knowledge, as shown through Harrison et al.'s comparative survey study about parents' knowledge of the transition goals (Harrison et al., 2017), Lo's interviews (Lo, 2005), and Fisher et al.'s open-ended responses (Fisher et al., 2020). One's perceived knowledge and actual knowledge may differ because perceived knowledge is influenced by many other factors (Radecki & Jaccard, 1995). Therefore, more studies should explore parents' actual knowledge of special education process and compare the results to parents' perceived knowledge.

It is also worth noting that although not all studies included racial and ethnic information of the participants, parents of CLD backgrounds were less represented in some of the studies. CLD students are disproportionally represented in special education, but many of the studies did not reflect the demographic distribution. Although there have been studies that purposefully targeted CLD parents' knowledge (e.g., Torres-Burgo, Reyes-Wasson, & Brusca-Vega, 1999; Lo, 2005; Burke, Rios, Garcia & Magana, 2020; Rios, Aleman-Tovar & Burke, 2020), more studies need to examine the knowledge of parents with CLD backgrounds and lower-income level using large scale participants with a quantifiable method.

Another important gap that needs to be explored is to quantifiably gather information on "why" parents have a hard time understanding the special education process. Past qualitative studies have repeatedly reported barriers, such as an unbalanced dynamic of IEP meetings, lack of time and resources, cultural differences, lack of communication, and language barriers (Kalyanpur et al., 2000; Wolfe & Durán, 2013). It would be worthwhile to explore more in-depth analyses using quantitative surveys based on the past qualitative studies to understand from the parents on "why" and also on "what" changes could help them overcome these barriers. Even though this systematic review showed the majority of parents reported being knowledgeable, if the same groups of parents were left out and constantly responded that they lack the fundamental knowledge of the special education process, there could be a systematic issue that needs to be addressed.

We can also draw implications for policymakers from this review. For example, it is essential that policymakers know that parents struggle to have basic knowledge and understanding of the special education process required for meaningful participation. Results from this systematic review showed the following: the documents provided by the schools are often too complicated for many parents to understand, parents of CLD backgrounds were repeatedly showing less knowledge than White parents, and it is possible that parents who reported being "knowledgeable" about the special education process and their rights could be not fully comprehending.

In recent years, states' education departments have been providing resources through their websites for parents of students with disabilities; however, the most frequently provided resources provided to parents from these websites are on dispute resolution, and resources on IEPs are second(Farley et al., 2020). Given the fact most parents do not use the option of due

process, such information may be less useful for most parents of students with disabilities (Farley et al., 2020). States should work on ways to improve parents' understanding by providing more information that may be more relevant to the targeted audience with greater accessibility.

Along with providing more accessible and useful information for parents, policymakers should consider engaging teachers and school personnel to improve parents' knowledge on the basic special education process and rights. Although the internet provides great information and resources on special education, many parents do not use the internet to find special education information. Huscroft-D'Angelo et al. (2021) found that the majority of parents reported that they did not visit their states' department of education websites for information, and the majority of parents reported visiting other regional or national websites either "Never" (39.8%) or "Once or Twice" (27.8%) (Huscroft-D'Angelo et al., 2021). They also found that most parents get their information about their rights and resources from the school (Huscroft-D'Angelo et al., 2021). Policymakers should leverage this knowledge and require the school systems to provide more support, such as training the parents on the fundamental knowledge of the special education process and their rights, so that regardless of their backgrounds, parents can be active, participating members of the IEP team.

Conclusion

The U.S. special education system is a product of parents' advocacy, and since the inception of the special education law, parents have played a vital role in the lives of students with disabilities. Many previous studies have shown positive outcomes when families are involved in students' education. One important way that parents of children with special education needs can impact their child's success is to be fully engaged in the IEP process. This requires parents to have a basic understanding and foundational knowledge about the process

itself. Unfortunately, past literature reviews on parents' experiences and perceptions of the special education process have shown the struggles many parents endured during the IEP process due to barriers such as lack of special education knowledge and language barriers (Reiman et al., 2010; Wolfe & Duran, 2013). Even though parents' special education knowledge is vital, there has not been a literature review that only explored parents' special education knowledge. The current systematic review sought to add to the literature by examining the different creative research studies used to quantifiably measure parents' understanding of the special education process and special education rights. The current study also revealed the sparsity of research on this topic and shared the implications for practice that could improve parents' special education knowledge. As mentioned in the beginning, parental involvement has been stated as *one of the cornerstones of special education*. Although it has been too often overlooked, we should remember that parents' special education knowledge *is* the cornerstone of parental involvement.

Chapter 3: A Mixed Method Design Examining Parents' Knowledge of Special Education Process and Resources

To ensure parents have access to participate in Individualized Education Program (IEP) team meetings, the Individuals with Disabilities Education Act (IDEA) grants parents the right to be part of the IEP team and layouts the procedural requirements schools must follow to ensure parent-school cooperation (Phillips, 2007; Zirkel, 2016). Moreover, IDEA also requires schools to provide procedural safeguards notice to the parents. The regulation states that **"**a copy of the procedural safeguards available to the parents of a child with a disability must be given to the parents…" (§300.504) at least annually. The procedural safeguards document must include the parents' rights on (1) Independent educational evaluations; (2) Prior written notice; (3) Parental consent; (4) Access to education records; (5) Opportunity to present and resolve complaints through the due process complaint and State complaint procedures, and more (see Sec. 300.504 Procedural safeguards notice). Moreover, the procedural safeguards must include "a full explanation of the procedural safeguards, written in the native language of the parents (unless it clearly is not feasible to do so) and written in an easily understandable manner" (20 U.S.C. § 1415 (d)(2)). The intention of this law was to ensure that parents of students with disabilities know their rights so they can participate and advocate for their children in the special education process. As the Supreme Court in *Board of Education v. Rowley* stated, "It seems to us no exaggeration to say that Congress placed every bit as much emphasis upon compliance with procedures giving parents and guardians a large measure of participation at every stage of the administrative process" (*Board of Education v. Rowley,* 1982, p. 206*).*

Benefits of Parental Involvement and Engagement

When parents are involved in their children's education, studies have shown positive outcomes for students. Studies have shown parents of SWDs' expectations for their children had a significant positive relationship with their academic achievements (Flores de Apodaca et al. 2015), and parental involvement and advocacy have led to students receiving better services and improved IEP goals (Childre & Chambers, 2016; Goldman & Burke, 2017). Subsequently, Congress became aware of the benefits that parent-school collaboration can bring. In fact, Congress even stated in the Act that one of the ways the education of children with disabilities can be more effective is by "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" (20 U.S.C. § 1400 (c)(5)(B)).

Varying Knowledge of Parents

While schools typically provide procedural safeguards and resources to all parents to inform their rights and process, authors of studies who administer interviews and knowledge assessments of parents' knowledge reflect widely varying levels of parental knowledge of special education rights and process (Kim, 2024). For instance, several studies reveal a lack of knowledge and disparity in knowledge across race and income levels. For example, evidence exists that Latino families with limited English proficiency have less knowledge about special education than White families (Burke et al., 2020; Torress-Burgo et al., 1999), parents with higher SES levels have a better understanding of special education placements (Lavani, 2012); and immigrant families have difficulty understanding what was discussed during the IEP meeting even with translators (Cho & Gannotti, 2005; Lo, 2008; Park & Turnbull, 2001; Park, Turnbull, & Park, 2001). On the contrary, there are also parents who attend different parent trainings and

support groups and devote an ample amount of time to learning about their rights and different resources (Rossetti et al., 2021; Rios & Burke, 2020).

One potential reason is that information about services and parents' rights provided through written materials in English is often written at a higher literacy level for some parents, especially parents with limited literacy level or non-English speaking immigrants parents (Fitzgerald & Watkins, 2006; Kalyanpur et al., 2000). For instance, most procedural safeguards documents are written at the college level or higher, even though the estimated reading level for many parents with disabilities is lower than the college level (Fitzgerald & Watkins, 2006; Mandic et al., 2012; Gray et al., 2019). Moreover, the written IEPs are often written at a level that is difficult for many parents to understand (Lo, 2014).

Knowledge is Important for Advocacy, but Barriers Exist

The ultimate purpose of parent participation in IEP meetings is to make a difference in their child's life, but without knowing their rights and/or having a full understanding of what professionals are presenting, parents may not be able to effectively advocate for their child nor be able to discern when their rights and their child's rights are being violated. Thus, possessing the basic knowledge of special education rights and the process is important for all parents, and especially important for parents who are in low-resourced communities, as many children living in low-resourced school districts are more likely to attend schools that fail to provide adequate education to students (Cartledge & Dukes, 2008).

Parents are more likely to advocate for their children when they have knowledge about their rights, social-communication strategies, and their child's disability (Burke et al., 2018). In mainstream middle-class American culture, acquiring knowledge of relevant issues for a

successful negotiation is expected, but acquiring relevant knowledge and skills may be harder for low-SES parents and parents who come from different cultures (Kalyanpur et al., 2000), which could hinder these parents from advocating for their child (Burke et al., 2018). Moreover, not only does written language bar many parents from understanding their rights, but educational professionals often use terminology and abbreviations without clearly informing parents (Park & Turnbull, 2001). Even greater confusion exists when parents are non-native English speakers (Park & Turnbull, 2001). When parents do not fully comprehend the terms used in the field, "conversations in meetings tend to be led by professionals with uninformed agreement from the parents" (Park & Turnbull, 2001, p. 140).

Why it is Important to Know the Difference Between Perceived and Actual

A research synthesis study on parents' understanding of special education rights and process revealed that scholars have sought to assess parents' knowledge using different methods (Kim, 2024). The synthesis identified ten studies that explored parents' knowledge of the special education rights and process either using the quantitative design method or mixed design method, and of the ten studies, four studies asked about parents' perceived knowledge of special education, and five studies assessed parents' actual knowledge through multiple choice questions, true and false questions, or qualitative methods such as open-ended responses and interviews (Kim, 2024). Also, when assessing parents' knowledge and understanding, the term "knowledge" has been used interchangeably for both "actual knowledge" and "perceived knowledge." However, studies that assessed both parents' self-reported knowledge and actual knowledge through interviews or open-ended responses showed some parents were not as knowledgeable as they reported (Kim, 2024). Different academic disciplines have suggested that actual knowledge (or factual knowledge) and perceived knowledge are two different constructs

(Hansford & Hattie, 1982; McMahon et al., 2020; Ladwig et al., 2012). For instance, a science communication study has shown that perceived knowledge and actual knowledge about emerging technology were two different knowledge constructs due to low correlations between the self-reported perceived knowledge and actual knowledge, and different predictor variables influencing different models (Ladwig et al., 2012). Therefore, to better understand parents' knowledge of special education, it is important to examine if parents' perceived knowledge is different from actual knowledge and what different variables could be contributing to parents' perceived and actual knowledge.

Theoretical and Conceptual Frameworks

Three frameworks support this study: the Knowledge Gap theory, Family empowerment and Social-Cultural Capital theory. The Knowledge Gap theory is a theory used in communication science, and it suggests that different media exposure further increases the gap in understanding among the SES groups (Su et al., 2014). Family empowerment is also an important framework because empowerment has been linked to parent advocacy.

Knowledge Gap Theory. The knowledge gap theory was first introduced by Tichenor, Donohue, and Olien (1970), and it states, "as the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status tend to acquire this information at a faster rate than lower [socioeconomic] status population segments, so that the gap in knowledge between theses segments tends to increase rather than decrease" (p.159). The theory suggests that the increase in media exposure influences the inequalities in socioeconomic status (Su et al., 2014). The gap between access to media and SES has been studied by many communication studies scholars for varying realms such as political knowledge, medical knowledge, scientific knowledge, etc. For instance, some studies have shown that the

complexity of newspapers has contributed to widening the knowledge gaps (Gaziano, 2016), and showed that there were knowledge gaps between the education level for issues that are important to less educated individuals, such as health knowledge (Gaziano, 2016). These knowledge gaps, however, were narrowed by other factors such as interest, attention, involvement, and motivation (Gaziano, 2016).

Borrowing from the field of communication studies, this theory is relevant to this study because the readability of procedural safeguards documents and other documents provided to parents of students with disabilities has shown to be too high for many parents (Kim, 2024). Additionally, parents in higher SES groups reported joining support groups and are more likely to connect with other groups (Lalvani, 2012). Many studies have also shown parents with fewer resources and limited English proficiency have also struggled to understand the special education law and process, and these parents also had less understanding and knowledge than the counter white-English-speaking parents (Burke, Rios, Garcia & Magana, 2020; Lo, 2015; Torres-Burgo et al., 1999).

Family Empowerment. The notion of empowerment is another important framework. Family empowerment is an important component for increasing services for students with disabilities (Koren et al., 1992). In many special education parent training interventions, family empowerment scale has been an important scale used frequently for parent training programs as family empowerment has been seen as an important element for advocacy (Burke et al., 2020). According to Koren, DeChillo & Friesen, empowerment is both "a process and a state, as both an individual and collective characteristics, as an attitude, perception, ability, knowledge and action, and as a phenomenon that can be manifested in a range of circumstance and environment" (Koren, DeChillo & Friesen, 1992, p. 306) and it is an one's capacity to act on their own to

“achieve a greater measure of control” (p. 308). One of the important aspects of empowerment is *knowledge*. Staples believed that "In addition to transformations in consciousness, beliefs, and attitudes, empowerment requires practical knowledge, solid information, real competencies, concrete skills, material resources, genuine opportunities, and tangible results" (Staples, 1990, cited in Koren et al., 1992, p. 307). Thus, parents who are in IEP meetings seeking to improve services for their children would need to be empowered, and having knowledge about their rights provides a foundation for advocating for their children.

Social-Cultural Capital Theory. According to the theory, social capital and cultural capital allow a person to exercise power over individuals with resources (Bourdieu, 1985). Cobb described that Bourdieu’s (1985) theory of social-cultural capital could explain the systematic barriers faced by parents from CLD backgrounds because awareness of special education knowledge, language, and philosophy will influence the interaction between school and parents (Cobb, 2014). According to Cobb, parental involvement has three entangled dimensions (perceptions, people, and systems), but for parents from CLD backgrounds, social capital could be affected in all three dimensions. First, parents’ perceptions could be negatively influenced by their unawareness of the services and terminology. Second, the relationship (i.e., people) may be influenced by the language barriers. Lastly, providing certain information to certain groups of people, perhaps due to language barriers, could lead to schools filtering parents from CLD backgrounds to participate less in the special education process (Cobb, 2014).

Study Purpose

Many researchers have examined parents’ and explored parents’ knowledge on special education rights and process by examining either parents’ perceived knowledge and their actual knowledge (Kim, 2024), but no study has investigated the relationship between parents’

perceived knowledge and actual knowledge. Moreover, knowledge is an essential component needed for parents to effectively advocate for their children, but no previous studies exist examining the relationship between empowerment, actual knowledge, and perceived knowledge. The purpose of this study is to measure parents of SWD's' perceived knowledge and actual knowledge of the special education rights and process, and analyze which factors (demographics, special education training and reading procedural safeguards) contribute to parents' knowledge (perceived and actual) and empowerment. Additionally, the study explored what information parents with CLD backgrounds want to know. More specifically, this study will address the following research questions:

1) Is there a difference between parents' perceived knowledge vs. their actual knowledge?
    a. What variables (i.e., education, income, child's disability, special education training, and reading procedural safeguards) influence parents' actual knowledge?
    b. What variables (i.e., education, income, child's disability, special education training, and reading procedural safeguards) influence parents' perceived knowledge?
2) Is there a relationship between parents' knowledge (actual and perceived) and empowerment?
3) Will previous participation in a special education training or reading the procedural documents narrow, widen, or have no effect on actual special education knowledge gaps between high and low-SES parents?

4) What information do parents with CLD backgrounds want to learn about special education and what are the best methods to deliver this information?

Methods

A mixed-method design was used to answer the research questions. A survey study design was used for the first three research questions. The fourth research question was answered through a focus group qualitative study design.

Survey Study Design

Instrument Development

The instrument development consisted of a multi-step process, including a cognitive interview, computing a content validity index, and a pilot study.

Initial Cognitive Interviews. In order to assess the respondents' understanding of the question items (Knafl et al., 2007), the initial proposed questionnaire was administered to two bilingual mothers of students with disabilities. The mothers provided feedback on the survey items as well as the instructions. The original survey included three sections: Perceived Knowledge (5 items), Actual Knowledge (5 items), and Special Education Resources-seeking Behavior (3 items). Through the mother's feedback, I identified issues with some of the wording of some of the question items. For example, some items were worded in ways that were confusing (e.g., "private expense" and "terms"), and one question item on discipline was perceived to be too difficult to answer. Revisions were made based on the feedback.

Content Validity Index. The revised question items for Perceived Knowledge, Actual Knowledge, and Special Education Resources Seeking Behavior were assessed for content validity with a content validity index (CVI). Three experts rated the question items using a 4-

point scale for Relevancy (1-Not relevant, 2-Item needs some revision, 3- Relevant but needs minor revision, 4-Very relevant) and Clarity (1-Not clear, 2- Item needs some revision, 3-Clear but needs minor revision, 4- Very Clear) (see Appendix B). I also created a comment section for any additional comments or feedback for the question items. The first expert was a special education attorney with around 30 years of experience. The second expert was a director of a special education parent support organization with around 30 years of experience. Finally, the last expert was also a director of a Community Parent Resource Center (CPRC) with around 10 years of experience. Upon the feedback from the first expert, two questions scored "item needs some revision" or "not clear", which were also question items that were hard for the mothers in the cognitive interviews. Both questions were deleted, and two new questions were created by the author and added, which were again reviewed by the first expert. The revised question items were sent to Expert 2 and Expert 3, and upon small minor revisions, all the items scored "very relevant" and "very clear" with CVI equal to 1.00. When there are less than six experts, all the experts must agree with the CVI of 1.00 (Polit et al., 2007). The experts also provided feedback on the survey instructions to ensure the readability of the survey.

Pilot Study. The questions were piloted with families of students with disabilities (*n* =12), with high reliability (alpha = .98). Moreover, the pilot study asked, "Which advertisement would you click?" and the advertisement with the most frequency was used for the recruitment. The instrument and advertisements were reviewed and approved by the University of Maryland, College Park Institutional Review Board (IRB).

Independent Variables Measures

Special Education Resources Seeking Behavior. Five items were used to understand how parents obtain special education knowledge (see Appendix C for the full survey). The

questions asked about if parents had special education training in the past, the length of the training, if they had heard of their state's PTI, and if parents read the procedural safeguards and their understating of the procedural safeguards.

Demographics. The survey included information about income, education level, child's primary disability category, child's grade level, race/ethnicity, and language at home.

Dependent Variables Measures

Perceived Knowledge. The first dependent variable was the perceived knowledge scale. Five question items were initially designed from the literature (Fish, 2008; Huscroft-D'Angelo et al., 2021; Simon, 2006; Spann et al., 2003), and slight revisions were made through the process described earlier. For example, one item from Simon (2006) asked, "I am aware of the actions I should take if I disagree with an IEP team decision," was revised to "I know the steps I can take if I disagree with an IEP team decision." Each question had an answer choice with a 5-point Likert Scale from *Strongly Disagree* to *Strongly Agree* (see Appendix C).

Actual Knowledge. The second dependent variable was the actual knowledge scale. For the actual knowledge questions, a total of five items were used and each question had only one correct answer choice. The question items assessed basic special education knowledge that can be found in a procedural safeguards document. The questions were a combination of the Special Education Knowledge Scale from a previously conducted survey (Burke, et al., 2020) and author-created items (Appendix C).

Family Empowerment. A subscale of the Family Empowerment scale by Koren, DeChillo, and Friesen (1992) was used as the third dependent variable. For this study, only the items at the Service System level were used, and it consisted of 12 questions from the three

expressions: attitude (e.g., *I feel that I have a right to approve all services my child receives*), knowledge (e.g., *I know the steps to take when I am concerned my child is receiving poor services*), and behaviors (e.g., *I make sure that professionals understand my opinions about what services my child needs*). Each item has a five-point Likert scale ranging from *Not at All* to *Very True* (see Appendix C-1*)*. The subscale of the Service System has been used in past studies, and the subscale indicated high reliability (e.g., alpha = .89, Burke, Rios, Garcia & Magana, 2020).

Recruitment

The approved recruitment message by the IRB was sent to all the Parent Training and Information Centers (PTI) and Community Parent Resource Centers (CPRC) (*n*=90) organizations via email or the organization's contact page. The recruitment emails were also sent to 5 national organizations, and one organization approved the distribution of the survey (see Appendix D-1). The recruitment messages were sent out to 56 local organizations and to the national parent online community.

Eligibility Criteria

The eligibility criteria for the survey were 1) 18 years or older, 2) the child must currently have an IEP, and 3) the child's age is between 3 and 26. The responses were collected from January 4, 2024, to February 24, 2024.

Participants

A total of 116 participants were included in the survey study. The majority of participants were White (*n*=92, 79%) and Black (*n*=18, 16%), and of the responses, 20% were Latino (*n*=23). Most of the participants spoke English at home (*n*=111, 96%). Of the 116 participants, 47% of the participants fell in the income range of $50,000 - $150,000, and 65% of the

participants had an education level at or above a four-year degree. As for the child's grade level, 48% of the participants had their children in Elementary School, and as for the child's disability category, 36% selected autism (see Table 4 in Appendix F).

Data Analysis

Qualtrics was used to collect the survey responses. I sought to reach parents with diverse experiences and diverse backgrounds so the survey was accessible to anyone with the link. In order to minimize BOT and spam (Lawlor, 2021), I turned on BOT detection and prevented multiple submissions as recommended by Qualtrics. Upon recognizing some responses that were not legitimate, I made restrictions by adding a Display Logic where only people in the United States could view the consent form and proceed to the survey. I also added four open-ended questions for fraud detection purposes. To ensure the quality of the data, the following procedures were made when data cleaning: 1) I only included survey responses that scored .9 or 1 for the BOT detection score, 2) I deleted if the survey duration was logically too short, 3) ensured the response was logical (e.g., For example, if a response answered "I never to training" but answered the durations for the training, the responses were deleted), and 4) I deleted if responses had other anomalies such as multiple submission with the same duration with the same starting and finishing time. The total responses collected totaled 116 (n=116).

To answer the first three research questions, Mplus and Stata were used. In order to answer the relationship between perceived knowledge, actual knowledge, and empowerment, confirmatory factor analysis (CFA) in the structural equation model was used because special education knowledge and empowerment are construct variables, and SEM "eliminates random error measurement for the observed variable associated latent variable" (Dimitrov, 2006, p. 429). Monte Carlo simulation was utilized to address the statistical power of the models. Ordinal

logistic regression was used to examine which predictor variables influenced actual knowledge with Stata, and multiple regression was used to examine which predictor variables influenced perceived knowledge with Stata.

Focus Group Study

A phenomenological qualitative research design was used to explore what resources and information CLD parents seek through focus group interviews. A phenomenological study is interested in the "lived experiences" and is well suited to studying emotional human experiences (Merriam & Tisdell, 2016).

Question Development

The focus group questions were reviewed by a first-generation bilingual parent of a son with disabilities to make sure the questions were understandable and relatable. The questions were further reviewed by an expert qualitative studies professor, and changes were made based on the feedback.

Pilot Focus Group Study

A pilot study was conducted by two bi-lingual parents of students with disabilities to ensure the understanding of the focus group questions and the flow of the responses. The focus group was through Zoom. In response to the parents' feedback that it would be helpful to share the question in the chat to visually display the question after saying it orally, I made this change during the actual focus groups.

Recruitment

Participants for the focus groups were recruited using three different methods. The first set of participants was identified through a survey question that allowed participants to opt into a follow-up focus group (see Appendix D-2). To recruit the second set of focus group participants,

I leveraged my personal network (e.g., asking friends with children in special education to share their experiences) (see Appendix D-3). The final focus group was recruited through a parent training and information organization because I wanted to learn about the experiences and opinions of bi-lingual Spanish-speaking parents who also help parents and families who only speak Spanish. All participants received a $20 gift card upon the completion of the focus groups.

Positionality Statement

Qualitative research requires the researcher's biases, dispositions, and assumptions (Merrian & Tisdell, 2016). My experience watching relatives in special education and watching other parents of students in special education struggle in the system undoubtedly inspired me to explore this dissertation study. My hope from this study is to be a voice for parents who are voiceless through what I learned from the focus groups, and ultimately share parents' experiences and recommendations to the leaders in special education. I also believe there are thousands of special education teachers and service providers who are pouring out their hearts and energy for many students in special education. However, I believe there is sometimes a disconnect between parents and the school system due to many factors, such as the imbalance in power dynamics between parents and the school system and the school's limited resources. Unfortunately, this imbalance is more apparent in parents with culturally and linguistically diverse backgrounds. During the focus group interviews, I tried to keep a neutral stance and asked only the prepared questions without any additional follow-up leading questions that could lead to biased responses, with the exception of follow-up questions if the response was not clear.

Procedure

I collected two data sources for the focus group: a demographic survey and focus group transcripts. The demographic survey asked the following items: race/ethnicity, child's special

education disability category, child's grade, and language other than English spoken at home. Once the participants completed the survey, I sent an email invitation with the Zoom link and instructions to each parent. I also asked participants to join the interview in a private place or use earphones/headphones to ensure the confidentiality of the focus group.

Participants Demographics

A total of 10 participants (n=10) participated in the focus groups. Of the ten participants, seven were Hispanic/Latino, two were Asian, and one was Black/African American, and nine participants reported using a language other than English at home. The child's grades ranged from Preschool to graduating from high school, and the disability categories for special education were autism spectrum disorder (n=4), deafness (n=1), specific learning disability (n=2), multiple disabilities (n=2), and other (n=1). As for the bilingual Spanish-speaking parents/staff, the years of working for other parents ranged from 1 to 10, with an average of 6.8 years (see below Appendix F - Table 5).

Focus Groups

I conducted three focus groups: two focus groups were through Zoom, and one focus group was through Microsoft Teams. Two focus groups were parents of students with disabilities, and the third focus groups were parents of students with disabilities who are also Spanish-English bilingual staff members at a PTI. The focus groups had five questions (see Table 6) and the focus group with bilingual staff had minor changes to the original question to explore their experience as parents while also helping other parents.

Table 6

Focus Group Questions

Families of students with disabilities	Bilingual-speaking staff

1) How do you find out about different special education resources? What is the information that you are looking for? a) Was there certain information that was easier/harder to find? 2) How did you learn about your special education rights? 3) How did having this information or resources you learned help you? 4) What information about special education would you like to learn more about? a. Where or from whom would you like to learn this information? (e.g., School, school district website, family support groups, other) 5) If you were designing a website or handout for parents about special education, what information would you include?	1) From what you have seen from helping parents in diverse communities a) How do they find out about different special education resources? b) What is the information that they were looking for? c) Was there certain information that was easier/harder to find for them? 2) How do the parents learn about their special education rights? 3) How did having this information or resources they learned help them? 4) What information about special education would they like to learn more about? a) Where or from whom would they like to learn this information (e.g., school, school district website, family support groups, other)? b) And how would they want to access these resources? 5) If you were designing a website or handout for parents about special education, what information would you include?

During each focus group, after asking a question, I placed the question in the Chat as recommended in the pilot study. Two focus groups were conducted before noon, and one focus group was conducted during the evening hours.

Data Analysis

I read all the transcripts multiple times and decided to use the structural coding methods. Structural coding identifies "larger segments of text on broad topics; these segments can then form the basis for an in-depth analysis" (MacQueen et al., 2008, p. 125, as cited in Saldaña, 2013). I used a qualitative and mixed method research analysis software, NVivo 14, to code the

transcripts and review the common code generated by the software. All the codes were reviewed to identify the themes.

Trustworthiness. Peer checking was used to ensure the validity of the coding. One peer who is a Ph.D. candidate at a non-education department and has no family in special education reviewed one of the transcripts and coded for reliability. I asked this particular peer because of her unbiased position on this topic. The initial inter-rater reliability was .89, but we reached full agreement after clarification of terms in special education.

Results

The results of the study will be organized by the order of the research questions.

Research Question One

Is there a difference between parents' perceived knowledge vs. their actual knowledge?

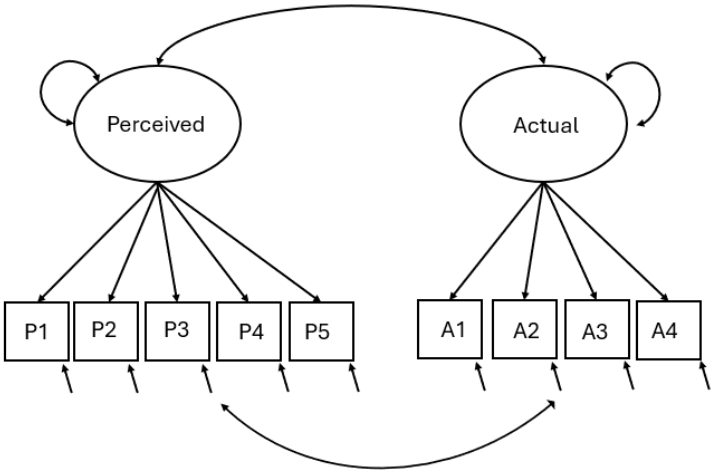
Before answering this question, all three constructs (Actual Knowledge, Perceived Knowledge, and Empowerment) were separately evaluated to check the factor loadings. When using modification indices to increase the fit of the model, the changed relationship must be logically feasible (Kline, 2016). Modifications were made by correlating the following items: P2 (e.g., I know my child's rights under the special education law) with P4 (e.g., I know the steps I can take if I DISGREE with an IEP team decision) for perceived knowledge; and E5 (e.g., I am able to work with agencies and professionals to decide what services my child needs) with E11(e.g., I have a good understanding of the services system that my child is involved in), E10 (When necessary, I take the initiative in looking for services for my child and family) with E2 (I know the steps to take when I am concerned my child is receiving poor services), and E2 with E8 (I tell professionals what I think about services being provided to my child). The modifications were made because the items were related to each other. The CFA of Actual Knowledge revealed one of the items A3 (Which of the following words does not appear in the

special education statute (law) or regulations?) was scoring in the opposite direction. This question was difficult for many parents (only 25 answered correctly), so I deleted the item from the analysis.

In order to examine if actual knowledge and perceived knowledge are related, a CFA with two-factor model (see Figure 1) was tested with estimator WLSM and resulted in good fit (RMSEA = .07, 90% CI [.03, .11]; CFI = .95; SRMR = 0.08) after correlating one error-terms for the following items A2 (e.g., which of the following statements about Prior Written Notice is TRUE) with P3 (e.g., I know the steps of the IEP process). The model fit values meet the acceptable criteria of Hu and Bentler (1999) (i.e., CFI ≥ .95, SRMR ≤ .08) and of Steiger (2007) RMSEA ≤ .07) (Hooper et al., 2008). The correlation between Actual Knowledge and Perceived Knowledge had a positive correlation value of 0.26. To ensure the sample size, a power analysis was conducted for each model using the Monte Carlo stimulation, and it resulted in a power equal to .99.

Figure 1

Two Factors CFA



What variables (i.e., education, income, child's disability, special education training, and reading procedural safeguards) influence parents' actual knowledge?

The power analysis through Monte Carole stimulation showed that the sample size with 116 responses was not adequate for performing SEM with the multiple independent variables. Thus, ordinal logistic regression was used to explore which independent variables were influencing actual knowledge. The only significant independent variables with positive coefficients were the student's grade level, with a coefficient of .40 (p=0.05, C.I [-0.01, 0.80]), and "reading the procedural safeguards - frequently" had a significant negative coefficient of -1.56 (p=0.05, C.I [-3.11, -0.01]). The perceived understanding of the procedural safeguards had a p value of .056 with a coefficient of .44 ([-0.01, 0.70])). All other predictors were not significant (see Table 7).

Table 7

Ordinal Logistic Regression of Association Between Actual Knowledge and Predictors

	Coefficient	SE	t	ρ	95%CI
Training (yes)	-0.57	0.47	-1.20	0.23	[-1.49, .36]
Proc. Safeguards -Once or Twice	0.35	0.60	0.58	0.56	[-0.83, 1.52]
Proc. Safeguards - Serval Times	-0.82	0.70	-1.18	0.24	[-2.18, 0.54]
Proc. Safeguards - Frequently	-1.56	0.80	-1.98	0.05*	[-3.12, -0.02]
Proc. Safeguard Understanding	0.36	0.19	1.89	0.06*	[-0.01, 0.73]
Parent's Education	0.17	0.15	1.17	0.24	[-0.12, 0.46]
Income Less than $50,000	-13.73	666.73	-0.02	0.98	[-1326.38, 1298.90]
Income $50,000 - $150,000	-13.72	666.73	-0.02	0.98	[-1326.37, 1298.92]
Income $Over $150,000	-13.48	666.73	-0.02	0.98	[-1326.13, 1299.15]

Child's Grade Level	0.40	0.21	1.93	0.05*	[-0.01, 0.80]
ASD	-0.06	0.40	-0.12	0.90	[-0.84, 0.74]

What variables (i.e., education, race/ethnicity, income, child's disability, special education training, and reading procedural safeguards) influence parents' perceived knowledge?

Multiple regression was used to analyze which predicting variables had significant relationships with perceived knowledge. The only variable that was statistically significant was the understanding of procedural safeguards, with a coefficient of .15 (p = .04). Unlike actual knowledge, with the exception of household income and ASD, the coefficients were positive values.

Table 8

Multiple Regression of Association Between Perceived Knowledge and Predictors

	Coefficient	SE	t	ρ	95%CI
Training (yes)	0.04	0.19	0.20	0.83	[-0.34, 0.41]
Proc. Safeguards (Once or Twice)	0.15	0.24	0.60	0.55	[-0.34, 0.63]
Proc. Safeguards - Serval Times	0.34	0.28	1.23	0.22	[-0.21, 0.89]
Proc. Safeguards - Frequently	0.02	0.32	0.06	0.95	[-0.61, 0.65]
Proc. Safeguard Understanding	0.15	0.07	2.05	0.04	[0.00, 0.23]
Parent's Education	0.05	0.06	0.76	0.45	[-0.07, 0.17]
Income Less than $50,000	-0.16	0.59	-0.27	0.78	[-1.32, 1.00]
Income $50,000 - $150,000	-0.17	0.56	-0.31	0.76	[-1.29, 0.95]
Income $Over $150,000	-0.29	0.57	-0.51	0.61	[-1.41, 0.84]
Child's Grade Level	0.02	0.08	0.22	0.83	[-0.14, 0.18]
ASD	-0.03	0.16	-0.18	0.86	[-0.34, 0.28]

Research Question Two

Is there a relationship between parents' knowledge (actual and perceived) and Empowerment?

The relationship between perception and Empowerment was analyzed using a CFA with two-factor model with estimator MLR and resulted in an acceptable model fit (RMSEA = .06, 90% CI [.04, .08]; CFI = .90; SRMR = 0.08) with Hu & Bentler's combinational rule (i.e., RMSEA ≤ .06 and SRMR ≤ .09) after correlating one error-terms for the following items E2 (e.g., I know the steps to take when I am concerned my child is receiving poor services.) with P4 (e.g., I know the steps I can take if I disagree with an IEP team decision.). The correlation between Perceived Knowledge and Empowerment had a positive correlation value of 0.62. The Monte Carlo simulation resulted in a power equal to .99.

The relationship between actual knowledge and Empowerment was analyzed using a CFA with a two-factor model with estimator WLSMV and resulted in an acceptable model fit (RMSEA = .06, 90% CI [.04, .09]; CFI = .88; SRMR = 0.07) after correlating one error-terms for the following items A1 (e.g., At the federal level, what are your dispute resolution options?) with E2 (e.g., I know the steps to take when I am concerned my child is receiving poor services.). The correlation between perceived knowledge and Empowerment had a positive correlation value of 0.64. The Monte Carlo simulation resulted in a power equal to .98.

Research Question Three

Will previous participation in special education training or reading the procedural documents narrow, widen, or have no effect on actual special education knowledge gaps between high and low-SES parents?

The research question could not be answered with a parametric statistic because the above results showed no statistical significance in parents' household income or education level on actual knowledge, and the influence of training or reading the procedural safeguards could not be considered to have a significant effect on actual knowledge. The Mann-Whitney *U* test was used to compare participants who had trainings vs no training by income and education, and between participants' understanding of procedural safeguards by income and education. A total of 16 comparisons were tested with Mann-Whitney *U*, and only groups with statistical significance were Low Education with Training vs. High Education with Training (z = -3.61, p =.0003), Low Education with no Training vs. Low Education with Training (z = 2.08, p=.04), and High Education with Low understating of procedural safeguards (PS) vs. Low Education with Low understating of PS (z= -2.88, p =.004). The research question assumed that there would be a difference between different education or economic background based on the past literature, but with the small sample size, no significant differences were found between low- and high-income groups without training (z=*0*.59, p=0.56) and low and high education groups without training (z=-0.99, p=0.32). As for the effect of understanding the procedural safeguards by income and education, participants with High Education with Low Understanding PS vs. Low Education with Low Understanding of PS had statistically significant differences with higher income with higher sum (z= -2.88, p =0.004); however, no statistical difference were found for High Education with High Understanding PS vs Low Education with High Understanding PS (z= -1.91, p=0.06), which could imply having good understanding of the procedural safeguard is important to lessen the knowledge gap between different education levels. The full table with the 16 comparisons is in Table 9.

Table 9

Mann–Whitney U Comparisons

	z	*p* value
No Training: Low vs High Income	0.59	0.56
Training: Low vs High Income	1.30	0.19
No Training: Low vs High Education	-0.99	0.32
Training: Low vs High Education	-3.61	0.00*
Low income training vs Low income w/o training	1.63	0.10
High income w/o training vs High income training	-1.85	0.06
Low Edu. training vs Low Edu. w/o training	2.076	0.04*
High Edu. training vs High edu. w/o training	1.58	0.11
Low Understanding: Low vs High Income	-0.91	0.37
Good Understanding: Low vs High Income	-0.63	0.53
Low Understanding: Low vs High Education	-2.88	0.00*
High Understanding: Low vs High Education	-1.91	0.06
Low income high understanding vs Low income low understanding	-0.88	0.43
High income good understanding vs High income low understanding	0.73	0.47
Low Edu. Low understanding vs Low Edu. High understanding	-0.54	0.59
High Edu. Low understanding vs High Edu. High understanding	-0.322	0.75

*Indicates *p* value less than .05

Research Question Four

What information do parents want to learn about special education, and what are the best methods to deliver this information?

To answer the last research question, it is important to first know parents' current practices (i.e., what they are doing and what is working) before asking what information they are

looking for. For each category of question, the themes were further organized in this section by responses from the first two focus groups (i.e., Parent Focus Group), and the third focus group with bilingual staff (i.e., Spanish Bilingual Staff/Parents).

How Parents Get Information about Special Education

During the beginning or early stage of special education, parents acquire their resources from early intervention providers or schools, the Internet, other parents, social workers, or medical providers.

Parent Focus Groups

Medical providers as gateways or gatekeepers. For parents of children with more medically complex needs, the medical providers were the first to introduce early intervention programs. For one parent of a child with more medically complex needs, the medical providers were the first to introduce the parent to early intervention programs, and afterward the early intervention program provided the resources. However, the majority of parents in the focus groups experienced a disconnect between their "mommy instinct" and the medical provider's opinion. Three parents (n=3) knew from "mommy instinct" that their children were not developing as other toddlers, but all three parents shared that their pediatricians just reassured the parents of their worries. One parent shared, "Pediatrician will be like,' oh, they have their own timing for learning or like doing different things.'" Another shared, "I really want to say that the doctor was a help, but I can't because when I told a doctor about what was happening, he said, he told me that, 'Don't worry about it. He'll grow into it.' And I almost believe that." Another parent shared, "So I ended up having to pay out of pocket … I knew it was something else. Yes, the ADHD was there, but there was more. There was more of an intellectual disconnect."

Schools or early intervention programs. Three parents (*n*=3) had their children in an early intervention program, and the parents also got most of their information about resources and special education rights from early intervention program providers, but the range of experiences were different among parents. One parent had a meeting with the school for her eldest child and brought her second child to the school, and the principal introduced her to an early intervention program, which opened the way for resources. Another participant shared that she received resources from an early intervention program and now from the school. She stated, "I rely on that lot of that from the school … I think I live in a pretty good school district, so that is why I have confidence in that." When asked about where they learn about special education rights, one participant shared that she read the procedural safeguards from the school and did not search in other places.

However, three of the participants (*n*=3) shared that as their children were transitioned from early intervention programs, schools were not informative. One participant shared "The school didn't give me any direction of where to go for resources." Another participant pointed out that even when the schools provided a stack of resources, it was not understandable given her circumstances until another parent explained it to her. She said, "They give you all the paperwork, and when you go back and look at the paperwork, now it makes sense now that I have been through this 10 years... [but back then] I didn't, it's not accessible to a parent that is in the trenches, right? Going through the diagnosis. At some point, my son was not gonna survive! And so you don't have a brain to think. It was actually another mother that was like 'of course you can do this,' and just like a 45-minute conversation with her opened my eyes so much more than everything I have been told before."

Parents. As briefly shared earlier, a parent or family who went through the special education process was another source of resources. All participants shared that they asked other parents or friends who had similar experiences to direct them to more resources.

Internet. Two participants shared that they used the Internet to research resources. One stated, "[I got my information] mostly Internet by my experience. No one told me anything. I had to go online, and thank god. I like to research and investigate."

Parent Centers and Support Groups. All participants were also connected to either their state's PTI or support groups and learned more resources through the organizations. They learned about these organizations through social workers and other parents.

Spanish Bilingual Staff/Parents

The bilingual parents-staff who work for a PTI center saw similar experiences from parents who only speak Spanish, but these parents relied more on word of mouth. One bilingual staff member shared, "Most parents find their information by word of mouth in our community. Some may be more technically savvy and do internet searches, but most parents are getting information either by word of mouth through other parents or a health care provider."

However, unlike parents who speak English, parents who only speak Spanish had further barriers to getting resources. According to one bilingual staff member, "I think that a struggle for all of our parents at all levels and all disabilities is just getting resources in a language they can understand. And I think a lot of the requests that we get from parents is just basic: just understanding what is available to me. I don't think our parents are aware of what is available in our community, where they can go, what's out there for them to access."

Information Parents Want

Parent Focus Groups

Unhide the Hidden List. The participants (n=4) wanted to learn about different services and accommodations the education system could offer so they could, as one participant noted, get "Equal access for the parents as for the school staff." The participants wanted this information from the school or the district. The participants felt they were not part of the team but outsiders because of the lack of information about the different accommodations and services available to the students. One parent expressed that, "You know, there's two sides to it... But I wish that information was transparent to every single parent because you don't find that until someone else told you or until they thought it was good for you to know. So, they're gatekeepers. The special education process is a gatekeeping process where the parents is outside." The participants wanted to help the school and expressed that with more transparent information about the services and accommodations available to parents, some behavioral issues their children had in the schools could have been avoided.

IEP Process and Support Group. Other information parents were seeking were the IEP process and support group information. One parent wanted to know more about the IEP goals from the school and information on what other students at the child's age should be accomplishing. Two participants wanted the school to provide information about different support groups for parents. One participant shared how helpful a support group was for her psychologically in talking with other parents who are struggling as well. However, one of the participants pointed out, "sometimes school can be not so neutral" to provide certain information so she wanted someone who could be easily connected to for information or perspective.

Bilingual Staff

The bilingual staff expressed similar concerns and recommendations for the non-English speaking Latinx parents. One staff shared, "I think it would be awesome to be in the public so no one have to work so hard to get them. Now it is so hard to get information, it is like a scavenger hunt. So maybe the school system should be little bit more opened about that." They saw parents are looking for different services such as speech therapy, ABA therapy, and OT and wanted more information about the services available by schools, medical providers, and other easily accessible places like the library. They also noticed Latinx families accessed information through Facebook and Zoom meetings. Finally, one staff also shared that parents simply want more information about how to read the IEPs.

Recommendations on Websites and Handouts

The last focus group question asked, **"**If you were designing a website or handout for parents about special education, what information would you include?" Parents and staff wanted information about early intervention, organized by different transition groups, the IEP process, and support groups.

Parent Focus Groups. The participants provided great ideas about the resources for a website or handout. Out of the five participants, 4 participants wanted to include information about support groups or disability organizations they could easily contact. One parent said, "Numbers, phone numbers. Emails. I want to stay in touch with somebody I can just ask a question too." Another parent experienced that "no one has told me the truth the way that a parent has! No one has laid it out on me for good or bad, [and] honestly [say], 'You're failing your son', 'you know you should not be doing that because that's holding him back', or 'Why are you letting them talk to you the way when you could do this?' No one tells you the truth like another parent." As to how the support group should be organized, one participant recommended

having the support groups by disability, especially for less common disabilities, but another participant pointed out that because some children have multiple disabilities and many disabilities overlap, it would also be good to have a support group with different types of disabilities.

Another idea was to lay out information by different transition age groups. As one participant stated, "Every stage of the student is a little different… 3-year-old is different than a five-year-old than an eight-year-old, then a 16-year-old doing transition to adult living." One participant recommended including contact information so parents could connect based on the transition stage. The participants also wanted a website with information about developmental milestones so parents could "check the checklist," as one participant described.

Two participants also recommended having information about self-help for the families and tools to empower the families. They wanted to provide information on how to adjust their work-life balance as parents of students with disabilities. One participant shared, "I think that's the most important thing to get them [parents] not be frustrated, you know, from the beginning and really trust, let them trust their instinct and empower them to work it."

Bilingual Staff. The bilingual staff recommended having information about early intervention and tips for IEP meetings, especially parent's rights. One staff recommended, "I would start with early intervention. How to see if something is wrong with the kids. And then start getting help." Additionally, another staff member wanted IEP tips and information about parents' rights. She shared, "I would love to put in place maybe something like we have IEP tips, how to prepare for it. Know the rights you have, and all that good stuff. I think that would because when you know your rights when you go to the meeting, then nothing is gonna get pass you. The next steps of how to do this this and that."

One of the staff also pointed out that when creating a handout, it should be understandable by easy wordings and explanation of acronyms. She explained, "[For a handout] easy wordings because special education uses a lot of acronyms or just make sure everything is spelled out because most families don't know what the acronyms are." She also shared that there are families who cannot read or write, so "if there is another way we could target the families that cannot read and write so they could all get the information of those handouts."

Discussion

The purpose of the study was to examine the relationship between perceived and actual knowledge and explore what special education information parents are seeking. The results revealed that perceived knowledge and actual knowledge have a weak positive correlation. In other words, perceived knowledge and actual knowledge may be two different constructs. The study also revealed a variety of recommendations from parents from CLD backgrounds regarding what information they want as parents advocating for their children.

Two Types of Knowledge are Related but Might be Two Different Constructs

The CFA result revealed that perceived knowledge and actual knowledge are positively correlated, but the relationship was weak. Due to the weak strength, the results could infer that the constructs may be different and should not be treated the same. Research studies from different academic disciplines that measured perceived and actual (or factual) knowledge argued weak positive correlation along with the difference between predictor variables to reasonably assume the different types of knowledge are two different constructs (Ladwig et at., 2012). Although both actual and perceived knowledge shared one significant predictor (perception of understanding the procedural safeguards), two predictors (student's grade level and the frequency of reading the procedure safeguards) were significant only for actual knowledge but not for perceived knowledge. The predictor variable, student grade level, was only significant for actual

knowledge, which implies that parents whose children had been in the special education system longer had higher actual knowledge, but interestingly, their perception did not match this level of knowledge. The results are important as researchers and training programs may have to decide when testing the efficacy of a program which construct they are interested in testing.

Regardless of the likelihood of different constructs, both perceived knowledge and actual knowledge had a strong positive relationship with empowerment. These findings show that increasing either parent's perceived knowledge or actual knowledge could impact empowerment. Studies have shown parents who are empowered are more likely to advocate for services (Burke et al., 2019). However, possessing knowledge alone should not be directly translated as a tool for increasing services. Although scholars are in the early stage of exploring the factors most influential for advocating for services, some scholars have suggested that advocacy for services is more influenced by empowerment than actual knowledge (Li et al., 2024). Empowerment is a process, and empowerment can be expressed in attitude, knowledge, and behavior (Koren et al., 1992). Actual knowledge about the special education law is an important component because parents possessing knowledge about their rights can leverage the law when advocating for their children, and parents will be able to recognize if their rights or children's rights are violated; however, to adequately advocate for their children, parents should also be empowered in their attitude and behavior. In the field of psychology and counseling, according to one model for the process of empowerment, the authors argued that knowledge and competence should be separated because knowing what to do and knowing how to do it are different (Cattaneo & Chapman, 2010). Nevertheless, this study showed that actual knowledge and empowerment also have a strong positive relationship; therefore, training programs and schools should emphasize

both increasing actual knowledge of the rights and providing training on ways to advocate for services.

Importance of Readability

One significant predictor that influenced both actual knowledge and perceived knowledge was parents' perception of understanding of procedural safeguards. This implies that an increase in good understanding of the procedural safeguards, could also increase actual knowledge of their rights and perceived knowledge. The findings highlight the problem of the high readability of the procedural safeguard documents (Gray et al., 2019), and the need for changes by the state and school districts to revise the procedural safeguards for better readability.

As revealed by the focus groups, parents want to get their resources from the school system, but even if the documents are provided, the resources may be "inaccessible" for reasons such as high readability, language barriers, and the stressful circumstances many parents are in. For instance, one participant shared that even with all the documents, they are not able to understand what is provided by the school because they are in trenches. Also, as shared by one parent from the focus group, some parents do read their rights and do not search for them in any other places. Given the high readability of the procedural safeguards, if parents cannot comprehend the documents, their knowledge about the rights of special education would be limited to their interpretation or comprehension of the rights. The procedural safeguards document is one document all parents of special needs students receive at least once, and more actions should be taken to make these documents readable. As one bilingual staff has said, "When you know your rights when you go to the meeting, then nothing is gonna get pass you."

How to Help Parents Get the Right Resources to Improve Knowledge

Given that the majority of the participants in this study had some sort of training (n=83) or heard about Parent Training and information centers (n=70), and the participants were recruited from support organizations, these parents' responses may not be a good representative for conducting analysis in determining which predictor variables are influencing the different knowledge types. One study found that the majority of parents are not involved in training or support groups (Huscroft-D'Angelo et al., 2021), but my data distribution was contrary to these findings because most parents had some sort of parent training. Additionally, the sample size for this study was not large enough, which may have contributed to the insignificant values for predicting variables such as income and education.

However, the focus groups shed light on what information parents want and how they want it, especially from parents who are from CLD backgrounds. The focus group revealed parents' experiences in getting knowledge about their rights and resources from schools varied, but parents agreed on one thing in common: schools were not the only source of resources.

In order to increase knowledge of special education rights and resources, parents wanted two things: 1) schools to provide equal access to information about special education services, accommodations, and the IEP process, and 2) schools to provide information on support groups so parents can connect to other parents. The focus group revealed that parents want more transparent information from schools and districts, and more help provided from schools to navigate the special education process. Most of the CLD parents experienced that the current school system does not provide enough information for parents to be equal members of the IEP team.

Parents want information about support groups or someone to connect to for help. In a study by Farley et al. (2020), 27 states provided information about parent centers on their state's

education website. While the study is over five years old and more states might have increased resources for parents on their websites, the current focus groups revealed that current practice is not enough, and the parents of CLD backgrounds are seeking information about “Numbers, phone numbers. Emails. I want to stay in touch with somebody I can just ask a question too," which shows that the school could play more role in bridging the gap between the parent centers and parents. Such a request could be easily resolved through better organization of school or district website or handouts. For example, as recommended by the parents from the focus groups, the website could organize the transition age group or disability categories with relevant information.

Limitations

There are several limitations of the study. First, many parents are recruited through parent organizations and parent organizations that provide special education training and resources to parents, so the participants might have previously participated in training on special education. Therefore, this might not be representative of the general population, which includes parents who have never participated in special education training.

Second, the distribution of the sample for income, education, and students’ grade violated the normality assumption. Before running the regression, the assumptions were checked, and all the assumptions were satisfied with an exception to the normality for income, education, and student’s grade level. Violating the normality assumption is a normality violation of the error terms so the regression analysis is less affected by the violation (Knief & Forstmeier, 2021). However, Monte Carole stimulation with the multiple independent variables showed that the sample size was not enough to perform SEM. Therefore, a study with a larger sample size might

have resulted in different outcomes for the influence the independent variables have on actual knowledge.

Lastly, this study only included participants who speak English; therefore, parents who cannot read English were not included, which limits the external validity of the study.

Future Implication

Given the lessons learned from this study, there are several directions for future research and practice. First, the survey study must increase the sample size with more parents reflecting the general population. This could be accomplished by replicating the study at the state level, instead of the national level. More specifically, such a study should be conducted by partnering with school districts so that more parents from diverse backgrounds can participate. Also, in this study, the disability categories were divided into either ASD and other disabilities for analysis due to the small sample size; however, with a bigger sample size, new information through the different disability categories could be analyzed further. The study should provide different language options so parents who do not read English could also participate. Additionally, due to the varying rules and regulations by states, the question items were very limited. Therefore, if the study is changed to a statewide study instead of a nationwide study, more actual knowledge questions could be added.

Second, a study about the impact of lower readability should be conducted. As the focus group study and the research synthesis have revealed, parents are confused with the law and the IEP documents. A study of the effect of changing the readability level of both the procedural safeguards and IEP documents would greatly benefit the gap in the literature.

Conclusion

The mixed method study allowed me to explore the different knowledge constructs and ways that could improve parent's knowledge. The research synthesis suggested that there could be a difference between perceived knowledge and actual knowledge, but through this mixed-method study, we were able to show the two knowledge types may be two different constructs. The study also indicated that improving parents' perceived knowledge *or* actual knowledge can lead to empowerment. Due to the small sample size and the distribution of the current sample, other inferences relating to the different predicting variables could not be made even though those predictors have shown to be important variables in past literature (i.e., income, education level, child's disability). Nevertheless, the survey study with the addition of the focus groups, revealed important recommendations for the field. The results of this study should be a guide to both researchers and practitioners helping parents because knowing which constructs to target and how to target the audience could help other parents attain special education knowledge.

Chapter 4: Policy Paper on What Special Education Resources Parents with CLD Backgrounds Are Seeking

Introduction

Disproportionality in special education is a problem that cannot be overlooked. Students of color and students from low-income families are disproportionally represented in special education, which also means parents of color and parents with lower incomes are also disproportionally represented in the special education system. To address this issue, policymakers and school leaders have implemented different practices, such as Multi-Tiered Systems of Support and coordinated early intervening services (Sullivan & Osher, 2019). Although parent involvement has not been widely studied in terms of reducing disproportionality, involving parents has been a recommended practice for addressing disproportionality (Fergus, 2017; Schifter et al., 2019). Therefore, this chapter will explain 1) the problem of disproportionate representation of students and families, 2) alternative approaches currently used to inform and support parents, 3) the current qualitative study that explored what parents want to learn regarding special education resources, and 4) recommendations on ways to improve parent knowledge.

The Problem of Disproportionate Representation of Students and Families

The latest 43rd Annual Report to Congress on the Individuals with Disabilities Education Act (IDEA) showed that in 2019 the distribution of students with disabilities served under Part B was not evenly distributed among different races and ethnicities (U.S. Department of Education, 2022). The risk ratio compares "the proportion of a particular racial/ethnic group served under IDEA, Part B, to the proportion served among the other racial/ethnic groups combined" (U.S.

Department of Education, 2022, p. 49). The report for students ages 5 through 21 showed American Indian or Alaska Native students, African American students, Hispanic/Latino students, Native Hawaiian or Other Pacific Islander students, and students with two or more races were more likely to be served under Part B (U.S. Department of Education, 2022).

Another group of students that are at higher risk of receiving special education is students from low-income families. Data has shown many students in special education live in low-income neighborhoods (Connor & Fernandez, 2002). A report found that students from low-income families are more likely to be in special education than peers from higher-income families, and the disproportionality was greater for more subjectively defined disability categories such as learning disability, emotional disability, and intellectual disability (Schifter et al., 2019).

The over-representation of students with culturally and linguistically diverse backgrounds and students with low-income families are also related. For instance, poverty is considered a major factor for the overrepresentation of African American students in special education (Cartledge & Dukes, 2008). There are many factors that influence over-representation, such as low birth weight, lead toxins, and maternal health issues that could cause cognitive development problems among children living in low-income households (Cartledge & Dukes, 2008). Also, many children living in poverty are more likely to attend schools with limited resources that fail to provide adequate education to students (Cartledge & Dukes, 2008). Other factors, such as inadequate instructions, inappropriate assessment, and low expectations, also influenced the over-representation of students of certain racial groups.

Why Parents Matter

One way to address the disproportionality and inequities in special education is by improving parent involvement in education (Fergus, 2017; Schifter et al., 2019). Parents' involvement and engagement, in general, have been shown to improve academic outcomes and may also decrease at-risk behaviors (Brown et al., 2019). For instance, a study with nationally represented data on the relationship between parental involvement and 9th-grade students with elevated emotional and behavioral risks (EBR) demonstrated that parental involvement was significantly associated with students' academic outcomes (Lambert et al., 2021). Also, parental involvement for four domains (school activities, child communication, academic aspirations, and home activities) significantly lowered elevated EBR in the general population (Lambert et al., 2021). Although this result is from the general population and not specific to special education populations, special education referral for more subjective disability categories, such as emotional disturbance, has been historically overrepresented by students of color (Fenton et al., 2017). Scholars have urged a greater family voice in the education system as a remedy for disproportionality in special education (Fenton et al., 2017).

In order for parents to voice and engage in the education system, it is important to empower parents (Hsiao et al., 2018). One of the important elements of parent empowerment is facilitating parents' competence and skill development (Kim et al., 2018). Especially in the complex special education system, having fundamental special education knowledge is an important element when advocating for their children (Burke et al., 2020).

Literature on CLD Backgrounds Parents' Experiences

The Individuals with Disabilities Education Act (IDEA) grants parents the right to participate in IEP meetings (IDEA, 2004) and the purpose of the law is to "(1)(B) ensure that the rights of children with disabilities and parents of such children are protected… (3) to ensure that

educators and parents have the necessary tools to improve educational results for children with disabilities" (20 U.S.C. §1400). Despite the benefits of parental involvement and engagement and granted privilege to participate, many parents have struggled to adequately participate in the special education process.

Although parents are important members of the IEP teams, decisions made in IEP meetings are more influenced by educators and other professionals at the IEP meetings than by the parents (Kalyanpur et al., 2000). This imbalance of power in the decision-making process is greater for families with low socioeconomic status (SES) and culturally and linguistically diverse backgrounds (CLD) (Kalyanpur et al., 2000; Lo, 2008). The structure of the IEP team system has often created an unwelcoming environment for many parents from CLD backgrounds, making it difficult for them to participate and advocate for their children actively (Kalyanpur et al., 2000; Wolfe & Durán, 2013). Some of the hindrances to meaningful participation in IEP meetings are due to cultural differences, communication, language barriers (Kalyanpur et al., 2000; Wolfe & Durán, 2013), and parents not possessing the understanding and knowledge of complex and specialized services available in special education (Koseki, 2017).

For instance, the distribution of special education knowledge has been found to be different between CLD-background parents and English-speaking White parents. Furthermore, studies have shown that Hispanic parents are less knowledgeable about special education rights than White parents (Torres-Burgo et al., 1999; Burke et al., 2020). An interview with a Mexican immigrant parent explained, "They [professionals] don't ask us what we need or want. They always use those big words that I can't understand. I try to get there as early as I can so I don't look stupid. I don't even know most of those people at the special meeting" (Salas, 2004, p. 188). Likewise, such experiences and confusion were also observed in first-generation Asian parents,

and they experienced confusion at the IEP meetings due to their language barriers. Studies have shown, first-generation Asian parents encountered language barriers and trouble understanding in IEP meetings and even with translators present at the IEP meetings (Cho & Gannotti, 2005; Lo, 2008; Park & Turnbull, 2001; Park, Turnbull, & Park, 2001).

Additionally, some terminology and abbreviations are so often used by education professionals that they use the words without clearly explaining the terminology to parents during the IEP meetings (Park & Turnbull, 2001). To illustrate, a study showed that African American parents of students with disabilities reported that there was a lack of communication between the professionals and the parents, and the teachers did not fully explain to the parents their child's academic process (Thompson, 2014). This leads to greater confusion when parents are non-native speakers (Park & Turnbull, 2001). When parents do not fully comprehend the terms used in the field, "conversations in meetings tend to be led by professionals with uninformed agreement from the parents" (Park & Turnbull, 2001, p. 140). These parents are in the meeting to make a difference in their children's education, but without a full understanding of what professionals are presenting, parents may not effectively advocate for their children.

Alternative Approaches to Inform and Support Parents

In order to support parents, the federal government and schools are engaging in different activities including funding the parent training and information centers, providing procedural safeguards notice, and providing resources on the internet. However, despite the efforts, not much information has been reached by parents.

Parent Information and Training Centers

As a way to support and train parents, the federal government provides grants to support parent training and information centers (IDEA, 20 U.S.C.§1471). These centers have provided

assistance and training to many parents and reached out to many CLD families (Rossetti & Burke, 2019). These centers are positively impacting the lives of many parents who they serve (Rossetti & Burke, 2019) . However, one study has shown that many parents do not seek information from outside of school (Huscroft-D'Angelo et al., 2021, p.6). For instance, 41.4% of parents reported "never" obtaining special education resources from "In-person trainings or workshops for parents of students in special education" (Huscroft-D'Angelo et al., 2021, p.6), and parents are most likely to obtain special education resources from the school.

Procedural Safeguards Notice

Schools also provide procedural safeguards documents along with other special education documents to the parents. However, many of the documents are too complex to understand for parents with lower literacy levels and parents from culturally and linguistically diverse backgrounds (Gray et al., 2019; Lo, 2014). Also, due to the complexity of the special education system, what is provided by the school may not be enough for parents to navigate through the system. One study reported that when asked, "If a parent toolkit were offered to assist with IEP development, what information would you like to see in it?" (Fisher et al., 2020, p.5) and 60% of the participants reported, "My rights as a parent explained in everyday language," granted that the participants of the study were mostly from middle to upper-class income levels. This implies that parents require more resources and support than what is provided in the current practice.

Different Resources on the Internet

Across the country, state education departments (SEDs) have been providing resources to parents via the Internet. A study showed that 51 SEDs had information on special education applicable to parents and 34 state education department webpages had a section designed for

parents and families, and 27 states also provided external links to their local PTIs or CPRCs (Farley et al., 2020). The number of resources and topics varied, but the study also found that the greatest number of resources for parents were on complaint/dispute resolution. The authors noticed that although dispute resolution is an important topic, only a very small percentage of parents use the options, and resources may not be applicable to many parents. Moreover, a different study showed that 56.4% of parents reported "Never" accessing information about special education through the SEDs website (Huscroft-D'Angelo et al., 2021, p.6), which shows more efforts are needed to the dissemination of special education information and resources.

The Purpose of the Study

Although the above practices and supports are available for parents, they are not enough to meet the diverse parent population in the special education system. To better understand what information parents from CLD backgrounds want to learn more about and how we could deliver this information to them to increase their understanding, we conducted a qualitative study that included focus group interviews with parents of students with disabilities from CLD backgrounds. The research question for this study was as follows: What information do parents want to learn about special education, and what are the best methods to deliver this information?

Methods

Study Design

A phenomenological qualitative design was used to answer the research question. Participants were eligible to join the study if they were parents of students with IEPs and were from CLD backgrounds. We conducted three focus groups: two groups consisted of parents of students with disabilities who are from culturally and linguistically diverse backgrounds, and one group consisted of Spanish and English bilingual parents who are staffed for a parent training

information center. The first two groups' experiences provided their direct experiences, and the third group's experiences were both direct and what the staff members saw as a parent who helped other Spanish-speaking parents (see Table 5 Focus Group Participant's Demographics). Of the 10 participants, six participants spoke both English and Spanish, two participants spoke both English and Chinese, and one participant spoke one English. The focus groups were conducted in the spring of 2024 via Zoom and Teams and led by the author.

Positionality Statement

I am not a parent of students in special education. However, as a second-generation bilingual Korean American, I was raised by first-generation immigrant parents and experienced how simple tasks for English speakers often resulted in stress for my parents who had limited English proficiency. I also observed and heard about the struggles of my aunts, who were parents of students in special education, and other parents with CLD backgrounds who have students in special education. I worked on this research study in the hope that the findings would help parents from CLD backgrounds navigate the special education system more easily. I acknowledge that my positionality influenced the study. I tried to maintain a neutral stance and asked only the prepared questions without any additional leading follow-up questions, except when clarification was needed.

Analysis

All focus groups were recorded and transcribed. The structural coding method was used because structural coding identifies "larger segments of text on broad topics; these segments can then form the basis for an in-depth analysis" (MacQueen et al., 2008, p. 125, as cited in Saldaña, 2013). The question items were used as broad topics, and then more in-depth themes were

identified and coded based on the frequencies of participants who mentioned the theme. (Saldaña, 2013). A mixed-method research analysis software, NVivo 14, was used for coding and further reviewing the common theme. To ensure the validity of the coding, peer-checking was used and the initial inter-rater reliability was .89, but upon further clarification of the definitions, full agreement was reached.

Findings

Where Do Parents Get Their Special Education Information and Resources?

Before learning about what information families want to know, we explored how they get their resources.

Voices From the Families

In the beginning or early stages of special education, families usually get their information and resources from early intervention providers or schools, the Internet, other parents, social workers, or medical providers.

Medical Providers as Gateway or Gatekeeper. Medical providers played the role of gatekeeper or gateway to special education. For parents of children with more medically complex needs, the medical providers were the first to introduce early intervention programs. However, the majority of parents in the focus groups experienced the disconnect between their "mommy instinct" and the medical provider's opinion. Three parents (n=3) knew from their "mommy instinct" that their children were not developing as other toddlers, but the pediatricians did not listen to the parents' concerns and reassured the parents not to worry.

Schools or Early Intervention Programs. Schools or early intervention programs were the major sources of information. Three parents (*n*=3) had their children in an early intervention program, and the parents also got most of their information about resources and special education rights from early intervention program providers, but the range of experience was different among parents. One participant shared, "I rely on that lot of that from the school … I think I live in a pretty good school district, so that is why I have a confidence in that." When asked about where they learn about special education rights, one participant shared that she read the procedural safeguards from the school and did not search in other places.

However, three of the participants (*n*=3) shared that as their children were transitioned from early intervention programs, schools were not informative. One participant shared "The school didn't give me any direction of where to go for resources." Another participant pointed out that even when the schools provided a stack of resources, it was not understandable given her circumstances until another parent explained it to her. She said, "They give you all the paperwork, and when you go back and look at the paperwork, now it makes sense now … [but back then] I didn't. It's not accessible to a parent that is in the trenches, right? Going through the diagnosis. At some point, my son was not gonna survive! And so you don't have a brain to think. It was actually another mother that was like, 'Of course, you can do this,' and just like a 45-minute conversation with her opened my eyes so much more than everything I have been told before."

Other Parents. As briefly shared earlier, a parent or family who went through the special education process was another source of resources. All participants shared that they asked other parents or friends who had similar experiences to direct them to more resources.

Internet. Two participants shared that they used the Internet to research resources. One stated, "[I got my information] mostly Internet by my experience. No one told me anything. I had to go online, and thank god. I like to research and investigate."

Parent Training and Information Centers and Support Groups. All participants were also connected to either their state's PTI or support groups and learned more resources through the organizations. They learned about these organizations through social workers and other parents.

Spanish Bilingual Staff

The bilingual parents-staff who work for a PTI saw similar experiences from parents who only speak Spanish, but these parents relied more on word of mouth. One bilingual staff member shared, "Most parents find their information by word of mouth in our community. Some may be more technical savvy and do internet searches, but most parents are getting information either by word of mouth through other parents or a health care provider."

However, unlike parents who speak English, parents who only speak Spanish had further barriers to getting resources. According to one bilingual staff member, "I think that a struggle for all of our parents at all levels and all disabilities is just getting resources in a language they can understand. And I think a lot of the requests that we get from parents is just basic: just understanding what is available to me. I don't think our parents are aware of what is available in our community, where they can go, what's out there for them to access."

What Information Families Want

We asked the participants what information they are looking for and the themes included information about educational resources for students, IEP process, and parent support groups.

Voices From the Families

Accommodations and Services. The participants (*n*=4) wanted to learn about different services and accommodations the education system could offer so they could, as one participant noted, get "Equal access for the parents as for the school staff." The participants wanted this information from the school or the district. The participants felt they were not part of the team but an outsider because of the lack of information about the different accommodations and services available for the students. One parent expressed that, "You know, there's two sides to it. And I understand they had their opinion and I have mine. But I wish that information was transparent to every single parent because you don't find that until someone else told you or until they thought it was good for you to know. So they're gatekeepers. The special education process is a gatekeeping process where the parents is outside." The participants wanted to help the school and expressed that with more transparent information about the services and accommodations available to parents, some behavioral issues their children had in school could have been avoided.

IEP Process. One parent wanted to know more about the IEP goals from the school and information on what other students at the child's age should be accomplishing. She knew her child had to be in the least restrictive environment, which was the general education for her son, and she knew the ultimate goal of her son's education was independent living. But she wanted more explanation about the goals. She shared, "The goal. I think that the school is always like try[ing] to help my older child to like get him involved to the general education environment …I guess from the education wise, like how to have the balance point on where that my older child can get the support he needs, but also be like to still get the resources like that us as a portrait for his age group so he can get where he could get."

Support Groups. Two participants wanted the school to provide information about different support groups for parents. One participant shared how helpful a support group was for her psychologically in talking with other parents who are struggling as well. But, one of the participants pointed out "sometimes school can be not so neutral" to provide certain information, so she wanted someone who could be easily connected to for information or perspective.

Spanish Bilingual Staff

The bilingual staff expressed similar concerns and recommendations for the non-English speaking Latinx parents. One staff shared, "I think it would be awesome to [have the information about resources] be in the public so no one has to work so hard to get them. Now it is so hard to get information. It is like a scavenger hunt. So maybe the school system should be a little bit more open about that." They saw parents looking for different services and wanted more information about the services available by schools, medical providers, and other easily accessible places like libraries. They also noticed Latinx families accessed information through Facebook and Zoom meetings. Finally, one staff also shared that parents simply want more information about how to read the IEPs.

What Information Do Families Want from a Website or Handout

We asked what information participants would include if they were to create a website or handout for other parents of students with disabilities, and they recommended adding information about support groups, self-help information, and special education rights. They also recommended organizing this information by different transition age groups or disability categories.

Voices From the Families

Information about Support Groups or Disability Organizations. Out of the five participants, 4 participants wanted to include information about support groups or disability organizations they could easily contact. One parent said, "Numbers, phone numbers. Emails. I want to stay in touch with somebody I can just ask a question too." Another parent experienced that "no one has told me the truth the way that a parent has! No one has laid it out on me for good or bad, [and] honestly [say], 'You're failing your son,' 'you know you should not be doing that because that's holding him back,' or 'Why are you letting them talk to you the way when you could do this?' No one tells you the truth like another parent." As to how the support group should be organized, one participant recommended having the support groups by disability, especially for less common disabilities, but another participant pointed out that because some children have multiple disabilities and many disabilities overlap, it would also be good to have a support group with different types of disabilities.

Another idea was to lay out information by different transition age groups. As one participant stated, "Every stage of the student is a little different… 3-year-old is different than a five-year-old than an eight-year-old, then a 16-year-old doing transition to adult living." One participant recommended including contact information so parents could connect based on the transition stage. The participants also wanted a website with information about developmental milestones so parents could "check the checklist," as one participant described.

Self-Help and Tool to Empower Parents. Two participants also recommended having information about self-help for the families and tools to empower the families. They wanted to provide information on how to adjust their work-life balance as parents of students with disabilities. One participant shared, "I think that's the most important thing to get them [parents]

not be frustrated, you know, from the beginning and really trust. Let them trust their instinct and empower them to work it."

Spanish Bilingual Staff

The bilingual staff recommended having information about early intervention and tips for IEP meetings, especially parent's rights. One staff recommended, "I would start with early intervention how to see if something is wrong with the kids. And then start getting help." Additionally, another staff wanted IEP tips and information about parent's rights. She shared, "I would love to put in place maybe something like we have [on] IEP tips, how to prepare for it. Know the rights you have and all that good stuff. I think that would because when you know your rights when you go to the meeting, then nothing is gonna get pass you. The next steps of how to do this this and that."

One of the staff also pointed out that when creating a handout, it should be easily understandable with an explanation of acronyms. She explained, "[For a handout] easy wordings because special education uses a lot of acronyms or just make sure everything is spelled out because most families don't know what the acronyms are." She also shared that there are families who cannot read or write, so "if there is another way we could target the families that cannot read and write so they could all get the information of those handouts."

Recommendations for Special Education Leaders

Currently, many states' education systems and schools provide information for parents, whether through websites or other printed formats. However, for many parents from CLD backgrounds, not all information may be accessible. Below are recommendations to states,

districts, and schools on ways to improve the dissemination of special education resources based on parents' recommendations from the study (see Table 10).

Table 10

Recommendations on Ways to Improve Knowledge

	What	How
Recommendation 1: Visible Helpers		
	Provide information about Support Groups, PTIs, & SEPTA.	Provide a separate handout with a description and contact information.
Recommendation 2: Accessible Information		
	Lower the readability level of the procedural safeguards.	Revised the procedural safeguards.
	Provide materials in different languages.	Translate materials
	Reorganize websites and handouts.	Organize websites or handouts by disability categories or transition group level.
	Utilize Social Media	Share information using videos in addition to written resources.
	Provide information about available educational resources.	Allow parents to access the list of available resources school personnel could see.

Recommendation 1: "Visible Helpers"

Schools should provide information about parent centers and support groups in ways that are more visible to parents. As CLD parents recommended above, parents want to be connected to other parents for information and support, and as one parent said, "I need numbers." As described by bilingual staff members and other studies, many parents from CLD backgrounds get information about support organizations or resources through word of mouth (Burke & Goldman, 2018; Kang et al., 2022). A study that explored the perspective of CLD advocates showed that parent advocates were connected with the families they served through community

connection instead of formal service delivery systems (i.e., schools, hospitals, early intervention service providers, and clinics) because the formal service system often did not share with families about available disability agencies and resources (Burke & Goldman, 2018). Families who are connected to these organizations could get resources, and sometimes get advocacy support during IEP meetings (Griffin, 2014), and the advocate could help other parents to improve on school-parent communication, empowerment, special education knowledge, and family quality of life (Burke & Goldman, 2017). Unfortunately, many CLD families who are unaware of the different parent and support centers would not be able to get the same help they need. Although many states are providing such resources on their websites, navigating to the right page could be a challenge in and of itself, especially with language barriers. Such information about different parent centers and support organizations should be provided to all parents and should be visible through separate handouts with descriptions of different organizations or better organization of websites, which will be addressed more in recommendation 2.

Schools could also play the role of bridging new parents and families with other parents of students with disabilities by sharing information about Special Education PTAs (SEPTAs) if these groups exist in the schools. If SEPTAs are not present, schools could also encourage parents to create such a group.

Recommendation 2: Accessible Information

School systems should make important information about special education accessible to all parents so parents can have the important knowledge to partner with schools during IEP meetings. The majority of parents receive resources from school (Huscroft-D'Angelo et al., 2021), but not all information helpful for parents is accessible to all parents equally due to the

high readability level of the documents, language barriers, and certain information may be hard to locate. Such unequal access to resources would result in unequal knowledge disparity among different parent groups, especially parents from CLD backgrounds. The recommendations below on ways to improve equal access are based on the assumption that some parents are not knowledgeable about their rights and processes and different educational resources because the information is inaccessible.

Lower the Readability Level

The procedural safeguards documents need to be revised to make the readability of the procedural safeguards easier, so parents who are reading the document can understand the content. A study has shown that parents who reported a better understanding of procedural safeguards had better knowledge of their rights (Kim, 2024). However, as described earlier, many of these documents are written at levels that are too complicated for many families (Grey et al., 2019), especially parents from CLD backgrounds with limited reading proficiency**.** Moreover, a recent study showed that Procedural Safeguards written in Spanish were at a reading grade level higher than the recommended 6th-8th grade level (Quintero et al., 2023). Therefore, procedural safeguards that are translated into other languages must also be written at a lower readability level.

Translate Materials

The educational resources schools provide should be translated into a language parents can understand. As one bilingual staff member shared in this study, "I think that a struggle for all of our parents at all levels and all disabilities is just getting resources in a language they can understand." Much information about resources is not available to Spanish-speaking parents

because the information is not translated into Spanish. Information regarding different resources provided to English-speaking parents, such as information about parent centers and support groups, should also be in Spanish and other languages.

Reorganize Websites and Handouts

School systems are already providing ample resources for parents, and only a tweak of change might be a solution for better access to the information parents need. For websites, this study showed parents wanted information to be organized by either the disability categories or transition groups. Additionally, parents wanted information about developmental milestones and different resources for each stage or disability category, as well as information about support groups. Another useful piece of information that could be provided by the school is information about the IEP process, including how to read the IEP document.

Utilize Social Media

School districts and support organizations should utilize social media to share resources and information with parents. Our society is constantly changing, and as this study has revealed, many parents from CLD backgrounds get information from social media. The focus group also revealed that not all parents understand written information; therefore, information in the procedural safeguards documents or other information could be shared on social media in addition to the written documents. The information in the procedural safeguards could be presented in video format through videos/shorts/reels along with the written documents.

Provide Information about Available Educational Resources

School districts should provide parents with the available educational resources offered by the school system. The list does not have to be exhaustive because every student's needs are different, but many parents do not even know what to ask for or what options are even available.

As one parent said from the focus group, "The special education process is a gatekeeping process where the parents is outside." Schools have many legitimate reasons for not sharing resources, such as parents asking for certain services even when the students may not need them. In such circumstances, schools should have the right to deny the request anyway. As one participant shared, "It is like a scavenger hunt" between parents and schools. Even if parents may know their rights, most parents do not have knowledge about the available educational resources (Phillips, 2007). However, parents with greater resources would find out through different ways or forms, but parents who do not have the connections or resources may never even be able to ask for certain services due to the disparity in access to different information. Moreover, having such resources available to all parties might also be a good resource and reminder for special education providers about different accommodation services available for their students.

Conclusion

Our society is changing, with more diverse families representing and participating in their children's education system. Knowledge is the key to success, but unfortunately, the information parents with CLD backgrounds need for successful engagement is often inaccessible. The recommended changes listed above are mostly small changes state and district leaders could initiate but have the potential to bring changes to many parents who are in the trenches. Parents seek to be active partners with schools, and such changes from school systems could help parents from diverse backgrounds to be active members of the IEP team through enhanced parents' knowledge and understanding of different resources.

Chapter 5: Conclusion

Parents and families of students with disabilities had been fighting and advocating for students with disabilities before the inception of the special education law, and their relentless advocacy has influenced many of the special education laws (Yell et al., 1998). Today, many parents and families are still advocating for their children's education, and studies have shown that students benefit when parents are engaged and advocating for their children.

Unfortunately, navigating the special education process and securing special education services can be difficult for many parents (MacLeod et al., 2017; Rock, 2000). Many parents have to invest an ample amount of time searching for available resources (Rossetti et al., 2021). Additionally, parents who live in districts with limited resources or who face barriers to effective advocacy, such as language or cultural differences, are enduring hardships in getting the knowledge they need to navigate the special education system.

Given the importance of knowledge, I conducted the current dissertation to explore parents' knowledge of special education rights and process. First, I conducted a research synthesis to find out what parents know and how they are measured in peer-reviewed quantitative or mixed-method research design studies (Chapter 2). The findings revealed that many studies have been using the term parent's "knowledge" to explain both perceived knowledge and actual knowledge, even though the two types of knowledge could be two different constructs. I wanted to explore the different knowledge used in studies to find out if there are two different constructs. Additionally, I also wanted to find ways to improve parent's knowledge so I used a mixed-method study design (Chapter 3). The mixed method study design used a survey to explore the relationship between perceived and actual knowledge. I also conducted multiple focus group interviews to explore parents' experience on learning different

special education information and resources, and their recommendations on what information parents want and how they want the information. The findings from the focus group were used to write a policy paper to persuade educational leaders to improve parents' knowledge about different resources through recommendations from culturally and linguistically diverse backgrounds parents (Chapter 4).

This final chapter will first summarize the findings and limitations from the synthesis and the mixed method study. Second, this chapter will provide future implications and direction for researchers and practitioners based on the findings of the survey study and focus groups, which were explained in the recommendation section of the Chapter 4 policy paper. Finally, I will provide future directions based on the findings of the study.

Research Synthesis

Parents' knowledge of the special education rights and process is vital for partnerships with schools and improving services for students. Therefore, I wanted to explore the different features and findings of research studies that used quantifiable estimates for parents' understanding and knowledge of special education rights and process. The research synthesis resulted in 15 studies that met the criteria. The findings showed that the study features could be categorized into either Readability of Special Education Documents or Families' Reported Knowledge and Understanding. The Readability studies explored the readability of the documents or information schools provide to parents, including IEPs and procedural safeguard documents. These studies concluded that the documents were written at a level that was too difficult for many parents of students with disabilities.

As for the studies on Families' Reported Knowledge and Understanding, these studies used surveys to examine families' understanding or knowledge of special education rights and

processes. The majority of the studies used surveys and asked for parents' perceptions of their knowledge and understanding of the IEP process. There were studies that compared parent's perceptions with other groups (e.g., teachers, students, or parents with different racial/ethnicity backgrounds). There were also studies that assessed parents' knowledge and understanding through multiple choice questions, true and false questions, and reviewing the actual IEP documents. The findings revealed that when asked about their perceptions of their understanding of special education rights and knowledge, most parents reported being knowledgeable. Nonetheless, when parents' perceptions were compared to other data such as assessments of special education rights, the real IEP documents, or interviews, there were discrepancies between perception and what they actually knew. The discrepancies between parents' perceptions and their actual knowledge were a gap in the literature, and I decided to conduct my dissertation study exploring the differences.

Mixed Method Study

The mixed method study started in Summer of 2023, and the final data collection ended in February of 2024. The study consisted of two sections: survey design and focus group interviews. The development of the survey items consisted of multiple stages. First, the items for perceived knowledge and actual knowledge were chosen from the research synthesis. These items were first modified after performing cognitive interviews with two parents of students with disabilities. The items were reviewed using the content validity index through three experts who work with parents of students with disabilities. Finally, the items were piloted to ensure their reliability. The survey was sent to different parent information and training centers and national organizations across the country.

As for the focus group, I wanted to explore what information parents from CLD backgrounds were seeking and what could help the parents access the information they wanted to learn about. The question items for the focus group were developed through multiple steps. First, the questions were reviewed by a parent of a student with disabilities. Then, the items were reviewed by a professor expert in qualitative studies, and more changes were made after the feedback. With the revised items, a pilot focus group was conducted. Lastly, three focus groups were conducted using Zoom and Teams.

The findings from the survey showed that parents perceived knowledge and actual knowledge were, in fact, two different constructs due to the low positive correlation between the two factors. Moreover, the only predicting variable that was significant for both actual knowledge and perceived knowledge was the parent's reported understanding of the procedural safeguard documents, but other predictors (i.e., grade level and frequently reading the procedural safeguards) that were significant for actual knowledge were different from perceived knowledge.

Additionally, the findings from the focus group revealed that parents want information about different support groups they could connect with, the different educational resources available for students provided by school districts, and information about the IEP process. They wanted this information to be organized by either the transition groups or disability categories and to include resources that are translated into Spanish.

However, there were limitations to the study. First, both the survey and focus groups had participants who were mostly connected to parent training centers or support groups. The responses from the data could be biased because many parents in special education are not connected to support groups or parent centers (D’Angelo et al., 2023).

Implications

The findings from the survey and the focus groups have several implications. First, the survey study showed that parents' perceived knowledge and actual knowledge may be two different constructs. This is an important finding because, as the research synthesis has shown, many researchers used the terms perceived and actual knowledge interchangeably. Moreover, places that provide special education training for parents also use both terms interchangeably. For both researchers and training providers, one should choose to decide on what they want to measure. If they want to measure how much parents actually know, assessing actual knowledge would be more beneficial. On the other hand, if they want to know the parents' perceptions, asking the parents using a Likert scale would be sufficient.

The second implication from the study findings and research synthesis is the issue of the readability of the special education documents. The research synthesis showed that the procedural safeguards documents were written at the graduate reading level, but many parents in special education may not have the proficiency to comprehend the documents. Moreover, the survey data showed that parents' actual knowledge of special education rights and their perception of having a good understanding of the procedural safeguards were statistically significant. These findings imply that parents who perceived that they understood the procedural safeguards documents have good actual knowledge of the law. However, if the documents are written at a level that is not understandable for most parents, the information written in the documents may not be accessible to many parents who need it. Therefore, education leaders should revise the procedural safeguards documents with lower readability levels so more parents can know their rights.

Finally, education leaders should reconsider how and what resources they are providing to parents of students with disabilities. School systems provide different information in many ways, but there are specific information parents want to get from schools. The focus group interviews showed that parents want information about support groups or parent centers so that they could easily contact other parents who journeyed through the path before them. They also wanted information about the different available resources schools and districts could provide to parents. Although the Individualized Education Plan for each student must be arranged based on the unique needs of a student, many parents do not even know what options are available for their children. Finally, many schools have various information for parents, but with a little change in the format and organization, more parents could access that information easily. Some recommendations by the parents include organizing by transition group or disability category and providing information in other languages such as Spanish.

Future Directions

The findings and the limitations of the study led to two research questions for future researchers: 1) Given a bigger sample size with a better representation of the special education parent population, what are the predictor variables that influence the actual knowledge and perceived knowledge? 2) Would lowering the readability of the procedural safeguards increase parent's actual knowledge of their rights? To address the first research question, a replication of this study should be done in collaboration with different schools instead of recruiting through parent centers. Such replication would result in a bigger sample size with a better representation of the parent populations. Also, more actual knowledge question items could be generated if the study was done by one state. I had only included 5 question items because of the different special education laws and regulations by different states, but I wanted a national survey. If the study

were to be done from a state, researchers would be able to generate more question items specific to the state law.

To address the second research question, researchers could either compare a state that has lower readability procedural safeguards with a state that has high readability procedural safeguards to test the effect of the readability on parent's actual knowledge. Another way to answer this question would be to revise procedural safeguards documents to a lower level and test parents' actual knowledge using an RCT design. More studies should be done to improve parents' knowledge that encompasses diverse backgrounds so that more parents in IEP meetings can truly collaborate and advocate for their children.

Conclusion

This dissertation study explored parents' understanding of special education rights and process. The research synthesis showed how different researchers measured parents' understanding of special education rights and processes, and through the synthesis, I learned that parents' perceived knowledge and actual knowledge may be two different constructs. This information became the foundation of the research study, which explored the two different types of knowledge and ways that could improve parent's knowledge.

The findings from the study bring important implications for education leadership, researchers, and parent training programs that could ultimately improve parents' knowledge of the special education rights and process. Education has been thought of as a key to success in our society. Although receiving a free appropriate public education for students with disabilities has been granted by the law, not every student gets the same quality of education they need. One key to better educational equality could be through improving parents' knowledge. For the past decades, schools were required to provide procedural safeguards to parents so parents would

know their rights. Now may be the time when changes need to be made to improve parents' knowledge other than passing out the procedural safeguards documents.

Appendix A

Table 1 *Research Studies on Parent's Knowledge and Understanding*

Author (Pub. Year)	Title	Aspect of Special Education Process	Research Interest relating to parent's knowledge or understanding
Fitzgerald & Watkins (2006)	Parents' Rights in Special Education: The Readability of Procedural Safeguards	Procedural Safeguards	Readability of Procedural Safeguards
Mandic, Rudd, Hehir & Acevedo-Garcia (2012)	Readability of Special Education Procedural Safeguards	Procedural Safeguards	Readability of Procedural Safeguards
Lo (2014)	Readability of Individualized Education Programs	IEP Document	Readability of IEPs
Rosas & Winterman (2014)	Are parents really partners in their 'hild's education?	Sample state's IEP Document	Readability of Sample IEPs
Gray, Zraick, & Atcherson (2019)	Readability of Individuals With Disabilities Education Act Part B Procedural Safeguards: An Update.	Procedural Safeguards	Readability of Procedural Safeguards
Torres-Burgo, Reyes-Wasson, & Brusca-Vega (1999).	Perceptions and needs of Hispanic and non-Hispanic parents of children receiving learning disabilities services	IEP Process	Parents' Perceptions of the special education process
Spann, Kohler & Soenksen, . (2003)	Examining parents' involvement in and perceptions of special education services: An interview with families in a parent support group.	IEP Process	Parents' Perceptions of special education knowledge and services

Simon (2006)	Perceptions of the IEP Requirement	IEP Process	Parents' Perceptions compared to teachers' perceptions. Perceptions compared among different educational levels
Lo (2005)	Barriers to Successful Partnerships with Chinese-Speaking Parents of Children with Disabilities in Urban Schools	IEP Process	Chinese parents' perceptions of successful partnership and their awareness of their parental rights
Fish (2008)	The IEP Meeting: Perceptions of Parents of Students Who Receive Special Education Services.	IEP Process	Parent's Perception of IEP Process (esp., IEP meeting)
Harrison, State, Wills, Custer, Miller (2017)	Transition goals for youth with social, emotional, and behavioral problems: Parent and student knowledge	IEP Process (Transition)	Parents' knowledge of transition goals compared with students' knowledge of transition goals and the students' IEPs.
Burke, Rios, Garcia & Magana (2020)	Examining differences in empowerment, special education knowledge, and family–school partnerships among Latino and White families of children with autism spectrum disorder	Special Education Knowledge	Differences in special education knowledge between White families and Latino families
Rios, Aleman-Tovar & Burke (2020)	Special education experiences and stress among Latina mothers of children with	Special Education Knowledge	Latina mothers' special education knowledge

	autism spectrum disorder (ASD)		
Fisher, Willis, Ransom 2020	Parent knowledge of the definition of FAPE in light of the Endrew vs. Douglas County School Board decision	FAPE	Parents' knowledge about *Endrew*
Huscroft-D'Angelo, Farley, Duppong Hurley, Lambert & Trout (2021)	Engaging Parents in Special Education: An Examination of Knowledge and Access to Resources	IEP Process	Parents' perceived knowledge of special education Rights, IEPs, and Communication.

Table 2 *Readability of Special Education Documents*

Author (Pub. Year)	Sample	Readability Formula	Other Characteristics/data observed
Fitzgerald & Watkins (2006)	Parents' Right documents from 49 states (Ohio was under revision) and D.C. They analyzed the Notice, Records, and Mediation sections.	New Dale-Chall formula (Chall & Dale, 1995) for word-based; Flesch Grade Level (FGE; Flesch, 1974) formula for syllable based	Print size, the number of pages, acronyms, tables/figures, pictures/illustrations, samples and examples, glossary, table of contents, section headings, and Q&A format.
Mandic, Rudd, Hehir & Acevedo-Garcia (2012)	50 States and DC's Procedural Safeguards (n=51) They analyzed Parental Consent, Due Process Impartial Hearings, and Discipline sections.	SMOG readability formula (McLaughlin, 1969)	Estimate of literacy of parents of students with disabilities receiving special education using the 2003 National Assessment of Adult Literacy (NAAL), SEELS and NLTS-2.
Lo (2014)	28 IEPs (n=28) Grade Level: K-11; Type of Disability: Autism; Intellectual impairment, Hearing	Flesch Reading Ease and the New Dale Chall formulas.	Font, length, line spacing, and acronyms.

	Impairment, Health Impairment and specific learning disability, emotional Impairment, Health Impairment		
Rosas & Winterman (2014)	50 states sample IEPs provided through websites (n=50) 50 states' Handbooks/ manuals on special education (n=50)	Fry's Readability Index	Estimate of a'ults' literacy level and education attainment using the National Center for Education Statistics and the U.S. Department of Commerce, Census Bureau
Gray, Zraick, & Atcherson (2019)	50 States and DC's Procedural Safeguards (n=51); and U.S. Department of Education's Procedural Safeguard template (n = 1) They analyzed the Parental Consent, Due Process Impartial	Flesch-Kincaid (Flesch, 1965), Gunning fog index (Gunning, 1952), Flesch Reading Ease (Flesch, 1948), and SMOG (Simple Measure of Gobbledygook) (McLaughlin, 1969)	Average sentence length, percentage of long words, percentage of complex words, percentage of difficult sentences, and choice of active or passive voice

	Hearing, and Disciplining Students With Disabilities sections.			

Table 3 *Parents' Reported Knowledge and Understanding*

Author (Pub. Year)	Sample Size	Sample Recruitment	Sample Demographic	Research Design Relating to Knowledge or Understanding
Torres-Burgo, Reyes-Wasson, & Brusca-Vega (1999).	Hispanic parents (*n*=27) Non-Hispanic parents (*n*=23)	Schools	Hispanic parents (*n*=27) Non-Hispanic parents (*n*=23) 70% of Hispanic parents spoke Spanish at home as the primary language. Students' Disability: Learning Disability	Survey (*Yes/No*)
Spann, Kohler & Soenksen (2003)	Parents (*n*=45)	Support Group: a parent support group with a estimated 500 members including a estimated 300 families of students with ASD	Race/Ethnicity: Not Reported Students' Disability: Autism or related pervasive developmental disability	Survey (Likert Scale using *low, moderate, high*)
Lo (2005)	Parents (*n*=10)	Schools	Chinese-speaking parents (*n*=100) 9 parents' primary Languages was	Survey (*True/False*) and Interview

			Cantonese and one Mandarin Student's Disability: Learning Disability (*n*=3); Autism (*n*=2); Speech Impairment (*n*=2); Developmental Disability (*n*=2); Hearing Impairment (*n*=1)	
Simon (2006)	Teachers (*n*=98), Parents (*n*=143),	Schools	Teacher sample (*n*=98): Parent sample (*n*=143): Race/Ethnicity of parents: African American = 40%; Asian= 2%; Hispanic/Latino= 27%; Caucasian=21%; Other or missing = 10 % Student's Disability: Not Reported	Comparison using a survey (Likert Scale from *Strong Agree* to *Strongly Disagree*)
Fish (2008)	Parents (*n*=51)	Support Group: a family support agency that provides services to SWDs and families	Race: White=80%; Black=6%; Hispanic=12%; AAPI=0%; American Indian or Alaska Native=2% Student Disability: Mental retardation=29% Autism= 21%; Learning disabilities= 14%; Multiple disabilities=	Survey (Likert Scale from *Strongly Disagree* to *Strongly Agree*)

			12%; Orthopedic impairments= 8%; Other health impairments= 6%; Speech or language impairments = 4%; Developmental delay =4%; Emotional disturbance = 2%	
Harrison, State, Wills, Custer, Miller (2017)	Parents (*n*=93) Students (*n*=93)	Schools	Race/Ethnicity: White= 55 (59.14%); African American= 32 (34.41%); Hispanic/Latino=4 (4.3%); Caucasian and Native American=1 (1.08%); Native American= 1 (1.08) Student Disability: Emotional disturbance 22; Specific learning disability 43; Other health impairment 24; Other (e.g., visual impairment) 4	Survey (Dichotomous *Yes/No* responses followed by the qualitative response for "yes") and IEP documents.
Burke, Rios, Garcia & Magana (2020)	Latino Parents (*n*=55) White Parents (*n*=44)	Communities: the participants were part of an advocacy training participants and were recruited from community-based organizations that served families of	Latino Parents (n=55)White Parents (n=44) Students Disability: ASD	Survey (Multiple-Choice questions about special education knowledge with only one correct answer for each question)

		children with ASD, flyers, word-of-mouth, emails, and social media.		
Rios, Aleman-Tovar & Burke (2020)	Latina Mothers (*n*=16)	Support Groups: parent and disability organizations	Latina Parents (n=16) Students Disability: ASD	Survey (Multiple-Choice questions about special education knowledge with only one correct answer for each question) and interview
Fisher, Willis, Ransom 2020	Parents (*n*=108)	Support Groups: Facebook and listservs of Kids with Asperger's Parent Group, Kids with Special Needs, and Autism Acceptance. The databases of TASH and the Peal Center.	Race/Ethnicity= White (n=87, 81%) Student's Disability: Not reported	Survey (Likert Scale from *No Knowledge* to *having Significant Expertise*, and open-ended questions)
Huscroft-D'Angelo, Farley, Duppong Hurley, Lambert & Trout (2021)	Parents (*n*=133)	School Districts and Community Agencies: Emails or Facebook to contacts of the participating schools and community agencies.	Race/Ethnicity =N/A Urban= 72% Student's Disability: Autism (40.6%); Intellectual Disability (38.3%); Speech (33.1%); Other Health Impairment (17.3%); Specific Learning Disability (16.5%); Multiple	Survey (Likert Scale from *Very Little* to *A lot*)

			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%).

Appendix B

Content Validity Index

Instruction to the experts: Please read each question item (located in the first column) and choose one option for Relevancy and one option for Clarity for each question.
The first set of question is to measure Parent's Perceived Knowledge of Special Education Rights and Process.

Every child receiving special education has certain rights that are granted to them under the federal special education law known as the Individuals with Disabilities Education Act (IDEA). Parents are also given specific rights by the special education law to ensure they can be equal partners of their child's education. The next set of questions will ask what you think of special education rights.

Question 1 I know my rights as a parent/guardian under the special education law. Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 2 A**s a parent,** I know my child's rights **under** the special education law. Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear

Comments:				

Question 3 I understand my child's IEP and its content (what my child and the IEP team need to work on). Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 4 **I know the steps of the IEP process** Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 5 I know the steps I can take if I have a disagreement	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear

about my child's services and IEP program. Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

The next questions will assess the Parent's Actual Knowledge of Special Education Rights And Process.

Question 1	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
At the federal level, what are your dispute resolution options? (Choose one) a. Due process and filing a complaint b. Mediation only c. Due Process and Mediation d. Filing a complaint, due process, and mediation	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 3 A**t the federal level,** which of the following statements about Prior Written Notice is TRUE? (Choose one) a. Prior Written Notice is an invitation to attend an IEP meeting b. Parents do not have the right to Prior Written Notice. c. The school must provide Prior Written Notice to parents whenever the school proposes or refuses to initiate or change the identification, evaluation, or educational placement of the child, or the provision of FAPE to the child. d. Prior written notice includes information about the differences between the due process complaint and the State complaint procedures.	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 4 Which of the following words does not appear in the special education l**aw (**statute) or **rules** (regulations)? (Choose one) a. Mainstream b. Inclusion c. Least Restrictive Environment d. Appropriate	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 5 At a minimum, the school must get your consent for which of the following? (Choose one) a. Initial evaluation of your child b. Before providing special education services for the first time (initial IEP) c. Reevaluation of your child d. All of the above	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

Question 6 School districts must provide FAPE to eligible students with disabilities. What does FAPE stand for? (Choose one) a. Fair And Public Education b. Free Appropriate Public Education c. Fair Appropriate Program Education d. Free And Productive Education	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments:				

The next two questions ask parents' Special Education Rights Knowledge Seeking Behavior.

Question 1 **a**. I have attended training about special education law and processes in the past ("training" includes in-person or online by parent support groups, advocacy groups, university research programs, etc.). (Choose One) *Never; Once or Twice; Several Times; Frequently* b. (If yes) How long was the training? (Choose the longest training you attended) *never attended; 1-2hours; 3-6 hours; 7 or more hours* *c. (***If no), Have you heard of your state's Parent Training and Information Centers (PTIs)?** *(yes or no)_*	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision
	( )	Very relevant	( )	Very Clear
Comments				

Question 2 a. I have read the Procedural Safeguards notice (Procedural Safeguards notice/document explains parent's rights under the	**Mark (X)**	**Relevancy**	**Mark (X)**	**Clarity**
	( )	Not Relevant	( )	Not clear
	( )	Item needs some revision	( )	Item needs some revision
	( )	Relevant but needs minor revision	( )	Clear but needs minor revision

special education law). (Choose One) *Never; Once or Twice; Several Times; Frequently; I don't know what it is.* **b. If so,** I understand what is written on the Procedure Safeguards notice. Response choice (Choose one): *Strongly disagree, Disagree, Neutral, Agree, Strongly Agree*	( )	Very relevant	( )	Very Clear
Comments:				

Appendix C

Survey:

1) **Screening question**: Does your child currently have an IEP *(Individualized Education Program or Plan)? Yes or No*
2) **Empowerment** (Response choice**:** not at all; occasionally true; somewhat true; true; very true)
    1. I feel that I have a right to approve all services my child receives.
    2. I know the steps to take when I am concerned my child is receiving poor services.
    3. I make sure that professionals understand my opinions about what services my child needs.
    4. I am able to make good decisions about what services my child needs.
    5. I am able to work with agencies and professionals to decide what services my child needs.
    6. I make sure I stay in regular contact with professionals.
    7. My opinion is just as important as professionals' opinions in deciding what services my child needs.
    8. I tell professionals what I think about services being provided to my child.
    9. I know what services my child needs.
    10. When necessary, I take the initiative in looking for services for my child and family.
    11. I have a good understanding of the services system that my child is involved in.
    12. Professionals should ask me what services I want for my child.
3) **Perceived Knowledge Instruction**: Every child receiving special education has certain rights granted to them under the federal special education law known as the Individuals with Disabilities Education Act (IDEA). The special education law also gives parents specific rights to ensure they can be equal partners in their child's education. The next set of questions will ask for your thoughts on your understanding of special education rights.
    1. I know my rights as a parent/guardian under the special education law. (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)
    2. As a parent/guardian, I know my child's rights under the special education law. (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)
    3. I know the steps of the IEP process. (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)
    4. I know the steps I can take if I disagree with an IEP team decision. (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)
    5. I understand my child's IEP and its content (what my child and the IEP team need to work on). (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)

4) **Actual Knowledge Instruction**: The next five questions will ask about special education rights from the special education law and regulation. If the question asks "at the federal level" it means "the federal special education laws and regulations". Your honest answers are really important for this survey, so please answer the questions without using other sources.
    1. At the federal level, what are your dispute resolution options? (Choose one)
        i. Due process and filing a complaint
        ii. Mediation only
        iii. Due Process and Mediation
        iv. Filing a complaint, due process, and mediation
    2. At the federal level, which of the following statements about Prior Written Notice is TRUE? (Choose one)
        i. Parents do not have the right to Prior Written Notice.
        ii. Prior Written Notice is an invitation to attend an IEP meeting,
        iii. The School must provide Prior Written Notice to parents whenever the School proposes or refuses to initiate or change the identification, evaluation, or educational placement of the child, or the provision of FAPE to the child.
        iv. Prior written notice includes information about the differences between the due process complaint and the State complaint procedures.
    3. Which of the following words does not appear in the special education statute (law) or regulations? (Choose one)
        i. Mainstream
        ii. Inclusion
        iii. Least Restrictive Environment
        iv. Appropriate
    4. At a minimum, the School must get your consent for which of the following? (Choose one)
        i. Initial evaluation of your child
        ii. Before providing special education services for the first time (initial IEP)
        iii. Reevaluation of your child
        iv. All of the above
    5. School districts must provide FAPE to eligible students with disabilities. What does FAPE stand for? (Choose one)
        i. Fair Appropriate Program Education
        ii. Free And Productive Education
        iii. Fair And Public Education
        iv. Free Appropriate Public Education
5) **Parent's Experiences: Training**
    1. I have attended training about special education law and processes in the past ("training" includes in-person or online by parent support groups, advocacy

groups, university research programs, etc.). (Choose One) Never, Once or Twice, Several Times, Frequently
2. How long was the training? (Choose the longest training you attended) Never attended; 1-2 hours; 3-6 hours; 7 or more hours
3. Have you heard of your state's Parent Training and Information Centers (PTIs)? Yes/No

6) Your Experience: Procedural Safeguards

1. I have read the Procedural Safeguards notice (Procedural Safeguards notice/document explains parent's rights under the special education law). (Choose One) Once or Twice; Serval Times; Frequently; I don't know what it is
2. I understand what is written on the Procedure Safeguards notice. (Response choice: Strongly disagree, disagree, Neutral, Agree, Strongly Agree)

7) Demographic

1) What is your total household annual Income:
   Less than $50,000
   $50,000 - $150,000
   $Over $150,000
   Prefer not to answer
2) What is your highest level of education you have completed:
   1. Less than High School
   2. High school graduate/GED
   3. Some college
   4. Two year degree (Associate degree)
   5. Four-year degree (Bachelor's degree)
   6. Master's degree
   7. Doctorate
   8. Prefer not to answer

3) What is your child's primary disability category for special education:
   1. Intellectual disability
   2. Autism Spectrum Disorder
   3. Specific Learning Disability
   4. Deafness
   5. Deaf-Blindness
   6. Visual impairment/blindness
   7. Traumatic brain injury
   8. Multiple disabilities
   9. Orthopedic impairment
   10. Other health impairments
   11. Speech or language impairment
   12. Emotional disturbance
   13. Other

14. I don't know

4) My child is in_____:
    1. Preschool
    2. Elementary School
    3. Middle School
    4. High School
    5. Other_____
5) What is your race:
    1. American Indian or Alaska Native
    2. Asian
    3. Black or African-American
    4. Native Hawaiian or Other Pacific Islander
    5. White
6) Are you Hispanic? Yes/No
7) What language do you speak at home?
    English
    Spanish
    Other

Appendix D-1

Recruitment

Email to Organizations:

> My name is Julianna Kim, and I'm a Ph.D. student in Special Education at the University of Maryland, College Park, with my research interest in family involvement and advocacy (here is more about me in an OSEP interview).
>
> I'm conducting a study to explore whether parents' perceptions of special education rights align with their actual knowledge, because parents' perceived knowledge (perception) and actual knowledge (or factual knowledge) are often used interchangeably, but they may not be the same. To do this, I'm planning a nationwide survey with input from various parent backgrounds, especially hoping to get input from families who have been less studied or represented in past research.
>
> I kindly ask for your organization's support in promoting the survey among parents of special education students. The survey is short, taking only 10-15 minutes, and as an expression of gratitude for their time, participants will have the opportunity to enter a raffle.
>
> At the end of the survey, there will also be an advertisement asking the participants if they are willing to share their experiences regarding knowledge and resource gathering through a Zoom focus group.
>
> Your support in sharing this survey would be greatly appreciated. The survey can be easily shared with the message and link below:
>
> > Special Education Rights Survey: Does your child have an IEP? If "yes," participate in a study examining your understanding of special education rights and the process by completing a 10–15 minute survey now. Every participant who finishes the survey can enter a raffle to win a $10 Amazon gift card or Starbucks gift card. If you are 18 years or older and a parent/guardian of a child aged 3 to 26 with an IEP, you can participate. Click here to participate [Insert survey link here] (IRB Net ID#2031529-1)
>
> If you have any questions about the study, please contact me at jkim1219@umd.edu.
>
> Thank you for considering my request. Your contribution would be immensely valuable to my research study.

Appendix D-2

Recruitment

Through the Survey:

> Before you go, we have one more favor to ask. If you know any parents of students with Individualized Education Programs (IEPs), please consider forwarding this survey. Having diverse experiences and unbiased responses from parents of all backgrounds is very important.
>
> Thank you again for your time in completing the survey and sharing your experiences. If you'd like to enter a raffle for a $10 Amazon gift card, please use this link to provide your email address.
>
> **Focus Group Recruitment (Advertisement):** Share Your Valuable Experience! If you are a parent or guardian from racial or ethnic groups that have been underrepresented in previous academic studies in special education, such as Asians, Blacks, Hispanics, Native Americans, and non-English language native speakers, we invite you to participate in a 1-hour Zoom focus group to share your experiences.
>
> Who is doing the research:
>
> > Julianna Kim, a doctoral candidate at the University of Maryland, College Park; email: jkim1219@umd.edu ; IRB approved research: IRB Net ID#2031529-1
>
> Why: The purpose of the focus group is to know how parents of students in special education learn about different resources. We want to hear your experience and opinion on how you find different special education resources, especially from parents with diverse backgrounds who are less studied in past research studies.
>
> How long: 1 hour
>
> Where: On-line through Zoom
>
> Who can join:
>
> 1) If you are a parent or guardian of a child between the ages 3 and 26 with an IEP, *you* must be 18 years or older, and meet at least **one** of these categories:
>   - American Indian and Alaska Native
>   - Asian
>   - Black or African American
>   - Hispanic/Latino/ Spanish Origin
>   - Middle Eastern or North African
>   - Native Hawaiian, or Other Pacific Islander
>   - Someone who speaks a language other than English at home
>   - Immigrant

*Please note that the focus group will be video/audio recorded to transcribe the discussion, but all participants' identities will be protected.

If interested in sharing your experience, please click this link.

Appendix D-3

FOCUS GROUP: DO YOU HAVE A CHILD IN SPECIAL EDUCATION?

We want to know about your experience getting special education resources

Share Your Valuable Experience! If you are a parent or guardian from racial or ethnic groups that have been underrepresented in previous academic studies in special education, such as **ASIAN, BLACK/AFRICAN AMERICAN, HISPANIC/LATINO, NATIVE AMERICAN, OR NON-ENGLISH LANGUAGE NATIVE SPEAKERS**, we invite you to participate in a 1-hour Zoom focus group to share your experiences and receive **a $20 gift card.**

WHO IS DOING THE RESEARCH:

Julianna Kim, a doctoral candidate at the University of Maryland, College Park;
email: jkim1219@umd.edu

WHY: The purpose of the focus group is to know how parents of students in special education learn about different resources. We want to hear your experience and opinion on how you find different special education resources, especially from parents with diverse backgrounds who are less studied in past research studies.

HOW LONG: 1 hour

WHERE: On-line through Zoom

WHO CAN JOIN: 1) If you are a parent or guardian of a child between the ages 3 and 26 with **an IEP**, you must be 18 years or older, **and** 2) meet at least **one** of these categories:

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic/Latino/ Spanish Origin
- Middle Eastern or North African
- Native Hawaiian or Other Pacific Islander
- Someone who speaks a language other than English at home
- Immigrant

WHEN: Choose 3/14/2024 (Thursday) at 7 pm (ET) OR 3/16/2024 (Saturday) at 1 pm (ET)
*seats are limited to **6 participants** for each group

*Please note that the focus group will be video/audio recorded to transcribe the discussion, but all participants' identities will be protected.

If you are interested in sharing your experience, please click this link.

IRB approved research: IRB Net ID#2031529-1

Questions? please email Julianna Kim at jkim1219@umd.edu | IRB approved Net ID#2031529-1

Appendix E

Focus group questions:

a. How do you find out about different special education resources? What is the information that you are looking for?
    i. Was there certain information that was easier/harder to find?
b. How did you learn about your special education rights?
c. How did having this information or resources you learned help you?
d. What information about special education would you like to learn more about? a. Where or from whom would you like to learn this information? (e.g., School, school district website, family support groups, other)
e. If you were designing a website or handout for parents about special education, what information would you include?

Bilingual experienced parents focus group questions:

a) From what you have seen from helping parents in diverse communities: a. How do they find out about different special education resources? What is the information that they were looking for? Was there certain information that was easier/harder to find for them?
b) How do they learn about your special education rights?
c) How did having this information or resources they learned help them?
d) What information about special education would they like to learn more about? Where or from whom would they like to learn this information (e.g., school, school district website, family support groups, other)? *And how would they want to access these resources?
e) If you were designing a website or handout for parents about special education, what information would you include?

Appendix F

Table 4

Survey Study Participants' Demographics

Characteristics	n (%) (Total = 116)
Race/Ethnicity	
American Indian or Alaska Native	4 (3%)
Asian	2 (2%)
Black or African-American	18 (16%)
Native Hawaiian or Other Pacific Islander	0 (0%)
White	92 (79%)
Latino	
Yes	23 (20%)
No	90 (78%)
Speak a language at home	
English	111 (96%)
Spanish	2 (2%)
Other	1 (1%)
Household Annual Income	
Less than $50,000	20 (17%)
$50,000 - $150,000	54 (47%)
$Over $150,000	37 (32%)
Prefer not to answer	2 (2%)
Education	
Less than High School	2 (2%)
High school graduate/GED	5 (4%)
Some college	18 (16%)
Two year degree (Associate degree)	13 (11%)
Four-year degree (Bachelor's degree)	39 (34%)
Master's degree	30 (26%)
Doctorate	6 (5%)
Prefer not to answer	0 (0%)
Child's Grade	
Preschool	16 (14%)
Elementary School	56 (48%)
Middle School	27 (23%)
High School	13 (11%)
Other	2 (2%)
Child's Disability	
ASD	42 (36%)
Other	70 (60%)

Table 5

Focus Group Participant's Demographics

Characteristics	Families of students with disabilities	Bilingual Spanish speaking staff
Race/Ethnicity		
Asian	*n* = 2	*n* = 0
Black or African American	*n* = 1	*n* = 0
Hispanic/Latino	*n* = 2	*n* = 5
Child's Grade		
Preschool - Kindergarten	*n* = 1	*n* = 1
Elementary School	*n* = 4	*n* = 2
Middle School	*n* = 0	*n* = 0
High School	*n* = 0	*n* = 1
Other	*n* = 0	*n* = 1
Child's Disability		
Autism Spectrum Disorder	*n* = 2	*n* = 2
Deafness	*n* = 1	*n* = 0
Specific Learning Disability	*n* = 0	*n* = 2
Multiple disabilities	*n* = 1	*n* = 1
Other	*n* = 1	*n* = 0
Speaks a language other than English at home		
Yes	*n* = 4	*n* = 5
No	*n* = 1	*n* = 0
Years working for parents (average)	NA	6.8 years

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