GROUPING PATTERNS AND DECISIONS FOR SCHOOL-AGE CHILDREN WHO STUTTER

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Communicative Sciences and Disorders—Master of Arts

2021

ABSTRACT

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Background. In the United States, the school system is one of the most common settings for stuttering intervention, yet adults who stutter report significant dissatisfaction with their prior school-based therapy experiences. In the schools, group therapy is the predominant service-delivery model for all students, but limited research is available regarding grouping practices, grouping decisions, or the impact of service-delivery models and group composition on students who stutter.

Method. The current study collected data on the factors clinicians consider when determining whether to use groups and how to form groups in therapy. The method involved the distribution of a questionnaire to speech-language pathologists (SLPs) working in public schools.

Results. Analyses indicated that the choice of service-delivery model and group composition were influenced by student factors, such as stuttering characteristics, progress in therapy, and social dynamics, and clinician/workplace factors, including caseload size, workload, and scheduling restrictions.

Discussion. Excess job expectations and limited time impact clinicians’ ability to implement individualized decision-making when choosing whether to use and how to form groups for students who stutter. By reducing barriers, school SLPs will be better able to align their clinical judgment with their grouping practices and more adequately meet the needs of students.

ACKNOWLEDGEMENTS

I would like to thank my thesis advisor, Dr. Scott Yaruss; my thesis committee, Dr. Bridget Walsh and Dr. Sarah Douglas; my family; Zac Staat; and Angelica Wozniak. Last but certainly not least, I would like to thank the many speech-language pathologists who took the time to participate in my questionnaire.

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INTRODUCTION

Stuttering is a communication disorder that affects individuals across their lifespan. The disorder typically begins in early childhood, between the ages of 2 and 4 (Yairi & Ambrose, 2013). Approximately 5-10% of children will stutter at some point in their development (NIDCD, 2017). Most young children recover, however, so the overall prevalence is closer to 1% (Yairi & Ambrose, 2013). Because stuttering commonly affects children, speech-language pathologists (SLPs) working in the schools are often called upon to treat students in Kindergarten through Grade 12 (K-12) (ASHA, 2018). Unfortunately, many people who stutter hold negative views of school-based therapy in comparison to other intervention settings (National Stuttering Association [NSA], 2009; Yaruss et al., 2002a). Client perceptions are a vital aspect to consider in the implementation of evidence-based practice; the significant dissatisfaction that people who stutter report regarding their experiences with school intervention suggests that current treatment is not optimal. Further consideration of treatment planning and delivery is warranted in order to determine how to improve efficacy. Clients primarily identified incomplete or unclear therapy goals as a source of their dissatisfaction (Daniels, Gabel, & Hughes, 2012; Douglass, Constantino, Alvarando, & Verrastro, 2019); therefore, research must consider which service-delivery decisions may impact the selection or implementation of therapy goals.

One of the primary decisions that school-based SLPs must face when planning treatment is whether students should be served individually or within groups. The literature does not provide much information about current grouping patterns for stuttering intervention in United States (U.S.) schools, though surveys indicate that most school-age children with communication disorders are served in groups (Brandel & Frome Loeb, 2011; Dowden et al., 2006). The available research on grouping patterns in the United States is outdated, and little information is available regarding group composition; thus, it is unclear how students who stutter are being served in schools and whether these practices contribute to their negative perceptions of therapy.

Research from other countries indicates that group therapy may be beneficial for people who stutter, though most of the international research is based on groups composed exclusively of people who stutter in non-school settings and conducted by specialists in stuttering therapy (Hayhow, Cray, & Enderby, 2002; Hearne, Packman, Onslow, & Quine, 2008). In particular, studies conducted at the Michael Palin Centre, a specialty outpatient clinic in the United Kingdom, show that intensive group therapy may improve fluency and psychosocial outcomes for teenagers who stutter (Caughter & Dunsmuir, 2017; Fry, Botterill, & Pring, 2009; Fry, Millard, & Botterill, 2014). It is not clear whether these findings can be applied to students who stutter in the United States, for it is not presently known whether treatment groups are composed only of children who stutter, and it is unlikely that therapy is conducted primarily by specialists. Therefore, international efficacy research has limited relevance to service delivery in U.S. schools.

Literature from the United States indicates that clinician factors, such as caseload size and experience with stuttering, may influence service delivery decisions (ASHA, 2002; Brandel & Frome Loeb, 2011; Dowden et al., 2006; Smyk, 2019). At present, however, the available literature on treatment of children in U.S. schools does not provide enough information about grouping patterns and how clinicians should plan treatment to ensure optimal efficacy. The purpose of this study is to address this gap in the literature by examining speech intervention practices for K-12 students who stutter in U.S. schools. The primary focus will be analyzing service delivery patterns, as well as the factors guiding clinicians’ grouping decisions for children who stutter. This information will provide a foundation to help increase the relevance of stuttering research to the school setting. When further research is conducted on grouping efficacy, information regarding current practices could indicate whether evidence-based practice is used in school-based stuttering intervention. Information regarding clinicians’ rationales may also guide researchers on how to support school SLPs in implementing evidence-based practice.

LITERATURE REVIEW

Stuttering Treatment in U.S. Schools

Stuttering typically develops during early childhood (Yairi, 2013). Of the 5-10% of children who stutter, approximately 25% will continue to do so throughout their lives (NIDCD, 2017; Yairi, 2013). In the United States, students who stutter from Kindergarten through Grade 12 (K-12) are likely to be treated by speech-language pathologists (SLPs) working in the schools. In 2018, 67% of full-time school-based SLPs provided intervention for students with fluency disorders, and these students formed about 6.25% of clinicians' average monthly caseload (ASHA, 2018).

There is relatively little research on the primary settings for stuttering intervention. In a survey of members of the National Stuttering Association (NSA), Yaruss et al. (2002) reported that 60% of participants received school-based therapy as K-12 students. Another survey of NSA members found that over 90% of parents of children who stutter reported that their child received intervention for stuttering, though the specific setting was not specified (NSA, 2009). The research from the NSA (2009) and Yaruss et al. (2002) has become outdated, especially given that participants were surveyed regarding their past experiences. More recent data are necessary to determine whether schools are currently the primary intervention setting for school-age children who stutter to best direct research aiming to improve stuttering intervention. However, the available research seems to indicate that people who stutter commonly receive therapy as children and that this therapy commonly occurs in schools, motivating efforts to better understand the practices of school-based stuttering intervention.

Clients' Perceptions of Therapy

Although schools are a common setting for stuttering intervention, surveys of adults who stutter regarding their previous experiences with school-based stuttering intervention reveal a general sense of dissatisfaction (NSA, 2009; Wiegel, 2013; Yaruss et al., 2002). In a survey of NSA members, over 60% of participants reported that their own prior school-based stuttering treatment was “not at all successful” (NSA, 2009, p. 4). In another study, more than 90% of surveyed NSA members did not view school-based therapy as best practice (Yaruss et al., 2002). Respondents in these studies provided various reasons for their dissatisfaction with school-based intervention but most related to incomprehensive or unclear therapy goals (Daniels et al., 2012; Douglass, Constantino, Alvarando, & Verrastro, 2019). Daniels et al. (2002) found that limited attention to “socio-emotional needs in addition to speech production and fluency” contributed to low success ratings (Daniels et al., 2012, p. 78). Other survey participants reported that not understanding the purpose of therapy prevented full engagement (Douglass et al., 2019). Teens’ perceptions of school-based stuttering therapy were more positive than adults’ perceptions, suggesting that client satisfaction with school-based stuttering intervention may be improving (NSA, 2009, p. 4). More recent data on the provision of K-12 students who stutter may provide insight into whether service delivery has improved and how to make further improvements.

Grouping in Stuttering Intervention

Considering that people who stutter consistently report dissatisfaction with school-based intervention, it is appropriate to reflect on what aspects of service delivery are unique in comparison to other settings. In particular, research should explore factors that may influence therapy goals and activities, aspects of therapy that clients have identified as contributing to their negative perceptions, in order to determine potential improvements to service delivery. One aspect of stuttering intervention that could be unique to the school setting is grouping practices. The use of grouping for therapy provision has the potential to influence the content of intervention, the therapeutic environment, and the amount of time spent addressing stuttering within the session. Furthermore, groups appear to be the most common context for treating children in United States' schools. In fact, group intervention has been the predominant service delivery model in schools, "regardless of severity, grade, or type of disorder" (Brandel & Frome Loeb, 2011, p. 474), and surveys show that 73% of students in the United States receive group-based intervention (Brandel & Frome Loeb, 2011). In Washington State, groups comprise over half of clinicians' monthly sessions (Dowden et al., 2006). More recent data would be necessary to determine the whether the current use of group treatment in schools is consistent with prior data.

Prior research from outside the U.S. provides some information about grouping practices for school age-children who stutter. For example, Liddle, James, and Hardman (2011) found that 70% of surveyed SLPs in the UK conducted group therapy. Group therapy was more common in urban contexts (Liddle et al., 2011), perhaps because of a higher population density or a greater number of individuals who stutter, making the formation of groups involving only children who stutter more feasible. Grouping was also more common when therapy was facilitated by experts in stuttering. The reasoning for this is not clear; however, 66% of participants in the Liddle et al. (2011) study were self-reported specialists. If specialists are more likely to conduct group therapy, and if a high number of specialists were participants in the study, then the high occurrence of group therapy may not be reflective of typical service delivery. Therefore, it is important to note how service delivery decision making varies between fluency specialists or general speech-language pathologists.

In the United States, it is unlikely that specialists in fluency disorders are the primary professionals to treat stuttering in schools, and this may impact grouping decisions. In a survey of parents in the NSA, almost half reported that their children received stuttering intervention from a Board-Certified Specialists in Fluency (BCS-F) specialist (NSA, 2009). The surveyed parents are unique due to their involvement in a stuttering support organization; prior research has not examined whether these patterns are the same for individuals who do not participate in self-help groups. As of this writing, there are only 151 BCS-F specialists in the United States, and there are no data available on how many BCS-F specialists work in the schools (American Board of Fluency and Fluency Disorders, 2020). Based on the small number of specialists overall, however, it is clear that specialists cannot be treating the majority of children who stutter. Although specialists may not be the primary professional to treat individuals who stutter, research indicates that non-specialist SLPs are still likely to conduct therapy in groups (Brandel & Frome Loeb, 2011; Dowden et al., 2006). The rationale for providing group therapy may vary between specialists and non-specialists. Additionally, non-specialists and specialists may form groups based on different methods or metrics, such as by age or disorder.

Group composition. Prior surveys of school-based SLPs have not provided information about group composition. In the present study, homogeneous groupings will be defined as groups composed entirely of students who stutter, regardless of their apparent severity level or age/grade level. Heterogeneous groups will be defined as groups composed of children with different communication disorders, again, regardless of age/grade level or other factors. Liddle et al. (2011) conducted the most thorough study available on grouping practices for stuttering intervention; however, they did not specify whether groups were composed entirely of children who stutter (homogeneous) or whether students with different communication disorders (heterogeneous) were included. The limited information about group composition may be related to an assumption that homogeneous groups are standard practice. Researchers’ assumption that groups only consist of children with the same diagnosis may not be the reality for school-based clinicians in the United States. Due to the differences in setting and service delivery practices, U.S.-based data are needed on grouping patterns in stuttering intervention.

At this time of writing, the only available data about group composition for children who stutter in the United States appears to be in an unpublished thesis by Wiegel (2013) on the therapy experiences of three adolescents who stutter. Wiegel (2013) included one survey question about group composition in order to provide contextual information on each participant's therapy experiences:

> 8. In what format have you received speech therapy? (circle all that apply)
>
> a. Individual treatment
>
> b. Group treatment with other people who stutter
>
> c. Group treatment with other communication disorders
>
> d. Stuttering support group
>
> e. Other (specify)____

Two out of the three participants received school-based therapy, and both were served individually (Wiegel, 2013). A larger-scale study is necessary to determine whether individual treatment is representative of typical service delivery. Group composition is often a neglected variable in stuttering intervention research. Clinicians may have differing rationales for selecting homogeneous or heterogeneous groupings. These service delivery decisions may affect clients' therapy perceptions or treatment efficacy, indicating the importance of further research on group composition.

Clients' interest in group therapy. Research from other countries indicates that clients who stutter may prefer group therapy in certain circumstances. Australian researchers Hearne et al. (2008) favored group-based intervention based on survey results of current and retrospective views of stuttering therapy during adolescence. Clients reported benefit from both heterogeneous and homogeneous group therapy (Hearne et al., 2008). Researchers in the U.K. suggested that group or intensive therapy would be an improvement over current practices, based on reports of 50 participants of different ages (Hayhow et al., 2002). In another U.K. study, Liddle et al. (2011) speculated that low confidence in facilitating group stuttering intervention may impair clients' interest or clinicians' perceptions of clients' interest in group therapy. This indicates that clients may have a greater interest in group therapy than assumed, particularly in the case of homogeneous groups. At the time of this writing, no data are available to indicate if people in the U.S. who stutter also value group therapy. Based on the results of international research and the need to consider client preferences in evidence-based practice, further research should study the effects of grouping on clients who stutter in U.S. schools.

Treatment Efficacy

The effect of service delivery variables on treatment efficacy should be a primary factor in clinical decision making; however, limited research is available on the impact of grouping decisions on stuttering treatment. Dickson (2013) conducted a literature review to determine whether grouping affects stuttering intervention outcomes. The available literature provides low-quality evidence due to study design (primarily surveys and expert opinions) and a limited number of participants (Dickson, 2013). In addition, the differing levels of focus on the variable of grouping make it difficult to determine which service delivery factors contributed to treatment outcomes. Dickson noted that comparison of group to individual therapy is necessary to evaluate efficacy, but studies comparing the outcomes of individual versus group interventions are rare across communication disorders for school-age children (Cirrin et al., 2010; Dickson, 2013). In reference to the gap in the efficacy literature for grouping children in Kindergarten through

Grade 5, Cirrin et al. (2010) stated, “in the absence of research evidence, service delivery decisions must be based on other criteria, often guided by tradition or expert opinion” (p. 234). To date, experts have published limited information formally or informally about therapy groupings for stuttering.

Efficacy research in the United Kingdom. The limited information available about the efficacy of group therapy for people who stutter is derived primarily from research conducted in the U.K. Much of the research is based on homogeneous group therapy for teenagers delivered by stuttering specialists at the Michael Palin Centre, an outpatient clinic for stuttering. Caughter and Dunsmuir (2017) found that the support network created from group therapy “is unique due to the commonality of experiences between group members, the shared understanding of each other’s difficulties, and the ability to offer specific support which parents and therapists, who do not stutter, are unable to provide” (p. 19). Fry et al. (2009) reported several considerations for inclusion into intensive group therapy: age, severity, impact, response to individual therapy, motivation, and “interest in the experience of group therapy and meeting other young people who stutter” (p. 13). Overall, Fry et al. (2009) demonstrated increased fluency after group therapy in a single-subject design. The therapy provided in this study was intensive, so it is not clear which of several possible variables (treatment intensity, providing of therapy by a specialist, or group composition) might have contributed to greater outcomes. Further research on intensive group therapy by Fry et al. (2014) indicated potential short-term improvement in both fluency and perceptions about stuttering. However, two out of three participants did not complete the study in its entirety (Fry et al., 2014). In order to strengthen future demonstration of grouping efficacy, a larger-scale study is necessary, though the initial indications from the

Michael Palin Centre suggests that homogeneous group therapy may be beneficial for teen who stutter.

Grouping recommendations in the United States. In the United States, K-12 students are most likely to receive school-based therapy from non-specialists within a group. U.S. literature reflects the fact that grouping is the primary service delivery model due to caseload size (ASHA, 2002; Brandel & Frome Loeb, 2011; Dowden, 2006), but there is no research evidence to support decision-making about whether groups should be heterogeneous or homogeneous. Because of this gap in the published literature, clinicians may consult the opinions of experts in stuttering. Of which, relatively few articles explicitly made grouping recommendations for stuttering treatment. A review of the available papers indicates that experts recommended homogeneous groupings (Ramig & Bennett, 1995; Williams & Dugan, 2002). Ramig and Bennett (1995) favored "grouping children with similar stuttering behaviors and attitudes," especially in the beginning of therapy (p. 144). Williams & Dugan (2002) stated that, "it is not ideal to group stuttering children with those presenting other disorders" when conducting stuttering modification therapy (p. 192). Ramig and Bennett (1995) made the exception that heterogeneous groupings could be beneficial for advanced generalization or when pairing individuals with fluency and voice disorders due to some shared techniques. In an informal forum posting, Healey (2011) recommended individual treatment over both homogeneous and heterogeneous group therapy unless children have similar needs, or the clinician is able to adequately address all children's goals. Beyond these few mentions, grouping has not been widely discussed as a factor in decision-making for stuttering therapy. In the absence of guidance about how to group K-12 students who stutter, clinicians must rely on other factors when making service delivery decisions.

Factors Affecting Grouping Decisions

Caseloads' influence on grouping. Caseload size has been identified as a factor for decision making about service-delivery models in the schools. Dowden et al. (2006) found a significant direct correlation between caseload size and the likelihood that intervention would be provided through groups. In 2002, ASHA recognized that school-based SLPs may be "managing their time according to the number of clients assigned to them rather than the speech and language needs of the students" (ASHA, 2002; Dowden, 2006, pp. 112). Brandel & Frome Loeb (2011) also found that "scheduling difficulties" and workload levels influenced clinicians' choices to use group intervention. Large caseloads are presented as a barrier to providing individualized, evidence-based intervention. Unfortunately, prior attempts to mediate the crisis have worsened conditions in some cases: "In the past, ASHA has recommended a maximum caseload number. However, some states and districts interpreted the number as a minimum rather than a maximum" (ASHA, n.d.). A current survey reflects that school-based SLPs had an average caseload of 48, but 28 states were not represented in the data (ASHA, 2018). More recent and comprehensive data are necessary to understand current caseload management strategies and outcomes.

Caseload size and demographics influence both the use and composition of group therapy. A high caseload and scheduling conflicts were found to increase the occurrence of group therapy; these same factors were identified as logistical barriers to providing stuttering intervention in homogeneous groups (Ramig & Bennett, 1995; Williams & Dugan, 2002). Heterogeneous groups were also more common when SLPs or individuals who stutter were not available in sufficient numbers to facilitate and form homogeneous groups (Ramig & Bennett, 1995; Williams & Dugan, 2002). Both the composition and size of caseloads appear to affect grouping decisions for stuttering therapy. Further research is necessary to understand the effect of caseload on service delivery decisions in comparison to other factors to determine how to best support clinicians in making individualized decisions for clients.

Comfort with stuttering. Service delivery decisions may be affected by clinicians' comfort working with individuals who stutter. Cooper & Cooper (1996) found that 93% of surveyed SLPs were more comfortable working with individuals with articulation disorders than those who stutter. Clinicians were not surveyed on their setting or their caseload composition, so their responses may be related to limited engagement with clients who stutter. According to a survey of school-based SLPs, about 90% served children with speech sound disorders (SSD) whereas about 67% served children who stutter with SLPs serving about 16 more students with SSD per month than children who stutter (ASHA, 2018). This demographic information indicates that clinician's experience with clients may, in fact, influence their increased comfort with individuals with articulation disorders.

In a more recent study of school-based SLPs, Tellis et al. (2008) reported that clinicians worked with about two students who stutter per year and that 46.5% were not comfortable working with individuals who stutter. A general discomfort with stuttering may increase with particular components of intervention. "Unfortunately, many clinicians report that they are not comfortable working with aspects of the stuttering disorder other than fluency," despite recognizing the significance of addressing negative reactions (Murphy, Yaruss, & Quesal, 2007a, p. 140). This discomfort with stuttering may influence clinicians' decisions about how to form treatment groups. Clinicians who are uncomfortable with stuttering may be more comfortable with heterogeneous groups, as stuttering would not be the sole focus.

Clinicians' confidence and ability to deliver optimal stuttering intervention may be related to their experiences with stuttering during graduate school. Most graduate programs (85.8%) require a class specific to fluency disorders (Yaruss et al., 2017). Compared to an earlier survey, an increasing number of fluency courses are taught by a professor with a primary research or clinical specialty in stuttering (Yaruss & Quesal, 2002; Yaruss et al., 2017). Students seem to have more opportunities for coursework in fluency disorders than for clinical experiences with individuals who stutter; Still, only about half of programs require clinical experience in assessing and treating fluency disorders. In the Yaruss et al. survey, educational programs reported that students obtain an average of only 9.3 assessment hours in fluency disorders and only 15.4 treatment hours in stuttering (Yaruss et al., 2017). Most assessment and treatment hours are obtained with children in university clinics, as opposed to primary and secondary schools (Yaruss et al., 2017). Additionally, 13.8% of programs reported that hours in fluency disorders could be received through experience with dysarthria, literacy, articulation, nonfluent aphasia, or other disorders (Yaruss et al., 2017). Based on the flexibility of these hours, students may receive hours in "fluency disorders" without actually working with clients who stutter and without having served children who stutter in the school setting. Thus, although students may appear to have educational opportunities to learn about stuttering, their clinical experience is limited, both in terms of hours and in diversity of experiences. Tellis et al. (2008) also found that, even with educational experience, school-based clinicians "were unaware of many basic aspects of stuttering assessment and treatment," indicating that the existing curricula may be inadequate (p. 22). When reviewing the graduate experiences of clinicians, the presence and quality of both clinical and educational experiences must be considered.

Limited or inadequate clinical experience with stuttering during graduate school could influence preparedness for treating stuttering, as well as clinical decision making. Smyk (2019) surveyed SLPs’ comfort treating stuttering and found that participants’ responses were associated with their graduate school experiences. Clinicians’ opinions of stuttering and their comfort levels in service delivery corresponded with their perceptions of post-secondary clinical and educational experiences with stuttering. Clinicians with more negative perceptions of stuttering and lower comfort levels reported that they did not feel sufficiently prepared by their graduate school experiences. This demographic was also less likely to pursue professional development opportunities regarding stuttering (Smyk, 2019). Further research is necessary to examine how comfort levels impact service delivery decisions in stuttering intervention, such as whether and how to group children who stutter. Such research should also seek to illuminate the sources of discomfort so that clinicians can be provided with appropriate support to increase comfort.

Summary

A potential disconnect exists between the scarce research on optimal service delivery models for school-age children who stutter and actual practices. Much of the available research suggests that children who stutter should be grouped with other children who stutter, but it is unlikely that homogeneous groups are the primary service delivery model for these children. The existing literature does not explicitly describe group composition. Across disorders, there is limited guidance on how to group students in school-based settings. Evidence-based practice (EBP) urges speech-language pathologists to consider current research, clinical experience, and client preferences, but given the lack of information about the potential benefits or challenges associated with grouping, it is not clear which factors currently inform clinicians' service delivery choices.

Although groups seem to be the most common service delivery model in the United States schools, more information is needed about how children who stutter are treated in the schools. The purpose of this study is to address this shortcoming in our knowledge by answering the following research questions about grouping for children who stutter in the United States schools:

(a) Do school-based speech-language pathologists treat K-12 students who stutter primarily individually or in groups?

(b) When children who stutter are treated in groups, are these groups comprised of only children who stutter (homogeneous) or children with other speech/language disorders (heterogeneous)?

(c) What factors influence clinician's decision-making regarding service delivery and grouping practices?

Based on the limited available literature, it is hypothesized that SLPs in the schools treat K-12 students who stutter primarily in groups and that such groups have a heterogeneous composition. It is also predicted that these SLPs will report a high caseload as being one of the justifications for their grouping practices. Clinicians may also report feeling unprepared or uncomfortable treating stuttering.

Results from this study will provide needed information about current practice patterns and the factors affecting these decisions. This information will serve as a foundation for future work on improving school-based intervention for children who stutter. Data from this study may help indicate the extent to which current intervention is evidence based. The current research may also indicate whether ideal grouping practices were limited by general factors, such as high caseload, or factors specific to stuttering, such as a limited number of students who stutter or clinician discomfort, were a limitation in implementing ideal grouping conditions. Information on barriers and rational will help later researchers determine the steps necessary to increase the efficacy of practices in school-based stuttering intervention.

METHODS

Participants

Participants in this study were speech-language pathologists (SLPs) working in K-12 schools in the United States. Initially, the study was distributed through convenience sampling to personal contacts of the coauthors (Tichenor & Yaruss, 2020). Those personal contacts then helped to expand the participant pool by sharing the study with their contacts, through snowball sampling (Tichenor & Yaruss, 2020). To prevent distribution only among SLPs with interest in stuttering, the study was also shared through forums, SLP Facebook groups, and other social media outlets to target generalist school SLPs. The study was then emailed to state speech-language pathology associations and distributed to their members.

In order to allow a thorough description of participants' practice patterns, a minimum of 100 participants were sought. Respondents must have worked as school-based SLPs for at least two years. Data were only collected from K-12 public school clinicians. Therefore, participants must work for at least one public school; participants who only work at a preschool were not included, as early childhood treatment may vary significantly from treating school-age children. Participants had to be employed at the time that they completed the questionnaire, though their employment status may be full-time, part-time, or contingent. Participants needed to report that they have current or prior experience treating students who stutter in the school setting. SLPs were included with or without a master's degree in speech-language pathology or the equivalent given that some SLPs may still practice in the public schools with a bachelor's degree. Based on the variable licensure and certification requirements between states, participants were accepted with or without state licensure or the Certificate of Clinical Competence (CCC).

Questionnaire

To gather information about the grouping practices of speech-language pathologists in U.S. schools, a comprehensive questionnaire was constructed and administered via Qualtrics (Qualtrics, 2020). The questionnaire, which appears in Appendix A, collected both quantitative and qualitative information.

Quantitative data were gathered on participants' work settings, their caseload size and composition, grouping practices for students who stutter, and factors that may influence service delivery. Because Dowden (2006) and Brandel and Frome Loeb (2011) found that a high caseload can influence the use of group therapy, data were collected on overall caseload size and any employment or setting characteristics that may influence caseload size and management. Participants were asked their employment status (full-time, part-time, or contingent) and the number of schools they serve; for each school, information was collected on the area (urban, rural, or both), the grade levels (elementary, middle, or high school), total enrollment, and the number of SLPs at each location. Data were also collected regarding caseload management techniques, such as caseload caps at the school, district, or state level, or a workload model (3:1 schedule or other).

In addition to information about caseload size, quantitative data was collected regarding caseload composition, including the grades served, the distribution of disorders, and the number of students who stutter who receive direct intervention. For students who stutter, participants reported on the number of students who receive individual and group intervention. For group intervention for students who stutter, participants reported on group composition through the distributions of grades (same, different, or mixed) and disorders (only students who stutter, only students with other communication disorders, or mixed). To provide context for data analysis, clinicians were asked to report whether they have current or prior experience treating students who stutter.

This questionnaire also gathered quantitative information on the factors that may influence service delivery decisions (Brandel & Frome Loeb, 2011; Cooper & Cooper, 1996; Smyk, 2019; Tellis et al., 2008; Yaruss et al., 2017). A list of student, clinician, and workplace factors was developed from Brandel & Frome Loeb's (2011) adaptations to ASHA's school-based intervention decision-making model. From this list, participants were asked to select their top, second, and third considerations in deciding how to form therapy groups for students who stutter.

To collect further quantitative data on factors that may influence service delivery, questions were adapted from Yaruss et al.'s (2017) study of undergraduate and graduate SLP programs. Clinicians were asked to provide their highest level of education and the year they received their master's degree, if applicable. Data were collected on the presence of fluency disorders in their undergraduate and graduate education, including the number of classes, whether classes were required or elective, and whether classes were solely devoted to fluency/ fluency disorders. Participants also provided information on their graduate clinical experience with stuttering, including whether hours were required in fluency disorders or stuttering, whether other disorder areas satisfied requirements, and how many hours they accrued in the assessment and treatment of stuttering. Clinicians then self-reported the impact of their education on their preparedness to treat and make service delivery decisions for children who stutter through a four-point scale from very prepared to very unprepared.

Factors that may influence stuttering service delivery after graduate education were gathered from prior surveys on clinicians' comfort with stuttering (Cooper & Cooper, 1996;

Smyk, 2019; Tellis et al., 2008). In the current questionnaire, quantitative information was collected on the participants' states, any active licensure, and whether they hold the Certificate of Clinical Competence. Participants also reported any expertise, professional development, or personal experience with stuttering that may impact stuttering service delivery (Cooper & Cooper, 1996; Smyk, 2019; Tellis et al., 2008). Participants then self-reported their comfort level in relation to grouping decisions for students who stutter through a four-point Likert scale, ranging from very uncomfortable to very comfortable.

Qualitative data was gathered through open-ended questions, which allowed clinicians to provide further insight into their work setting and the factors that influence their decision-making for children who stutter. When clinicians report on their caseload and grouping distributions, a space was provided for clinicians to explain whether the number of students who stutter and the clinician's service delivery decisions for these students are representative of their typical caseload. Clinicians were asked to give further information about caseload management strategies and the perceived effects of any workload model that they or their districts had implemented. In addition, participants were provided spaces to share and explain the factors that influence their choices of service delivery models and group composition. They also were provided a space to share any differences between grouping decisions for students who stutter versus other students they serve. When asked about professional development and personal relationships with individuals who stutter, clinicians were provided an opportunity to share further information. These open-ended questions were designed to gather information on factors that were not included in prior research that might help to inform future research on grouping practices in school intervention.

Pilot Study

To ensure the readability and applicability of items on the questionnaire, a pilot study was conducted prior to distribution of the questionnaire to the participants. In this pilot study, four speech-language pathology students were asked to provide feedback on the questions. Students reported which questions may be confusing to participants and provided suggestions to improve clarity. For example, questions regarding the characteristics of post-secondary coursework were edited to clarify that answers were representative of all course experiences. Students also provided feedback regarding which questions may be difficult for clinicians to answer, such as providing percentages for caseload distribution. Participants were instead asked the number of students served in various areas of intervention. Participants also identified which areas of the survey could be removed or condensed, such as asking less questions about participants’ educational experiences.

Data Analysis

Of the 169 participants who responded to the questionnaire, 113 responses were included in the study. Fifty-six participants were excluded from the study. All excluded respondents did not complete the inclusion criteria. One participant did not agree to the terms of the study. Fourteen participants did not initiate the questionnaire after consenting to the study. Thirty-five participants had less than two years of experience. Four participants did not serve K-12 students at public schools. Two participants did not indicate whether they had experience treating students who stutter in the schools. See Appendix B for an overview of data organized by question; analysis for quantitative data is synthesized into count and percentages of responding participants and open-ended responses are provided unedited in full.

Participants reported learning of the questionnaire from social media (77%), email (11%), state associations (8%), colleagues (6%), and student interns (5%). Of the participants who learned of the questionnaire from social media, 79% identified Facebook as the source and 17% identified Reddit.

Quantitative data from the questionnaire was analyzed within the context of individual responses and within the context of all responses in order to identify any trends. The number of responses were included for all data, given that responses were optional for all questions and given the high level of attrition in the questionnaire.

The number and percentage of participants were recorded for responses to the following quantitative data: grades served; experience treating students who stutter at public schools; source of questionnaire distribution; state; credentials; level of education in speech-language pathology; master's graduation year; levels of coursework in fluency disorders; number of postsecondary courses in fluency disorders; characteristics of coursework in fluency disorders; professional development participation; relationships with people who stutter; comfort levels with treatment and associated planning for students who stutter; employment status; school levels served; presence of other SLPs at school settings; and use of caseload management strategies. Percentages were rounded to the nearest one's place for simplification and accessibility. For questions allowing multiple responses, the number of responses may exceed the number of participants and the percentage of responses may exceed 100%. This applies to the following data: grades served, source of questionnaire distribution, credentials, characteristics of coursework in fluency disorders, professional development participation, relationships with people who stutter, school levels served, and use of caseload management strategies.

Data binning was used to analyze a large range of values to ease interpretation of data for readers. Increments were selected based on the minimum and maximum values, as well as the overall distribution. When analyzing years of experience, graduation year, graduate clinical clock hours, and caseload distribution, counts were recorded based on increments of 5. When analyzing total student enrollment, responses were recorded based on increments of 500. When analyzing caseload size, responses were recorded based on increments of 10. When recording graduation years, responses with multiple graduation years were excluded from analysis if level of education could not be identified. When analyzing caseload distribution, the total number of students across the fifteen areas of intervention were summed for each participant. If this number exceeded five higher or lower than the reported caseload size, the response was excluded for analysis of caseload distribution. For analysis of caseload distribution, service delivery models, and group composition, blank spaces were excluded from analysis; only responses indicating "0" were included in analysis as zero. If the number of students in various service delivery models was inconsistent with the number of reported groups, the data were excluded from analysis.

The maximum, minimum, mean, and standard deviation was calculated for the following quantitative data: years of experience; graduation year; number of postsecondary courses in fluency disorders; graduate clinical clock hours in stuttering assessment and treatment; number of public schools served; total student enrollment; total caseload size; caseload distribution; number of students served in various service delivery models; number of groups served with at least one student who stutters; and number of groups with various disorder and grade compositions. The mean and the standard deviation were rounded to the nearest hundredths place for simplification and accessibility.

When analyzing the number of postsecondary courses in fluency disorders, responses such as "one semester" or "3 credits" were assumed to be one class. Responses were included in counts and percentages if indicating less than or greater than a particular number or listing a range of numbers but were excluded when calculating mean and standard deviation (e.g., postsecondary courses in fluency disorders, graduate clinical clock hours). If qualitative responses could not be accurately quantified, they were excluded from calculations of number, percentage, mean, and standard deviation, and were instead recorded as qualitative data. Extraneous information in responses, including post-collegiate professional development or clinical experiences, were excluded from all analysis.

To analyze open-ended questions, thematic analysis was conducted based on the work of Tichenor & Yaruss (2019). Qualitative responses were collected for each open-ended question then initially labeled and sorted based on key words. Based on developing patterns from the gathered key words, information from the responses was recategorized into themes and subthemes that best illustrated the main findings of the data. Quotes from selected participants' responses were included in order to provide further characterization of the themes. The number of responses related to each theme were not used to rank significance, as this may provide misinformation regarding the importance of particular responses. Instead, themes are presented to guide future research that may further explore their significance in relation to grouping practices and decisions for stuttering intervention.

RESULTS

Demographics

Figure 1 shows the distribution of participants across the United States by number. States are color coded to represent increments of ten: 1-10 (green), 11-20 (blue), and 21-30 (orange). Most respondents reported living in Michigan (21%), Illinois (18%), or California (11%). Other participants responded from Alabama, Alaska, Arizona, Connecticut, Florida, Georgia, Idaho, Indiana, Kansas, Louisiana, Maryland, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, and Wisconsin.

Figure 1 State distribution of participants (n=107).

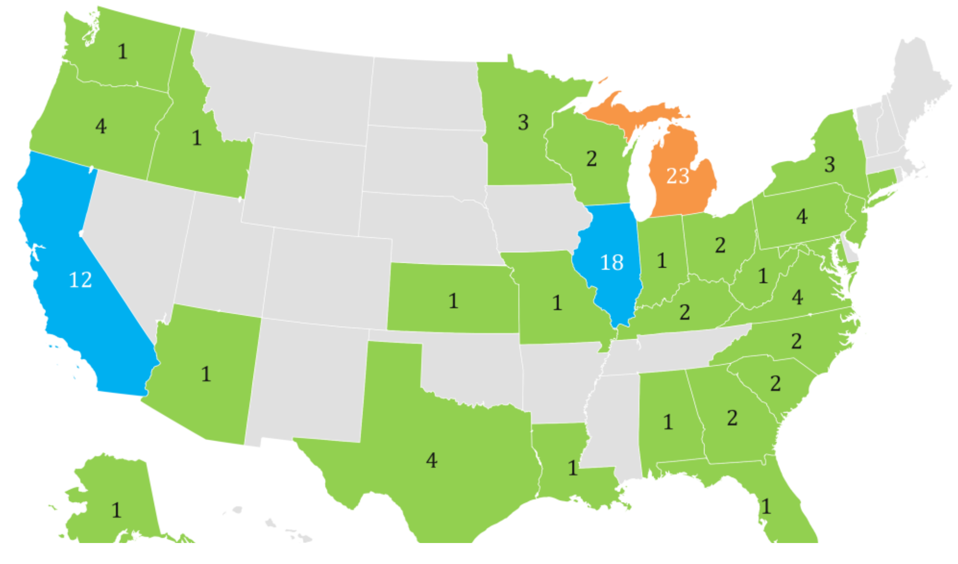

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Table 1 provides demographic information on participants' education, their credentials, and their employment status. The majority of participants reported holding master's degrees with only one participant reporting practicing with a bachelor's degree. Most held the Certificate of Clinical Competence (CCC) and state licensure. About half of participants had a teaching certificate or license for school-based speech-language pathologists. Other certifications (2%)

included EI credential, Teacher of the Speech and Hearing Handicapped, and Listening and Spoken Language Specialist Certification. Table 2 provides information on the minimum, maximum, and means years since graduation with a master's degree and years of experience working as a speech-language pathologist in public schools. Participants averaged 14 years since graduation and 12 years of experience.

Table 1 Demographic information of participants: Post-secondary education in speech-language pathology and credentials.

Demographic Variable	**%**
Education (n=107)	
Bachelor's	1%
Master's	99%
Credentials (n=107)	
Board-Certified Specialist in Fluency (BCS-F)	0%
Certificate of Clinical Competence (CCC)	97%
State licensure	93%
Teaching certificate or license for school-based SLP	57%
Other	2%

Table 2 Minimum, maximum, and mean graduation year for master's degree in speech-language pathology or a related field and years of experience working as a speech-language pathologist in public schools.

Demographic Variable	**Minimum**	**Maximum**	**Mean**	**SD**
Master's graduation year	1985	2019	2008	9.46
Years of experience (n=113)	2	40	11.97	8.95

Information About Schools

Tables 3 and 4 provide information about participants' employment and their public schools. Most participants reported working full time at public schools. Participants served three public schools on average, primarily elementary and middle schools in urban areas. Average reported student enrollment across various public schools was 1,347 students.

Table 3 Information about public school settings: School levels served, areas served, employment status, and presence of other speech-language pathologists.

	%
Levels served (n=56)	
Elementary	75%
Middle	52%
High	29%
Areas served (n=49)	
Urban	71%
Rural	18%
Both	10%
Employment status (n=57)	
Full-time	95%
Part-time	5%
Presence of other SLPs (n=57)	
No	46%
Yes	54%

Table 4 Minimum, maximum, and mean number of public schools served and total student enrollment across public school settings.

	Minimum	Maximum	Mean	SD
Number of schools (n=57)	1	4	1.65	1.00
Total enrollment (n=48)	300	10,000	1,347.83	0.99

About half of participants worked with other speech-language pathologists. Table 5 provides an overview of the themes from open-ended responses about the presence of other SLPs. Participants reported working with between one and thirty-four speech-language pathologists at their schools or within their school district. Some participants reported that they were the only speech-language pathologist at one of their schools though they worked with other SLPs at some locations. Some participants also reported the presence of speech-language pathology assistants. Students were distributed among speech-language pathologists through a variety of methods. Some SLPs were divided by schools or location. Others worked with specific populations, such as autism or early childhood, or certain grades. Many discussed efforts to balance caseloads by size, reporting between 50 and 75 students per SLP. Some participants reported that caseload size was divided then students were distributed alphabetically to SLPs. Some participants reported that adjustments were made to the distribution of students throughout the school year as needed.

Table 5 Thematic analysis of open-ended responses answering the question, "Do you work with other SLPs at public schools? If yes, indicate how many SLPs and how students are divided in the space provided."

Identified Themes	Subthemes
Number	1-34
Caseload division between SLPs	Alphabetically Age/grade Location Caseload characteristics Scheduling availability

Experience With Stuttering

Table 6 provides information regarding participants' postsecondary education in fluency disorders and the amount of graduate clinical clock hours obtained in the assessment and treatment in stuttering. Most respondents (97%) reported participating in either undergraduate or graduate coursework related to fluency disorders. On average, participants reported approximately one undergraduate and one graduate course. The majority of participants reported that they participated in required courses in fluency disorders (94%) and that classes were devoted to fluency disorders (48%). Few participants reported taking elective courses (12%) or receiving education on fluency disorders as part of another course (12%). On average, participants reported earning 4 clinical clock hours in the assessment of stuttering and 12 hours in the treatment of stuttering during graduate school. Approximately 20% of participants were not able to estimate the amount of clinical clock hours earned in the assessment and treatment of stuttering during graduate school.

Table 6 Minimum, maximum, and mean number of postsecondary courses in fluency disorders and number of clinical clock hours accrued in stuttering assessment and treatment during graduate school.

	Minimum	Maximum	Mean	SD
Level				
Undergraduate (n=29)	1	3	1.21	0.55
Graduate (n=67)	<1	3	1.22	0.51
Clock hour categories				
Assessment (n=97)	0	50	3.96	7.18
Treatment (n=95)	0	50	11.23	11.44

Tables 7 and 8 provide information on participants' personal experiences with stuttering. Nearly half of participants did not know people who stutter outside of their clients. Some participants reported currently identifying as a person who stutters (4%). No participants reported previously identifying as a person who stutters. A few participants reported that they knew family or friends but did not provide further information about their relationship. Several participants described the severity, frequency, and persistence of their family member's stuttering, mentioning "developmental stuttering." Others addressed factors affecting stuttering, such as age and emotion, such as "… now, she only stammers when she gets really upset." One participant shared that her husband reflected on stuttering and identity, saying that her husband, "no longer considers himself to be a person who stutters." Participants used the following terms to talk about stuttering: stutters/ed, "person who stutters," and "stammer not a stutter" (though the meaning of the distinction for this individual was not specified).

Table 7 Relationships with people who stutter.

	%
Relationships with people who stutter (n =100)	
Myself	4%
Family	20%
Friends	34%
Other	11%
Clients only	49%

Table 8 Thematic analysis of open-ended responses answering the question, “Besides clients, please select any of the following people you know who stutter. In the space provided, indicate who and how well you know them.”

Identified themes	Family (n=18)	Friends (n=29)	Other (n=11)
Number	1	1-5	1
Relationship	Children Siblings Parents Cousins Uncles Grandparents In laws	Best friend Childhood best friend’s mom Speech-language pathologist High school College Acquaintance Friend of the family	Personal trainer/gym owner Colleagues or coworkers Childhood friend Acquaintances University professors Significant other In laws
Characterization of relationship	Distant to somewhat intimate	Distant to intimate	
Characterization of stuttering	Severity Persistence Factors affecting stuttering		
Other	Age	Gender	

Table 9 and 10 provide information on participants’ post-collegiate professional development related to fluency disorders. Nearly all participants reported participating in some form of continuing education or professional development. Some reasons for participation in continuing education included professional growth, improving service delivery, and changes in caseload. For example, one participant reported they sought out professional development, “every time I had a pupil added to my caseload.” The amount and frequency of participation varied significantly with participants reporting daily, monthly, or yearly participation, while others reported that several years elapsed between participation in CE events, such as within the CEU maintenance periods. Many participants mentioned attending conferences led by ASHA or state organizations, including ISHA, MSHA, NJSHA, and OSHA. Others participated in online or in-person workshops or trainings from SLP Summit, speechpathology.com, and other sources.

Few participants reported participating in ASHA's Special Interest Group 4 for fluency disorders. Those who did reported daily review of the SIG. Participants who reported participating in stuttering support groups mentioned participating in Friends: The National Association of Young People Who Stutter and the Stuttering Foundation of America's (SFA's) summer workshop for clinicians or Mid-Atlantic Workshop. Another participant reported receiving a monthly pamphlet from a stuttering support group or reviewing other information on stuttering related websites. One participant mentioned Camp Shout Out, a camp and therapy experience for children who stutter, as well as a training experience for SLPs.

Table 9 Participation in professional development related to fluency disorders.

	%
Professional development (n=90)	
Continued education or professional development related to fluency disorders	99%
Stuttering support groups, such as the National Stuttering Association, FRIENDS: The National Association of Young People Who Stutter, or the Stuttering Association for the Young	20%
Membership in ASHA SIG 4 Fluency and Fluency Disorders	4%
Other	4%

Other forms of professional development (4%) included personal experience as a person who stutters, podcasts, and the purchase of a stuttering training program. Several participants mentioned receiving training or resources from Dr. J Scott Yaruss and Nina Reeves from Stuttering Therapy Resources. Others mentioned reading current research in fluency disorders. Several participants reported using social media to learn more about stuttering, including @slp.stephen on Instagram and the Facebook group SLPs for Evidence-Based Practice. A few participants also stated that they have presented on stuttering to other SLPs. In the open-ended responses, several participants reported not participating in any professional development related to fluency disorders.

Table 10 Thematic analysis of open-ended responses answering the question, "Please describe the amount, content, and your participation in the above professional development in fluency disorder."

Identified Themes	Subthemes
Amount	15 minutes-175 hours 1-18 continuing education units One conference session 1-2 courses or workshops None
Frequency	Ongoing Often Occasionally Daily Monthly Every 1-5 years Every conference CEU maintenance period As needed
Source	Virtual or in-person Conferences Continuing education units Trainings, courses, or workshops Research Colleagues Social media Support groups Websites Stuttering materials ASHA Special Interest Group 4 Videos or podcasts
Topics	Treatment Assessment Stuttering and fluency disorders Repayment
Purpose	Fulfilling professional goals Caseload distribution To improve or modernize service delivery To obtain resources

Table 11 provides information regarding participants' comfort level treating children who stutter and making grouping decisions for these students. The majority of participants reported being somewhat comfortable with treating children who stutter (54%), though smaller percentages of participants reported comfort with choosing whether to treat children who stutter in groups or individually (45%) and choosing how to form groups for children who stutter (40%). Few participants (3-4%) reported that they felt very uncomfortable with treating or treatment planning.

Table 11 Reported comfort levels with stuttering treatment and decision making.

	Very comfortable	**Somewhat comfortable**	**Somewhat uncomfortable**	**Very uncomfortable**
Treating children who stutter (n=100)	21%	54%	21%	4%
Choosing whether to treat children who stutter in groups or individually (n=100)	33%	45%	18%	3%
Choosing how to form groups for children who stutter (n=99)	32%	40%	24%	3%

All participants who considered themselves to be a person who stutters reported being somewhat or very comfortable with treatment and treatment planning. Participants who did not know any people who stutter besides clients represented 56% of those reporting being somewhat uncomfortable or very uncomfortable with an aspect of treatment or treatment planning.

Only one of the three participants reporting that they did not have undergraduate or graduate coursework indicated that they were somewhat uncomfortable with treatment. Those who reported being very uncomfortable with an aspect of treatment or treatment planning had taken classes in fluency disorders at the graduate level. Of the participants who did not receive graduate clinical clock hours in stuttering treatment, 41% reported being somewhat uncomfortable or very uncomfortable with an aspect of treatment or treatment planning.

Of the participants who reported participating in stuttering support groups, 80% felt somewhat or very comfortable with treatment or treatment planning. Of the participants who reported membership in ASHA Special Interest Group 4, 75% felt somewhat or very comfortable with treatment and treatment planning. Of the participants who reported continuing education in fluency disorders, 61% felt somewhat or very comfortable with treatment and treatment planning. Of the participants reporting no participation in professional development related to fluency disorders, 71% felt somewhat or very comfortable with treatment and treatment planning.

Caseload

Table 12 provides information on caseload size and distribution by primary area of intervention. Participants reported serving 51.55 students on average. The areas of intervention with the highest mean number of students were language disorders: semantics, morphology, syntax (18.55); speech sound disorders (13.22); autism spectrum disorder (8.17); language disorders: pragmatics/social communication (7.63); and cognitive communication disorders (4.11). On average, less than one student was served with acquired brain injury, auditory processing disorder, dysphagia, selective mutism, and voice or resonance disorders. When asked about experience treating students who stutter at public schools, 77% of participants reported current experience and 23% reported previous experience. On average, participants served 2.88 students with fluency disorders with 4% of participants reporting serving zero students, 86%

serving between one and five students, and 10% serving between six and ten students with fluency disorders.

Table 12 Minimum, maximum, and mean caseload size and number of students served in each primary area of intervention.

	Minimum	**Maximum**	**Mean**	**SD**
Caseload size (n=57)	20	95	51.55	14.48
Primary area of intervention				
Acquired brain injury (ABI) (n=24)	0	3	0.42	0.81
Auditory processing disorder (APD) (n=24)	0	5	0.79	1.35
Autism spectrum disorder (ASD) (n=48)	0	30	8.17	6.82
Childhood apraxia of speech (CAS) (n=35)	0	5	1.71	1.72
Cognitive communication disorders (n=27)	0	15	4.11	3.69
Dysphagia (swallowing/feeding) (n=23)	0	2	0.13	0.45
Fluency disorders (n=49)	0	10	2.88	2.04
Hearing (n=28)	0	14	1.43	2.53
Language disorders: pragmatics/social communication (n=38)	0	45	7.63	8.32
Language disorders: semantics, morphology, syntax (n=47)	3	50	18.55	12.86
Augmentative and alternative communication (AAC) (n=32)	0	10	1.91	2.40
Reading and writing (literacy) (n=24)	0	17	2.29	4.55
Selective mutism (n=26)	0	1	0.46	0.50
Speech sound disorders (n=50)	1	40	13.22	9.97
Voice or resonance Disorders (n=21)	0	2	0.24	0.53

Participants also reported which grades were represented on their caseload. Between 67 and 70% of participants served elementary grades (K-5). Between 40 and 51% of participants served students in middle school (6-8). About a third of participants served high school grades (9-12).

Participants reported the use of various strategies for caseload management, including a caseload cap (54%), a workload model (18%), or other caseload management strategies (16%) About half of participants reported a caseload cap (54%); Some participants reported not using any caseload management strategies (30%). Participants reported that caseload caps were primarily at the state level, with some district regulation, and ranged between 50 to 68 students. Many participants reported limited enforcement of the caseload cap, stating "we go over often" or "only a suggestion and not followed strictly." Some participants reported that caseload caps were restricted based on employment status or by grade levels. One participant reported recent reduction in caseload size. Participants who utilized workload models reported using the 1:1 model, the 3:1 model, or workload units. Others reported that workload model was only used for certain students. One participant stated that "SLPs who work with ESCE [Early Childhood Special Education], ASD [Autism Spectrum Disorders], and MOCI [Moderate Cognitive Impairment] typically have smaller caseloads." Others mentioned scheduling or therapy goals as a factor in implementation. One participant reported that they are currently in the process of implementing a workload model. Other caseload management strategies included:

- consideration of travel time
- changes based on individual caseload and workload needs, considering caseload size, severity of students' disabilities, or responsibilities of SLP
- receiving help from other SLPs or SLPAs as needed
- varying intervention type.

One participant mentioned considering use of Response to Intervention in place of direct intervention. Another mentioned using "alternative blocks with special education, allowing for increased frequency with high needs groups, social skills groups, classroom/coteaching."

Table 13 Thematic analysis of open-ended responses answering the question, "Please select which caseload management strategies your public schools use. In the space provided, describe the type and the impact on your caseload.

Identified Themes	**Subthemes**
Caseload cap (n=30)	Amount Level Enforcement Application
Workload models (n=9)	Type Consideration of caseload size or population Application Effect
Other (10)	Caseload size Travel time Intervention types Staffing Caseload needs

Grouping Practices

Table 14 provides information on the number of students who stutter served in various service delivery models: individual treatment, group treatment, and both individual/group treatment. On average, participants served 1.81 students who stutter in both individual/group treatment, 1.58 in group treatment, and 0.90 in individual treatment.

Table 14 Minimum, maximum, and mean number of students treated individually, in groups, or both individually and in groups.

	Minimum	**Maximum**	**Mean**	**SD**
Service delivery models				
Individual (n=31)	0	3	.90	.93
Group (n=38)	0	4	1.58	1.23
Both (n=31)	0	8	1.81	2.09

Table 15 provides information on the disorder and grade compositions of groups with students who stutter. On average, participants served 1.74 groups with at least one student who stutters.

Groups had the following disorder compositions:

- only other students who stutter (0.94)
- only students with other communication disorders (0.92)
- students who stutter and students with other communication disorders (0.88).

Groups had the following grade compositions:

- only students in the same grade (1.13)
- students in the same and different grades (1.13)
- only students in different grades (0.62).

Table 15 Minimum, maximum, and mean number of groups with students who stutter and composition of groups by disorder and grade.

	Minimum	**Maximum**	**Mean**	**SD**
Number of groups with children who stutter (n=53)	0	5	1.74	1.07
Disorder compositions				
Only other students who stutter (n=31)	0	4	0.94	0.98
Only students with other communication disorders (n=38)	0	3	0.92	0.97
Students who stutter and students with other communication disorders (n=34)	0	5	0.88	1.02
Grade compositions				
Only students in the same grade (n=40)	0	5	1.13	1.14

Table 15 (cont'd)

Only students in different grades (n=26)	0	3	0.62	0.92
Students in the same and different grades	0	4	1.13	1.23

Grouping Decisions

Table 16 Top, second, and third considerations in forming treatment groups for students who stutter.

	Top (n=55)	**Second** (n=55)	**Third** (n=55)
Your professional development (c)	2%	2%	4%
Motivation and attitude of the student (s)	11%	13%	20%
Your relationship with school staff (w)	[redacted]	4%	4%
The nature and severity of the student's disorder (s)	40%	25%	4%
The opportunity for peer modeling or interaction (s)	13%	25%	11%
Caseload size (c)	5%	4%	18%
Your clinical training (c)	2%	4%	2%
Workload size (c)	2%	4%	11%
Your experience working in schools (c)	[redacted]	2%	9%
The student's strengths, needs, and abilities (s)	2%	16%	15%
The grade or age of the student (s)	9%	18%	22%
The academic impact of the student's disability (s)	4%	9%	4%
IEP team input (w)	2%	4%	4%
Administrative support (w)	[redacted]	2%	7%

Table 16 provides an overview of participants' top, second, and third considerations in forming groups for students who stutter when provided a list of decision-making factors. The list included student, clinician, and workplace factors:

- Student factors (s): “motivation and attitude of the student;” “the nature and severity of the student’s disorder;” “the opportunity for peer modeling or interaction;” The student's strengths, needs, and abilities;” “the grade or age of the student;” and “the academic impact of the student's disability.”
- Clinician factors (c): “your professional development,” “caseload size,” “your clinical training,” “workload size,” and “your experience working in schools.”
- Workplace factors (w): “your relationship with school staff,” “IEP team input,” and “administrative support”

Due to an error in questionnaire development, participants were able to select multiple factors for each consideration; therefore, the percentage of participants may exceed 100% for the top, second, and third consideration. With that in mind, student factors were selected more often for all levels of consideration and workplace factors were selected least often. The percentage of participants selecting clinician and workplace factors increased as consideration level decreased but remained significantly below the percentage of participants selecting student factors.

The “nature and severity of the student’s disorder” was ranked as a top consideration by the highest number of participants (40%). “The nature and severity of the student’s disorder” also was ranked with the highest number of participants for the second consideration, along with “the opportunity for peer modeling and interaction” (25%). “The grade or age of the student” was ranked as a third consideration by the highest number of participants (22%). “Your relationship with school staff,” “your experience working in schools,” and “administrative support” were not ranked as a top consideration by any participants. For second consideration, “your professional development,” “your experience working in schools,” and “administrative support” were selected by the lowest percentage of participants (2%). For third consideration, “your clinical training” was selected by the lowest percentage of participants (2%).

All student factors were mentioned to some extent in the open-ended responses regarding factors and barriers in grouping practices and decisions. Additional student factors included in the open-ended responses were student preferences and social dynamics. Clinician factors mentioned to some extent in the open-ended responses included “your professional development,” “caseload size,” and “workload size.” No responses were representative of the following clinician factors: “your clinical training” or “your experience working in schools.” Workplace factors mentioned to some extent in the open-ended responses included “IEP team input” and “administrative support.” No responses were representative of the workplace factor “your relationship with school staff.” An additional workplace factor included in the open-ended responses was scheduling.

Table 17 provides an overview of themes reported in open-ended responses regarding decision-making factors for choosing service delivery models and forming groups for students who stutter. Below are the student, clinician, and workplace factors that influenced participants’ decisions on whether to use and how to form groups for students who stutter.

Student factors. Participants reported that characteristics of stuttering were a consideration in grouping decisions. Severity of stuttering was reported to influence choice of service delivery models, particularly that severe stuttering was an indicator for use of individual therapy. One participant explained that this choice was guided by the need to “focus on treatment techniques.” Another characteristic mentioned was the presence of secondary behaviors. For example, a participant stated “Depends on their secondary behaviors, I would always want to do one individual session and one group. I think modeling behavior is important for stuttering treatment."

Table 17 Thematic analysis of open-ended responses regarding factors affecting decisions to treat students who stutter individually or in groups and how to form groups.

Identified themes (n=56)	**Service delivery models**	**Group compositions**	**Both**
Student factors	Secondary behaviors	Class Maturity Knowledge of stuttering Strengths and weaknesses Student preferences Relationship with peers	Student's comfort Opportunity for mentorship Personality Grade Knowledge of strategies Stage in therapy Academic needs Feelings about stuttering and need for counseling Stuttering severity Impact of stuttering Reducing isolation Therapy activities and goals Comorbidities
Clinician factors	Caseload size		Practice patterns Caseload distribution Schedule
Other factors			School level Placement by school Schedule restrictions

Participants also discussed the influence of comorbidities when selecting service delivery models and forming groups. One participant stated that students with language goals will join other students working on language, but "if they are only working on fluency, I would see them alone, or in a group of only students who stutter." Another stated that these students would "receive both therapy for stuttering and language separately."

Participants had a variety of opinions regarding the disorder composition of groups. Some preferred to use only homogeneous group therapy with students who stutter. One participant expressed "…I've tried to see them with students with speech sound disorders, but it doesn't work effectively." Another agreed, saying that "one goal is to learn stuttering facts and create a presentation about stuttering which would be hard to do in a group with other students working on separate goals." Others felt differently, reporting that they may choose a heterogeneous group with children with speech sound disorders or children with language disorders. One participant stated that "Sometimes I find it easier to group children working on different things because it takes out some of the embarrassment or competition." Some participants preferred to only see students who stutter individually.

Attitude towards stuttering and the impact of stuttering were common factors guiding treatment decisions. Several participants indicated that individual sessions may be implemented if participants were experiencing negative feelings about their stutter. One participant stated, "if it's a mild/moderate stutter and has mild impact on the person, I feel fine putting them in a group." Another reported "...if they are having a lot of emotions related to their stutter, they made need some individual time for some counseling and confidence building before they have group time." Given the socioemotional needs of stuttering, participants considered students' comfort with groups, speaking, and practicing fluency strategies. One participant reported that they administered the assessment the *Overall Assessment of the Speaker's Experience of Stuttering* (OASES; Yaruss & Quesal, 2016) to better understand the perception of and impact of stuttering. Based on the impact of stuttering, some participants believed that homogeneous groups helped to reduce isolation or offered opportunities for counseling.

Student's stage in therapy influenced participants choice of service delivery models. Many participants stated that they would see students who stutter individually when first beginning therapy in order to instruct in strategies and provide modeling. They also stated that these students would then join heterogenous groups with students with language disorders or articulation disorders to practice their skills or to increase carryover. One participant expressed a preference for groups later in therapy to re-introduce "conversational demands." Another stated that they would join the "higher level artic kids to practice strategies since the activities are similar."

Academic impact was mentioned as a consideration in both service delivery models and group composition. One participant reported that they "…individualize whether they are seen alone or not depending on what I observe would most likely bring functional carryover in the classroom." They provided an example regarding a case in which it was beneficial to group the student who stutters with students with language disorders. In their example, the student who stutters had an oral report and the other students had comprehension goals.

Student's ages and grades influenced whether they were treated individually, within homogeneous groups, or within heterogenous groups. Some participants expressed a preference for groups with similar grades, deciding to treat individually if peers who stutter were a different age. Participants expressed that this preference was often related to the logistics of scheduling. One participant expressed a preference for group therapy with similar age students given that students may "fear the stigma of being alone." Another participant stated that "grade is the primary factor followed by personality." Some participants found value in mentorship between younger and older students who stutter. One participant stated that “I try to keep stutterers around the same age in groups together, although last year I had a great deal of success with a group of stutterers spanning grades 1, 3 and 4.”

Student preferences were an additional factor that participants reported in the open-ended responses when making grouping decisions. One participant even reported asking students about their preferences by “survey or in person.” Some reported that students who stutter prefer individual treatment for privacy or due to discomfort with stuttering. Others reported that group treatment may be preferred to reduce isolation or to increase comfort. Participants also reported social dynamics between students who stutter and their peers as a factor in grouping decisions, considering the personality and compatibility of group members.

Clinician factors. Participants did not mention the influence of their post-secondary education or their experience as a school SLP on service delivery decisions. One participant mentioned considering professional development from Dr. Scott Yaruss and an online fluency subscription. However, they did not elaborate on the ways in which the professional development influenced their decisions.

Several participants reported that caseload size was a barrier in scheduling students. For example, one participant started that “I would like to have only students who stutter together, but caseload size does not permit.” Another reported that caseload size hinders their ability to consistently provide individual treatment more than once a month. Hand-in-hand with caseload size, participants also reported on the effects of caseload distribution on grouping practices and decisions. One participant stated that “because I have small numbers of students who stutter, it is generally based on whether or not a group is available/appropriate.”

Workplace factors. A few participants reported that the IEP influenced their decisions to implement individual versus group therapy. They stated that, "…I'm typically forced to put them into a group. I don't have enough room in my schedule for individual sessions unless it's written in their IEP that they have 1:1 speech." Another reported that a student's IEP mandated group treatment, but they choose to treat them "individually since I have no other fluency students."

Scheduling was an additional factor that frequently recurred in the open-ended responses. Participants reported considering their own schedules, as well as the schedules of students and teachers. A few participants reported that district and school mandates were a barrier in scheduling. Some participants reported that they could not treat students during their core classes, specials, recess, or lunch. Another reported that "students in general education (not self-contained) get pulled from homeroom." One participant stated that "the first issue we usually end up discussing is what will they be missing in class as opposed to what the group will look like." Several participants used the word "forced" to describe how grouping decisions were made, saying "…we are forced to group students together, even if it doesn't serve their best interests, simply because we have too many students and not enough time to fit them all in." One participant reported that school level was the primary factor influencing service delivery models. Others also felt that scheduling impacted whether students could be placed with appropriate peers and that schedules may be based entirely on which students are available.

Stuttering versus other communication disorders. Table 18 provides information on the shared and separate factors affecting treatment planning for children who stutter versus children with other communication disorders. Many participants stated that grouping decisions for children who stutter do not differ from children who do not stutter but did not go into further detail. One participant stated that "I would absolutely prefer it to be different, but at this point, it is not." Some reported that decisions for students who stutter stuttering shared factors with grouping decisions for students with speech sound disorders and/or language disorders. Another offered the perspective that grouping decisions should be made on a case-by-case basis.

Table 18 Thematic analysis of open-ended responses answering the question, "Do your grouping decisions for children who stutter differ from those for children who do not stutter? If yes, describe how."

Identified Themes (n=55)	**Subthemes**
Service delivery model	Individual Group
Group composition	Disorder Age Therapy goals
Social aspects	Feelings about speech Impact of stuttering Support from others who stutter Comfort Social skills Compatibility Relationship with peers
Decision making	Effort Individualized Priorities

Some participants indicated service delivery models as a distinguishing factor between intervention for students who stutter and students who other communication disorders. Some reported that students who stutter are treated within individual sessions only while other students were more likely to be treated in groups. On the contrary, one participant stated that students across communication disorders are treated individually.

Some participants indicated group composition as a factor distinguishing service delivery between students who stutter and students who do not stutter. For example, participants expressed that they were more likely to create homogenous groups for students who stutter and that they were more likely to create heterogeneous groups for students with other communication disorders. One participant stated that “children who do not stutter are generally grouped by classroom first and then by area of need second.” Another participant agreed saying that they would consider the similarity of goals. Regarding age/grade composition of the group, participants generally expressed a preference for similar ages. However, one participant stated that “I may group different grades when I would generally avoid it in other situations.”

An additional reason for individual or homogeneous groupings identified by participants was the uniqueness of stuttering. One participant stated that “fluency is so specialized that it needs to be separate.” Another stated that “I don’t think other students need to hear all the strategies/therapy for fluency students.” For students who stutter, participants reported prioritizing emotional support and found value in group counseling. One participant stated that they view stuttering as … “more of an emotional journey for these students than for those with other disorders.” Another stated that for other groups with other communication disorders that they implemented more impairment-based therapy. On the contrary, one participant stated that “any child who is embarrassed of their speech issue always has the option to be seen 1 on 1.” Participants also reported considering the comfort levels of students who stutter and the personalities of the group. One participant stated that “I am a little more cautious about how I group the children who stutter because I want their attempts for all communication tasks to feel successful. I think more about which personalities (i.e., bullies/teasers) I would not group them with.” Another participant disagreed, stating that compatibility of group members was considered for any communication disorder. In general, participants reported making greater efforts in grouping decisions for students who stutter.

Satisfaction with grouping decisions. Table 19 discusses SLP's satisfaction with grouping practices, barriers in treatment planning, and what SLPs desire to change about grouping practices. Many participants indicated that they were satisfied with grouping decisions but did not provide further detail. Several participants elaborated that positive treatment experiences contributed to their satisfaction. One reported their supervisor's approval as a factor. Another indicated that "I feel I am doing the best I can with time constraints."

Table 19 Thematic analysis of open-ended responses answering the question, "Are you satisfied with your choices of whether to use and how to form groups for students who stutter? If not, how would you change your current practices and are there any barriers...?"

Identified Themes	**Subthemes**
Reasons for satisfaction	Positive experiences Supervisor approval Given circumstances
Barriers	Schedule Age/grade Caseload size Caseload distribution Grouping restrictions Administration Opportunity for counseling Work responsibilities and expectations
Preferences	Service delivery model Group composition Flexible scheduling More time Opportunity for counseling Student preferences Student's comfort Student's therapy progress Current research

For scheduling, participants shared that employment status, the school schedule, students' schedules, teachers' schedules, the clinician's schedule, and school/district mandates impacted their ability to make grouping decisions. Participants felt limited by the constraints of the school day. They found it difficult to find time for individual treatment or to place students into ideal groups due to conflicting availability. For example, one participated stated that they had to place students into heterogeneous group against their own preference. Another shared that if they face availability conflicts, they will “see the students in smaller groups or individually, rather than adding them to a group targeting a different need.” Other participants also mentioned the impact of workload. One stated that “my workload prohibits me from changing my grouping choices.”

Caseload size was identified as a barrier to implemented individual or homogeneous group treatment. The number of students who stutter on caseload also impacted service delivery decisions. The age of students on caseload was also considered a barrier. One participant stated that the students who stutter “…vary greatly in grade so it [homogeneous groups] would not work very well at this point.” Another mentioned gender of students but did not provide further detail as to the impact on service delivery decisions. Participants had varied opinions on their preferences regarding group composition. Some reported preferences for individual treatment and others expressed a preference for homogeneous groups. One participant stated that “this year, with COVID, I am seeing students for shorter, individual sessions, and I am seeing more progress overall.”

Some mentioned that they would like more opportunity for students who stutter to discuss their feelings regarding stuttering. One participant shared that “it would also be nice if I was able to have larger groups of people who stutter as so much of the support we give as SLPs is counseling.” Another stated that students were less likely to “open up about stuttering” when paired with students with language disorders. Some expressed that they would like to be able to schedule based on student’s preferences and comfort. A participant also reported that they would prefer to base grouping decisions on the student’s progress with therapeutic strategies.

Others, whether they expressed satisfaction or not, indicated that they would appreciate additional research on grouping practices and decisions. One participant stated, “I’m satisfied but always open to learning current evidence for best practices.” Another reported that they were not satisfied and would “…like to know the research behind each of these approaches.”

DISCUSSION

The present study sought to address a literature paucity regarding evidence-based practices for grouping in school-based stuttering intervention by gathering information on current grouping practices, as well as the factors that inform these decisions. On average, participants served 2.88 students who stutter within a caseload of 51.55 students. The number of students served in groups or with both groups and individual treatments exceeded individual treatment. The number of students served in homogeneous, heterogeneous, and mixed group compositions was roughly equivalent. When making grouping decisions, participants reported that they considered student-specific factors, such as stuttering severity, the impact of stuttering, stage in therapy, social dynamics, and grade. Participants also reported that caseload size, caseload distribution, and other scheduling restrictions impacted their ability to form appropriate groups for students who stutter. The study also collected information regarding clinician's educational and professional backgrounds, as well as their comfort levels, to better understand the potential influence of clinician factors on grouping decisions.

Caseload

According to ASHA (2018), 48 students was the average caseload size for full-time speech-language pathologist working in public schools. This is near the reported caseload in this questionnaire, which was 51.55 students. Table 20 compares means calculated based on reported number of students served in each area of intervention from elementary, secondary, and combination settings in the ASHA 2018 SLP Schools Survey and K-12 settings in the current study. In ASHA's survey (2018), (n<25) indicated that fewer than 25 participants reported students in that area of intervention; therefore, a mean was not calculated per the restrictions of the study.

Table 20 Mean number of students treated by area of intervention as reported in ASHA's 2018 SLP Schools Survey and the current study.

	ASHA 2018 SLP Schools Survey			**Current study**
Area of intervention	**Elementary**	**Secondary**	**Combination**	
Acquired brain injury (ABI)	1.4	1.6	(n<25)	0.42
Auditory processing disorder (APD)	4.6	8.3	4.6	0.79
Autism spectrum disorder (ASD)	8.5	13.5	9.8	8.17
Childhood apraxia of speech (CAS)	2.8	2.3	(n<25)	1.71
Cognitive communication disorders	8.1	12.1	11.2	4.11
Dysphagia (swallowing/feeding)	2.5	(n<25)	(n<25)	0.13
Fluency disorders	2.6	2.7	2.1	2.88
Hearing	2.0	2.5	3.5	1.43
Language disorders: pragmatics/social communication	9.7	15.4	12.2	7.63
Language disorders: semantics, morphology, syntax	21.3	24.2	21.7	18.55
Augmentative and alternative communication (AAC)	4.5	5.4	7.1	1.91
Reading and writing (literacy)	12.6	17.8	14.2	2.29
Selective mutism	1.4	1.4	(n<25)	0.46
Speech sound disorders	20.8	7.3	16.1	13.22
Voice or resonance Disorders	1.6	1.9	(n<25)	0.24

Caseload distribution information cannot be directly compared between ASHA's survey (2018) and the current study due to several factors. ASHA's study was limited to speech-language pathologists working full-time with the Certificate of Clinical Competence. The mean was calculated with a minimum of 25 participants and only included SLPs serving at least one student in each area of intervention. Lastly, the survey permitted participants to count students within multiple areas of intervention. The current study included speech-language pathologists working part-time or full-time with or without the Certificate of Clinical Competence. No restriction was placed on the number of participants. Additionally, participants were asked to select the primary area of intervention and participants reporting zero students within areas of intervention were included in the mean. With these considerations in mind, the mean number of students with fluency disorders in the current study (2.88) appears consistent with data from ASHA's survey (2018), as well as data from Tellis et al. (2008), which reported an average of two students who stutter per clinician. With an average caseload of 51.55 students and only 2.88 students who stutter, participants would have much less experience with stuttering intervention than intervention for speech sound disorders or language disorders.

Limited experience with students who stutter could contribute to lower comfort levels. Comfort could be further impacted by the duration between serving students who stutter, the quality of graduation education, and time since graduation education. Even in the circumstance that participants are provided adequate graduate education in fluency disorders, participants may not have the opportunity to apply this knowledge for years, which could further decrease comfort levels. Participants are also likely to need continuing education to compensate for gaps in clinical practice. Given the high workload demands of school-based speech-language pathology and the limited students who stutter on caseload, SLPs may not have the time to pursue continuing education, or they may opt for professional development pertaining to more commonly served intervention areas. Lastly, low numbers of students who stutter in combination with scheduling restrictions could prevent participants from implementing homogeneous groups even if this group composition is indicated by their clinical judgment.

Grouping Practices

Research on the number of students served in group versus individual treatment in schools is limited across disorder areas, including fluency disorders. Previous studies have reported that SLPs served over 50% of their caseload in group-based intervention (Brandel & Frome Loeb, 2011; Dowden et al., 2006). In Wiegel (2013), two students reported receiving individual therapy during school-based therapy. The current study collected information only on the service delivery models implemented for students who stutter. On average, participants reported serving 0.90 students individually, 1.58 students in groups, and 1.81 students with both individual and group treatment. For participants reporting that they served students who stutter with both individual and group treatment, the number of individual versus group sessions was not reported. It is not clear whether mixed service-delivery models consisted of primarily individual or group sessions. For students who stutter treated in groups, participants reported an average of 0.94 homogeneous groups, 0.92 heterogeneous groups, and 0.88 mixed groups. Information gathered regarding service delivery models confirms the hypothesis that on average students who stutter receive more group treatment than individual treatment; however, information gathered on group composition is not consistent with the hypothesis that groups would have a heterogeneous composition. This research indicates no significant difference between the number of groups with a homogeneous, heterogeneous, or mixed disorder composition. Some participants expressed satisfaction with these choices while others expressed that their practices did not align with their preferences. The influence of student-specific factors in comparison to the influence of scheduling on group composition is unknown; therefore, although a practice pattern was not observed in group composition, it does not mean that grouping decisions were individualized.

Decision-Making Factors

The current study was designed to gather information about what factors influenced grouping decisions given the lack of research regarding evidence-based grouping practices for students who stutter. Participants reported considering student, clinician, and workplace factors when choosing whether to use groups and how to group students who stutter. Participants expressed similar themes to the grouping recommendations of Ramig and Bennett (1995) regarding the use of heterogeneous groups for generalization of skills. For the initial stage of therapy, participants expressed a preference for individual treatment whereas Ramig and Bennett (1995) recommended homogeneous groupings. Participants selecting homogeneous groupings typically did so due to unique nature of stuttering and indicated usage throughout the duration of therapy. As discussed by experts in stuttering, caseload distribution was reported as a barrier in implementing homogeneous groups (Ramig & Bennett, 1995; Williams & Dugan, 2002). Even with a sufficient number of students who stutter, participants were sometimes limited by scheduling and the availability of students. Given limited students who stutter, participants chose to opt for individual treatment or heterogeneous groups depending on time constraints.

Group composition of heterogeneous groups varied between expert recommendations and the practices of SLPs, likely due to limited insight into the school context on the part of researchers. While Ramig and Bennet (1995) recommended grouping students who stutter with students with voice disorders if using heterogeneous groups, participants reported 0.24 students with voice or resonance disorders on average. Instead, participants reported that groups with mixed disorder compositions typically included children with speech sound disorders or language disorders.

Healey (2011) recommended that group treatment only be used if goals and activities of all group members could be adequately addressed. Some participants reported considering the similarity of goals or how activities could serve students with different goals. Others felt restricted by scheduling and were unable to develop ideal groups. However, some participants preferred to have individuals with different goals because they believed that children would be less likely to compare themselves to one another. Information regarding the therapeutic activities implemented within this groups would be necessary to understand whether these groupings could be effective. If goals are not similar and therapy is provided in a segmented fashion within a session, it is unlikely that students are being served for the intended IEP duration. This could negatively impact student’s perception of therapy or its benefits. In some cases, clients may still enjoy therapy, but it is questionable if they would understand why they were attending therapy or that they would make significant progress in their knowledge about stuttering.

As hypothesized, caseload size was reported as a decision-making factor when considering service-delivery models. This was consistent with the research of Brandel and Frome Loeb (2011), which found that scheduling and workload led to use of group treatment. Caseload size and challenges with scheduling impacted participants’ abilities to consider factors specific to students who stutter when making grouping decisions. This indicates that treatment plans are based on practice patterns as opposed to individualized and skilled decision-making. It is worth noting that there was a discrepancy between the rankings clinicians reported on the preprovided factors from the School-Based Intervention Decision-Making Model and the factors discussing in the open-ended responses. All of the top three highest ranking considerations were student-specific factors whereas the open-ended responses highlight student, clinician, and workplace factors. This indicates that there may be a discrepancy between clinicians decision-making processes and the practices they are able to implement. Clinicians may recognize that student-specific factors should be the primary considerations but be restricted in their ability to apply their clinical judgment.

The opportunity to implement typical stuttering intervention may be limited by one-size-fits-all treatment planning. As discussed by many participants, children who stutter may feel uncomfortable speaking in groups and they may have poor relationships with peers, which may be contraindications for group therapy. Group dynamics could restrict students' abilities to adequately practice speech or stuttering modifications or discuss the emotional impact of stuttering. Participants may also have difficulty navigating opportunities for counseling within heterogeneous groups. If groupings are based on convenience and not thoughtfully formed, they are not as likely to yield optimal treatment outcomes.

Education

In the current study, 99% of participants reported holding a master's degree in speech-language pathology or a related field. This number appears to be consistent with data from ASHA's 2018 SLP Schools Survey, which reported that 99.2% of elementary SLPs and 98.6% of secondary SLPs held master's degrees. The reported amount of clinical clock hours earned in the assessment and treatment in stuttering was less than the estimates educational programs made for fluency disorders in the Yaruss et al. survey (2017). Participants reported four hours in assessment of stuttering, as compared to 9.3 hours in assessment of fluency disorders (Yaruss et al., 2017). Participants reported 12 hours in treatment of stuttering, as compared to 15.4 hours in treatment of fluency disorders (Yaruss et al., 2017). It is possible that the estimated clinical clock hours reported by educational programs in the Yaruss et al. survey (2017) included the assessment or treatment of fluency disorders beyond stuttering, such as cluttering, or that they permitted inclusion of other disorder areas, such as literacy, motor speech disorders, or aphasia.

Regarding characteristics of coursework, 85% of graduate programs in Yaruss et al. (2017) reported that a class devoted to fluency disorders was required. In the current study, 94% of participants reported that coursework was required and 48% reported that coursework was devoted to fluency disorders. Only 12% of participants reported that post-secondary education related to fluency disorders was embedded into other classes. Given that these percentages do not total to 100%, it is unclear whether coursework was primarily devoted or embedded. If education in fluency disorders was primarily embedded into other coursework, it is likely that the amount of time and content addressing stuttering varied significantly. Additionally, if stuttering was not the primary topic of the course, it is suspected that instructors would not have significant clinical experience or research expertise related to fluency disorders. These factors could compromise the quality of education and ultimately students' preparedness to treat stuttering when they enter the job field. Inadequate preparation during graduate school may prompt participants to seek continuing education or they may rely on a limited knowledge base to make clinical decisions for students who stutter. This could result in treatment that is ineffective or potentially harmful for students. Heterogeneous grouping could even be used to mask gaps in clinical knowledge by focusing on group members with other, more familiar communication disorders.

Comfort

In Tellis et al. (2008), 46.5% reported that they were not comfortable working with individuals who stutter. In the current study, 21-24% reported being somewhat uncomfortable and 3-4% reported being very uncomfortable with aspects of stuttering treatment and treatment planning. Comfort is likely to impact service-delivery decisions though the extent of the impact was outside of the scope of this study. Factors that appeared to influence comfort were relationships with people who stutter and graduate clinical clock hours in stuttering treatment. People who stutter were very comfortable with stuttering treatment, indicating that it may be valuable for clinicians to learn from first-hand experiences, especially given the high percentage of discomfort experienced by participants who only knew clients who stutter. Participants who received fewer clinical clock hours in treatment during graduate school did tend to report discomfort with an aspect of treatment or treatment planning. Whether participants had taken undergraduate or graduate classes related to fluency disorders did not seem to impact their comfort levels. Tellis et al. (2008) found that the quality as opposed to the quantity of coursework in fluency disorders was more impactful in knowledge of stuttering treatment. This study did not collect data on the contents of coursework or the preparedness of participants based on their education though education quality could explain the discrepancy in comfort.

Participation in professional development also did not appear to have a consistent impact on comfort levels, as high percentages of participants across experience levels reported comfort with stuttering treatment. This information was not consistent with research from Smyk (2019), which indicated that participants with lower comfort levels were less likely to pursue professional development in fluency disorders. It is possible that those with high comfort levels and limited participation in professional development were comfortable due to limited understanding of deviation from best practices. It is also possible that they felt adequately prepared by their graduate or field experiences. Those with low comfort levels and extensive participation in professional development may have felt discomfort due to a thorough understanding of deviation from best practices. This may be representative of the individuals who expressed that they were not able to make ideal grouping decisions due to workplace constraints.

Limitations and Future Research

This study provided introductory research on grouping practices and decisions for students who stutter in public school settings. A greater number of participants would be necessary to understand whether reported grouping practices in this questionnaire are representative of typical practice patterns in the United States. Determining the correlation between decision making factors and grouping practices would also necessitate a larger sample. In future research, a correlation matrix may be beneficial in assessing the importance of various decision-making factors and to increase reliability.

Given the novelty of the questionnaire, test-retest reliability will need to be established in future applications. Additionally, the number of participants initially approved for inclusion into the study was 113; by the final question, the number of participants was 55, indicating a high level of attrition. Continued use of the questionnaire would necessitate examination of the factors contributing to attrition. It is suspected that the length of the questionnaire, as well as the high number of open-ended responses resulted in decreasing participation. Given the decreased participation when asked caseload distribution, it is likely that participants also found it difficult to report the number of students in one area of intervention only.

The current pandemic likely also played a role in participation given the significant impact on service delivery. The following information was gathered informally from many public forums, Facebook groups devoted to speech-language pathology, and discussions with school-based SLPs. The pandemic has influenced whether students receive both education and intervention in-person, virtually, or with a hybrid model. A hybrid model may entail alternating virtual and in-person days. It could also entail teaching or treating some students virtually and some students in-person simultaneously. Asynchronous learning is another option that has been emphasized during the pandemic. It is also possible that changes have influenced the use of direct or consultive treatment, as well as the use of response to intervention. The number of days per week and the time per day spent in synchronous virtual or in-person learning may also be impacted.

It is not yet clear whether or how changes to education have hindered or facilitated grouping decisions or service delivery in general. At the time of this writing, the ways in which these changes have influenced intervention have yet to be researched. Given the uncertainty surrounding the long-term effects of the pandemic on education and intervention, the relevance of this research to the new realities of service delivery should be scrutinized. In this study, participants were asked to provide information regarding typical service delivery *prior to* COVID-19; however, it is unclear at this time the extent to which data from the questionnaire is representative of current service delivery or if SLPs will be able to return to their typical grouping practices. To improve service delivery for students who stutter, it would be essential to first understand the impact of the pandemic.

Additionally, once patterns in service delivery are established, research should examine how grouping affects therapeutic goals and activities. If students who stutter are grouped with students with other communication disorders, how much time is devoted to the student with stuttering and their goals? In what ways do the goals of other students in the group support progress towards the goals of students who stutter and vice versa? Research could also explore the extent to which therapeutic activities are segmented or collaborative within heterogeneous groups.

Further research should then evaluate the effects of various service delivery models and group compositions on therapeutic efficacy from the perspective of people who stutter. Efficacy measures should extend beyond stuttering severity, focusing on the impact of stuttering. This would include self-perception, activity limitations and participation restrictions caused by stuttering and stigma surrounding stuttering. By determining evidence-based practices and reducing implementation barriers for SLPs, speech-language pathologists could more competently make grouping decisions and align their practice patterns with their clinical judgment.

Conclusion

The current research indicates that treatment planning for students who stutter is often not individualized and is instead based on clinician and workplace factors. Given high caseloads and workloads in combination with scheduling within the constraints of school mandates, school SLPs are unable to fully consider student-specific factors when choosing whether to serve students individually or in groups. Stuttering intervention requires specialized knowledge, and it may be challenging to adequately meet the needs of students who stutter within heterogeneous groups. With clinicians reporting that they were not always able to make ideal groupings, the social dynamics of the group or the ability to implement various aspects of stuttering intervention may have been compromised. Given the high prevalence of group intervention and significant client dissatisfaction with school-based therapy, it is quite possible that the group setting negatively impacts students who stutter.

Unfortunately, the effects of excess responsibilities and limited time extend beyond students who stutter and have the potential to impact all students receiving speech services in the school setting. To improve clinicians’ ability to make individualized grouping decisions for all students, barriers to aligning clinical judgments with grouping practices should be examined and reduced. Existing recommendations at the state level or through ASHA regarding caseload caps have limited success in reducing caseload. Clinicians are in need of effective caseload management strategies and realistic scheduling expectations whether at the district, state, or national level. Every set caseload cap should come paired with an action plan regarding the steps to take if the cap is exceeded. These steps may include one or more of the following: redistribution of SLPs in the district, hiring additional SLPs, hiring SLPAs, or other caseload management strategies. In the meantime, to help connect students who stutter, clinicians can consider a hybrid service delivery model to offer occasional group treatment or programs like lunch buddies. Children who stutter can also be connected across schools through assigning clients to speech-language pathologists with relative areas of expertise or use of teletherapy. Whether or not this is possible, children who stutter can and should still be connected to one another through the local and national support groups, whether through monthly meetings, penpal programs, or other means to reduce insolation. More research is needed regarding the impact of grouping on students who stutter and best practices in stuttering intervention, but before best practices can be implemented, clinicians need support to better enable them to practice to their full potential.

APPENDICES

APPENDIX A: Qualtrics Questionnaire "Grouping Patterns and Decisions for School-Age Children Who Stutter"

Introduction

Q1.1 Research Participation Information and Consent Form

Study Title: Grouping Patterns and Decisions for School-Age Children Who Stutter

BACKGROUND AND PURPOSE OF THE STUDY The purpose of this study is to learn more about how school-based SLPs make service delivery decisions for children who stutter.

WHAT YOU WILL DO You will be asked to provide answers to survey questions about your setting, your background, and your caseload.

POTENTIAL BENEFITS The main benefit of this study is your contribution to future research about service delivery decisions for children who stutter. Your participation may also lead to improvements in the planning and provision of school stuttering intervention.

POTENTIAL RISKS There are limited risks associated with participating in this survey. Risks of breaching confidentiality will be minimized through protection of any personal information provided (in this case, your email address). No personal information will be shared. The risk of discomfort from questions will be addressed through voluntary participation. You will not be required to answer any question that you do not wish to answer.

PRIVACY AND CONFIDENTIALITY Your email address is requested, but you may still participate in the survey if you choose not to provide your email address. The reason we ask for your email address is so that we can link your responses on this survey to responses to any future surveys in which you may participate. The only people who will have access to information you provide are the people directly involved with the research study and the university's Institutional Review Board (IRB). All survey item responses will be de-identified for analysis, and no personally identifiable information will be included in any of the presentations or publications resulting from this study. All data will be collected via the internet and responses will be anonymized. Results of this survey and future surveys will be made available to you and anyone who completes this survey. A link will be sent via email when the study is completed.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW Participation is voluntary. At any time, you may choose not to participate in the survey, not to answer specific questions, or to discontinue the survey.

COSTS AND COMPENSATION FOR BEING IN THE STUDY Participating in this survey does not require any cost or result in any compensation. We value your time and insight into school-based speech-language pathology.

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If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

Q1.2 DOCUMENTATION OF INFORMED CONSENT You may print a copy of this consent form for your records. Please select your choice below. Clicking "Agree" indicates that:

You have read the information above
You voluntarily agree to participate
You are 18 years of age or older

○ I agree

○ I disagree

Skip To: End of Survey If DOCUMENTATION OF INFORMED CONSENT You may print a copy of this consent form for your records. Ple... = I disagree

Q1.3 The following questionnaire will ask about you, your setting, and your caseload in order to understand more about grouping practices and decisions in school-based stuttering intervention. It is likely that COVID-19 has altered the circumstances of service delivery. These questions should be answered based on your typical practice **prior to the stay-at-home changes associated with COVID-19.**

Inclusion Criteria

Q 2.1 Inclusion Criteria Your answers to the next few questions will determine whether you are an appropriate participant for this questionnaire. If you match all of the inclusion criteria, the questionnaire will begin. If you do not match one or more of the following criteria, the survey will end. Thank you for your time!

Q2.2 How many years of experience do you have serving public schools as an SLP?

○ Less than two years

○ Two years

○ If you have more than two years of experience, please enter the amount of years in the space provided below ____

Skip To: End of Survey If How many years of experience do you have serving public schools as an SLP? = Less than two years

Q2.3 Select all of the grades you serve at public schools only:

☐ Kindergarten
☐ 1st grade
☐ 2nd grade
☐ 3rd grade
☐ 4th grade
☐ 5th grade
☐ 6th grade
☐ 7th grade
☐ 8th grade
☐ 9th grade
☐ 10th grade
☐ 11th grade
☐ 12th grade
☐ I do not serve K-12 students

Skip To: End of Survey If Select all of the grades you serve at public school only: = I do not serve K-12 students

Q2.4 Do you have experience treating students who stutter at public schools?

○ Yes, I currently treat students who stutter at a public school

○ Yes, I previously treated students who stutter at a public school

○ No, I have not treated students who stutter at a public school

Skip To: End of Survey If Do you have experience treating students who stutter at public schools? = No, I have not treated students who stutter at a public school

Questions About You

Q3.2 Where did you hear about this study? ____

Q3.3 Please select your state from the dropdown list:

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
District of Columbia
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming

Q3.4 Please select if you currently have any of the following credentials:

☐ State licensure for speech-language pathology

☐ Teaching certificate or license for school-based SLP

☐ Certificate of Clinical Competence (CCC)

☐ Board-Certified Specialist in Fluency (BCS-F)

☐ Other ____

Q3.5 Do you have a master’s degree in speech-language pathology or the equivalent? In the space provided, please enter the year of your graduation:

○ No, I practice with a bachelor's degree ____

○ Yes ____

Q3.6 Did you take undergraduate or graduate courses addressing fluency disorders? If yes, indicate the amount in the space provided.

☐ No

☐ Yes, undergraduate ____

☐ Yes, graduate ____

Display This Question:
If Did you take undergraduate or graduate courses addressing fluency disorders? If yes, indicate the... = Yes, undergraduate
And Did you take undergraduate or graduate courses addressing fluency disorders? If yes, indicate the... = Yes, graduate

Q 3.7 Please select any of the following that describe your coursework in fluency disorders:

☐ Required

☐ Elective

☐ Devoted to fluency disorders

☐ Fluency disorders were included as part of another course

☐ I don't remember

Q3.8 In the text box provided, estimate how many clinical clock hours you accrued in stuttering during graduate school. If you did not accrue hours in stuttering, enter 0 (zero). If you can't provide an estimate, please enter NA

○ Assessment of stuttering ____

○ Treatment of stuttering ____

Q3.9 Have you participated in any of the following professional development?

☐ Continued education or professional development related to fluency disorders

☐ Stuttering support groups, such as the National Stuttering Association, FRIENDS: The National Association of Young People Who Stutter, or the Stuttering Association for the Young

☐ Membership in ASHA SIG 4 Fluency and Fluency Disorders

☐ Other ____

Q3.10 Please describe the amount, content, and your participation in the above professional development in fluency disorders: ____

Q3.11 Besides clients, please select any of the following people you know who stutter. In the space provided, indicate who and how well you know them.

☐ I currently consider myself to be a person who stutters

☐ I previously considered myself to be a person who stutters

☐ Family ____

☐ Friends ____

☐ Other ____

☐ I do not know anyone besides clients

Q3.12 How comfortable do you feel

	Very comfortable	Somewhat comfortable	Somewhat uncomfortable	Very uncomfortable
Treating children who stutter	○	○	○	○
Choosing whether to treat children who stutter in groups or individually	○	○	○	○
Choosing how to form groups for children who stutter	○	○	○	○

Questions About Your Schools and Your Caseload

Q4.1 Questions about your schools and your caseload

The remaining questions will ask you to report on your caseload at your **public** schools only. Data will not be collected on your private, charter, or center-based schools. Please answer based on your **typical caseload** prior to any changes associated with COVID-19.

Q4.2 What is your employment status?

○ Full time

○ Part time

○ Contingent

○ Other

Q4.3 How many public schools do you serve?

○ 1

○ 2

○ 3

○ 4

○ 5

Q4.4 Please provide the following information for your K-12 public school settings only:

	Select the levels your schools serve			Select the areas your schools serve?		Approximately how many total students attend your schools?
	Elementary	Middle	High school	Rural	Urban	Enter amount
Public Schools	☐	☐	☐	☐	☐	

Q4.5 Do you work with other SLPs at public schools? If yes, indicate how many SLPs and how students are divided in the space provided:

○ No, I am the only SLP at all my schools

○ Yes ____

Q4.6 Please select which caseload management strategies your public schools use. In the space provided, describe the type and the impact on your caseload.

☐ Caseload cap: please indicate the size and the level of regulation (state, district, or schools) ____

☐ Workload model, such as 3:1 schedule ____

☐ Other caseload management strategies ____

☐ No caseload management strategies

Q4.7 Across all of the public schools you serve, how many students are on your caseload in total? ____

Q4.8 How many students did you serve in each of the following areas? If a student has more than one condition, please count their primary area of intervention only. Note that the total should equal your answer to question 4.7.

Acquired brain injury (ABI) ____
Auditory processing disorder (APD) ______________________________________
Autism spectrum disorder (ASD) ____
Childhood apraxia of speech (CAS) _______________________________________
Cognitive communication disorders _______________________________________
Dysphagia (swallowing/feeding) ____
Fluency disorders ____

Hearing ____
Language disorders: pragmatics/social communication ______________________________
Language disorders: semantics, morphology, syntax ________________________________
Augmentative and alternative communication (AAC) _______________________________
Reading and writing (literacy) ____
Selective mutism ____
Speech sound disorders ____
Voice or resonance disorders ____

Q4.9 How many students who stutter did you treat

○ individually ____

○ in groups ____

○ with a combination of individual and group therapy ____________________________

Q4.10 How many groups did you serve with at least one student who stutters? _______________
Q4.11 Of the groups with at least one student who stutters, how many groups fit each of the following disorder compositions? Note that the total should equal your answer to question 4.10. If no groups match the description, enter 0 (zero).

○ Only other students who stutter ____________________________________

○ Only students with other communication disorders _________________________

○ Students who stutter and students with other communication disorders _______________

Q4.12 Of the groups with at least one student who stutters, how many groups fit each of the following grade compositions? Note that the total should equal your answer to question 4.10. If no groups match the description, enter 0 (zero).

○ Only students in the same grade ___________________________________

○ Only students in different grades __________________________________

○ Students in the same and different grades ____________________________

Q4.13 How do you decide whether to treat students who stutter individually or in groups?
____
____

Q4.14 How do you decide how to place students who stutter into therapy groups?
____
____

Q4.15 Do your grouping decisions for children who stutter differ from those for children who do not stutter? If yes, describe how.

____

____

Q4.16 Are you satisfied with your choices of whether to use and how to form groups for students who stutter? If not, how would you change your current practices and are there any barriers in implementing these changes?

____

____

Q4.17 We are interested in learning about which factors most influence how you form groups in therapy. Of the provided factors, rank your top three considerations in forming groups for students who stutter.

Top consideration	Second consideration	Third consideration

______ Your professional development
______ Motivation and attitude of the student
______ Your relationship with school staff
______ The nature and severity of the student's disorder
______ The opportunity for peer modeling or interaction
______ Caseload size
______ Your clinical training
______ Workload size
______ Your experience working in schools
______ The student's strengths, needs, and abilities
______ The grade or age of the student
______ The academic impact of the student's disability
______ IEP team input
______ Administrative support

Q4.18 Thank you for your participation in this survey! We appreciate your time and insight into your practice as a school-based SLP.

APPENDIX B: Question-by-Question Data From Qualtrics Questionnaire

Inclusion Criteria

Table 21 Q2.2 How many years of experience do you have serving public schools as an SLP?

	Number	Percentage
Years of experience (n=113)		
2-5	37	33%
6-10	21	19%
11-15	18	16%
16-20	17	15%
21-25	11	10%
26-30	5	4%
31-35	1	1%
36-40	3	3%

Table 22 Q2.3 Select all of the grades you serve at public schools only.

	Number	Percentage
Grades served (n=113)		
Kindergarten	78	69%
1st grade	79	70%
2nd grade	79	70%
3rd grade	78	69%
4th grade	78	69%
5th grade	76	67%
6th grade	58	51%
7th grade	46	41%
8th grade	45	40%
9th grade	31	27%
10th grade	31	27%
11th grade	29	26%
12th grade	31	27%

Table 23 Q2.4 Do you have experience treating students who stutter at public schools?

	Number	Percentage
Experience treating students who stutter (n=113)		
Current	87	77%
Previous	26	23%

Questions About You

Table 24 Q3.2 Where did you hear about this study?		
	Number	**Percentage**
Source (n=107)		
Colleague	6	6%
Email	11	10%
Social media	82	77%
Facebook	65	61%
Reddit	14	13%
State associations	9	8%
ISHA	7	7%
MSHA	2	2%
Student intern	5	5%

Table 25 Q3.3 Please select your state from the dropdown list.		
	Number	**Percentage**
State (n=107)		
Alabama	1	1%
Alaska	1	1%
Arizona	1	1%
California	12	11%
Connecticut	2	2%
Florida	1	1%
Georgia	2	2%
Idaho	1	1%
Illinois	18	17%
Indiana	1	1%
Kansas	1	1%
Kentucky	2	2%
Louisiana	1	1%
Maryland	3	3%
Michigan	23	21%
Minnesota	3	3%
Missouri	1	1%
New Jersey	4	4%
New York	3	3%
North Carolina	2	2%
Ohio	2	2%
Oregon	4	4%
Pennsylvania	4	4%
South Carolina	2	2%
Texas	4	4%

Table 25 (cont'd)

Virginia	4	4%
Washington	1	1%
West Virginia	1	1%
Wisconsin	2	2%

Table 26 Q3.4 Please select if you currently have any of the following credentials.

	Number	Percentage
Credentials (n=107)		
Board-Certified Specialist in Fluency (BCS-F)	0	0%
Certificate of Clinical Competence (CCC)	104	97%
State licensure	100	93%
Teaching certificate or license for school-based SLP	61	57%
Other	2	2%

Table 27 Q3.5 Do you have a master's degree in speech-language pathology or the equivalent? In the space provided, please enter the year of your graduation.

	Number	Percentage
Education (n=107)		
Bachelor's degree	1	1%
Master's degree	106	99%
Master's graduation (n=80)		
1981-1985	3	4%
1986-1990	1	1%
1991-1995	2	3%
1996-2000	13	16%
2001-2005	12	15%
2006-2010	9	11%
2011-2015	9	11%
2016-2020	30	38%

Table 28 Q3.6 Did you take undergraduate or graduate courses addressing fluency disorders? If yes, indicate the amount in the space provided.

	Number	Percentage
Coursework (n=106)		
Undergraduate	9	8%
Graduate	59	56%

Table 28 (cont'd)

Both	35	33%
Neither	3	3%
Undergraduate (n=29)		
1	25	86%
2	2	7%
3	2	7%
Graduate (n=73)		
Less than 1	1	1%
1	55	75%
At least 1	5	7%
2	9	12%
3	3	4%

Table 29 Q3.7 Please select any of the following that describe your coursework in fluency disorders:

	Number	**Percentage**
Description of coursework (n=33)		
Elective	4	12%
Required	31	94%
Devoted to fluency disorders	16	48%
Fluency disorders were included as part of another course	4	12%
I don't remember	2	6%

Table 30 Q3.8 In the text box provided, estimate how many clinical clock hours you accrued in stuttering during graduate school. If you did not accrue hours in stuttering, enter 0 (zero). If you can't provide an estimate, please enter NA.

	Number	**Percentage**
Assessment (n=97)		
0	23	24%
1-5	41	42%
6-10	7	7%
11-15	4	4%
16-20	[redacted]	[redacted]
21+	2	2%
NA	20	21%
Treatment (n=95)		
0	17	18%
1-5	15	16%
6-10	16	17%

Table 30 (cont'd)

11-15	8	8%
16-20	10	11%
21-25	2	2%
26-30	4	4%
31-35	1	1%
36-40	3	3%
41+	1	1%
NA	18	19%

Table 31 Q3.9 Have you participated in any of the following professional development?

	Number	**Percentage**
Professional development (n=90)		
Continued education or professional development related to fluency disorders	89	99%
Stuttering support groups, such as the National Stuttering Association, FRIENDS: The National Association of Young People Who Stutter, or the Stuttering Association for the Young	20	20%
Membership in ASHA SIG 4 Fluency and Fluency Disorders	4	4%
Other	4	4%

Table 32 Q3.10 Please describe the amount, content, and your participation in the above professional development in fluency disorders.

Open-ended responses (n=86)
yearly workshops at state convention
Webinars and ASHA/NJSHA conferences
Watching online CEUs from Nina Reeves
This year it's my professional focus to improve my fluency assessments snd treatment following Scott Yaruss' STR guide
This question is too broad. Ongoing continuing ed that spans 20 years won't fit in this box.
several workshops; especially through National Stuttering Foundation, and othe webinars

Table 32 (cont'd)

Several hours of webinars and workshops, online readings, purchased stuttering materials, specialized fb group stuttering
Several CEUs for fluency treatment
Scott Yarus PD at a professional conference, PD through a speech-pathology online subscription for fluency
Reviewed materials/current research, discussions with colleague who attended PD, support group website perusal
Received and sought information
Professional development reading papers
OSHA and ASHA ceus, trainings by Dr. Yaruss,
Online course that addressed assessment and treatment of stuttering
One session at a conference
One or two PD courses; ASHA convention presentations
One CEU course a year
Occasionally take CEUs related to stuttering; as part of my graduate education we had to attend different support groups/events for those who stutter and hear about their experiences with speech therapy and stuttering
Numerous workshops about stuttering
none
None
none
None
None
None
None
Minimal
listened and presented
I've watched online trainings for fluency, read articles, and looked at information from the Facebook Group - SLPs for evidenced based practice. I've also watched videos and read information from SLP Stephen on Instagram
I've attended the summer workshop for clinicians out on by the stuttering foundation. I also participate in person and self-study continuing ed opportunities.
I've attended several CEU webinars, sessions at conferences (online & in-person), and materials from the Stuttering Foundation.
Independently completed professional development re: stuttering
in the past 4 years - 2 hours of continuing education related to stuttering treatment techniques
I've watched a webinar from SLP summit.
I've probably spent 20 hours over my 25 year SLP career taking courses at conventions and online PD. Contest assessment and treatment of school age; participation as a listener
I've gone to a few asha workshops.
I've done webinars and in person trainings. I read the Facebook group SLPs for evidence ba

Table 32 (cont'd)

I would take additional CEU courses in Stuttering and order free materials from the NSA every time I had a pupil added to my caseload for dysfluency. I wanted to provide the most relevant care. I attended a few support groups to get resources for my 5th grade patients who were headed to middle school with dysfluency.
I typically attend one session per year at the ISHA convention on stuttering
I try to take atleast one professional development on fluency disorders every year.
I try to keep current because treatment, etc. has changed over the years. I have taken CE as well as done my own reading.
I try to get one PD every 2-3 years.
I participate in Continuing education as often as I can - at least twice a year. I participate in the support group once a month and check SIG 4 on a daily basis
I participate annually in 1-3 hours
I have taken several PDs on fluency. I try to complete at least one fluency related PD a year
I have taken courses regarding fluency and receive the monthly pamphlet from The Stuttering Foundation
I have participated in at least 8 hours of webinars and in person seminaries about stuttering assessment and repayment. Maybe more. Spread over several years
I have gone to a conference
I have completed approximately 15 hours of CE in stuttering throughout my career.
I go to a conference every 5 years or so
I attempt to get as much professional development in the area of stuttering as I possibly can, whether these be in-person opportunities through State conventions/local opportunities, as well as journal studies/online opportunities.
Critical to my professional success
continuing ed courses at state conferences; I also did the SFA Mid-Atlantic Workshop several years ago
Conferences
CEUs at state convention; 2 full day courses
CEUs
CEU courses focused on fluency treatment 5 hours
Camp Shout Out, attended fluency sessions at ASHA and MSHA
Average of 15 minutes of CEUs per year
Attending conferences-each conference, I try to get at least one stuttering seminar
Attended a presentation at MSHA conference
At least one course every one to two years. Courses have targeted assessment and therapy.
At least an hour of PD every 1-2 years.
At least 1-4 CEUs per year
Assessment and treatment of fluency disorders - about 10 hours
As needed
As a graduate student, I was required to both assess and treat mild to severe fluency disorders under the guidance of Rodney Gabel
Approx 5 hours pd

Table 32 (cont'd)

a few hours per CEU maintenance period
6 ceus last year, provided 2 presentations about stuttering virtually in Guatemala, provide guidance to other SLPs regarding stuttering
5 hours
5 CEU's and FRIENDS participation
4+ hrs CEU courses about fluency
4 hours
3-9 hours every 3-5 years at Illinois' state convention (ISHA) covering treatment. Annual review content on stuttering websites and listen to pod casts
3 hours PD
3 hours
3 CEUs, research online
2 hours, online CEU, fluency treatment
2 hours per year online ceu classes
18 CEUs
175 hours
16 hours CEUs
1-2 hours of online professional development for treatment of stuttering in school aged children
12 hours
1 hour, don't recall details

Table 33 Q3.11 Besides clients, please select any of the following people you know who stutter.

	Number	Percentage
Relationship (n=100)		
I currently consider myself to be a person who stutters	4	4%
I previously considered myself to be a person who stutters	[redacted]	[redacted]
Family	20	20%
Friends	34	34%
Other	11	11%
I do not know anyone besides clients	49	49%

Table 34 Q3.11 Family: Indicate who and how well you know them.

Open-ended responses (n=18)
Son

Table 34 (cont'd)

Sister in law
My mother had a stammer not a stutter but it has lessened since I was younger and now she only stammers when she gets really upset.
My dad, now possibly my son
My cousin's son stutters
My 10 year old son
great uncle, moderately close family member, provided care and support in his later years
Grandmother, uncle's, my daughter stuttered as a preschooler
Daughter
daughter-- no longer apparent
daughter and 2nd uncle
Brother
Brother
1
1
1
1 uncle stutters severely I don't know him well, my husband stuttered as a child but no longer considers himself to be a person who stutters
both of my children demonstrated developmental stuttering

Table 35 Q3.11 Friends: Indicate who and how well you know them.
Open-ended responses (n=29)
very well
The mom of my best friend growing up stutters, I used to know her quite well)
Several friends, one SLP friend from grad school)
NA
My friend's husband
My best friend is an SLP and stutter
I know them mininally
I have a male SLP friend who is a person who stutters
friends, casual
distant friend from high school; classmate in college
Couple of friends
acquaintance
5
3
2

Table 35 (cont’d)

2 friends
1, friend of the family
1
1
1
1
1
1
1
1
1
1
1
1

Table 36 Q3.11 Other: Indicate who and how well you know them.
Open-ended responses (n=11)
Other (Significant other and his father)
Other (previous clients)
Other (My personal trainer who owns the local gym is a person who stutters.)
Other (My fluency professor in college stuttered)
Other (I’ve had two professors in the past who have stuttered, as a graduate and undergraduate)
Other (Friend of a friend and the choreographer I worked with on a show)
Other (Coworkers)
Other (Colleagues)
Other (acquaintances)
Other (A colleague I know moderately)
Other (1)
Other (1 childhood friend)

Table 37 Q3.12 How comfortable do you feel treating children who stutter, choosing whether to treat children who stutter in groups or individually, and choosing how to form groups for children who stutter?

	Number	**Percentage**
Treating children who stutter (n=100)		
Very comfortable	21	21%
Somewhat comfortable	54	54%

Table 37 (cont'd)

Somewhat Uncomfortable	21	21%
Very uncomfortable	4	4%
Choosing whether to treat children who stutter in groups or individually (n=100)		
Very comfortable	33	33%
Somewhat comfortable	45	45%
Somewhat uncomfortable	18	18%
Very uncomfortable	3	3%
Choosing how to form groups for children who stutter (n=99)		
Very comfortable	32	32%
Somewhat comfortable	40	40%
Somewhat uncomfortable	24	24%
Very uncomfortable	3	3%

Questions About Your Caseload

Table 38 Q4.2 What is your employment status?		
	Number	**Percentage**
Employment status (n=57)		
Full-time	54	95%
Part-time	3	5%

Table 39 Q4.3 How many public schools do you serve?		
	Number	**Percentage**
Schools served (n=57)		
1	37	65%
2	8	14%
3	7	12%
4	5	9%

Table 40 Q4.4 Please provide the following information for your K-12 public school settings only: Select the levels your school serves; select the areas your school serves; and approximately how many total students attend your schools?		
	Number	**Percentage**
School levels (n=56)		
Elementary	42	75%
Middle	29	52%
High	16	29%
Areas served (n=49)		
Urban	35	71%

Table 40 (cont’d)

Rural	9	18%
Both	5	10%
Total enrollment (n=48)		
1-500	16	33%
501-1000	17	35%
1001-1500	6	13%
1501-2000	2	4%
2001-3000	4	8%
3000+	4	8%

Table 41 Q4.5 Do you work with other speech-language pathologists at public schools.		
	Number	**Percentage**
Do you work with other SLPs? (n=57)		
No, I am the only SLP at all my schools	26	46%
Yes	31	54%

Table 42 Q4.5 If yes, indicate how many SLPs and how students are divided in the space provided.
Open-ended responses (n=30)
Varies by year
Total 5 SLPs (including me) and 3 SLPAs. Students divided by campus (PK-K, 1st & 2nd, 3rd & 4th, 5th-7th, & 8th-12th+)
Students are divided by needs, ability to schedule, and balancing caseloads
Other SLPs work with the ECSE students and ASD classrooms.
My building has 1.2 FTE. I am the main SLP (1.0 FTE).
I am the only one at one school. At the other school, there is another .5 SLP and caseload is divided 50/50
from other school in the district but I am the only one for my middle school
divided by grade and or caseload size
Because I am part time another SLP works in my building we usually start the year with her seeing pre-Kathryn 1st, With me taking the second through fifth graders however by midyear AM usually seeing students of all grades pre-K through fifth
based on a 60 student caseload max
At one of my schools, I serve PK and another SLP serves K-2
Alphabetically
6 others - usually 1 per school but adjustments are made based on caseload. My school has the most with 2.5 SLPs in the building.
5 SLPs divide students by school attended
4 in my building - split case grades and sometimes student location

Table 42 (cont'd)

34 other SLPs across the whole district
3 SLPs. Divided by schools in the district
3 other SLP's; divided by primary school plus extra to keep our caseloads somewhat similar
3
3
28; mostly by building
25
2 SLPs in my building. Split caseload in half by alpha
2 SLPs divided by grade
2 SLPs divide 75 students
2 of us- I take 2.5 years old to second grade, other SLP is 3rd grade through high school
16, we sometimes share an office space but mostly we are at our own buildings
1; we each see about 50 students
1
1

Table 43 Q4.6 Please select which caseload management strategies your public schools use.

	Number	**Percentage**
Caseload management strategies (n=56)		
Caseload cap	30	54%
Workload model	10	18%
Other caseload management strategies	9	16%
No caseload management strategies	17	30%

Table 44 Q4.6 Caseload cap: Please indicate the size and the level of regulation (state, district, or schools).

Open-ended responses (n=30)
We have a recommended cap but it is not followed; caseload size is getting better though
State cap of 60
State cap of 50 that is regulated at the district level
state cap is 68, but there is no enforcement or consequence for going over
State cap is 60
No official district hard cap. District attempts to follow CA recommended 55 average.
Full time =60 Although this is a soft number it is taken from state guidance
Definitely under 60, somewhere in the low 50's

Table 44 (cont'd)

case load cap state - 60
Cap of 60 (set by the state of Michigan)
According to our compliance officer, there is no cap.
65 but we go over often, it is a recommendation and not enforced
65
60, but that's only a suggestion and not followed strictly.
60 students state regulation
60 students
60 students
60 state regulation
60 state of Illinois
60 state cap
60 NYS
60 is the cap
60 for regular SLPs (not preschool)
60 (60 state cap)
60
60
60
59-55
50 student caseload cap at the district level
50

Table 45 Q4.6 Workload model, such as 3:1 schedule: Describe the type and the impact on your caseload.
Open-ended responses (n=9)
Workload is taken into account. SLPs who work with ECSE, ASD, and MOCI typically have smaller caseloads.
Typically, I use 3:1 which has been very beneficial.
Transitioning to workload model
Traditional; We also use a workload model and keep it under 80 workload units
Our caseloads are very reasonable. 40 or less.
For some students. Because it is not for all students, it complicated scheduling.
3:1 or 1:1 depending on the goals
3:1 model
3:1

Table 46 Q4.6 Other caseload management strategies: Describe the type and the impact on your caseload.
Open-ended responses (n=10)
We try to split the county-wide caseload evenly among the 4 of us while minimizing travel time
Varies by year
RTI vs Direct
no official cap, but we have the ability to ask for help from other district SLPs if our caseload gets high
May provide an SLP-A for caseloads over 50
In IN, they allow SLPAs which help deal with the lacking caseload cap; alternative blocks with special education, allowing for increased frequency with high needs groups, social skills groups, classroom/coteaching
GPS manages my caseload and makes sure it is something I can handle
Case by case considerations including caseload # and workload
Also, look at the severity of students and responsibilities needed for students
1 SLP per school plus any other extra - I am the district wide bilingual SLP

Table 47 Q4.7 Across all of the public schools you serve, how many students are on your caseload in total?

	Number	**Percentage**
Caseload size (n=57)		
1-10	[redacted]	[redacted]
11-20	1	2%
21-30	5	9%
31-40	3	5%
41-50	17	30%
51-60	18	32%
61-70	9	16%
71-80	1	2%
81-90	1	2%
91+	1	2%

Table 48 Q4.8 How many students did you serve in each of the following areas? If a student has more than one condition, please count their primary area of intervention only. Note that the total should equal your answer to question 4.7.

	Number	**Percentage**
Acquired Brain Injury (ABI) (n=24)		
0	18	75%
1-5	6	25%
6-10	[redacted]	[redacted]
11-15	[redacted]	[redacted]
16-20	[redacted]	[redacted]

Table 48 (cont'd)

21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Auditory Processing Disorder (APD) (n=24)		
0	17	71%
1-5	7	29%
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Autism Spectrum Disorder (ASD) (n=48)		
0	2	4%
1-5	20	42%
6-10	16	33%
11-15	5	10%
16-20	3	6%
21-25		
26-30	2	4%
31-35		
36-40		
41-45		
46-50		
Childhood Apraxia of Speech (CAS) (n=35)		
0	11	31%
1-5	24	69%
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Cognitive communication disorders (n=27)		
0	3	11%

Table 48 (cont'd)

1-5	18	67%
6-10	4	15%
11-15	2	7%
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Dysphagia (swallowing/feeding) (n=23)		
0	21	91%
1-5	2	9%
6-10		
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Fluency disorders (n=49)		
0	2	4%
1-5	42	86%
6-10	5	10%
11-15		
16-20		
21-25		
26-30		
31-35		
36-40		
41-45		
46-50		
Hearing (n=28)		
0	8	29%
1-5	19	68%
6-10		
11-15	1	4%
16-20		
21-25		
26-30		
31-35		
36-40		

Table 48 (cont'd)

41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]
Language disorders: pragmatics/social communication (n=38)		
0	1	3%
1-5	23	61%
6-10	8	21%
11-15	1	3%
16-20	3	8%
21-25	1	3%
26-30	[redacted]	[redacted]
31-35	[redacted]	[redacted]
36-40	[redacted]	[redacted]
41-45	1	3%
46-50	[redacted]	[redacted]
Language disorders: semantics, morphology, syntax (n=47)		
0	[redacted]	[redacted]
1-5	7	15%
6-10	8	17%
11-15	12	26%
16-20	4	9%
21-25	6	13%
26-30	3	6%
31-35	[redacted]	[redacted]
36-40	3	6%
41-45	1	2%
46-50	3	6%
Augmentative and alternative communication (AAC) (n=32)		
0	13	41%
1-5	16	50%
6-10	3	9%
11-15	[redacted]	[redacted]
16-20	[redacted]	[redacted]
21-25	[redacted]	[redacted]
26-30	[redacted]	[redacted]
31-35	[redacted]	[redacted]
36-40	[redacted]	[redacted]
41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]
Reading and writing (literacy) (n=24)		
0	17	71%
1-5	5	21%
6-10	[redacted]	[redacted]
11-15	1	4%
16-20	1	4%

Table 48 (cont'd)

21-25	[redacted]	[redacted]
26-30	[redacted]	[redacted]
31-35	[redacted]	[redacted]
36-40	[redacted]	[redacted]
41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]
Selective mutism (n=26)		
0	14	54%
1-5	12	46%
6-10	[redacted]	[redacted]
11-15	[redacted]	[redacted]
16-20	[redacted]	[redacted]
21-25	[redacted]	[redacted]
26-30	[redacted]	[redacted]
31-35	[redacted]	[redacted]
36-40	[redacted]	[redacted]
41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]
Speech sound disorders (n=50)		
0	[redacted]	[redacted]
1-5	14	28%
6-10	9	18%
11-15	9	18%
16-20	9	18%
21-25	3	6%
26-30	3	6%
31-35	2	4%
36-40	1	2%
41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]
Voice or resonance disorders (n=21)		
0	17	81%
1-5	4	19%
6-10	[redacted]	[redacted]
11-15	[redacted]	[redacted]
16-20	[redacted]	[redacted]
21-25	[redacted]	[redacted]
26-30	[redacted]	[redacted]
31-35	[redacted]	[redacted]
36-40	[redacted]	[redacted]
41-45	[redacted]	[redacted]
46-50	[redacted]	[redacted]

Table 49 Q4.9 How many students who stutter did you treat individually, in groups, and with a combination of individual and group therapy?

	Number	Percentage
Individually (n=30)		
0	12	40%
1	12	40%
2	3	10%
3	3	10%
Groups (n=37)		
0	10	27%
1	7	19%
2	13	35%
3	3	8%
4	4	11%
Both (n=30)		
0	9	30%
1	9	30%
2	5	17%
3	2	7%
4	[redacted]	[redacted]
5	3	10%
6	[redacted]	[redacted]
7	1	3%
8	1	3%

Table 50 Q4.10 How many groups did you serve with at least one student who stutters?

	Number	Percentage
Groups (n=52)		
0	6	12%
1	17	33%
2	18	35%
3	10	19%
4	1	2%
5	1	2%

Table 51 Q4.11 Of the groups with at least one student who stutters, how many groups fit each of the following disorder compositions? Note that the total should equal your answer to question 4.10. If no groups match the description, enter 0 (zero).

	Number	Percentage
Only other students who stutter (n=31)		
0	11	34%

Table 51 (cont'd)

1	15	47%
2	2	6%
3	2	6%
4	1	3%
Only students with other communication disorders (n=39)		
0	18	46%
1	8	21%
2	11	28%
3	2	5%
Students who stutter and students with other communication disorders (n=34)		
0	14	41%
1	13	38%
2	6	18%
3	[redacted]	[redacted]
4	[redacted]	[redacted]
5	1	3%

Table 52 Q4.12 Of the groups with at least one student who stutters, how many groups fit each of the following grade compositions? Note that the total should equal your answer to question 4.10. If no groups match the description, enter 0 (zero).

	Number	**Percentage**
Only students in the same grade (n=41)		
0	15	37%
1	13	32%
2	10	24%
3	1	2%
4	1	2%
5	1	2%
Only students in different grades (n=27)		
0	17	63%
1	6	22%
2	2	7%
3	2	7%
Students in the same and different grades (n=31)		
0	13	42%
1	7	23%
2	5	16%
3	5	16%
4	1	3%

Table 53 Q4.13 How do you decide whether to treat students who stutter individually or in groups?
Open-ended responses (n=56)
With a child who stutters, I typically try to do some individual and some group sessions, unless they have extreme negative feelings about their stutter and then I will treat them individually.
While I have no current students who stutter on my caseload in the past, I have used several deciding factors such as grade, characteristics of stuttering, goals being similar and personality compatibility, and occasionally I have paired a much older student with a younger student as a "teacher"
where they are with talking stuttering, how comfortable they are with the peers in the group, How comfortable they are practicing and talking about stuttering in front of others
Unfortunately, it all comes down to when the students are available. This does not always make for ideal groupings
Unfortunately my schedule is often driven by the constraints of the school schedule since I can't really pull from core classes or special areas. It doesn't leave much time for flexibility. Ideally I would like to see students individually as they are learning about strategies and start to do more group work as they are putting the strategies into practice. I also think it's important to get feedback from the student over time about their comfort level when participating in groups.
The student's comfort level with learning strategies and using them during structured tasks, the level of instruction needed based on severity of the dysfluency disorder.
Students were seen individually if there were not students in their grade level to pair them with or due to scheduling didn't fit into an appropriate group. Also, depending on their severity they maybe seen individually or in a group. Alot of times, placed in a group if at carryover stage or there are other students that are also working on stuttering.
School setting In person elementary school mixed groups of up to 3 Middle School/High School-all students 1 to 1
Scheduling limitations and if goals can be addressed in a group setting or not (for example one goal is to learn stuttering facts and create a presentation about stuttering which would be hard to do in a group with other students working on separate goals)
Scheduling factors
Right now I have 1 student on my caseload who stutters. His IEP indicates "group" services but I see him individually since I have no other fluency students. I try to only schedule fluency students with other fluency students and if there are no other fluency students of a similar age/grade, I see them individually. In the past I've tried to see them with students with speech sound disorders but it doesn't work effectively.
It is dependent on the student. As instructed, I am thinking about what it would typically look like, so my numbers won't match as this year is so wild. I would typically like to see students with dysfluencies individually for the majority of their sessions, but then include others students occasionally so that they can practice their skills with peers.
One group for counseling and one group to practice skills

Table 53 (cont'd)

my caseload size and schedule as well as how comfortable the student would work with certain peers. No official method.
It was somewhat out of my control and the only spot in my schedule that they fit.
It is a difficult decision. Some students who stutter need the privacy to practice and prefer to be seen individually. Other students that stutter prefer to be in groups with other students their age because it is isolating to be alone in middle school. They fear the stigma of being alone versus with other students more. They go to classes with the other students and feel comfortable with them—to a degree.
Initially I treat students who stutter individually and then introduce them to group sessions with informal activities (i.e. lunch bunch only for my fluency students). I will sometimes pull students who I'm seeing in groups for individual sessions if I feel there is something they need to work through privately. Some students are seen for both stuttering and language so they receive both therapy for stuttering and language separately.
Individual for a bit when they first start. Then group with higher level artic kids to practice strategies since the activities are similar
If they are new to therapy then some individual practice is beneficial. Or if they are having a lot of emotions related to their stutter they made need some individual time for some counseling and confidence building before they have group time. As they are working on carryover skills then they need more time with peers and placing those conversational demands back in.
If they are just starting out in their stuttering treatment or need a lot of direct modeling of fluency strategies, I try to see them individually. If they are further along in their treatment or feel comfortable practicing their strategies in front of peers, I will place them in a group.
If the student has other goals they are working on (e.g., language), I will put them in a language group for their language goals. If they are only working on fluency, I would see them alone, or in a group of only students who stutter.
If the student has had previous therapy or is just beginning, the student's level of comfort sharing and practicing within the group, scheduling restrictions.
If a student needs to practice some of the strategies with peers, then I will put them in a group. I will sometimes work with the student to discuss strategies, feelings, etc. individually for the primary stage of intervention. I also try to have a consult with a student who is in a group session or is eventually being seen within a classroom setting. The consult is to reinforce or discuss how strategies work and didn't in a individual setting. Consult can be for fifteen minutes once or twice a month.
I wish it was totally need driven- but there is not that luxury! I have one student who will not talk to anyone else but me and a friend who also stutters. I see him individually and in a group. I try to get "just" my stutters once a month. Schedules and school/district mandates make it difficult- esp the first year of middle school. I have asked for compatible schedules if the students return. I also have more success on our 6th grade only campus.
I use the OASES to determine the students views on stuttering. I take into consideration the severity of the student's stuttering. I also determine whether a student's schedule will permit being pulled for a group.
I typically provide treatment in groups but occasionally will pull the student individually to teach a new fluency strategy. I prefer groups to give the student a peer to work with and talk to.

Table 53 (cont'd)

I tried to give each child who studies one individual in one group
I treat students in groups when I am able to align their sessions based on 1) the student's response to being open to group therapy (I attempt at least a few sessions when # 2 is met) 2) schedules allow me to meet with them at the same time. At the high school - sometimes the schedule prevents seeing students the same hours of the day/week.
I treat individually when possible but rarely have the availabile time.
I think it's productive for the students with fluency disorders to work together.
I think about logistics of my schedule with school schedules and teacher schedules when scheduling all students. Usually students from the same or close grades end up grouped together because of logistics. I take into account individual needs and preferences of the student. For example, I had one student that was very uncomfortable with talking about stuttering in front of his peers, so we worked individually for a few months. As he got more comfortable throughout the year, he started working in a group with his friend. He taught his friend a lot about stuttering as we worked that year. Other students have worked well in groups when they're at different levels because they can kind of teach each other and help each other be confident speakers.
I tend to treat students who stutter individually because they can be very self-conscious of their stutter. I also work with them on voluntary stuttering and they tend to get embarrassed with that as well. I have found that seeing them individually creates trust and they are more open and willing to try all the different techniques. I have seen 1 student who stuttered and had a language delay in a group. He was hesitant to practice the voluntary stuttering but would practice all of the other techniques, in front of his peer.
I only treat students individually because of scheduling issues across grades.
I meet with them individually and discuss goals and how we should work toward them. I ask their opinion on being in a group vs. individual. I generally group/not group based on their preference.
I make groups by whose available--so my groups are all by grade level in elementary.
I look at severity, impact of feelings / attitudes, and where they are in the therapy process.
I have to service almost all my students in groups for scheduling.
I have to schedule students by grade, while also avoiding pulling students from resource(I.e music/PE), Math, ELA, and lunch/recess. I also have to work with their EC teachers and avoid pulling them during those times. So I'm typically forced to put them into a group. I don't have enough room in my schedule for individual sessions unless it's written in their IEP that they have 1:1 speech.
I have always tried to have fluency kiddos in individual therapy. Or two fluency students together. If they have been in therapy for awhile or are showing carryover skills, I might try a group with either speech or language students.
I don't, my schedule decides for me. That's the main reason why I wanted to fill out this survey. Often times we are FORCED to group students together, even if it doesn't serve their best interests, simply because we have too many students and not enough time to fit them all in.
I didn't get to decide, the school randomly plays the students in groups.

Table 53 (cont’d)

I based it on how the child presented and what they were working on for the week. For example, my fifth grader had to give an oral report. I put her in a small group for her to rehearse her oral report with a small audience. It worked well with the students who had to listen and ask questions as their goals were listening and comprehension as well as expression and making clarifications. Another student I noticed was acting out in class and I wanted him to know he could do more than just be the "class clown". For two groups, he became my "Big S" Helper. He was the Big person in charge who stuttered. He was my "assistant" in helping model the fluency strategies to the younger aged members of the group. This worked well for him and he began to ask "Did you need a helper today?" He even asked his classroom teachers if they needed help! Those are two examples and I could go on and on. I individualize whether they are seen alone or not depending on what I observe would most likely bring functional carryover in the classroom. There was one in particular who I always saw alone. He experienced trauma in his home and did not respond well being around others.
I base it on their level of comfort to speak in front of others
I ask them their preference
I always treated individually. My schedule allowed for the extra time it took.
Grade is the primary factor followed by personality. I look at who the PWS would match best with in their grade.
For me, it depends more on the student. Is he/she comfortable in a group setting, using the strategies and severity of the stutter. Some kids are so severe that they really need individual therapy.
Discussed feelings about stuttering in front of others
Depends on their secondary behaviors , I would always want to do one individual session and one group. I think modeling behavior is important for stuttering treatment
Depending on my schedule and caseload at the time. I usually try to prioritize goals but with different schedules and split across 2 different schools, it is hard.
Based on what I think they need and based on schedules.
Based on the severity and how their stutter impacts their daily life.
Based on emotional status , severity and availability of student/ therapist
As best I can and makes sense for my students (age etc), I try to put students who stutter in groups so they can meet others similar to them and feel comfortable trying new techniques. I only treat individually if I don’t see other students who stutter at that building.
A combination of the student’s schedule/availability and the students readiness for/benefit from group intervention. Also, the availability of an appropriate peer/group.
1) Whether their elementary therapist reported they learned and demonstrated those skills to increase their fluency 2) severity 3) Student’s preference

Table 54 Q4.14 How do you decide how to place students who stutter into therapy groups?
Open-ended responses (n=56)
Yes- access to more students who stutter since I don't get them all at my school
Usually by grade or as mentioned above
Usually based on age and skill level
Typically, I try to group my student's based on their teacher's schedule. It's on an individualized basis if they are grouped with children with similar disorders or working on different things. Sometimes I find it easier to group children working on different things because it takes out some of the embarrassment or competition.
they come to speech with their grade level peers
The school randomly places students into groups.
The best I've ever been able to do is group all of my students who stutter together instead of grouping them with students with other impairments.
teacher schedules and student availability
Severity Need Personality Class schedule/availability Strengths and weaknesses
Severity - if it's a mild/moderate stutter and has mild impact on the person, I feel fine putting them in a group. If it is a severe case, I would like to see the student alone to focus on treatment techniques.
see above ?
See above , but it's based on logistics and individual needs/preferences.
See above - I always try to keep grades together.
See above
See above
see above
see above
Scott Yarus PD at a professional conference, PD through a speech-pathology online subscription for fluency
Scheduling issues
Scheduling factors
Scheduling considerations - what times they are available and secondarily if their goals will be easily addressed in that group and also the personalities of group members
schedule, comfort with peers, see above
Schedule and student preference
Our windows of opportunity to pull are very limited. For example, students in general education (not self-contained) classes get pulled during homeroom. I split 5 days (homeroom periods) per week between 2 of my four schools. I tend to put students who stutter in non-artic therapy groups. There just is not time in middle school to have a separate stuttering-only therapy group.

Table 54 (cont'd)

knowledge level, ability to talk in front of peers, relationship with peers, grade
It depends on the comfort of the student. If a student won't work with another student who doesn't stutter, getting them to practice techniques will be difficult.
In middle school, I don't have much of a choice. I have to go by the class schedule and who is already grouped together. It just so happened that 2 of my fluency students were in the same cohort this year, so I was able to group them. One of them is a little further along in his treatment, and I do think they are doing well together.
If they are close to mastery, I will get them in a group. Depending on the kiddo, I might do a language group or speech group.
I would only place them in a group with 1 other peer from the same class.
I use them - at least part time - if their schedules align. I disband the group if there is conflict
I typically try to place them in a language group because it's easier to tackle their goals in a language group vs an artic group.
I try to put them all in groups along with individual therapy so they know they are not alone.
I try to place students in groups together with at least one other person who stutters and then by age.
I try to keep stutterers around the same age in groups together, although last year I had a great deal of success with a group of stutterers spanning grades 1, 3 and 4. If not, we go into a language group.
I try to group students who stutter together as much as possible, even if it is across grades
I try to group based on grade level/maturity. All of my students who stutter only receive therapy for their stuttering in a group with other children who stutter. I do not do mixed groups for stuttering (ie. stuttering and non stuttering students in the same group). If a student who stutters also receives my services for another diagnosis, they will be grouped with non stuttering students for the other diagnosis only.
I think that treating fluency and other disorders are so different it doesn't make sense to group them together.
I think all students who stutter benefit from group therapy
I take into consideration the severity of the student's stuttering as well as the student's comfort with working with others.
I place students who stutter into therapy groups dependent on severity level, scheduling, working on similar goals, if the students in the group could be used as good models for each other whether language, artic, or fluency.
I place students mostly by age due to scheduling with teachers. Sometimes I would place with other stutterers if possible so they can see they are not alone.
I only have enough students for 1 group.
I look at the student's current level of stuttering knowledge and emotional attitude.
I look at the individual needs of the student and the schedule availability. I would look at the severity also, and how the student feels. If the student felt uncomfortable in a group, I would be able to change to individual.

Table 54 (cont'd)

I decide based on our goals for the week. Sometimes they are with other students they can model and sometimes they are with other students whom they can be a model for. I try to equally divide the opportunities where they are the communication leader and then the communication learner.
I chose to keep stutters together and then group them by personalities/interests.
I ask them by using a survey or in person.
I always treated individually.
Given the complexity of scheduling in the public school setting, it usually isn't an option and have to group them with whatever group works with the time they are available. Occasionally, I use my testing time to do individual sessions when needed to teach strategies.
By having similar or working on similar goals regarding the emotional component of stuttering. It creates a therapeutic environment to talk freely about emotions.
Behavior, acceptance/awareness of disfluency, age, compatibility of group members
Because I have small numbers of students who stutter, it is generally based on whether or not a group is available/appropriate.
Based on the severity and characteristics.
Age/grade, personality
Age and fit with peers. Group activities can benefit everyone at once
Again this is driven more so about when I can pull students as opposed to what might be ideal for the student. The first issue we usually end up discussing is what will they be missing in class as opposed to what the group will look like. It is often driven by schedule and grade level.

Table 55 Q4.15 Do your grouping decisions for children who stutter differ from those for children who do not stutter? If yes, describe how.
Open-ended responses (n=56)
Yes; I prefer student who stutter be grouped together, preferably close to same age
Yes. There does not tend to be that embarrassing factor in language delayed or articulation only students.
Yes. I have no problem grouping langauge and articulation students together but I feel like fluency is sp specialized that it needs to be separate
Yes. I base it off of if I can try to create a stuttering counseling group and if possible, I put those in a group and we strictly talk about stuttering and the obstacles and positive reinforcement
Yes. Although I am lucky and can typically group all of my students by area of need, I have found that my students who stutter are much more comfortable when seen alone or in a group with other students who stutter. I find it is a much more of an emotional journey for these students than for those with other disorders.
yes, I use group for persons who stutter to provide social emotional support to them vs other groups where it is based on like deficits only.
Yes, I try to group children who stutter and are working on simikar goals together. But, I guess I woulookd look at to group students similarly fIr language and artic students.

Table 55 (cont'd)

Yes, I only see students who stutter for therapy regarding their stutter individually or with other students who stutter.
Yes, I consider personalities of other group members
Yes, but similar to speech sound disorders
Yes, And many other cases groups are formed in a less cohesive manner
Yes, Children who do not stutter Are generally grouped by classroom first and then by area of need second
Yes- my grouping for fluency students is more similar to how I group articulation students. I want to make sure the student is comfortable practicing his speech in front of peers. I don't have that issue when grouping language disordered students.
Yes however it depends on the student, degree sold stuttering and their comfort level.
yes and no, each child should be considered individually.
yes - I pay more attention to relationships when grouping students who stutter - much more thoughtful/selective
Yes - I look at what types of support they need and their social skills / limitations
yes - I don't think other student need to hear all the strategies/therapy for fluency students.
Try to take into account personalities/ emotional needs
See above
Not sure about this question.
not really
No.
no, I treated MANY students individually. I pack my schedule FULL of small groups or individual sessions.
No- any child who is embarrassed of their speech issue always has the option to be seen 1 on 1
No
No
no
No
No
No
No
No
No
no
no
No
No
no
No
no
No

Table 55 (cont'd)

No
No
No
No
No
No
Most other students are grouped, students who stutter are seen individually
I'm more sensitive to their feelings/awareness of their stuttering
I'll make more of an effort to group than I will for other students. I may group different grades when I would generally avoid it in other situations.
I would absolutely prefer it to be different but at this point it is not.
I very rarely group students who stutter with students with other needs.
I think they get a lot more out of the group atmosphere, so I do go into in with the hope that they choose to be in a group. I don't feel that same pull toward basic language groups.
I don't think so- I always try to build "compatible" grouos
I am a little more cautious about how I group the children who stutter because I want their attempts for all communication tasks to feel successful. I think more about which personalities (i.e. bullies/teasers) I would not group them with.

Table 56 Q4.16 Are you satisfied with your choices of whether to use and how to form groups for students who stutter? If not, how would you change your current practices and are there any barriers in implementing these changes?
Open-ended responses (n=55)
Yes. I have not had a bad experience, I've been viewed (anonymously and later told) by my Lead SLP in the region and she likes the sessions.
Yes.
Yes, I wish I could have more flexibility in scheduling. The barriers are not being allowed enough time at school, simply because the schools don't want to pay for a full time SLP.
yes, but would love more flexibility of times to pull students to form groups that may work better for everyone.
Yes, but I sometimes wish there was an appropriate peer or group available for a student who stutters, as they may benefit from a small group, often i only have one student who stutters on my caseload within a building,
Yes- it has been working well so far.
Yes- access to more students who stutter since I don't get them all at my school
Yes I feel satisfied with my choices.
Yes I am satisfied - there is always a barrier from the administration
Yes but I'd prefer to have more all stutter groups. However they currently vary greatly in grade so it would not work very well at this point
yes
Yes
Yes

Table 56 (cont'd)

Yes
Yes
yes
Yes
Yes
Yes
Yes
Yes
Yes
yes
Yes
yes
yes
Yes
Yes
yes
Time is a huge factor. Sometimes students have to be scheduled and it may not be according to disability, other factors, grade or sex of other students.
There isn't enough time in the day to see all students individually
Somewhat satisfied. Barriers to grouping students is based on the student's academic schedule. Often the students can't be pulled at the same time for a group.
Schedules can be tight and difficult
No. Sometimes I have to put students who stutter with artic or language students, and I would rather not. Barriers are mainly caseload size and forced grouping for scheduling
No. My workload prohibits me from changing my grouping choices.
no. i'd love to be able to group by impairment area. Barriers are public school SLP expectations
no; I would prefer to see them individually, at least part of the time; there is not enough time to do this in the school setting; this year, with COVID, I am seeing students for shorter, individual sessions, and I am seeing more progress overall
No, wish that the barrier of having to schedule students based on availability due too many work responsibilities and too little time to get it all done.
No, I'd like to know the research behind each of these approaches
no - I would like to not have to see studnets who stutter in groups but my schedule does not allow for that much time.
I'm satisfied, but always open to learning current evidence for best practices.
I'm satisfied now because I only have two students who stutter on my caseload and it has worked out so far this year
I'd love to group with other stutterers; schedule, availability, and age differences are barriers
I'm satisfied.

Table 56 (cont'd)

I'd prefer to see student individually half the time and in groups half the time. It would also be nice if I was able to have large groups of people who stutter as so much of the support we give as SLPs is counseling.
I would like to have only students who stutter together but caseload size does not permit
I would like to change my scheduling to address student opinions and comfort levels. I would also like to differentiate between individual and group therapy based on the level of practice that is needed with learning and implementing strategies for fluency.
I wish that there were more time in my schedule.
I was mostly satisfied, but there were always students who stutter who had to be put in language-based groups and it was hard for them to open up about stuttering
I suppose. Only barriers include case size.
I am. I feel I am doing the best I can with the time constraints.
I am satisfied with my choices overall. There are rare instances where I have to split up a group based on class scheduling however I see the students in smaller groups or individually, rather than adding them to a group targeting a different need
District and building mandates are the biggest obstacles- because students cannot miss core classes. A drop in Lunch bunch has been my most successful grouping-or meeting during school wide/dedicated advisory time/period
Caseload numbers sometimes impact the ability for 1 on 1 sessions but I can usually make it work at least once a month
Barriers: teacher/class schedule constraints

Table 57 Q4.17 Top three considerations influencing how participants form groups in therapy for students who stutter

	Number	Percentage
Top consideration (n=55)		
Your professional development	1	2%
Motivation and attitude of the student	6	11%
Your relationship with school staff	[redacted]	[redacted]
The nature and severity of the student's disorder	22	40%
The opportunity for peer modeling or interaction	7	13%
Caseload size	3	5%
Your clinical training	1	2%
Workload size	1	2%
Your experience working in schools	[redacted]	[redacted]
The student's strengths, needs, and abilities	1	2%

Table 57 (cont'd)

The grade or age of the student	5	9%
The academic impact of the student's disability	2	4%
IEP team input	1	2%
Administrative support	[redacted]	[redacted]
Second consideration (n=55)		
Your professional development	1	2%
Motivation and attitude of the student	7	13%
Your relationship with school staff	2	4%
The nature and severity of the student's disorder	14	25%
The opportunity for peer modeling or interaction	14	25%
Caseload size	2	4%
Your clinical training	2	4%
Workload size	2	4%
Your experience working in schools	1	2%
The student's strengths, needs, and abilities	9	16%
The grade or age of the student	10	18%
The academic impact of the student's disability	5	9%
IEP team input	2	4%
Administrative support	1	
Third consideration (n=55)		
Your professional development	2	4%
Motivation and attitude of the student	11	20%
Your relationship with school staff	2	4%
The nature and severity of the student's disorder	2	4%
The opportunity for peer modeling or interaction	6	11%
Caseload size	10	18%
Your clinical training	1	2%
Workload size	6	11%

Table 57 (cont'd)

Your experience working in schools	5	9%
The student's strengths, needs, and abilities	8	15%
The grade or age of the student	12	22%
The academic impact of the student's disability	2	4%
IEP team input	2	4%
Administrative support	4	7%

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