PART C PROCEDURAL SAFEGUARDS – ASSESSING THE UNDERSTANDABILITY, READABILITY, AND AVAILABILITY TO ALL CAREGIVERS IN EARLY INTERVENTION

By

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THESIS ABSTRACT

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Historically, many caregivers are dissatisfied with their inclusion in their child's EI services. As a potential solution to this problem, federal law mandates all states to provide parents with a procedural safeguard document. The purpose of this document is to outline the rights of the parent and the child within the EI system. The procedural safeguard notices from all 50 states in the United States, retrieved from states' EI websites, will be analyzed for this study. The notices were examined for their use of plain language, their readability, and their availability in languages other than English. Additionally, the webpages on which the notices were found were examined for accessibility. Findings indicated that notices were of moderate understandability, availability in other languages and exceedingly low readability. The webpages on which the notices were found varied widely in accessibility. Implications for EI are discussed at the federal, state, and practitioner level.

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CHAPTER I

LITERATURE REVIEW

In the United States, the law mandates that all children with disabilities who qualify have access to a quality education, which includes opportunities for their families to participate (Individuals with Disabilities Education Act, 2004). The Individuals with Disabilities Education Act (IDEA) is a federal law initially passed in 1990 and updated in 2004. IDEA provides states guidance on delivering a free and appropriate public education from birth to graduation to children with disabilities (Moore & Montgomery, 2018). While Part B (Subchapter II) of IDEA addresses students aged 3-21, Part C (Subchapter III) of IDEA specifically addresses children aged birth to age three. Birth to three services is referred to as early intervention (EI) services. According to data from IDEA in 2019, 3.7% of infants and toddlers ages birth to three in the United States receive EI. Part C of IDEA outlines the EI process, which includes EI referral, evaluation, eligibility, and appropriate intervention (IDEA 2004). Part C also highlights the requirement to provide family-centered care (IDEA 2004), which is widely considered the best practice for supporting child development and academic outcomes. Including caregivers in their child's early intervention services is not only better for the child's overall education and development (Paul & Roth, 2011), but it is also the law (Individuals with Disabilities Education Act, 2004).

A family-centered approach involves the child's family in the development and delivery of services, rather than only serving the individual child (Paul & Roth, 2011). According to the American Speech and Hearing Association (ASHA) (2023), family-

centered practice means learning about the child's family system and developing assessments and intervention in context of the family's system and preferences, as well as including parental caregivers as key-decision makers during care. To achieve family-centered care, it recommended that providers in EI follow the four core concepts of family-centered care which include respect, (i.e., listening to and honoring the preferences of the child and family when developing assessment and services); information sharing, communicating complete and accurate information in ways that are useful for the family; participation, encouraging the family to participate as much or as little as they prefer; and collaboration, meaning client and family participation in all aspects of the EI system, including policy development, implementation, and evaluation (ASHA, 2023). In essence, EI providers are responsible for ensuring that family members' preferences and goals for the child are reflected in every step of the EI process and providing opportunities for engagement.

According to a systematic review, (American Academy of Pediatrics, 2012), family-centered care leads to improved child and family outcomes, experiences, and satisfaction when compared to child-centered EI services, as well as professionals' greater understanding of the family's needs, more family follow-through with intervention plans, improved clinical decision making, and more effective provider-family communication resulting in a decrease of misunderstandings (ASHA, 2023). In sum, family-centered care is superior to individual-centered care, as it leads to better outcomes of services and is outlined in the law serving children with disabilities. Moreover, as professionals in EI, there are ethical obligations to provide effective and equitable services that respond to diverse communication needs and align with principles

of health equity (United States Department of Health and Human Services, 2023; ASHA, 2023). The principles of health equity include quality care that is "responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and other communication needs" (United States Department of Health and Human Services, 2023), meaning that health professionals, such as those in EI, are ethically obliged to ensure that all caregivers have the same access to high quality care. Because the family-centered approach is considered best practice in EI (Paul & Roth, 2011; ASHA 2023), as well as the foundation of IDEA (2004), it should be implemented into all special education services.

An examination of parental caregiver involvement in special education throughout history shows a trend of caregivers becoming more involved in their child's services over 30 years and increasingly advocating for the needs of their children in special education (Mead & Paige, 2008). While this finding suggests that parental caregivers are more involved than they once were, more recent research indicates that caregivers of children in EI are being excluded from their child's educational decisions (Villeneuve et al., 2013; Bruder & Dunst, 2015; Dinneson & Morgan, 2018; Rispoli et al., 2018; McManus et al., 2020; Gilden, 2022; Durán et al., 2022) and struggle to navigate the special education system (Burke, 2013; Blanchard et al., 2021). Most notably, Rispoli et al. (2018) and Durán et al. (2022) noted the specific exclusion of caregivers from culturally and linguistically diverse (CLD) backgrounds. Rispoli et al. (2018) that caregiver involvement was higher for White caregivers than for CLD caregivers, largely due to poor communication from educational personnel. In focus groups reported by Durán et al. (2022), Latine caregivers described feeling excluded from

their child's education and having reduced access to information about their EI program. Furthermore, a systematic review of CLD parental involvement by Cobb (2014) found that when "CLD parents were unaware of their rights, as well as the rights of their children, they were less likely to access or actively interact with supports they needed, such as interpretation and/or translation services" (p. 51). These findings imply that, despite the move toward family-centered services, research with families from varied backgrounds reveals a lack of access to information about the special education system, particularly as related to families' rights as codified in law.

Procedural safeguards

Barriers to accessing crucial information is one main cause of limited caregiver inclusion in EI services. This raises the question of what can be done to increase the degree to which caregivers of a child in EI have the information necessary to be involved in their child's education. One tangible way IDEA (2004) seeks to provide caregivers with information about their rights within the educational process is via establishing procedural safeguards and providing this information to parents.

The content of the Part C procedural safeguards is outlined in Subchapter 3, section 1439 of IDEA 2004. Procedural safeguards are generally "designed to protect the rights of parents and their child with a disability and, at the same time, give families and school systems several mechanisms by which to resolve their disputes" (Center for Parent Information and Resources, 2021). They guarantee caregivers' rights to share in decision making with the EI agency regarding identification and diagnosis, evaluation, placement, services, individualized educational planning, and transition to elementary school and

beyond. Essentially, the procedural safeguards are a compiled list of caregivers' rights that each state's EI agency must offer within the guidelines set by IDEA (2004). Table 1 contains the contents of the procedural safeguard notice and their definitions, as indicated by IDEA (2004). The procedural safeguards must be available for caregivers to access with ease, as specified by IDEA (2004) guidelines. Specifically, the procedural safeguards must be available on the state's website so that caregivers can access the document any time.

Table 1

Components of Part C procedural safeguard notices (IDEA 2004)

Component	Definition
1. Confidentiality of personally identifiable information (§§303.401)	Any information that could reveal the child's or family's identity is protected; caregivers must provide consent in writing and receive prior written notice before this information can be shared with other agencies.
2. Access to records (§§303.405)	Caregivers have the right to request to see their child's records at any time.
3. Prior written notice (§§303.421)	The EI agency must notify caregivers before any services are provided, changed, or refused.
4. Accept or deny services (§§303.420)	The EI agency must receive permission from the caregiver before evaluating, assessing, screening, or providing services to the child.
5. Surrogate parents (§§303.422)	If the EI agency cannot identify or locate a caregiver, or the child is a ward of the state, the rights of the child must be protected. Also, the EI agency may appoint a surrogate parent, per state guidelines.

Table 1 (continued).

Component	Definition
6. Dispute resolution (§§303.430)	Caregivers have the right to timely resolution of complaints through mediation, due process, or state complaint procedures.
7. Mediation (§§303.431)	The EI agency must provide a mediator upon caregiver request. A mediator is an impartial third party who aids in settling disputes between caregivers and the EI agency.
8. Native language (§§303.421)	The procedural safeguard notice must be written in language that is understandable to the general public and provided in the caregiver's native (first) language.

In addition to specifying the content of the procedural safeguards, as outlined in Table 1, IDEA (2004) also establishes when caregivers should be given access to the procedural safeguards and, to some degree, how the procedural safeguards provided to caregivers should be written. According to the Center for Parents Information and Resources (2021), caregivers are to receive an explanation of the procedural safeguards at least once a year in a document called a procedural safeguards notice (PSN). Each individual state's EI agency is responsible for writing the content of its PSN. Caregivers are entitled to a copy of the PSN upon initial referral of their child, at the start of a dispute resolution process, any time a caregiver requests a copy, or at least once a year if the caregiver is not otherwise provided with a copy. The consistent availability of the PSN is important, as they are an attempt to include caregivers in their child's education and are the easiest access caregivers have to their rights in EI. According to IDEA (2004), the PSN, as written by the states' EI agency, are also to be "understandable to the

general public", "provided in the native language of the parent or in another mode of communication that's used by the parent" and placed on the EI agency's "Internet Website". However, no additional guidance is provided in IDEA regarding these mandates. As such, there is room for states' interpretation regarding the length and format of the PSN and how much detail or explanation is included beyond the eight components of the procedural safeguards specified above. This study will examine the quality, readability, and accessibility of PSNs in IDEA Part C of all 50 states.

Understandable

IDEA (2004) states PSNs must be written in a way in which the "general public" can understand. However, the general public is not defined further and there is a lack of clarity on what exactly "understandable" (IDEA, 2004) means in context of the PSNs. In keeping with the spirit of the law, PSNs should be written in a way that caregivers from varied backgrounds can readily understand their rights. Notably, caregivers of children in special education are found to have lower literacy levels compared to national literacy data (Mandic et al., 2012), meaning that caregivers of a child in special education are even less equipped than the general public to comprehend a complex legal document. Thus, there is a need to examine the degree to which the PSNs are understandable to caregivers regardless of their education. Understandability can be captured in several ways. In this study, understandability is operationalized as (a) readability, and (b) adherence to the guidelines of plain language, as discussed below.

Readability. Readability is how easy to read, or understandable, a body of text is due to the way the text is written (Klare, 1963). Readability can be calculated by

readability formulas that consider sentence length, word length, and word familiarity (Kincaid et al., 1975), as well as the type of text (e.g., healthcare materials vs. educational materials). There are a variety of publicly available readability measures; many readability formulas generate an estimation of what United States grade level a person would need to achieve to comprehend the text (Kincaid et al., 1975). For example, if a body of text was calculated to be at an 11th grade reading level, a person would need to have completed at least the 11th grade reading comprehension curriculum to understand the text. Using readability formulas is a way to examine the necessary grade level a parental caregiver would need to comprehend written parent materials, such as PSNs.

Importantly, Nagro & Stein (2016) found that research regarding special education parent informational materials for Part B and Part C has recommended lower grade levels over a 30-year span. In fact, this research shows a decreasing trend in recommended reading levels, with ninth grade reading level being recommended in 1984 decreasing to a recommended fifth grade reading level in 2014. Therefore, based on this study, the recommended reading level for PSNs ranges from a 5th grade to a 9th grade reading level. However, a study by Mandic et al. (2012) found that 55% of all 50 states' PSNs for Part B were in the college level range of readability and 39% were in the graduate or professional level range. A more recent study by Morgan (2022) found that Part B parent materials were "exceedingly inaccessible to parents" (p. 149), with averaged grade levels falling between 10.8 and 13.5, meaning a high school or college level. This is more evidence that the readability of material provided to caregivers is much too complex in Part B. No research on the readability of Part C PSNs has been completed to date.

Plain language. While readability measures are one way to determine the comprehensibility of PSNs, these measures are not enough to determine the quality of the writing and organization within the PSNs. Having data about only the readability of the PSN says little about to what degree the PSN is written in a user-friendly way. For example, a PSN could have a low grade-level, indicating good readability, but could be organized in a way that makes reading difficult, such as lacking a table of contents or other visual support. Therefore, another measure is needed to determine the quality of the writing and organization in the procedural safeguard PSNs, such as measuring the extent to which they are written in plain language.

In 2010, the Plain Writing Act was signed into law, mandating that federal agencies "use clear government communication that the public can understand and use." The Act mandates that all legal documents, such as PSNs, written by government agencies receiving federal funding, such as state EI agencies, should be written in plain language (Schriver, 2017). Plain language is "writing that is clear, concise, well-organized, and consistent with other best practices appropriate to the subject or field and intended audience […] and is easier for members of the public to understand and to apply for important benefits and services for which they are eligible" (Executive Office of President Obama, 2011). In the case of EI, PSNs are legal documents in educational settings written for parental caregivers. By the definition above, for the PSNs to be written in plain language, the content of the notice should be clear and concise, organized to meet the reader's needs, and fully explain the rights of a caregiver and their child as defined in IDEA Part C. No research surrounding plain language in educational

documents was found in this literature review, meaning that no methods for examining plain language in educational documents was found.

Availability in multiple languages. Another element of making PSNs available to caregivers is having the PSNs available in the caregiver's primary language. IDEA (2004) states that the procedural safeguard notice must be "provided in the native language of the parent or in another mode of communication that's used by the parent, unless it is clearly not feasible to do so". By this definition, PSNs must be provided in the caregiver's first language, including American Sign Language, or mode of communication, such as Braille. To make procedural safeguards accessible to caregivers, PSNs should be *readily available* in several languages.

This legal requirement is particularly important given the linguistic diversity in the United States. Linguistic diversity is significant in the United States, with the US census in 2019 reporting 67.8 million, or 1 in every 5, Americans speaking a language other than English at home (Dietrich & Hernandez, 2022). The top 5 languages spoken in the United States. in addition to English are Spanish, varieties of Chinese (the author acknowledges that there are a variety of languages spoken in China, however the United States census reports them as one group) Tagalog, Vietnamese, and Arabic (Dietrich & Hernandez, 2022). The consequences of only having PSNs available in English is that CLD caregivers may only be able to understand part of, or none of, the procedural safeguards, and therefore not understand their rights. Having the PSNs available in at least the most common languages spoken in the United States is a reasonable expectation to set to include CLD caregivers as much as their non-CLD counterparts. There was no

research found on the availability of PSNs in languages other than English during this literature review.

Website Accessibility. Additionally, having the PSN available on the EI agency's website is part of IDEA (2004) law. Importantly, such websites must be accessible to users. The American with Disabilities Act (ADA) (2022) requires that state and local governments, including government agencies, like EI agencies or a state's Department of Education, make communication with disabled individuals as effective as communication to nondisabled individuals. This law includes state-run websites, such as the websites on which the PSNs are found. Accessibility of a website refers to the ease at which a person, specifically a person with disabilities, can navigate a website (ADA, 2022). The Web Accessibility Initiative (WAI) (2018), the developer of international accessibility standards, further states that, "web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them". Moreover, the WAI (2018) also states that web accessibility is helpful for all users of the Internet; for example, an accessible website is much easier to access on a smartphone than a website with inaccessible features. Several studies have found that website accessibility is beneficial to all users of the Internet (Schmutz and Sauer, 2018; Yesilada et al., 2015; Petrie & Kheir, 2007; Huber & Vitouch 2008), measured through higher user satisfaction ratings, as well as the effects of accessibility on how usable a website is. No research surrounding website accessibility in the education field was found during this literature review.

Purpose of this study

As established, family-centered practice has been shown to be more effective than child-centered practice and is outlined in IDEA Part C as the guiding principle for EI services. The main purpose of this study is to examine one component of family-centered care, families' access to information on their legal rights in the EI process, through analyzing the quality, availability, and accessibility of PSNs. While there is a small amount of research on the quality of PSNs in Part B, no studies have explored Part C procedural safeguards specifically. While the Part B and Part C procedural safeguards are similar in content, there are substantial differences in the philosophy and law for Part C as compared to Part B, warranting an independent investigation of Part C PSNs. In addition, the limited research available has examined only the readability of Part B documents only. However, as discussed, readability is not enough to determine the quality of PSNs or the degree to which a diverse public with varying educational, linguistic, and ability backgrounds have access to the information contained within the PSNs. Thus, PSNs in Part C should also be examined for their use of plain language, their availability in multiple languages, and the accessibility of the websites where they are available. Such an investigation will be beneficial in determining how PSNs could be improved to meet the EI mandate for family communication about their rights and, ultimately, family involvement in children's EI trajectories.

Given the purview of the laws stated previously and the importance of caregiver participation in EI, the purpose of this study is to determine to what extent states' Part C PSNs adhere to the requirements set by IDEA (2004), the Plain Language Writing Act (2011), and ADA (2022), by asking the following research questions:

1) To what extent are the procedural safeguards notices for IDEA Part C understandable to the general public (i.e., readable and written in plain language)?
2) To what extent are the procedural safeguards notices for IDEA Part C available in languages other than English?
3) To what extent are the procedural safeguards notices for IDEA Part C accessible on states' EI websites?

As stated, research surrounding PSNs for Part B of IDEA has indicated that they are not understandable to caregivers. It is hypothesized, based on the literature above, that PSNs for Part C will also have relatively low understandability. Specifically, much of the literature examined the readability of Part B documents, using readability measures. PSNs were found to have high grade level scores, corresponding with low readability. It is hypothesized for this study that Part C PSNs will have similar readability outcomes, with high grade levels indicating low readability. There was no research found examining the use of plain language in Part C PSNs. However, given that readability measures and some Plain Language Guidelines have some overlap, it is reasonable to assume that the PSNs examined in this study will not meet all of the Plain Language Guidelines. From this measure, it can be inferred that the PSNs will have a low overall understandability. While there is no prior research investigating the languages in which parental materials are available in EI systems, it is reasonable to assume that states will provide the PSNs in at least the top 5 languages most commonly spoken in the United States. Due to the lack of prior research on website accessibility in special education, a specific hypothesis for the third question was not developed. This question was exploratory in nature.

CHAPTER II

METHODS AND PROCEDURES

Data Source

The data for this study were collected from the Part C procedural safeguard notices (PSNs) of all 50 states in the United States. This information is publicly available.

Collection of the sample. The PSNs (n = 50) were downloaded from each of the 50 United States' IDEA Part C Early Intervention (EI), the state's Department of Education website, or the state's Department of Human and Health Services website. "Procedural Safeguard Part C [state name]" was Googled to access the website on which the PSN could be found. From the website home page, the PSN was generally found under tabs specific to "Family" or "Resources" if the PSN was not on the home page. From the tab or home page, the links to the PSN were usually titled as the following: "Procedural Safeguards", "Parent Rights", "Child and Family Rights", "Family Rights", or "Guide to Parent Rights". Generally, the PSNs are found on the state's EI agency's website; however, when there is no EI specific website available, the PSNs were found on the state's department of Education's website. Two state's PSNs, Idaho and Indiana, were not found on a website. They were obtained by contacting the state's EI program directly via email.

Each state's EI program was contacted individually by phone and/or by email up to three times over the course of three months to confirm that the document obtained was the correct PSN and that all the languages the PSN is available translated into were correctly posted on the state's website. Twenty-one (42%) of states replied (20 after the

first contact, 1 after the second contact, 0 after the third contact), confirming (n = 14; 28%) or denying (n = 7; 14%) the correctness of our PSN. If the PSN that had been downloaded was incorrect, the EI program emailed the correct version of the PSN as an attachment and this version was used for analysis. In some cases, the state's EI program indicated that the PSNs would be available in additional languages in the coming months. The soon-to-be-available additional languages were not included in this study's analysis of availability of languages. Additionally, some state's EI program made it clear that their PSN can be translated into any language upon request, which was also not included in the analysis. Twenty-nine (58%) states did not respond to our inquiry about the PSNs. In these cases, the PSN and languages posted on the state's Part C website were used for analysis.

Methods

Three measures were used in this study to examine to what extent the Part C procedural safeguards are: (a) written in plain language, (b) available in languages other than English, and (c) accessible on the states' Part C website. Each will be described next.

Use of plain language. To measure the extent to which the PSNs were written in plain language, the Federal Plain Language Guidelines (2011) were obtained from the Plain Language Action and Information Network (PLAIN) website. These guidelines were used to create a checklist to determine how each of the 50 PSNs follow each Plain Language Guideline. PLAIN is made up of a group of federal employees who "support the use of clear communication in government writing" (PLAIN, 2011) and have been

meeting since the mid-1990s. The group meets informally once a month and meetings are open to all federal employees. Their website can be found at plainlanguage.gov. The purpose of the PLAIN (2011) guidelines is to aid government employees improve complex writing to help with clear government communication. The Plain Language Guidelines (2011) are divided into five sections: discussion of audience, organization of the document, writing principles (starting with the paragraph level, then moving to sentence level, then word level), writing documents for the Internet, and testing documents to see if they are written in plain language. Since the final two sections pertain to plain language on webpages and the use of focus groups to test documents, for the purpose of this study, the first three sections were used to develop a tool used to analyze PSNs for their use of plain language. This tool is called the Plain Language Checklist. The purpose of the Plain Language Checklist is to describe the extent to which PSNs are written in accordance with the Plain Language Guidelines established by the Plain Language Action and Information Network (PLAIN). See the Plain Language Checklist in Appendix A.

Development of the Plain Language Checklist. The Plain Language Checklist was developed iteratively by the student investigator in collaboration with their primary advisor and a project coordinator. The Plain Language Checklist was created over the course of three months. To start, a search of whether the Plain Language Guidelines had been used in previous studies to develop a measure of plain language in written documents, specifically caregiver materials in Part C. Based on this search, it was deemed that there was not an existing checklist examining a document's use of plain language that was comprehensive in nature or appropriate for application to legal

documents in special education. The National Archives and Records Administration (NARA) (2010) has a checklist that its employees use to check their own documents, and this was a rough outline for the structure of the Plain Language Checklist used in this study.

The Plain Language Checklist went through several drafts. The first draft of the Plain Language Checklist contained 48 questions, one for each Plain Language Guideline (2011). This initial draft was edited by the student investigator and thesis advisor with the goal of creating questions that captured the Plain Language Guidelines and were clear to an unfamiliar reader. In addition to writing items to answer the Plain Language Guidelines, definitions and examples of each item were developed to aid in achieving reliable and valid application for the Plain Language Checklist. After a final draft of the Plain Language Checklist was created, three members of the research team (student investigator, thesis advisor, and project coordinator) then pilot tested the Plain Language Checklist with two PSNs, chosen at random. These PSNs were Oregon and Missouri. The three research team members analyzed the PSNs independently using the Plain Language Checklist and keeping notes about items that were unclear or difficult to score. The three research team members then met to review the Plain Language Checklist and the Oregon and Missouri PSN scores as a group. The Plain Language Checklist items were edited based on discussion. Edits included merging overlapping items, refining the definition of items, and deleting items in some cases, as discussed in the next paragraph. This process was repeated 3 times until the members of the research team reached agreement on scores on all items of the Plain Language Checklist for both PSNs.

During editing and pilot testing, 3 guidelines and their corresponding questions on the Plain Language Checklist were eliminated based on their inability to be operationalized in a reliable way despite several attempts. The following guidelines were eliminated: “address separate audiences separately”, “avoid hidden verbs”, and “avoid noun strings” (PLAIN, 2011). Four guidelines could be analyzed using the readability measures, as described in the Readability Scores section below. These guidelines include: “write for your audience”, “use simple words and phrases”, and “place words carefully” (PLAIN, 2011), so they were eliminated from the Plain Language Checklist. “Use active voice” was measured with Microsoft Word Editor (2023), using the passive voice calculator.

Content of the Plain Language Checklist. The final Plain Language Checklist consists of 24 questions. A total of 6 items were answered with a *yes* or *no* if a PSN either had an element (e.g., a table of contents) or it did not. A score of *yes* earned 2 points, a score of *no* earned 0 points. Eighteen items were answered using a Likert-type scale ranging from 0 to 2 points with qualitative descriptions of *rarely/never*, *sometimes*, and *consistently/always*. For some guidelines, the expectation is for the guideline to be applied consistently, such as using active voice, so having a consistently/always rating yielded the highest score (2). For other guidelines, such as avoiding cross-references, the desired rating was rarely/never, so the scoring was reversed.

The Plain Language Checklist is divided into 4 sections. The first section is a “PSN overview”, which entails a scan through the PSN to answer the 7 items contained in the section. The first section examines the organization of the PSN, addressing several guidelines found in the “Organize” section of the Plain Language Guidelines (p. 5-16)

(2011). The second section examines the specific contents of the PSN, addressing several guidelines found in the "Write your document" section of the Plain Language Guidelines (p. 17-88) (2011). This section utilizes the command "f" function of Word (2023) to search for specific key words that provide answers for the 11 items contained within this section. Section 3 of the Plain Language Checklist addresses the Plain Language Guidelines (2011) of "Use the simplest form of a verb" (p. 22), "Use the same term consistently" (p. 45), and "Use active voice" (p. 20). Section 3 of the Plain Language Checklist examines the first page of meaningful text, as defined in the Plain Language Checklist, and address guidelines from the "Think about your audience" section of the Plain Language Guidelines (p. 1-4) and the "write your document" section of the Plain Language Guidelines (p. 17-88) (2011). Instructions indicated in the Plain Language Checklist are to highlight on the PSN each instance of the guideline that answer the 2 items in this section. Based on the number of highlighted instances, a subjective rating is made to score each item. The final section of the Plain Language Checklist contains 3 items of additional one-off elements that increase the quality of the PSN. These elements address organization of the document, as well as items that are specific to the content of the procedural safeguards and are subjectively seen as important qualities for the PSNs to contain. This included having contact information for parents to reach out to the EI program with questions and templates for letters of dispute. Having such elements found in Section 4 earned 1 additional point each for a total of 3 points. The highest score a PSN could earn was 45, indicating a strong and consistent application of the Plain Language Guidelines, while the lowest score was 0.

Procedures

After downloading the PSNs from their respective websites, the PSNs were converted from PDFs to Word Documents using Adobe Acrobat Pro (2023) for the purpose of additional analyses using Word's (2023) "Editor" feature. Georgia and Florida were only available in Word Documents, so they were not converted.

Plain Language Checklist. After a consensus was reached for the scores of both the Oregon and Missouri PSNs, three graduate student research assistants participated in a one-hour training session held by the original three pilot testers. During this training session, the purpose of the project was discussed, and the Plain Language Checklist was introduced to familiarize the student research assistants with its contents. After this training, the three research assistants coded the Oregon and Missouri PSNs independently. Their scores for these two PSNs were compared to the previously agreed upon scores from the pilot test during the checklist's development phase to determine the reliability of the three research assistants' scores. Feedback from the research assistants was integrated into the Plain Language Checklist to make instructions clearer and increase their chances of being reliable. The research assistants' scores had to achieve at least 80% reliability on average with the Oregon and Missouri scores previously finalized through consensus. Two of the three research assistants met reliability.

These two assistants went on to double-code a total of 10 more randomly selected PSNs alongside the student investigator (20% of the sample). The independent scores were compared with the goal of reaching an average of 80% interrater reliability. Across the 10 PSNs, the average percentage of interrater reliability was 93%. Any disagreements

in the coding of these 10 PSNs were adjudicated by a third coder to finalize the plain language scores for these states. After reaching this interrater reliability the 2 research assistants, the student investigator, the student's advisor, and the project coordinator coded the remaining (n = 40) PSNs using the Plain Language Checklist. To avoid bias, coders did not code the states in which they were born or raised. The scores for each section were calculated as well as a Total Score (sum of scores for all items). These values were recorded in an Excel spreadsheet.

Readability. The readability of a body of text is quantified by the United States grade level at which is it written. Readability scales alone are not enough to fully measure parents' understanding of PSNs, as the reading scales only provide a grade level and do not provide further analyses for how to simplify text without losing the original message (Morgan, 2022). Therefore, the readability measures are only to be used to supplement the plain language analyses performed in this study. Previous research has determined that PSNs are to be written at a 5th to 8th grade level (Nagro & Stein 2016; Morgan 2022); however, for the purpose of this study, a 5th grade level will be considered the gold standard. To analyze the readability of the PSNs, the Flesch-Kincaid scale (Kincaid et al., 1975) was used for each separate PSN. A score using the Flesch-Kincaid (Kincaid et al., 1975) measure "predicts the level of difficulty, in understanding words and sentences, that a reader would have to comprehend the selected material" (Morgan, 2022). Wang et al. (2013) found that the Flesch-Kincaid is the most widely used readability scale and has been used for calculating the readability in written healthcare materials. The formula for the Flesch-Kincaid readability scale is found in Appendix B.

Interrater reliability of the Flesch-Kincaid score was also tested. Two members of the research team both independently used the "Editor" feature in Word (2023) and recorded the Flesch-Kincaid grade level score for Oregon and Missouri. The scores were the same. As such, a member of the research team used the "Editor" feature in Word (2023) to determine the Flesch-Kincaid grade level score for each state's PSN. The grade level score for each state's PSN was recorded in an Excel (2023) sheet.

Availability of PSNs in languages other than English. To obtain the number of languages into which each PSN was translated, the student investigator recorded each of the languages in which the PSN was available, per the website where the PSN was located. To test interrater reliability, the student investigator and another member of the research team both completed a frequency count of the languages available for the two PSNs used for pilot testing (i.e., Oregon and Missouri). The same frequency count was achieved by both coders. Then, frequency counts for the other 48 states were completed. Additionally, an overall frequency count of how many PSNs were available per each specific language across the 50 states' PSNs was recorded in an Excel spreadsheet.

Website accessibility. The Total Validator (TV) (2005) web tool was used to measure the degree to which the home page of the PSNs' websites met the Web Content Accessibility Guidelines (WCAG) 2.1 standards as set forth by the Web Accessibility Initiative (WAI). WAI is a part of the Worldwide Consortium (W3C), which develops international standards of accessibility for various components of the Internet. The Total Validator Tool Test Version reports on the number of issues found within a website specific to the standards found in WCAG 2.1. The WCAG 2.1 standards are used to determine if the website page is perceivable, operable, understandable and robust

(W3CWAI, 2018) to determine the overall accessibility of the webpage. There is a total of 78 WCAG 2.1 criteria, which collectively examine if a webpage is perceivable, operable, understandable, and robust. The freely available TV (2005) web tool analyzes the webpage for each of these categories, to determine if the criteria are being met. See Table 2 for a breakdown of each guideline in the WCAG 2.1 guidelines.

Table 2.

Contents of WCAG 2.1 (2018) Standards.

WCAG 2.1 Criteria	Definition and Examples
1. Perceivable	Make it easier for users to see and hear content on the website. Examples: Provide text alternatives for non-text content (e.g., descriptions of pictures). Provide captions and other alternatives for pictures and videos.
2. Operable	Help users navigate and find content on the website. Examples: Make all functionality available from a keyboard.
3. Understandable	Make content appear and operate in predictable ways. Examples: Help users avoid and correct mistakes. Make text readable and understandable.
4. Robust	Maximize compatibility with current and future user tools. Examples: Tools include assistive technology and different types of web browsers.

The TV (2005) tool then generates a report that indicates the number of errors found on the webpage pertaining to each of the 78 WCAG 2.1 criteria. For this study, the URL of the page of each state's website where the PSN was found was run through the TV tool and a frequency count of the total WCAG 2.1 errors, as well as the types of errors found was recorded in an Excel spreadsheet. To test interrater reliability, the student investigator and another member of the research team both completed a frequency count of the WCAG 2.1 errors of the webpages for the PSNs used for pilot testing (i.e., Oregon and Missouri). The same frequency count was achieved by both coders. As mentioned, two states (i.e., Idaho and Indiana) did not have PSNs posted on their respective websites. For these two states, the homepage of the EI's website was used for analysis of accessibility.

Analyses

Analyses were completed using the Statistical Product and Service Solutions (SPSS) software package (International Business Machines Corporation, 2021). For the Plain Language Checklist scores, the mean, standard deviation, and range of scores were calculated for the Total Score. Additionally, the mean, standard deviation, and range of scores were calculated for each of the four sections of the Plain Language Checklist. For the language frequency count, the mean, standard deviation, and range were calculated. Additionally, the most common languages PSNs were available in across states was calculated. For the readability scores, the mean, standard deviation, and range were calculated for grade level. For the accessibility errors, the mean, standard deviation, and range were calculated, as well as types of errors per the WCAG 2.1 criteria. Data on all measures for all 50 states were available.

CHAPTER III

RESULTS

Table 3 provides an overview of the means, ranges, and standard deviations of the data determined from a review of each state's Part C procedural safeguards in this study.

Table 3.

Plain language, Readability, Language Availability, and Webpage Accessibility.

Measure	Mean	Standard Deviation	Range
Plain Language Checklist total score	25.06	3.73	17-32
Sub score 1	7.90	2.61	3-12
Sub score 2	11.52	2.32	7-17
Sub score 3	3.68	.935	1-5
Sub score 4	1.96	.570	1-3
Readability grade level	13.46	2.19	7.8-17.9
Number of languages available	5.12	6.69	1-28
Webpage accessibility errors	18.04	32.89	0-192
Criteria 1	4.28	6.64	0-26
Criteria 2	2.56	5.97	0-39
Criteria 3	0.22	0.418	0-1
Criteria 4	10.98	28.11	0-150

Plain Language Checklist

The first research question aimed to answer the degree to which procedural safeguard notices (PSNs) are written in plain language. This was measured using the Plain Language Checklist, with a higher score indicating the PSN uses a higher amount of plain language, indicating a higher understandability. The highest Total Score PSNs could receive was 45.

On average, PSNs had a Total Score of 25.06 (*SD* = 3.73) on the Plain Language Checklist with the lowest score being 17 and the highest being 32. Of note, seven states' PSNs (14%) received scores of 30 or above, which indicated relatively high understandability compared to the mean. It was hypothesized that not all states' PSNs would meet the Plain Language Guidelines, and these findings suggest that this hypothesis was confirmed.

For Subsections one, two, three, and four the highest scores PSNs could receive were 14, 22, 6, and 3, respectively. On Subsection 1, which examined guidelines from the "organization" (p. 5-16) section of the Plain Language Guidelines (2011), the average score was 7.90 (*SD* = 2.61) with a range of 3 to 12, suggesting PSNs' notable variability in how they were organized. In Subsection 2, which examined guidelines from the "Write your document" (p. 17-88) section of the Plain Language Guidelines (2011), the average score was 11.52 (*SD* = 2.32) with a range of 7 to 17, suggesting PSNs also varied widely in the quality of their writing. On Subsection 3, the average score was 3.68 (*SD* = 0.935) with a range of 1 to 5, suggesting relatively low variability in the guidelines addressed from the "write for your audience" (p. 1-4) and "write your document" (p. 17-88) sections of the Plain Language Guidelines (2011) examined in Subsection 3. On Subsection 4, the average score was 1.96 (*SD* = 0.570), with a range of 1 to 3, suggesting that PSNs were fairly consistent in additional elements included in the PSNs. Of note, states had high scores for two of the three elements within Subsection 4, with 48 (96%) of states achieving question 23 "use lists", and 43 (86%) of states including links and contact information for help interpreting the PSNs.

Readability

The first question also examined the degree to which PSNs are readable. This was measured using the Flesch-Kincaid readability score, which provides a grade level. A higher grade level score denotes that a higher United States education is needed to comprehend the text. On average, PSNs had a Flesch-Kincaid grade level score of 13.46 (*SD* = 2.19), meaning a grade level of 13 or above is needed to understand the text. This puts the average reading level of PSNs into the college level. Grade level scores ranged from 7.8 to 17.9 and substantial variability was noted. However, no PSNs were determined to have a 5th grade level as recommended. The findings support the hypothesis that the grade levels of Part C PSNs would be high, similar to what research has found with Part B caregiver documents.

Availability of languages other than English

The second question this study aimed to answer was the degree to which PSNs are available in languages other than English. On average, PSNs were available in 5.12 (*SD* = 6.69) languages, including English. This supports the hypothesis that PSNs would be available in at least five languages on average. The number of languages ranged from 1 to 28 and wide variability across states was noted. A cumulative percent analysis revealed that over half (56%) (*n* = 28) of states had PSNs available in two languages or less, and 30% (*n* = 15) of states had PSNs available in one language. The majority of states (68%) (*n* = 34) had PSNs available in three or less languages. In terms of specific languages, the most common languages in which the PSNs were available were also analyzed. See Table 4 for a breakdown of the most common languages PSNs were available in.

Table 4.

Most common languages in which PSNs were available.

Language	# of PSNs available
Spanish	30
Arabic	15
Vietnamese	12
Chinese/Simplified Chinese/Mandarin	11
French	8
Haitian Creole	6
Somali	6
Russian	5
Bengali	5
Japanese	5
Amharic	4
Nepali	4
Hindi	4
Farsi	3
Tagalog	3
Polish	3
Hmong	3
Telugu	3
Urdu	3
Burmese	3

Of note, over half of the PSNs were available in Spanish, which is the most common language spoken in the United States after English. The next most common languages in which states provided the PSNs were Arabic, Vietnamese, Chinese, and French, respectively. Of note, Maryland, Oregon, and Washington (n = 3) were the only states to have PSNs available in the five most common languages spoken in the United States. The hypothesis that the five most common languages PSNs would be available in being the five most common languages in the United States is not supported by these data, given that only three states had all five languages available.

Webpage Accessibility

The third question this study aimed to answer was the degree to which the PSNs were accessible on the website on which they were available. A higher number of errors found by the TV tool (2005) equals a lower accessibility of the webpage on which the PSNs were available. On average, webpages had 18.04 total errors per state (*SD* = 32.89) with the number of errors ranging from 0 to 192. The standard deviation and range of these values suggests a very large amount of variability across webpages. On Section 1 of the WCAG 2.1 Criteria (Perceivable), webpages had an average of 4.28 errors per state (*SD* = 6.64) with the number of errors ranging from 0 to 26, suggesting a high amount of variability amongst the webpages. On Section 2 of the WCAG 2.1 Criteria (Operable), webpages had an average of 2.56 errors per state (*SD* = 5.97) with the number of errors ranging from 0 to 39, suggesting a high amount of variability amongst the webpages. On Section three of the WCAG 2.1 Criteria (Understandable), webpages had an average of 0.22 (*SD* = .0418) errors per state, with the number of errors ranging from 0 to 1, suggesting that these criteria had the least amount of variability amongst the webpages. Notably, 39 (88%) of states did not have any errors in the understandable criteria. On Section four of the WCAG 2.1 Criteria (Robust), webpages had an average of 10.98 (*SD* = 28.11) errors per state, with the number of errors ranging from 0 to 150, suggesting that these criteria had the most variability amongst the webpages. In a cumulative percent analysis, a total of 45 (90%) of webpages had a total number of 35 or less errors, with only five (10%) webpages having more than 36 errors. Further, over half (62%) (*n* = 31) of webpages had ten or less errors, suggesting that these webpages were more accessible.

CHAPTER IV

DISCUSSION

The present study aimed to evaluate the understandability and readability of IDEA Part C's procedural safeguard notices (PSNs) for each of the 50 states. Additionally, the number of languages in which each PSN was available, as well as the accessibility of the webpage on which the PSN was found was examined. According to the brief guidelines for how PSNs should be written, as found in IDEA (2004), PSNs should be understandable, available in a caregiver's native language, and available on the EI agency's website. The findings from this study are discussed below.

Plain language

Plain Language Checklist. Perhaps the most valuable outcome from this study is the development of the Plain Language Checklist, which was rigorously developed as a reliable tool across coders to assess the understandability of the PSNs and capture meaningful information to quantify how PSNs can be improved. Up until this point, to the student author's knowledge, there was not a specific tool available that measures the use of plain language in caregiver materials for special education (or other fields). The Plain Language Checklist makes it possible to review a written document, assess the degree to which a document adheres to each of the Plain Language Guidelines, and use examples from the Plain Language Checklist to edit the document to be written in a more understandable way for all members of the general public. This study demonstrates that, with minimal training, the Plain Language Checklist can be applied reliably by coders relatively unfamiliar with PSNs. While the Plain Language Checklist was created

specifically for the PSNs, it could be used for any caregiver material in special education, including Individualized Family Service Plans (IFSPs), which are also required to be provided to caregivers and should be written in ways caregivers can understand. While additional research is needed to ensure that this tool can be effectively used to improve written documentation in special education, such as a deep analysis of the psychometric properties of the tool, the Plain Language Checklist offers a promising step towards improving the understandability of caregiver materials in special education.

Plain language analysis. The analysis of the total scores of the Plain Language Checklist indicates that there were no PSNs that met all the plain language criteria, meaning that no PSN achieved a perfect score. Instead, the average total score was 25 out of 45 total points, suggesting that PSNs as a group adhered to a moderate amount of plain language, indicating moderate understandability of the written document. There was some variability in total scores, considering the standard deviation, suggesting that some PSNs were more successful at providing information in language that could be understandable to the general public than others. However, the wide variability in the written quality of PSNs and the moderate amount understandability reflected by the average total scores speaks to the vagueness of the IDEA Part C providing guidance on how to write PSNs. The only guidance IDEA (2004) Part C provides for these PSNs is that they need to be "understandable"; no definition of what this means or how it can be accomplished is established by the federal government. As a result, it is completely up to the states to decide how much information to include in these PSNs and how to write said information. The variability in the scores from the Plain Language Checklist of the

individual states' PSNs means that there is variability in how understandable PSNs are to caregivers.

Despite the overall concern about the understandability of PSNs nationally, there were some results indicating consistent and positive efforts to include elements in PSNs that are thought to make written documents more understandable to readers. For example, most states (96%) of PSNs achieved a full score on the "use lists" question of the Plain Language Checklist, and 86% of PSNs included a way to contact the EI agency for help with interpreting the contents of the PSNs. This is encouraging data that means there are elements of PSNs that require less attention when making improvements to the understandability of these documents. In general, the results further suggest that there are some general elements of plain language that offer a great deal of opportunity for improvement. Specifically, the results from the subsections of the Plain Language Checklist indicate that PSNs could improve in their organization (Subsection 1) and the quality of their writing (Subsection 2). Items in Subsection 1 that could be improved include the quality and quantity of headings in PSNs, using tables to make complex material more understandable, and including a table of contents to help navigate the document. Items in Subsection 2 that could be improved include minimizing professional jargon, avoiding the word "shall", and using pronouns to speak directly to the reader. For more specific criteria, see Appendix A for the Plain Language Checklist.

Readability

Readability in this study was measured by the grade level of the PSNs. As expected, the grade level estimated to be necessary for reading PSNs was high, with the

average grade level being 13.46. This means that someone needs to have completed the first year of an undergraduate college education at a United States institution to comprehend the average PSN. As such, the PSNs as a group do not meet the recommendation to provide PSNs at a 5th grade level (Nagro & Stein, 2016). Further, the overwhelming majority of PSNs were not accessible at a 7th grade level, which is the average reading level of an adult in the United States (Marchand, 2017). Indeed, the state with the PSN that was determined to be at the lowest grade level of 7.8 (i.e., Utah) is well above the recommended 5th grade reading level for PSNs and is the only PSN with a readability score within the average reading level for adults in the United States. The highest PSNs grade level (i.e.,17.9 from Alabama) is of a doctorate grade level, meaning someone will have had to complete a doctorate degree to fully comprehend the text.

The variability of the Flesch-Kincaid Grade Level scores was relatively low, meaning that Part C PSNs consistently had high grade levels for readability. These high scores mean that the PSNs have a very low chance of being understood by many caregivers who need access to them, which is, excluding caregivers from the special education process. The readability scores found in this study are further evidence that PSNs are not meeting the standards set by IDEA (2004) of having "understandable" PSNs. In fact, this is evidence that PSNs are exceedingly *not* understandable to the general public and need improvements to be more readable at a level that matches the average caregiver. Since readability formulas use sentence length, word length, and word familiarity (Kincaid et al., 1975) to determine the grade level for readability, using short, familiar words and simple sentences is one way to improve readability scores for PSNs.

Availability of languages other than English

There was a large amount of variability in the number of languages in which the PSNs were available, meaning that some PSNs are available in many languages, while some PSNs are only available in a few languages. It is important to acknowledge that several states indicated that the PSNs would be translated upon request. Yet, over a quarter of the PSNs were readily available in only English despite the wide linguistic diversity evident in all United states, which suggests that a substantial number of states are not availing information about caregiver rights to at least some members of the communities that they serve. As discussed previously, PSNs are an attempt to strengthen family-centered care in EI and lessen the separation between providers and caregivers. However, having the PSNs available to only English-speaking caregivers is an issue of equity and becomes another way culturally and linguistically diverse (CLD) caregivers are marginalized in the EI system. As caregivers with CLD background have shared feeling excluded and unable to participate in their child's education (e.g., Cobb, 2014), not making crucial information available in languages all caregivers can read may be a contributing factor. Additionally, it does not adhere to the provisions found within the PSNs themselves, as §§303.421 (Native Language) of the PSNs describes how PSNs must be available in the caregiver's native language. Therefore, the availability of PSNs in only English is an issue of equity, as well as special education laws.

Despite the limited availability of PSNs in many different languages, the findings from this study indicated that over half of PSNs are available in Spanish, which is the second most common language spoken in the United States. Additionally, Arabic and Vietnamese, also within the five most common languages spoken in the United States

besides English (Dietrich & Hernandez, 2022), were the next two most common languages in which PSNs were available. It is also notable that some PSNs were available in less common languages, which likely matched the linguistic needs of communities specific to each state. This suggests that there is an effort in some states to provide caregivers from some communities with PSNs in their native language. There is also a possibility that the languages PSNs were available were indicative of the largest linguistic communities in that state. While this was not considered for this study, it could be a possible explanation of why some states had certain languages available and not others.

Additionally, during the collection of the sample and contacting states, three states (i.e., Florida, Ohio, and Tennessee) indicated that PSNs can be translated into any language upon request of the caregiver. This is also suggestive of an effort to provide caregivers with PSNs in their native language, given that the translations come within a reasonable timeframe and are of high quality. While having translation available in a positive effort to provide the PSNs in the caregiver's native language, there has been prior research to suggest that a lack of skilled interpreters means that caregiver materials are not being provided in a timely manner (Cycyk et al., 2022). Therefore, while having translation in any language upon request is a positive effort, it is not a guarantee that families will have access to their rights in their native language in a timely way. While there is an effort to provide equitable availability of PSNs in caregiver's native language, and adhere to law set through IDEA Part C, there is still room for improvement in how many languages in which PSNs are available.

Webpage accessibility

As stated previously, webpage accessibility refers to the ease at which the disabled population can use a website and is helpful for non-disabled populations as well (e.g., Schmutz and Sauer, 2018). The high variability of the results from this study indicates that webpages varied in meeting the accessibility criteria set in the WCAG 2.1. The World Health Organization (2011) found that 15% of the world's population has some sort of disability, meaning that a large proportion of individuals could have a harder time accessing the EI agencies' websites that had more errors. While the overall mean suggests that webpages overall had an average of a moderate number of errors (i.e., 18.04), the reality is that some webpages had markedly more errors than others, meaning that some webpages were exceedingly inaccessible to disabled communities. It is notable that the special education field is one focused on making information available to individuals with varying levels of ability of access; however, the varying levels of accessibility within EI agencies' websites speaks to how more needs to be done to allow all individuals to access the PSNs on websites. This study opens the doors for a deeper examination of EI agencies' websites, given the importance of the information found on them.

Of note, there was the least amount of variability and errors in Subsection three, which examines how understandable content of a webpage is, measuring specifically how the content is able to operate in predictable ways. In WCAG 2.1 standards, understandable means that a website operates in predictable ways (W3CWAI, 2018). For example, an understandable webpage avoids long paragraphs of text and is readable (W3CWAI, 2018) as judged by the TV test program. Given that the majority of states did

not have any errors in the understandable criteria, it can be said that the webpages on which PSNs were found were relatively understandable. Given the information that websites are understandable, states can focus their efforts on addressing other areas of the WCAG 2.1 criteria, such as helping users navigate the websites (operable) and making the website one that all users can safely perceive (perceivable).

Implications for Policy and Practice

The findings of this study have valuable implications for federal policy, state procedures, and providers working directly with families. Each will be discussed next.

Federal Legislation. In looking at the results of this study with a macro lens, it can be said that change surrounding the laws that provide guidance on how PSNs should be written is needed to improve the quality of PSNs. IDEA (2004) includes almost no guidance as to how PSNs should be written, leaving states to interpret much of how to provide information to caregivers through PSNs. This ambiguity may contribute to the generally low quality of the documents nationally. The guidance about how PSNs should be written could be improved by more specific language in IDEA Part C. For example, the definition of "understandable" could be stronger; the law could specify that PSNs are to be written in plain language, which would encourage EI agencies to refer to the Plain Language Guidelines and its corresponding legislation when creating PSNs. Additionally, the definition of "general public" should be narrower, answering who exactly the audience of these PSNs are and how the PSNs should be written for said audience (e.g., considering the wide diversity of caregivers with children receiving EI services). To address linguistic diversity of PSNs, more specific guidelines for which languages PSNs

must be available in should be provided. For example, a provision of the law could be that PSNs must be available in the top five languages spoken in the United States or spoken within that state, per decennial United States Census. This would ensure that the most common languages would be available to residents of that state, meaning that caregivers that speak these languages would have PSNs available in their native language.

In discussing the changes needed to improve PSNs, the process of legislative change must be considered. For legislative change surrounding these PSNs to happen, the legislation would need to go through the lengthy legislative process, which includes the support of legislators. As such, advocacy, such as lobbying and voting for bills relevant to plain language, from those affected by the quality of PSNs (i.e., caregivers and EI providers) is important to the process for this legislative change. Also, when considering changes to federal legislation that would mandate states to act in improving PSNs, it is worth noting that EI agencies are generally underfunded and understaffed, as with the education system in the United States in general (Alexander et al., 2013). It is important to acknowledge the shortcomings of special education funding and resources when considering the creation of PSNs and the guidance around their development; it is more than likely that the PSNs being created are the EI system's best efforts with the resources they are provided. While it is the job of the state EI system to write PSNs, it is also the job of the federal government to ensure that EI agencies have the resources and fairly paid staff they need to write PSNs (and other caregiver materials) of high quality and availability.

State. While federal policy needs revision, state procedures would also benefit from some changes to improve the quality of caregiver materials. While each individual state's policy around PSNs was not reviewed for the purpose of this project, some regulations could be put in place across states to aid in quality assurance for PSNs. For example, states could have a regular review process to assess PSNs, and perhaps caregiver materials in general, for their understandability and readability, using a tool like the Plain Language Checklist developed in this study to quantify improvements needed and make edits based on that the results. Additionally, the states' EI programs could use a tool like the Total Validator (2005) test to assess the accessibility of their websites, making changes based off the data returned. Again, it must be stated that EI agencies are underfunded and understaffed, making projects like improving PSNs challenging. However, with tools that specify targeted areas of improvement, the editing process for PSNs and the websites on which they are found may help with efficiency and meaningful use of limited resources. Additionally, it would be beneficial for states' EI agencies to collaborate with each other to support the development and revision of PSNs. For example, EI coordinators and administrational staff gather annually at the Office of Special Education Programs (OSEP) conference, which provides the opportunity for Part C coordinators to collaborate in improving states' individual PSNs. As another example, states with PSNs with good understandability, readability, and/or availability in other languages could be shared as a model for other PSNs to guide their revision and translation processes. It can be argued that the value of these PSNs is high, given that they are a large part of family-centered care, so they are a worthy investment of time to improve them so caregivers can understand them.

Practitioner. Given that changes to policy at the federal and state levels are quite slow, there are steps EI providers who use PSNs can take to aid in caregivers' understanding of their rights in Part C. These steps involve direct communication with caregivers about their rights and providing a more caregiver-friendly version of the PSN documents. Not only is direct communication essential in ensuring caregivers know their rights, but it also has the potential to strengthen the rapport and collaboration between providers and caregivers, which is an important part of family-centered care (American Academy of Pediatrics, 2012). It may be a better way to ensure that caregivers understand the PSNs by verbally explaining rights to caregivers in companionship with the physical PSN document, encouraging caregivers to ask questions and ensure understanding. Additionally, it would be beneficial for providers to check-in with families regularly about their understanding of the information contained with the PSNs to ensure comprehension, as well as remind families of their rights when relevant to the child's services and answer any questions that may arise. This requires providers to have a good understanding of the contents of the PSNs to answer any questions and give a thorough explanation. To ensure this, it could be beneficial to provide training for providers on the rights of families in EI to strengthen providers' knowledge and explanation of rights. It is currently unclear how much training providers have about the PSNs, and the information contained within. By providing families with a stronger and more accessible explanation of their rights, as well as an open line of communication to ensure caregiver understanding, providers can take steps towards giving all caregivers the same access to quality services. This leads to better alignment to the principles of health equity (United States Department of Health, 2023), as well as federal law.

Limitations and Future Directions

This study brings to light a potentially significant barrier to family-centered care through the inability of PSNs, and perhaps caregiver materials in general, in EI to be easily understood and accessed by caregivers from varying backgrounds. In addition, this study provides a valuable tool that could be used in the future to further evaluate caregiver materials in EI through the Plain Language Checklist. However, this study contains four specific limitations that can be used to direct the course of future research surrounding this topic.

The first limitation, and perhaps most notable, is the lack of parental caregiver input into what would make PSNs readable, accessible, and understandable. Only written documentation was reviewed to answer the current research questions. Valuable information about how caregivers perceive PSNs was not collected in this study. This information could strengthen efforts to improve the PSNs by asking caregivers about their perceptions of the quality, understandability, and accessibility of PSNs. Caregivers may also have ideas about how PSNs can be improved.

The second limitation of this study is the omission of the PSNs from the two commonwealths (i.e., Puerto Rico and Northern Marina Islands) and the three territories (i.e., Guam, American Samoa, and United States Virgin Islands) of the United States in data collection and analysis. These five PSNs would have been appropriate to include in this study, as the EI systems from the territories and commonwealths receive federal funding; therefore, they are a part of IDEA Part C. While an effort was made to include these PSNs in data collection and analysis, time constraints coupled with the lack of a

translator to provide interpretation of Puerto Rico's PSN, which was only found in Spanish, meant that these PSNs were omitted from the study. It would be beneficial for future research to include the PSNs from the five territories and commonwealth states in analysis.

The third limitation of this study is that the PSNs analyzed may not have been the most updated version provided to families in all states. While three attempts were made to contact every state's EI program, not all states confirmed that we had the most updated version of the PSN. In future research, with less time constraints, it would be beneficial to ensure all caregiver materials are the most up to date before proceeding with analysis. Finally, another limitation is that the quality of the translated PSNs was not examined. While this study provided valuable information about the specific languages in which the PSNs were available, the data would be strengthened by examining the quality of the translated documents.

Conclusion

In conclusion, findings from this study imply that the understandability and readability of PSNs for all 50 United States need improvement, as well as how many languages in which the PSNs are available. In addition, this study shows that the accessibility of some EI agencies' websites needs improvement to expand access to individuals with alternative access needs, given the wide variability in the number of accessibility errors. It should be acknowledged that the implications of this study suggest a need for an intense overhaul of federal and state legislation surrounding PSNs that will create a long-term change. For example, the law would need to include requirements that

PSNs be available in all languages spoken in the United States, available in other modalities beside written, and accessible to caregivers with no educational background. The recommendations suggested above offer short-term solutions for improving the understandability and availability of PSNs; however, these recommendations are not enough to ensure that every caregiver will have an equal chance to access their rights. Having accessibly readable PSNs of high written quality, available in several languages and accessible on the Internet is only one step towards improving family-centered care in EI for families from a variety of backgrounds, in turn improving EI programs' adherence to IDEA Part C and aligns with the principles of health equity, thus creating a more equitable and supportive environment for caregivers of children in EI.

APPENDIX A

PLAIN LANGUAGE CHECKLIST

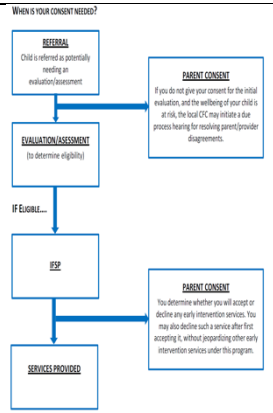
INSTRUCTIONS: We recommend that you print the checklist and complete it on paper while reading the state procedural safeguards. Review each question and circle the appropriate score based on the definition and instructions provided. Sum the score for each section. Sum all the section scores to obtain a total score. Record any questions or concerns about a particular item in the "Additional Notes" column.

STATE: _____

REVIEWER'S NAME: _____

NOTE: If a document has templates for letters of dispute, mediation, or complaints (as outlined in question 22), do NOT count instances within said templates.

#	Guideline	Question	Definition	Examples	Instructions	Score
1	"Organize the information"	**Within the first two pages of text,** does the document explain the purpose of the information in the procedural safeguards?	The document contains 1-3 sentences explaining why it is important for parents to know their rights or what the document contains within the introduction of the document.	For example: Parent needs to be an **informed member** of the team to **make decisions** regarding their **child's education.** It's **part of IDEA law** for parents to be informed of their rights.	Only score as 2 (yes) if a purpose is included in **the first 2 pages of text**	2. Yes 0. No
2	"Make it easy to follow"	Does the document contain a table of contents to help parents access information quickly?	The table of contents should direct the reader to the page number for each section.		If the document contains a table of contents that directs readers to specific sections of the document, this is a score of 2 (yes). If not, score 0 (no).	2. Yes 0. No

3	"Use tables to make complex material easier to understand "	Does the document use table or figures to support understanding?	Tables or figures are used to help see concepts that are hidden in dense text.		If the document contains any table or graph that simplifies explanations of dense concepts, score 2 (yes). If not, score 0 (no).	2. Yes 0. No
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**
4	"Write short sections"	How often are short sections used?	Headings are descriptions of what the paragraph below will contain, headings are usually bolded, underlined, etc.	**Heading** Paragraph Paragraph Paragraph **Heading** Paragraph **Heading** Paragraph Paragraph	Count how many paragraphs are contained under each heading. Three or less paragraphs under each heading yields a higher score.	0. Rarely/never 1. Sometimes 2. Consistently /always

5	"Add useful headings." "Have a topic sentence."	How often are headings adequately descriptive?	Headings are descriptions of what the paragraph below will contain, headings are usually bolded, underlined, etc. Headings in the form of questions are considered the *most* descriptive. Headings in the form of descriptive statements are considered *somewhat* descriptive. Brief headings that establish *only* the topic (such as the title of the safeguard the paragraph addresses) are considered the *least* descriptive.	Question heading: Present the topic in the form of a question. **What is a prior written notice?** Statement headings: Present the topic as a statement. **Know your right to receive prior written notice.** Topic headings: Present only the topic. **Prior written notice.**	If **question headings** are used, score 2. If **statement headings** are used, score 1. If **topic headings** are used, score 0. If there is a mix, use a subjective rating, remembering question headings are the most favorable and topic headings are the least.	0. Rarely/never 1. Sometimes 2. Consistently /always

6	"Write short paragraphs"	How often are paragraphs short?	Short paragraphs are 3-8 sentences.	Bulleted lists are NOT to be counted as paragraphs.	Count the # of sentences in paragraphs that look the longest.	0. Rarely/never 1. Sometimes 2. Consistently /always
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**
7	"Highlight important concepts."	How often does the document use bold, italics, or capitalization to bring attention to important points?	Important points include but are NOT limited to: Single words, important actions a parent must do, number of days it takes to do something. Does NOT include abbreviations, titles, or headings.	A copy of this Notice of Procedural Safeguards booklet or how you can get a copy; **and,** Sources for you to contact to get help in understanding these procedural safeguards. We must provide a copy of these to you **annually** or **upon your request.** You may do this *or* this. Parents have the right to receive written information about the public agency's actions concerning their child's early intervention	Any time a single word or sentence is italicized, bolded, or capitalized, consider this an instance. This includes contact information but not abbreviations, titles, definitions, headings, or subheadings.	0. Rarely/never (**0-2** instances) 1. Sometimes (**3-5** instances) 2. Consistently /always (**6+** instances)

				services or special education and related services.		
						SUBTOTAL SCORE for Section 1:
8	"Use pronouns to speak directly to your reader."	How often does the document use "you" when speaking to parents or "your" when speaking about parents' children?	Rather than using third-person pronouns, use second-person pronouns (e.g., you, your, yours).	For example: Third person: The child, the parent… Second person: you, your child, your provider…	Control "f" for the following words: "you" "your" "yours" Count # of instances (instance=each time the word appears).	0. Rarely/never (**0-2** instances) 1. Sometimes (**3-9** instances) 2. Consistently /always (**10+** instances)
9	"Use examples"	How often does the document use examples?	Examples should be used to explain complex concepts.	For example, your written consent is not required to comply with a court order, or in a health or safety emergency.	Control "f" for the following terms: "For example," "E.g.," "Such as" "For instance," Count # of instances any of the above terms are used and add up to determine total # of instances.	0. Rarely/never (**0-1** instances) 1. Sometimes (**2-4** instances)

						2. Consistently /always (**5+** instances)
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**
10	"Don't use slashes."	How often does the document use slashes?	Slashes are used to give two options but are rarely used correctly. Hyphens are more favorable.	For example: And/or Social/emotional His/her Child/student Medicaid/Medicare	Control "f" for "/". Count every slash as a # of instances. Do NOT count if the slashes are EI/ECSE, fractions (e.g., ½), dates (e.g., 3/28/2022), or within a website's URL (e.g., www.ei/support).	0. Consistently /always (**5+** instances) 1. Sometimes (**2-4** instances) 2. Rarely/never (**1 or less** instances)

11	"Minimize cross references"	How often does the document use cross-references?	When the text references another law or section of the document, the reader must go back and read the section or law specified before understanding the material being presented to them within the text.	For example: The N.C. ITP complaint procedures, including a description of how to file a complaint and the timelines for these procedures. (See the Dispute Resolution section of this document.)	Control "f" for each of the following terms: "See." "Mentioned." "Refer." "As described in." "Defined in" Whenever these terms reference another part of the document or another law, this counts as an instance. Use the total count of cross references to determine score. Do NOT include references to the **Resources** section.	0. Consistently /always (**5+** instances) 1. Sometimes (**2-4** instances) 2. Rarely/never (**1 or less** instances)
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**
12	"Use 'must' to indicate requirement."	How often is the word "shall" used?	"Shall" is ambiguous and should never be used.	For example: The provider shall not refuse to provide services.	Control "f" for instances of "shall". Use the total count of number of times "shall" was used to determine score.	0. Consistently /always (**2+** instances) 1. Sometimes (**1** instance) 2. Rarely/never (**0** instances)

13	"Use contractions"	How often are contractions used rather than lengthened version of the word?	Contractions are a word that combines two or more other words in a shortened form with an apostrophe. The Plain Language Guidelines state that contractions should be used to make language sound "natural" but can be used too much.	For example: Can't Shouldn't Won't Haven't Aren't There's Didn't They're	Control "f" for apostrophes:' ONLY count instances of apostrophe use for contractions of words (E.g., can't). DO NOT count use of apostrophe for possessives (E.g., Parent's, child's, provider's). Use the total count of number to determine score.	0. Rarely/never (**0-1** instances) 1. Consistently /always (**5+** instances) 2. Sometimes (**2-4** instances)
14	"Avoid double negatives."	How often does the document use double negatives?	In the case of procedural safeguards, double negatives occur when a sentence contains two negatives and cancel each other out by conveying the opposite meaning.	For example: If you do not consent to services, we will not provide them (double negative) vs. You must consent to services before we provide them (no double negative) Also, count double negatives within lists. If you do not consent to services: - Services will not be provided.	Control "f" for "not". If "not" appears in the same sentence as another negative, it could be an instance of a double negative. Read sentences carefully.	0. Consistently /always (**5+** instances) 1. Sometimes (**2-4** instances) 2. Rarely/never (**1 or less** instances)

				It's not a double negative if items are being listed. For example: Fees may not be awarded and related costs may not be reimbursed in any action or proceeding under Part B Does NOT count.		
15	"Minimize definitions" "Avoid jargon"	To what extent are definitions used for complex legal terms or professional jargon?	In law, complex terms or jargon are often used without explanation. Jargon are special words used by a particular profession that may be difficult for laypeople to understand. While it's more ideal to just use more simple terms, sometimes complex terms need to be used and they MUST be defined.	Complex/jargon examples: "Multidisciplinary" "Personally identifiable information" "Natural environment" "Least restrictive environment" "Expedited." "Verbatim" "Mediation" "Native language" "Special instruction" "Qualified personnel" "Service coordination services" "Case management"	Control "f" for all of the words in the column to the left. Count definitions *only* for the words specified to the left. An instance is counted if a definition follows the word or is in the next sentence. If these words are used WITHOUT definition (either immediately following the word or in a glossary), consider a score of 0 or 1. After a word is defined, it can be used again without definition. If there is a glossary or definition section, what kinds of words are being defined? If common words like *opt*	0. Rarely/never (**0-1** instances) 1. Sometimes (**2-4** instances) 2. Consistently /always (**5+** instances)

				"Prior written notice" "Dispute resolution" "Consent" "Surrogate parent" "Due process complaint"	*out*, *day*, *student*, etc. are defined, consider a score of 1.	
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**
16	"Use transition words."	How often does the document use transition words?	Transition words help to show relationships between ideas. There are Three different types of transition words: Pointing, echo link, and explicit. For the purposes of this, we will only look for explicit transition words. These are wording whose main purpose is to transition from one thought or point to another.	"Also" "In addition," "Similarly," "In other words," "In short" "Put differently" "again" "As a result," "therefore" "However," "On the other hand," "To summarize" "In conclusion" "first" "Next" "Then" "Second" "Third"	Control "f" for the words in the column to the left. NOTE: Many EI programs may be called "First steps" or "First beginnings". Do NOT count the name of the EI program as an instance. Each time one of these words is used, count as an instance. Use the total count to determine the score.	0. Rarely/never (**0-5** instances) 1. Sometimes (**5-9** instances) 2. Consistently /always (**10+** instances)
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**

17	"Minimize abbreviations"	How often does the document use abbreviations?	Abbreviations of organizations or laws should be spelled out first, then they can be used throughout the document. The Plain Language Guidelines say limit to two abbreviations, but we're allowing three because parents will encounter a lot of abbreviations in EI and it's better to have them spelled out in the procedural safeguards.	Examples: IDEA EI agency FERPA **May also appear with slashes.** C/o W/out N/A	Control "f" for parentheses: (Make a record of the first time an abbreviation is used. If there is a list of abbreviations used within the document (probably at the beginning), count the number of abbreviations used. **ONLY count the first time an abbreviation is used as an instance. Do not count every time an abbreviation is used in the document.** Do NOT count abbreviations for the state (e.g., Tennessee=TN would NOT count)	0. Consistently (**5+** instances) 1. Rarely (**0-1** instances) 2. Sometimes (**2-4** instances)
18	"Place the main idea before exceptions and conditions."	How often are sentences with exceptions and conditions easy to read?	An exception is a person or element excluded from a general statement because it does not follow a general rule. If an exception is long, it should be placed at the end of a sentence.	Except in the case of X, you should... Unless you're doing this, this will... If you do this, then... When this happens, this will...	Control "f" for: "except" "unless" "if" "when" If these words indicate an exception or condition, they count as an instance **if they are at the beginning of the sentence.**	0. Consistently /always (**5+** instances) 1. Sometimes (**2-4** instances) 2. Rarely/never

			If an exception is short, it can be placed at the beginning.		**Do NOT count exceptions and conditions found at the end of a sentence.**	(**0-1** instances)
						SUBTOTAL SCORE for Section 2:
19	"Use the present tense."	How often are verbs written in present tense?	Simple present tense is using the root word version of a verb with "s" or "es" at the end. Future tense or conditional verb forms are less helpful.	For example: This document outlines your rights (*simplest*) vs. Future tense: This document will outline your rights to you (*more complex*) Conditional tense: This document tells you your rights that would satisfy requirements as defined by IDEA (*more complex*)	Highlight instances of simple present tense. Determine score based on how many highlighted instances occur.	0. Rarely/never (0%-~24%) 1. Sometimes (~25%-74%) 2. Consistently (~75%-100%)
#	**Guideline**	**Question**	**Definition**	**Examples**	**Instructions**	**Score**

20	"Use the same terms consistentl y."	Does the document choose one word to refer to a group of people and stick to it?	If the document starts with using one word to reference parents and/or children and/or providers, the same word(s) need to be used throughout the document. Changing terms can be confusing to follow.	Examples of terms used for parents: Caregivers, mother/father, parents, families Examples of terms used for children: Kid, infant, student, children Examples used for providers: Professional, provider	Read through the page and make note of what terms are used to refer to **parents, children, and providers.** If the terms used are consistent, score 2. If two terms are used for the same group of people, consider a score of 1. If there are multiple terms used for the same group of people, score 0.	0. Rarely/never (0%-~24%) 1. Sometimes (~25%-74%) 2. Consistently (~75%-100%)
21	"Use active voice"	What percent of the document is written in passive voice?			Refer to "Data Collection Instructions" Score based on the percent of passive voice Word reports.	__% 0. Consistently /always (100%-75%) 1. Sometimes (74%-25%) 2. Rarely/never (24%-0%)
SUBTOTAL SCORE for Section 3:						
22. The document provides templates for *letters of dispute or mediation or complaints*.						0. No 1. Yes
23. The document uses bullet points or numbered lists to break down paragraphs into a list *at least once*.						0. No 1. Yes

24. The document provides links/contact information to aid in interpreting the laws.	0. No 1. Yes
SUBTOTAL SCORE for Section 4:	
TOTAL SCORE (Sum of subtotal scores for Sections 1-4)	

APPENDIX B

FLESCH-KINCAID READABILITY FORMULA

0.39 (*total words/total number of sentences*) + 11.8 (*total syllables/total words*) – 15.59

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