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Experiences and Perspectives of a Speech-Language Pathologist on Strategies and Challenges for Students with Autism Spectrum Disorder in the General Education, Inclusion-Focused Classroom Post Distance Learning

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EXPERIENCES AND PERSPECTIVES OF A SPEECH-
LANGUAGE PATHOLOGIST ON STRATEGIES
AND CHALLENGES FOR INCLUSION OF
STUDENTS WITH AUTISM SPECTRUM
DISORDER IN THE GENERAL
EDUCATION, INCLUSION-
FOCUSED CLASSROOM
POST DISTANCE
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ABSTRACT

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Autism spectrum disorder (ASD) is a neurodevelopmental disorder that affects an individual's communication and social skills (Ibrahimagic et al., 2021). The impacts vary across individuals but often includes struggles with transitions, flexibility, and organization (Ibrahimagic et al., 2021). Students with ASD frequently struggle with pragmatic skills that are the foundation for academic experiences and peer relationships (Ibrahimagic et al., 2021; Sutton et al., 2018). These skills are often important speech-language therapy targets that are challenged by faculty buy-in, school resources, and peer acceptance (Garrote et al., 2017; Kasari et al., 2011; Koster et al., 2009; Lloyd et al., 2016; Sutton et al., 2018). The COVID-19 pandemic caused shifts in service delivery and students with ASD often struggled due to inherent challenges with transitions. While there is some information regarding the strategies and challenges to inclusion prior to the pandemic, there is limited data that represents the changes in strategies and barriers that speech-language pathologist's (SLPs) experience for this population that considers social and behavioral factors after distance learning. The purpose of the current study was to add to foundational knowledge that is needed to inform the clinical decision-making processes of SLPs for developing effective and efficacious treatment plans when supporting students with ASD who wish to receive services in the general education classroom. The identification of three categories of emerging themes *Perspective, Experience Implementing Strategies,* and *Specific Strategies to*

Support Inclusion, in this single participant case study, indicate that clinicians should use a combination of direct and consultative strategies that suit their students and IEP teams.

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INTRODUCTION

School-aged children with autism spectrum disorder (ASD) have unique challenges when it comes to navigating their academic careers because of the neurodevelopmental differences they present with (Ibrahimagic et al., 2021). Hallmark difficulties in the use of language, or *pragmatics*, are the most common area of language that speech-language pathologists (SLPs) treat for this population in the school system (Ibrahimagic et al., 2021; Sutton et al., 2018). Communication is the underpinning of educational framework and social interactions (Garrote et al., 2017; Kasari et al., 2011). This indicates that the integral nature of building age-appropriate pragmatic skills for students with ASD to reach the goal of academic success is through the facilitation of appropriate social interactions.

The discussion regarding the terminology used for individuals with a diagnosis of autism spectrum disorder by service providers, families, students, and their peers is ever changing across a variety of spaces and disciplines. Preference for identifiers is dependent on the culmination of an individual's preferences and experiences. Current anecdotal literature and professional standards continue to indicate that to maintain best practice, providers should ask each client their preference regarding their desire to use an identifier and their choice of terminology (Dwyer, 2022). However, it is not feasible to ask the entirety of the community of students with an autism spectrum diagnosis what their preference is. It is important to ensure that all members of the community are included in the discussion regarding what type of language should be used to describe and identify its members. To accurately represent the community, more research is

needed to explore the views of non-speaking and minimally verbal people who have been diagnosed with ASD (Dwyer, 2022). This information indicates the researcher's need to determine the choice of a term used for this project.

A study written by Bury et al. (2020) investigated the most preferred and least offensive terms regarding labeling and identifying individuals with autism. In this study, adults from Australia with a diagnosis of autism spectrum disorder rated and ranked their choices of terms and provided a brief explanation of how they made their decision. While the label "person with autism" and subsequently "person with autism spectrum disorder" was found to be the most preferred and least harmful, it is important to recognize that there were several participants that also preferred the identity-first term "autistic person" for opposing reasons to the person-first term. Many participants reported that their preference for certain terms is influenced by their negative experiences with others in which they were used in a derogatory manner. However, some participants continued to note that they preferred person-first language because they are precise, indicate a difference and not a disability, and insinuate that it is only a piece of their identity (Bury et al., 2020). For the purposes of the current study, the researcher has chosen to use person-first language term *students with autism spectrum disorder,* or students with ASD, in accordance with most individuals in the previously discussed study and in line with their sentiments regarding this choice of terminology.

There are several factors that should be considered when students with autism spectrum disorder, who receive speech-language services, begin to access academic content, and build relationships with their peers. Therapeutic interventions are often determined on an individual basis that consider the student's pragmatic and organizational language needs, classroom environment, peer relationships, and maintenance of skills. Students with ASD frequently have

difficulties with academic language, transitions (between activities, environments, or spaces), hidden curriculum (rules of participating in a classroom), and peer interactions. Additionally, students with ASD may require supports to facilitate classroom discourse, exhibit executive functioning skills, and detect body language cues (Garrote et al., 2017; Ibrahimagic et al., 2021; Koster et al., 2009; Lloyd et al., 2016). These are all aspects of a student's speech and language processes that impact one's communicative ability and they also serve, for all students, as a building block for socialization and academic success. Due to the interactive nature of these skills, it is important that students with ASD are provided with opportunities to learn and practice pragmatic skills in the classroom (Sutton et al., 2018). Best practice indicates that SLPs aim to support students with ASD in their general education classrooms where their growth of skills is the most crucial (Garrote et al., 2017; Sutton et al., 2018).

When students with ASD are included in the general education classroom, all students were found to reap the benefits of cooperative learning (Garrote et al., 2017). In this model, students with ASD were found to have increased interactions, made significant progress towards their therapy goals, and demonstrated a heightened academic performance when compared to students who did not participate in cooperative learning (Koster et al., 2009). These ideas were further confirmed in the studies included in Garrote et al. (2017) and discussed how neurotypical peers were observed to have growth in the skill areas of leadership, responsibility, patience, and conflict resolution (Garrote et al., 2017). Despite these improvements, for students with ASD to participate in the general education classroom, they often required the presence of a paraprofessional or a one-on-one aid who do not always have specialized training (Kasari et al., 2011; Koster et al., 2009). With younger students, the presence of paraprofessionals appeared to improve interactions between students with ASD and their peers as they were comforted by the

availability of an adult and were found to have increased participation in group activities (Garrote et al., 2017). However, older students developed a dependency on their paraprofessional as it allowed them to participate in minimal interactions to get their needs met. Also, it was found that their peers had less initiation or maintenance of interactions with students with ASD as they did not wish for their conversations to be monitored by an adult (Kasari et al., 2011). This insight into how students with ASD are included in general education classrooms provides some insight into how SLPs can provide services and the challenges that they face in ensuring carry over of skills following therapy sessions.

Studies conducted prior to 2020 indicate that students with ASD succeed in general education classroom settings where they are integrated into classroom culture by their peers and are supported by a team of professionals when difficulties arise (Lloyd et al., 2016; Sutton et al., 2018). In broader terms, the research demonstrated a growth in pragmatic skills for students of ASD when they were included in the general education classroom with neurotypical peers. Despite this knowledge, it has been difficult to acquire literature regarding specific strategies beyond cooperative learning and peer modeling that are appropriate and effective for aiding the transition of speech-language service delivery to general education classrooms. While there is not significant information regarding specific tools to support these students with their speech and language needs in their general education classrooms, there are several barriers to inclusive intervention that have been identified. A few examples of these barriers include adequate staffing, staff training, availability of space to provide direct intervention, and the selection of peers for peer-based treatment were identified as only a few of many hindrances to treatment (Locke et al., 2015).

While the literature addresses the general needs and difficulties for this population in the classroom setting and for school-based speech-language service considerations, it does not explore the dynamic or nuanced factors that have arisen as a direct result of shifts in mandated service delivery. For instance, the COVID-19 pandemic mandated that in-person education and services be provided in a synchronous online format for an extended period. As this mandate began to lift, students slowly returned to a fully in-person model. Many students may have participated in a synchronous hybrid model (some students in-person and others attending online) prior to their return to a school-wide, in-person model. For the purposes of this study, the period where education and services were mandated to an online format will be referred to as *distance learning*. Strategies and techniques derived from this period may be helpful for future telepractice and other hybrid service delivery situations. The shift in format resulted in an influx of unforeseen challenges for SLPs regarding multidisciplinary cooperation alongside social and behavioral concerns (symptoms that stem from communication needs) (Constantino et al., 2020; Pellicano et al., 2020; Reicher, 2020; Schuck & Lambert, 2020).

The purpose of this qualitative study was to begin to add to a foundational knowledge base that is needed to inform the clinical decision-making processes of SLPs when supporting students with ASD who wish to receive services in the general education classroom. In particular, the researcher aimed to discover what strategies this clinician has used that have worked in their experience during the time following the return to in-person service delivery after distance learning. The following question presents as the central question for this study and serves as the basis for all questions asked to participants with analysis examined from their perspective:

Q1   What are the reported experiences of a speech-language pathologist on strategies used to support students with autism spectrum disorder in the general education classroom?

CHAPTER II

REVIEW OF THE LITERATURE

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that affects an individual's communication and social skills while also noting behaviors that may be different than their neurotypical peers (Ibrahimagic et al., 2021). As a diagnosis that an individual carries across the lifetime, people with ASD are likely to seek services in a variety of areas including speech-language, education, and behavior (Ibrahimagic et al., 2021). All individuals with ASD can present with assorted characteristics that impact their daily lives in unique ways. While language and communication skills are variable, the pragmatic aspects of language continue to be a hallmark feature of ASD (Ibrahimagic et al., 2021). These pragmatic, or more colloquially "social" skills describe how individuals in each community use language. For example, the language used to give a presentation is different than that used to converse with peers in the cafeteria. The nuances between using informal and formal language serve as an oversimplified definition of the skills targeted when treating pragmatics. The use of language is critical to an individual's ability to navigate social interactions and thus may impact their relationships (Sutton et al., 2018).

Effective communication across modalities are pillars of today's educational system and are an overall gauge of academic success (Sutton et al., 2018). This may give students with ASD distinct difficulties as they traverse through their academic careers, no matter their individual presentation of characteristics. A systematic review of 22 studies conducted by Sutton et al. (2018) confirms this by noting how students with ASD who have difficulty initiating and

responding to their peers may be considerably disadvantaged in the classroom setting. Studies in this review were included if participants (students with ASD) were in the general education classroom for at least 75% of their school day and if they participated in interactions with their peers in this setting and studies were excluded if they did not include a measure of participant initiations or responses. They also discuss the variety in cognitive skills, including executive functioning, that is common among this population. Deficits in this area have a direct impact on pragmatic skills that manifest through inappropriate intrusions into conversation, inflexibility to change conversation topics, difficulty organizing information, and fewer attempts to initiate conversations (Sutton et al., 2018).

Conversely, those with higher language and cognitive skills may over-initiate and overwhelm conversations, turning them into monologues with little evidence of turn taking (Sutton et al., 2018). Students with ASD who present with a noticeable difference in their cognitive skills than their peers may benefit from treatment with an SLP to adapt their skills to peer situations. For instance, when their needs are taken into consideration during planning for treatment, interventions set in schools can effectively increase the frequency and duration in which students initiate and respond to communication with their peers (Garrote et al., 2017). This may increase their participation in the classroom and improve their communication and experience overall. With this basic knowledge of communication challenges of individuals with ASD, there are a multitude of factors to consider when determining the speech-language services that school-age students with autism spectrum disorder need to feel supported during unexpected changes throughout their academic careers.

**General Academic Speech-Language Needs
for School-Aged Children with Autism
Spectrum Disorder**

In schools, students with ASD receive services that will support their ability to achieve academic success; these services are outlined in their individualized education plan (IEP). Therapy often consists of activities to target academic language, hidden curriculum (like teacher expectations while other students are speaking or what to do if they have something they share with the group), and interactions with peers. In a systematic review, Lloyd et al. (2016) investigated the essential skills needed to build a classroom community and engage in classroom discourse through the Facilitate-Listen-Engage model of academic learning. The authors analyzed the results of three qualitative studies to develop a model of academic learning that emphasizes the value of each student's active participation in the classroom in comparison to their academic success. In this review, the authors included studies that followed classrooms where students with ASD were included in the general education classroom for most of the day and where peer interactions appeared to be the most prominent method for learning content. They noted that students with ASD appeared to struggle with using and maintaining communication skills over a sustained period. Students with ASD displayed a breakdown in their skills when they were asked to both relay and receive information during academic and social exchanges. However, the researchers of a comparison study between traditional approaches to learning and student-centered approaches to learning found a higher growth in pragmatic language skills with the increased quality of interactions rather than frequency or duration (Lloyd et al., 2016). This suggests that speech-language therapy that supports the student in their general education classroom should incorporate appropriate turn-taking in academic dialogue,

organization of information in a clear, concise, and engaging way, and discussion of emotions or body language cues.

The topic of communication as a building block for the socialization of students with ASD was further explored by Kasari et al. (2011) with their investigation into the overall classroom experience and its impact on their academic success. The authors of this study examined the social networks of children with ASD in comparison to those of neurotypical peers. Self, peer, and teacher reports of sixty elementary and middle school aged students with ASD were analyzed and compared to their neurotypical students in the same classrooms. It was reported that students with ASD tended to have fewer reciprocal friendships (~20% of students with ASD had at least one while the remaining ~80% had none), are lonelier and less engaged with peers, have poorer friendship quality, and are less socially integrated into their classroom's social structure. These factors continued to worsen with age and appear to be correlated to an increase in negative social and academic experiences (Kasari et al., 2011). It was theorized that these negative experiences of judgement and seclusion for students with ASD could be tied to their peer's lack of understanding for the cause of any atypical pragmatic behaviors. Poor social networks greatly impact these students' ability to engage with their peers in and out of the classroom and ultimately result in difficulty comprehending academic content in meaningful ways.

However, it should be noted that inclusive, or general education, classrooms may be overwhelming for students who are newly transitioning into them. Thus, suggesting the need for SLPs to support the transition to the general education classroom and to continue to provide pragmatic- and communication-based services as students' individual needs arise. Additionally, inclusive classrooms may still lack the support staff and resources necessary to aid in facilitating

interactions with neurotypical peers that SLPs are heavily advocating for (Kasari et al., 2011). These challenges can influence the strategies that SLPs may use to treat students with ASD in their general education classrooms or with direct therapy sessions to build foundational pragmatic skills that can be transferred into this setting. Ultimately, therapy decisions are made on an individual basis but may be heavily influenced by internal (clinician) and external (research-based literature) evidence factors.

General Education Classroom

When considering the learning environment for all students, there are aspects of peer social structures and communication foundations that teachers use to encourage productive and safe spaces. For instance, teachers tend to use peer conversations as an opportunity to discuss curriculum topics, engage all learners, and build classroom community (Lloyd et al., 2016). To accomplish this, learning and engagement is built from the reciprocal exchange of information between peers where communication with various partners and at differing levels becomes integral to the learning experience (Lloyd et al., 2016). This suggests an ideal environment where students with ASD can experience positive social and behavioral models and generalize their skills outside of the speech-language therapy room (Kasari et al., 2011).

However, it appears that students who struggle with the social networks of their classrooms tend to have fewer and poorer friendships than their neurotypical peers, even in same inclusive classroom (Kasari et al., 2011). It also is suggested that students with more severe behaviors or outward differing characteristics tend to be accepted more into the general education classroom because they readily stand out rather than some subtle differences in students with more "mild" symptoms. Despite this, all students with ASD are accepted less than their peers which could indicate difficulties when accessing certain academic content if these

factors are not addressed due to the prevalence of peer-to-peer learning methods (Kasari et al., 2011). To mitigate negative peer interactions and to support academic growth for students with ASD, SLPs aim to use strategies that build pragmatic skills through inclusion and multidisciplinary service delivery in the natural learning environment (the classroom!).

Current Strategies

Once a student's needs have been identified, there are many choices that an individualized education plan (IEP) team must make to ensure that the student has access to academic curriculum and adequate services. This becomes difficult when there are competing prongs of evidence-based practice. External evidence suggests that students with ASD should receive individualized services within their general education classrooms to promote use of communication and language skills in functional environments (Garrote et al., 2017). Whereas the internal evidence, or clinician experience, finds that treatment approaches were said to be resource intensive and frequently delivered away from the classroom (Sutton et al., 2018). Thus, suggesting that while individualized, inclusive service delivery is the most "evidence-based" treatment approach, schools and SLPs may not have the resources or the training to effectively implement supports in this way.

Sutton et al. (2018) evaluated social communication behavior interventions in mainstream elementary schools found that clinicians often suggested therapy targets for students with ASD be specifically focused on verbal initiations, verbal responses, nonverbal communicative attempts, and joint attention. In addition to speech-language therapy targets, the authors found that clinicians were most likely to use child-specific, peer-mediated, comprehensive, collateral interventions, and ecological interventions that were completed outside of the classroom as compared to integrated within (Sutton et al., 2018). Results of this

systematic review seemed to indicate that school based SLPs attempt to make the best decisions for their students while still working within the resources that they are given. Due to the competing internal and external evidence base, clinicians are often left to use the methods and principles of research-based inclusive services in a pull-out small group with the hope that these supports with transfer and generalize to the classroom.

Preschool- and elementary-aged students with ASD are more likely to receive "inclusive" services within their general education classrooms than students moving into their middle and high school years (Garrote et al., 2017; Sutton et al., 2018). However, these studies also found that simply the enrollment into these inclusive classrooms was not enough to support social and communicative involvement with their peers during both structured and unstructured activities. Thus, reaffirming the need for SLPs to provide services that treat pragmatic language skills and behaviors for students with autism spectrum disorders to ensure the access and comprehension of age-appropriate academic content. Current strategies aim to best support students in their natural environment to enhance their understanding of academic content with communication partners they have access to daily (peers, teachers, support staff, etc.) not only in one-on-one sessions with the SLP.

Inclusion

Some approaches to the inclusion of students with ASD in the mainstream classroom derive from an idealistic perception of unlimited resources and immediate peer acceptance of students who vary from "typical" (Kasari et al., 2011). The primary method of integrating students into the general education classroom was to provide the student with a one-on-one paraprofessional or add a "general" support staff person to the classroom (Kasari et al., 2011; Koster et al., 2009). However, support staff rarely have higher level education or explicit training

to work with students with ASD or students with other complex needs. The current evidence demonstrates mixed results on this method. Kasari et al. (2011) discovered that the presence of a paraprofessional with older students created a dependency on these adults and isolated the students with ASD from their peers. This isolation was twofold. Peers did not want their conversations or actions mediated by an adult and the students with ASD could have their needs met with little interaction with others.

The basis for providing students with a paraprofessional, or a one-on-one aide, stems from the potential for these students to become overstimulated, to serve as a barrier between the student and the resulting negative interactions, and to aid teachers in maintaining a positive, comfortable learning environment for most students (Kasari et al., 2011). However, the frequent attendance of adults in peer conversations has led to interruptions in natural peer interactions caused by the "stepping in" of an adult that may have been unnecessary as they were often untrained which may have further isolated the student with ASD from their peers (Kasari et al., 2011). The implementation of well-trained paraprofessionals in the classroom could better serve all students when interactions are supported and facilitated rather than interrupted or based in compliance (Kasari et al., 2011; Koster et al., 2009).

There are four proposed dimensions of social participation that must be addressed for students with ASD to succeed in general education classrooms. These include acceptance, perceptions of their acceptance by their classmates, presence of positive social interactions between students and their peers, and social relationships or friendships (Koster et al., 2009). Prior to, during acquisition, and in the following evaluation of academic content, these dimensions are the most essential considerations for ensuring positive outcomes in the general

education classroom as they serve as the basis for academic discussion, processing of information, and development of theory of mind (Koster et al., 2009).

Alongside these ideas of peer acceptance and one-on-one support professionals, Garrote et al. (2017) published a systematic review of 35 studies that investigated specific interventions inside general education classrooms of preschoolers and elementary schoolers with ASD. Studies were included if participants (students with ASD) were full time (at least 80%) members of general education classrooms, if researchers aimed to evaluate the effects of school-based interventions to foster social participation of participants, and if they had an experimental, quasi-experiential, or single case experimental designs. In contradiction to Kasari et al., Garrote et al. (2017) found that facilitation of social interactions by a paraprofessional improved social participation for younger students. These students appeared to feel comforted by the presence of an adult and were more likely to participate in group activities. Therefore, social acceptance of students with ASD by their peers and the healthy development of positive self-perception are integral components to achieving academic success and progress in their pragmatic goals (Garrote et al., 2017).

The authors of this systematic review also found that independently teaching social skills to students with ASD did not transfer to interactions with their peers inside the classroom and these students needed the concreteness of learning new skills in their natural contexts (Garrote et al., 2017). To build in the natural context of skills, many studies in this review discussed teaching social emotional learning during whole class instructional time and found that it also aided neurotypical peers in changing their perceptions and behaviors towards their classmates with ASD. The authors also found that teaching interaction strategies to neurotypical peers for group activities in the academic context supported students with ASD across communication,

social, and educational goals (Garrote et al., 2017; Koster et al., 2009). Specifically, the use of

cooperative learning and peer-tutoring provided students with increased acceptance and

modeling of social skills that enhanced the overall learning environment (Garrote et al., 2017;

Koster et al., 2009). Thus, suggesting that the inclusion of students with ASD in the general

education classroom may improve their quality of social interactions and achieve the same

standards of academic success as their neurotypical peers.

As discussed in the current and previous sections, there is an incongruence between what

the literature indicates for services to be provided completely within the natural learning

environment and the reality of clinicians who continue small group therapy sessions. While this

appears to be due, in part, to carefully controlled environments in research that is unable to be

replicated in the unpredictable reality of classrooms, it also may lend itself to the incredibly

unique needs of students with ASD in the educational environment (Garrote et al., 2017; Jury et

al., 2021; Locke et al., 2015; Sutton et al., 2018). These students should be evaluated

individually by their IEP team to determine the most appropriate supports, services, and settings

for them to excel in.

Multidisciplinary Service Delivery & The Role of the Speech-Language Pathologist

There is limited literature regarding how to navigate service delivery for this population

through the lens of a multidisciplinary, or IEP, team. An IEP team is comprised of a variety of

professionals that are tailored to the needs of each student. For example, a student with ASD may

have a general education teacher, special education teacher, speech-language pathologist, and an

occupational therapist on their IEP team. However, this is not a comprehensive list of individuals

that may be included on an IEP team. While all IEP team parties must come to an agreement on

goals and supports that the student requires to access academic content, there is little literature

that discusses the collaboration of team members and the implementation of services or supports for a student with ASD (Kunze & Machalicek, 2022).

When included on the IEP team, the SLP takes on the role of "communication expert" and begins to brainstorm ways that the student has access to communication to share their thoughts, needs, and knowledge to their peers and teachers. Additionally, SLPs must tactfully consult other members of the IEP team to extend therapeutic efforts throughout the week, not only during the allotted treatment minutes, to ensure generalization of skills for the student with ASD (Perryman et al., 2020). Some literature provides guidance to SLPs for IEP collaboration for students who require treatment to improve their pragmatic skills. This limited literature referred to paraprofessionals and occasionally included teacher strategies in the discussion portion, but little evaluated the social validity of specific treatments given by someone other than an SLP (Garrote et al., 2017; Kasari et al., 2011; Lloyd et al., 2016; Locke et al., 2015). This makes it difficult to ensure that skills taught by an SLP are effectively transferring or being reinforced in the general education classroom. Treatments provided by an SLP in therapy, no matter the setting, required carryover by other professionals in a variety of settings to ensure generalization of the skills to their natural environment (Garrote et al., 2017; Kasari et al., 2011; Lloyd et al., 2016; Locke et al., 2015). Thus, stating the need for cooperation throughout the IEP team to reinforce therapies and skills in other contexts.

Additionally, researchers suggest that teachers should have a larger role to play in the service delivery of these treatment strategies in their mainstream classrooms but rarely discuss whether that is feasible (Locke et al., 2015). Studies that do not recommend treatment given by the teacher often recommend "pull-out" services despite substantial evidence that supports students with ASD have better outcomes when they are included in the general education

classroom (Kasari et al., 2011). Collaboration across disciplines is suggested to improve

outcomes for students with ASD across goals (Garrote et al., 2017; Kasari et al., 2011; Lloyd et

al., 2016; Locke et al., 2015). The SLP can help to facilitate this collaboration and aid the student

in reaching academic success through enforcing the general education classroom pillars of

communication discussed in the previous subsection. When students are included in the least

restrictive environment, they are more likely to meet these pillars through peer modeling and

frequency of social interactions (Koster et al., 2009). With this knowledge in the forefront, SLPs

attempting to navigate the sudden transition of in-person services to all online due to the

COVID-19 pandemic were presented with numerous challenges to ensuring best practices in this

new modality.

Distance Learning

All previous literature included in this project assumes that students prior to the pandemic

were receiving their educational and other therapeutic services in a traditional manner, in-person

within the walls of a brick-and-mortar school. Even during this period, there were many barriers

to providing "inclusive" services to students with ASD (as outlined above). However, due to the

COVID-19 pandemic beginning in March 2020, many academic institutions mandated an all-

online model of educational instruction and therapy delivery as an attempt to mitigate infection

risks. This model of service delivery did not occur in-person at a school, beginning in March of

2020, and for the remainder of this project will be referred to as *distance learning*. Distance

learning can be further defined as any synchronous learning that occurred on a digital platform

through the public school system.

It is important to mention that while an online service delivery model of education and

therapies was frequently an option prior to the COVID-19 pandemic, all public schools were

required to shift to the distance learning model at some point. At the time of this project, most schools have returned to their in-person capacity. Following this return, many unexpected and exacerbated communicative, social, and behavioral needs of students with autism spectrum disorder have come to the forefront of IEP teams conversations with limited literature existing to guide strategies to support these students through the transition and any residual pandemic implications (Kunze & Machalicek, 2022). The following subsections aim to explore the realities of this shift's impact on speech-language services for students with ASD, new barriers for services during distance learning and the following transition, how SLPs have managed this shift, and how the experiences of SLPs and students with ASD during distance learning have influenced in-person, general education services today.

Impacts on Service Delivery

Prior to distance learning, there were many obstacles that impacted the feasibility of providing services to this population within the general education classroom. Staffing, staff training, availability of space to provide direct intervention, and the selection of peers for peer-based treatment were identified as only a few of many hindrances to treatment (Locke et al., 2015). A study by Jury et al. (2021) found that teachers are more likely to include students with ASD if students have no behavioral or cognitive complications. They also reported that teachers generally had negative attitudes regarding this population of students despite the push for inclusion and acceptance.

Moreover, this study noted that complexity and staff involvement in service delivery varied between settings (Jury et al., 2021). In public schools and across other academic settings, the challenge of ensuring efficacious treatment may be placed on the "backburner" due to the gap between external evidence and clinical practice that is tailored to each set of circumstances

(Locke et al., 2015). Many of the aforementioned barriers to service delivery were already established prior to the shift to distance learning and continued through the subsequent transition back to an in-person service delivery model. This knowledge gap surrounding how barriers to individualized service delivery impacts inclusion of students with ASD in the general education classroom has since only been exacerbated (Garrote et al., 2017; Jury et al., 2021; Koster et al., 2009; Perryman et al., 2020).

Due to the shift to distance learning, it was no longer possible for students with ASD to receive services in the way they had in-person. Many challenges arose with technology that resulted in one-on-one treatment for most services, including speech-language, that each student was eligible for. Students with ASD struggled with the abstract nature of video conference calls, limited tangible materials to manipulate, and demonstrated difficulties advocating their needs, requesting help, and understanding classroom expectations (Schuck & Lambert, 2020). There was a new set of rules regarding social and technological etiquette, students no longer had unstructured face-to-face interactions with their peers, and many students had increased anxiety and feelings of uneasiness. School-age students with autism spectrum disorder no longer were able to build connections with academic content in the ways that they had in-person and they required significant supports from SLPs to help them manage. These unprecedented changes required SLPs to adapt their models of treatment and strategies for inclusion for their students with ASD (Constantino et al., 2020; Pellicano et al., 2020).

Challenges That Influenced
Changes in Strategy

Following this shift to mandated online service delivery, SLPs were required to adapt their strategies for inclusion of their students with ASD within the general education classroom. Some reports have emerged that detail the difficulties that these students faced during the abrupt

transition to the online settings. For instance, there was an emergence of technological difficulties that may have been mediated by a one-on-one aide or support staff, such as independently operating a computer, navigating a schedule without auditory reminders, and understanding the pragmatics of learning in an online space (Schuck & Lambert, 2020). The lack of these supports made it even more difficult for students with ASD to engage in synchronous learning.

Alongside these challenges with technology, there has been some contradictory information regarding the emotional experiences and responses following the shift to online. In a qualitative study by Roitsch et al. (2021), the researchers asked one set of parents of students with ASD to share their experiences, and ultimately the struggles, of distance learning. The parents reported in a semi-structured phone interview that their elementary-aged child with autism spectrum disorder had a particularly challenging adjustment to changes in routines, roles, instruction, and social interactions. Their perspective of the resulting impact of the abrupt transition to distance learning caused by the COVID-19 pandemic was heightened due to the loss of everyday procedures and routine social interactions. For example, pre-pandemic their child participated in daily conversations and other brief social interactions with the school's custodian. The loss of this interaction alone made their child dysregulated; thus, unable to attend to academic curriculum and interact with peers through an online modality in a meaningful way (Roitsch et al., 2021).

In accordance with the parent report above, Pellicano et al. (2020) compiled in-depth interviews with 131 individuals with ASD and/or their families to explore their everyday experiences amidst the COVID-19 pandemic. They reported on their initial findings in July of 2020 and are currently conducting in-depth thematic analyses. Many of these interviews were

with families with school age children who had received an autism spectrum diagnosis and their experiences navigating distance learning. Researchers found that many families reported that their children with ASD faced increased anxiety due to social, health, and emotional changes. When delving into specific challenges for these students, many families reported that their children struggled to participate in whole class activities and in accurately completing assignments due to shifts in understanding message clarity. They indicated this breakdown often occurred for their students due to communication provided across different platforms and in less concrete forms (Pellicano et al., 2020). These studies outlined challenges that were unveiled because of distance learning. While it falls within a school based SLP's scope of practice to determine strategies to support these pragmatic difficulties (transitions between tasks, ambiguity, language clarity, etc.) in students with ASD to improve their access to curriculum, in-person strategies were no longer meeting their needs (Constantino et al., 2020; Reicher, 2020; Schuck & Lambert, 2020). With the lack of external evidence to indicate which strategies may be effective in the distance learning model, these SLPs have little guidance to reference when making therapeutic decisions (Schuck & Lambert, 2020).

Alternatively, other anecdotal findings report that students with ASD, who also experienced high cognitive status, experienced reduced anxiety related to the reduction of overstimulation, school and social pressures, and uncontrolled interactions or activities (Constantino et al., 2020; Reicher, 2020). In ten semi-structured interviews conducted by Constantino et al. (2020) with individuals with ASD and clinicians, the researchers also found that some families thrived from increased connections with all members of the family leading to increased self-advocacy skills that were not seen prior to the distance learning. A debate article by Reicher (2020), argued the need for scientific, systematic research to explore the impact of

alternative learning and therapy modalities for students with ASD that differ from the traditional. The author demonstrated this need through examples of students with ASD and increased cognitive abilities who exhibited a preference for distance learning. It was described that this preference may stem from the reduced demand for proficient skills in executive functioning, hidden curriculum, and abstraction (Reicher, 2020).

While reported improved mental health for students with ASD is a positive impact of distance learning, Reicher (2020) argues that with no emphasis on improving pragmatic skills it is unknown whether these students are being set up for success beyond concrete academic areas. Moreover, Constantino et al. (2020) suggested that despite some positive impacts, it is unknown if there are long-term effects of distance learning on the ability of students with ASD to generalize skills across contexts and if learning or language acquisition is *real.*

Nevertheless, it is expected that not all reported information will be representative of the experiences of each family, student with ASD, teacher, or SLP that were impacted by distance learning and the pandemic. Inherently, students with ASD will have varied reactions and responses to changes in their routines and environments (Sutton et al., 2018). Their successes and challenges with the above outlined aspects may also differ based on other environmental and internal factors. This makes it even more difficult for school based SLPs to develop streamlined systems and strategies to support these students within the general education classrooms and facilitate relationships with their peers while receiving intervention through distance learning (Schuck & Lambert, 2020).

Summary

Overall, it has been demonstrated that students with ASD present with challenges in pragmatics including struggles with transitions between activities, environments, and individuals

(Ibrahimagic et al., 2021). These skills are required to be successful in the academic environment (Lloyd et al., 2016). Speech-language intervention should aim to directly target the dimensions of social participation (acceptance, perceptions of their acceptance by their classmates, presence of positive social interactions, and social relationships) and specific pragmatic skills (organization of knowledge, turn-taking, code switching, social cues, etc.) that build meaningful connections between students with ASD, their peers, and academic content (Garrote et al., 2017; Koster et al., 2009). Many factors should be considered by the SLP, and the IEP team, to ensure that students with ASD feel supported in times of transition or unexpected changes throughout their academic careers (Kunze & Machalicek, 2022; Perryman et al., 2020).

The literature outlined in this chapter suggests that the presence and quality of social networks greatly impacts students' ability to comprehend academic concepts in meaningful ways (Kasari et al., 2011; Koster et al., 2009; Locke et al., 2015). To support academic growth, SLPs aim to use strategies that build pragmatic skills through inclusion in their natural learning environment (the general education classroom) rather than solely in direct, individual therapy sessions to promote generalization across contexts (Garrote et al., 2017; Koster et al., 2009; Locke et al., 2015). When students are provided with the opportunity for daily, supported practice of skills in the general education classroom, they make more substantial and meaningful progress because of peer modeling and the increased frequency of social interactions (Koster et al., 2009; Locke et al., 2015; Sutton et al., 2018). Speech-language intervention requires carryover of strategies and techniques by the other members of the IEP team, not only the SLP, to solidify skills with common communication partners (Kunze & Machalicek, 2022; Perryman et al., 2020).

However, there are many indications that research-backed interventions may not be realistic in public schools (Locke et al., 2015). As detailed by Sutton et al. (2018) in their systematic review, many studies evaluated the efficacy and effectiveness of strategies, but none explore the feasibility of these interventions in real schools or the required resources teachers or SLPs need to implement them. These barriers are concrete and identified as quantity of staff, staff training, availability of space, push back for treatment carryover, and use of neurotypical students in peer-based interventions for students with ASD (Locke et al., 2015; Schuck & Lambert, 2020; Sutton et al., 2018). Although these barriers have been determined, there is little evidence that guides SLPs on how to manage them to ensure their students receive the services they need to be academically successful (Kunze & Machalicek, 2022; Locke et al., 2015; Sutton et al., 2018). Alongside these barriers, there is also limited literature that addresses strategies to support students with ASD through the transition to distance learning, then back to in-person learning, and any residual impacts brought by the pandemic (Constantino et al., 2020; Kaku et al., 2021; Pellicano et al., 2020; Reicher, 2020; Schuck & Lambert, 2020).

Distance learning uncovered new challenges for students with ASD and the SLPs serving them. Students with ASD struggled with technology, executive functions, abstraction, advocacy, new classroom expectations, and limited social interactions (Constantino et al., 2020; Pellicano et al., 2020). Service providers became concerned with the long-lasting impacts of distance learning and whether prolonging the transition to return to in-person learning would support academic and life-long success for students with ASD because of fluctuations in the adherence of pragmatic skill acquisition (Reicher, 2020; Schuck & Lambert, 2020). Pre-pandemic challenges in conjunction with new barriers make speech-language treatment decisions even more difficult for school-based SLPs (Kaku et al., 2021; Schuck & Lambert, 2020).

Students with ASD face unique challenges and needs to achieve academic success (Ibrahimagic et al., 2021; Kasari et al., 2011; Koster et al., 2009). With consideration of described barriers, SLPs may benefit from guidance to make efficacious clinical decisions for this population now that they have returned to in-person learning (Schuck & Lambert, 2020). Research is needed to explore the experiences of SLPs following the transitions in service delivery to best support students with ASD in the general education classroom.

CHAPTER III

METHODOLOGY

The researcher aimed to uncover foundational knowledge and build a deeper

understanding of SLP reported experiences with strategies following the return to in-person

learning for the inclusion of students with ASD in the general education classroom. In this

section, the methods, framework, and current study fidelity are explained. The researcher's

stance regarding the qualitative perspective is identified as a further framework for the analysis

of data in this study. The following question was used to investigate the research problem:

Q1 What are the reported experiences of a speech-language pathologist on strategies used to support students with autism spectrum disorder in the general education classroom?

Theoretical Stance

The overall basis of a qualitative study relies heavily on the theoretical framework the

researcher chooses to adopt when developing the study problem and research questions. It also

aids the reader in understanding the viewpoint of the researcher, an essential component to

unpacking qualitative research (Creswell & Poth, 2018). This underlying foundation should be

justified, and the argument for relevance is important to the researcher of this type of study

(Crotty, 1998). It can be argued that the constructivist viewpoint of social research is only to

fully develop theories that describe phenomena out of the experiences of others. Thus, created

and not discovered by the researcher. However, when combined with the perspective of

interpretivism, the researcher can uncover the process the participants used that leads to the

culminating "constructed" explanation. Interpretivism is often linked to the need to understand

human experience. To complete this task with the perspective of interpretivism, specifically symbolic interactionism, is to acknowledge the process in which people use to cope or survive their experiences (Crotty, 1998).

In terms of the current study, the researcher took a stance between these two perspectives to delve deeper into the perspectives of participants on the strategies that they have encountered and used in their experiences with advocating for inclusion and how these opportunities have shaped their view of these strategies' efficacy and effectiveness in daily practice. Through this theoretical lens, the resulting culmination of foundational knowledge on this topic does not encompass the experiences of all practicing school based SLPs within the defined time but does derive from the participant's own individual background. This theoretical stance informs the following data collection and analysis methodology found in subsequent sections.

Researcher Stance

In qualitative studies it is imperative to ensure that the researcher maintains a level of subjectivity and addresses their biases (Crotty, 1998). To demonstrate reflexivity, I intend used this section to discuss my opinions and perspectives regarding the multidisciplinary dynamic after distance learning and the impacts of inclusion in a general education classroom for students with ASD. As a future speech-language pathologist and a current SLP graduate student, there are many opportunities to review research related to areas of interest. However, there is an undeniable gap between what is feasible to use in daily practice and what is laid out in the literature; especially when it comes to high caseloads.

While I have no experience working as a teacher or an SLP in the schools, I had the opportunity to encounter situations like those discussed in this study. Through the lens of an instructional assistant to middle school students with ASD who were in general education

classrooms, I observed the struggle that both SLPs and students shared when becoming acclimated to various general education classrooms. There were difficulties becoming engaged in material, with peers, and transferring skills learned in therapy to this unfamiliar environment. I also noticed hardships regarding new sensory information (e.g., mask wearing, proximity to others, etc.) with students with ASD and their peers. From my perspective, teachers tended to struggle with these scenarios and alongside new negative behaviors from neurotypical students that had not been seen in the same quantity prior to whole school distance learning. Thus, my primary goal for this study was to identify strategies that school-based SLPs have reported to help facilitate the transitions that their students with ASD had to make as they moved back to in-person general education classrooms.

Methods

Grounded theory served as a guiding basis for this basic qualitative study. The methods and aspects of this theory are well suited to the research question and the provided feasibility of this study. Additionally, grounded theory provided a framework that aligned with the theoretical stance of inductive constructivism chosen by the researcher where theories are "grounded" in data that is presented by participant experience (Merriam & Tisdell, 2016). In this study, the principles of grounded theory were utilized alongside the aligned data analysis techniques to provide a sense of rigor and structure. There is some emerging literature regarding the effects of distance learning on how students with ASD are managing their transition back to in-person learning and how school based SLPs are adjusting their approach to therapy for this population (Constantino et al., 2020; Kaku et al., 2021; Pellicano et al., 2020; Schuck & Lambert, 2020). However, there is limited information about specific therapy strategies or strategies for building

buy in with a multidisciplinary team, thus indicating more research is needed to better inform clinicians as they navigate these unique struggles.

Additionally, the changes in social and behavioral needs of students with ASD following the return from distance learning require a transformation in speech-language supports and suggests that a study tailored to laying foundational information with these considerations would better serve this population of students and service providers as circumstances fluctuate. The discovery of successful strategies could be useful in clinical practice for school based SLPs who are searching for clinically practical strategies to advocate for inclusion of their students with ASD into the general education classroom given the rapidly changing circumstances resulting from distance learning, which is overlooked in previous literature. These nuances suggest grounded theory, with a basic qualitative study design, fit this research question.

In terms of specific techniques, the researcher used informal, semi-structured interviews alongside researcher memos to collect data to develop an in-depth understanding. Further information can be found in the subsequent sections.

Participants

One licensed and certified speech-language pathologist was selected according to purposeful sampling and with the following criteria: currently practicing in a public school, experience providing services to students with autism spectrum disorder within the last three years, provided services in this time through an online modality, now providing services to this population in-person (Merriam & Tisdell, 2016). A recruitment statement (see Appendix D) was distributed to potential participants and a willing participant that met the target sample size and criteria signed a consent form (see Appendix B) to partake in this study.

Data Collection Procedure

The participant signed a consent form to ensure they know the purpose of this study and understand what was done with the data collected (see Appendix B). The participant then chose a pseudonym before starting the interview to ensure their data and information remained confidential. Once a pseudonym was chosen, the participant was referred to the pseudonym for the remainder of this study. The researcher conducted a one-on-one, face-to-face, and semi-structured interview that lasted 56 minutes in length. The participant completed one interview and was asked via email post interview to review their transcript for accuracy. The participant was not asked to complete a 20-minute follow-up interview as no additional questions arose because of a contrastive comparative interview design. The interview wase conducted by the researcher and consisted of questions relating to the participant's experience with strategy usage for students with autism spectrum disorder for in-classroom service delivery (see Appendix C for questions). The interview was audio recorded using iPhone's Voice Memo app and was conducted at a public meeting place of the participant's choice and recorded through the "record" feature. The researcher participated in memoing (brief notes to describe location, attitudes, and any researcher thoughts of a participant's answer) during the length of the interview to note any observations and maintain trustworthiness.

Trustworthiness

There are several ethical dilemmas that may arise because of conducting a qualitative study that can, in turn, impact the trustworthiness of a study (Merriam & Tisdell, 2016). The overall trustworthiness of a study resides in the researcher's ability to carry out the study's methods with integrity (Merriam & Tisdell, 2016). To create a rigorous study, the research implemented a few validation strategies. The researcher used pseudonyms to protect the

confidentiality of the participant to respect their privacy and remove any embarrassment or concern with their responses being linked to their personal information. As mentioned in the previous section, the researcher participated in memoing during the data collection process. The researcher also noted their stance as an interviewer in their memo and addressed their biases to prevent them from confounding data. While completing the data analysis portion, the research ensured to include all pieces of data to prevent researcher bias of determining which pieces were "important enough" (Merriam & Tisdell, 2016).

Creswell and Poth (2018) provide several validation strategies to help increase the trustworthiness of a qualitative study. In the current study, the researcher participated in member checking where the participant was asked to verify that their transcript was representative of their experiences and views of the research topic. Additionally, the researcher generated rich, thick descriptions of the interview setting and conduction as well as when explaining the data collected (Creswell & Poth, 2018).

In an effort to increase the reliability of this study, the research advisor independently coded a minimum of 25% of the data. The researcher and the research advisor then compared data sets to ensure they were completed in a similar fashion and established interrater reliability. When a disagreement occurred, they resolved it through a confirmation process with discussion (Creswell & Poth, 2018).

Data Analysis Procedure

The researcher used an available voice recognition software to transcribe, the audio recorded interview that is stored on the OneDrive (a cloud-based, password-protected system provided by the University of Northern Colorado). Transcription was coded and analyzed according to grounded theory (Merriam & Tisdell, 2016). While the researcher used aspects of

grounded theory to analyze the data collected, it is important to recognize that the categories are

not be "saturated" using the contrastive-comparative method as it was not feasible due to time

constraints and sample size.

The three phases of coding utilized in this process of data analysis allowed for the

researcher to develop connections and explanations fluidly and dynamically between categories

(Creswell & Poth, 2018). More specifically, the transcriptions of the interviews were first split

into discrete pieces during the first phase of coding (*open coding*). This was used to separate

information and begin to create categories of similar information. Following open coding, the

researcher read the transcripts again during the axial coding process to begin connecting

categories. These connections then started to build a story that explains the overall phenomenon

of the research question through the selective coding process. Charmaz (2006) specifies that a

researcher should avoid using a strict, forced, and imposed framework but should allow the

categories and connections to evolve as more information unfolds. Theme titles were further

explained in rich, thick descriptions. Following the culmination of this process, the researcher

participated in the development of foundational understanding that can serve as preliminary

information to answer the research question and describe the reported experiences of school

based SLPs on what inclusion strategies were effective.

Summary

This chapter is a summary of the research design for this study, the stance and philosophy

of the researcher, trustworthiness, data collection procedures, and data analysis procedures.

Grounded theory was used as a guiding principle for this basic qualitative study design with

foundations in inductive constructivism to increase rigor. Data collection occurred through one-

on-one semi-structured interview that was conducted with a practicing school based SLP who

has provided services in an online modality within the last three years and provided services to

students with ASD this capacity. This interview investigated their perceptions on the

effectiveness and feasibility of strategies for students with ASD to be included in the general

education classroom. Data analysis included a three-step coding system that helped inform the

development of a robust, yet preliminary, knowledge base as this area gains more literature.

CHAPTER IV

RESULTS

Participant & Interview Description

The data collected for this project consisted of one interview with a single participant. This participant has chosen the pseudonym "Lucy" to be referred to as for the purposes of this project. This interview took place at an elementary school around 2:15 in the afternoon (the end of the school day) and lasted for approximately 56 minutes in Lucy's office at the elementary school. Her office consisted of a large room with two desks pushed against the back walls and a low, long table in the middle of the room. Lucy stated to the researcher that she currently shares the room with an early childhood specialist. This individual was in the room at the time of the interview and both individuals stated that they were comfortable conducting the interview in this room with the door closed to filter out noise of students in the hallway. The early childhood specialist also stated that she would "just be doing some paperwork" and "to go on right ahead" when asked about her comfortability and preference for completing the interview. Lucy and the researcher sat across from one another at the low, long table in the center of the room for the duration of the interview. Then the researcher informed Lucy of the consent process, provided her with an introduction of the researcher, and was able to have any potential concerns addressed before starting the recording of the interview. Throughout the interview, the participant was noted to use a blank sheet of paper and a pen while describing her experience and explaining classroom layouts.

Throughout her career, Lucy reported she has served students with ASD from preschool through high school (3-21) as both a special educator and an SLP. She began her career as an SLP in the late 2010's following her career in special education for many years prior. As of the time of this interview, Lucy is currently employed in school district where she works in preschool classrooms. However, she mentions that she worked with high school students in an intensive, centers-based, autism classroom at the beginning of a recent school year. Lucy also reported that it is common to move around a school district, especially when there is not enough coverage. In addition to her experience with students with ASD in a professional capacity, Lucy shared that her daughter received the medical diagnosis of ASD at a young age and held the academic diagnosis for a few years. Thus, Lucy also shares her perspective as a parent navigating services and supports for her child. The following section contains the data collection process and analyses of Lucy's interview.

Emerging Themes

Following both basic qualitative research design and the principles of grounded theory, the researcher participated in memoing prior to the interview and each data analysis session to prevent bias when interpreting the participant's responses in relation to the central research question (Creswell & Poth, 2018). One participant (as described in the previous section) was interviewed using semi-structured interviewing methods, their responses are described in the following sections using the pseudonym "Lucy" to protect their confidentiality. Following the collection of the data, the researcher transcribed the 56-minute interview and then read it in full to take notes on any significant statements that represented their overall experience implementing strategies for students with ASD and/or providing services in different modalities.

Once these had been categorized, the researcher then began coding using guided theory to conduct a more in-depth data analysis. Within each broad category, the researcher used open coding to group like comments together under umbrella categories (Merriam & Tisdell, 2016). Then in accordance with the guidelines of axial coding, the researcher developed names for each subcategory (e.g., SLP Consultation under Experience Implementing Strategies).

In an effort to maintain the essence and purpose of this project while answering the research question, the researcher developed three umbrella categories: *Perspective*, *Experience Implementing Strategies,* and *Specific Strategies to Support Inclusion*. In the following sections, these umbrellas are further divided to subcategories that are more thoroughly described to accurately represent the data and to begin to build a foundational knowledge base that is needed to inform the clinical decision-making processes of school based SLPs when facilitating and supporting students with ASD who wish to receive services in the general education classroom during times of transition. Each subsection will include further detail on the emerging themes that the participant included in her responses. Many of these themes do not yet have enough information to be considered "saturated" but do provide preliminary information on this topic. To ensure the trustworthiness of the data below, the research advisor coded 25% of the data that was compared to the researcher's code with an initial interrater reliability of 94%. All discrepancies were resolved through a confirmation process.

The following figure (Figure 1) illustrates the interconnected nature of the umbrella themes. While they appear in a linear form as they are described in the following sections, the components of each theme are dynamic and move between one another. No one subcomponent of each theme is placed higher than another, but rather may be used in conjunction with other subcategories of its own theme or from another umbrella category.

Figure 1

Connections across themes.
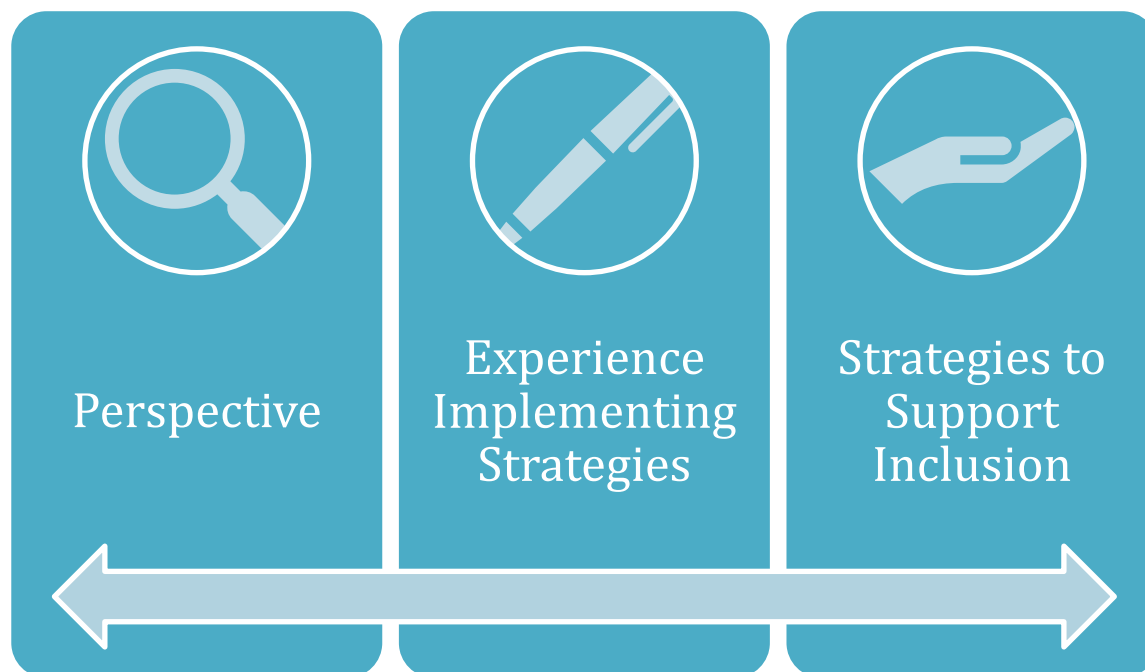
Perspective

      This umbrella theme emerged as an explanation of how experiences are shaped by the perspectives held by an individual. Perspective, and the culmination of its subcategories, further explore the ideas that inform the lens in which Lucy has experienced providing speech-language services to students with ASD in a variety of settings prior to, during, and post the COVID-19 pandemic. Throughout this section, Lucy's perspective is outlined through the subcategories Professional Background, Setting Type, and Caseload.

Professional Background

      To best understand Lucy's experience, it is vital to develop a foundation of her professional background. Her professional background serves as a basis for the way that Lucy interprets the current experiences with her students with ASD and reflects on her experiences during distance learning. Lucy began the interview by informing the researcher that this is her

seventh year as an SLP and that she also "taught in center-based classrooms for six years" prior to getting her degree in speech-language pathology. In this role, Lucy has provided services to students with ASD and "students who presented with the characteristics of autism that didn't necessarily have that diagnosis" that allowed her to learn to individualize the supports they needed in education. This is important as she developed knowledge through the lens of a special education teacher which may allow her to problem solve difficult situations in a different manner than an SLP without that background. Alongside her expertise as a special education teacher and an SLP, Lucy also mentions that "one of my own children has autism too, so I've lived with it too and been her advocate" which provides a unique perspective for a service provider. Since Lucy has "been on both sides of the IEP table," she can empathize with parents and the special education teacher during annual IEP meetings, parent/teacher conferences, and when sharing a student's progress. While the knowledge unveiled through this data may not be directly transferable to many SLPs, it does aide them in understanding Lucy's perspective for the experiences and strategies that are to follow. It also suggests that strategies may be tailored towards the entire IEP team, rather than an SLP working alone.

Setting Type

When further developing the foundational understanding of Lucy's perspective that will best inform SLPs when deciding if the strategies for inclusion are clinically relevant for their practice, it is important to consider the types of settings that Lucy has provided services in. Lucy has served students as a special education teacher for many years prior to becoming an SLP, where she experienced very little inclusion for students with ASD as there were "special schools" where "the entire building was special education" without any general education or inclusive classrooms. Now as a school based SLP in 2023, Lucy states that her students are now

"scattered" or combined into schools that have inclusive classrooms with the option for support in specialized programs (like centers-based classrooms). However, not all schools have the same levels of inclusion. Lucy further explains the variety of inclusion for students with ASD by reporting that her current school (preschool through fifth grade) does not "have intensive functional learning" meaning that there are no intensive programming supports for students that are more impacted or who have more significant needs. She also stated that it is possible that in schools where center-based programs are located, the SLP may see a higher incidence of students with ASD on their caseload than she does.

Furthermore, Lucy reported an extraordinary spectrum of inclusion for students with ASD in spaces with their peers. Inclusion ranges from "intensive," or the entire school day within a center-based classroom, any percentage of inclusion with their neurotypical peers, to "almost always in the general education classroom" apart from direct services. In addition to the variance in inclusion during in-person learning, Lucy also provided services online during distance learning. In this period, Lucy primarily used Zoom which necessitated that she sent calendar invites and frequent reminders to students and parents about therapy session times that she perceived to shift the culture of her relationships with students and how she implemented services. The multitude of setting types represented by Lucy's perspective may allow transference of strategies to more school based SLPs in many settings serving students with ASD.

Caseload

In addition to Lucy's professional background and types of settings that she has provided services in, a description of her current and past caseloads may allow SLPs to decide whether there are similarities to their own caseload or situations that would make suggestions of

strategies for inclusion more pertinent. As a special education teacher, Lucy reported that she

served students with "severe and multiple disabilities" rather than those whose needs were less

academically or socially impacting. Throughout her time as an SLP, she has worked with

students with ASD in "preschool through high school" but has the most experience in the

elementary, or the kindergarten to fifth grade, population. During her time in elementary schools,

she reports that she typically has "one or two a year" on a caseload of "about 60" students total.

At the beginning of the current school year (2022-2023), Lucy was the SLP for the intensive

autism program at the local high school. In this setting, she states that "probably 75% had the

educational identification of autism" with the remaining 25% including students with a medical

diagnosis or a similar presentation without any diagnosis of ASD. While serving students via

distance learning, Lucy reported providing therapy to three students with ASD that she describes

as being in second grade, in a primary grade, and a middle schooler who was "a little more

significant" than the elementary students. While this is not an in-depth description of each

students' goals and presentation, it does provide some framework for Lucy's experiences and

strategies for inclusion of students with ASD in the general education classroom.

Experience Implementing Strategies

This next overarching theme aims to describe the experiences that Lucy has regarding the

implementation of strategies that have best supported her students with ASD in their general

education classroom. Additionally, these topics touch on Lucy's experience navigating the shift

from in-person learning to distance learning. The following subcategories do not describe

specific strategies for inclusion in detail, but rather the mindset and systems that Lucy felt should

be established with students and the IEP team prior to providing specific interventions. These

experiences are outlined through the discussions of the quantity of staff, SLP consultation with the IEP team, staff motivation, and the process for determining service delivery.

Quantity of Staff

With Lucy's perspective in mind, there were a few concepts that continued to arise as she shared her experiences working with students with ASD. Frequently, Lucy explained that she had experiences working in schools with many support-, or coverage-, staff and those with a minimal amount following the return to in-person learning. She mentioned frustration when there is not "enough coverage" to adequately plan and document treatment with students. Additionally, she explains her hopes to further "develop professionally" in order to stay "up to date" on current research. That if there were enough staff then school based SLPs could have the chance "to observe really skilled teachers, SLPs, and other kinds of therapists" and find the time "to collaborate as a team" with other service providers and the general education teachers to target all goals as often as possible in a seamless way.

For Lucy, if there is a limited quantity of staff then it can be seen as a potential barrier for providing adequate services for students with ASD that can impact the transfer of skills to a variety of contexts. It can be challenging to build "the motivation of staff" when there are students that "need all-day support, and they need more than a [single] teacher [for] 25 or 30 kids [in each classroom] support" to be the most successful in the classroom. However, when discussing center-based classrooms and the push for inclusion of students with ASD at the high school who were more impacted or had more significant needs, Lucy shared her experience with having many staff to support students in a variety of settings: "If you have the staff, they can be as included as they wanted to be, or as they can handle." She suggested that there are minimal

limitations to inclusive service delivery when there are enough support personnel to aid the teacher in managing any potential behaviors or to meet the needs of these students.

Overall, Lucy's experiences with both enough and limited staff have impacted her abilities to support students with ASD in the general education classrooms in the way she knows would be the most meaningful. When there are enough staff to support the needs of each student, then they have to opportunity to participate in classroom discourse and access academic content in a similar manner as their peers. Additionally, SLPs can better collaborate with their IEP team to ensure cohesive services and have better treatment plans.

Speech-Language Pathologist Consultation

Another essential piece to providing services that are socially and educationally impactful to students is for an IEP team to work together cohesively. The system of collaboration that comes from SLP consultative services shifts the treatment methods of the IEP team to a more holistic approach. Lucy described her experiences consulting with staff on strategies to support her students with ASD in their general education classrooms. While working at the high school, Lucy stated that "the most effective part of my services at this level was training the staff…or demonstrating to the staff" as they were with each student throughout each school day. She further explained this as the skills she is teaching her students should be used throughout the week and "not just 30 minutes with me" to increase carryover of skills and amount of progress in a short period of time. Because of this, Lucy also described her experience in the intensive autism program: "every student…had direct speech-language minutes, and I think a lot of them would have been better served with consultation, like working with the staff as opposed to direct services." She further shared the importance of SLP consultation during the assessment process that the perspective of a communication expert is better suited to exploring many avenues of

diagnoses. In an evaluation for a middle school aged child with suspected autism, Lucy "had to push for something that they [the IEP team] weren't looking for" related to other communication disorders and other related areas.

Upon the reflection of her time in distance learning, Lucy remarked that "trying to do classroom observations online was ridiculous" as there was no natural language, communication with peers, or participation in large group instruction. Additionally, there were no opportunities for her to observe the students with ASD "naturally interacting with their peers" or other social relationships that made it difficult to discuss these scenarios with other service providers. Lucy also reflected on her methods to participate in consultative services in-person as compared to distance learning. While in-person, "there are times when I can just pop in" to ask questions, clarify instructions, or provide demonstrations as needed with teachers or other members of the IEP team or "you can catch them in the hallway" to catch up on progress. However, during distance learning "it was just emails and hoping for responses…you miss a big chunk online" which made consultation very difficult. These experiences relate to collaborating and consulting with other members of the IEP team to develop cohesive treatment is important when considering how to support the academic success of students with ASD in the general education classroom. Furthermore, these experiences may have influenced specific strategies in the following umbrella theme.

Staff Motivation

Lucy explored a variety of topics relating to staff responses to her treatment suggestions that had an impact on her decision-making process for determining supports or strategies to maximize the time that her students spend in the general education classroom. One of the main contributors to IEP team, or other staff, responses is their motivation to work with students with

highly impacted needs or to collaborate as a cohesive IEP team. As with most aspects of this project, Lucy has both positive and negative experiences. In discussion of the students in the intensive autism program, Lucy mentioned "unified electives" with neurotypical peers. At this school, "they had lots of staff to support and teachers that were teaching those inclusive classes [who] volunteered for it." Additionally, teachers who tackled changing their methods or provided supports to students with ASD that allowed them to better participate with their neurotypical peers gave them opportunities to excel. For example, the art teacher wanted "to be creative and figure out how" to "pull that artistic side out of some of these students" and upon further exploration, one of the students with ASD submitting their work to an art contest.

Contrastively, when teachers are "forced" to work with the intensive autism program, Lucy was told by teachers that "I didn't need this burden," "I'm having to modify everything," and "so much of my time is going to this student as opposed to others." In these instances, she found that it was difficult to shift the mindset of these teachers to turn clinical decision-making and service delivery into a positive change in a student's life. Students with ASD appeared to be making more progress, had better relationships with peers and adults, and were excited to learn when staff was motivated to include them as much as their neurotypical peers. These teachers "took on the challenge" and "added responsibility" and were more "compliant than teachers on whom it's forced." Thus, the higher the motivation of the staff was to adjust or add supports, then the more progress students made and the better collaboration there is between the team.

Determining Service Delivery

Throughout the interview, Lucy provided information regarding her process for determining the location of services for the students on her caseload. The current theme serves as a culmination of the previous subcategories.

For Lucy's students who aimed to be included in the general education classroom, Lucy felt that there were several methods to ensure that they are successful in that setting. In elementary school, Lucy explained that she typically provided direct services to students with ASD in small groups. She further described how she would "handpick the group and bring them in" for students on her caseload that were working on a variety of goals. She also stated that "at least one student with autism" was included in these groups who was working on "peer socialization" or pragmatic goals. For students who required more tailored approaches, she "also [was] pushing in with these guys" to see where communication breakdowns were occurring in the environments where they would be using the supports that were trained in direct therapy. When further describing her experience with push-in services with many paraprofessionals in the room, Lucy stated that "because I wasn't there every day. Honestly, I feel like my services at this level weren't very effective;" thus, she pushed for consultative services with paraprofessionals, special educators, and general education teachers.

Following the transition to distance learning, Lucy expressed her struggles with adapting her service delivery methods. She stated that "while I was online, I could still group students" by classroom but all of Lucy's students with ASD "were one-on one, even though if they had been in school they wouldn't have been" because it was much harder to conduct therapy and teach them how to appropriately use technology without it "being overwhelming" for these students. She also detailed further challenges with the pragmatic component of interacting with another person via technology with one student's "camera pointed to the ceiling" or "ending the meeting because he was mad at me" that made the central purpose of sessions hard to achieve.

After the transition back to in-person learning, Lucy stated that "pre and post [distance learning] is pretty much the same" with most services being provided either in the classroom or

in small direct therapy groups. At the high school, there was too high of a caseload for just one SLP and Lucy explained that they "had a teletherapist that came on board" to help make the caseload more manageable. Lucy then met with the team to determine which students would be best suited for telepractice. They considered factors like the number of "redirections" a student required to complete a task and whether the student is "self-motivated" to make progress on their goals. Lucy then further explained that students that were self-motivated or "getting ready to graduate" would be considered by the team as "a good candidate" for teletherapy. All in all, SLPs should choose how and where they provide services to their students with ASD on an individual basis with consideration for their specific needs and staff perspectives.

Specific Strategies to Support Inclusion

As the final umbrella theme, this section emerged as a way for Lucy to share with other school based SLPs, in similar situations, her own the strategies that she has used to support and facilitate the inclusion of her students with ASD into their general education classrooms. The emerging themes related to these strategies include home base, advocacy, personal motivators and functional communication, and one-at-a-time. Lucy provided concrete examples within these strategies to support her experiences with their implementation prior to, during, and post distance learning.

Home Base

As the first specific, strategic component to service delivery and Lucy's approach to supporting students with ASD in inclusive classrooms, Home Base is described as providing a safe space for students across age ranges and severity levels. Lucy explained this strategy as having a room and/or a group of similar peers that the student with ASD has built connections with that allows for the student to be surrounded by familiar people and items during times of

dysregulation. Home Base provides a constant, consistent safe space that students have access to that allows them to remain in the general education classroom as much as the IEP team determines is appropriate. In further description of this strategy for inclusion, Lucy stated that, in her experience, students now have "their third-grade classroom and they come to the program room [or Home Base] for things" and maybe sometimes the "teachers in here go to their classrooms for services." Lucy found that this method of service delivery felt "more inclusive in the sense that they're [students with ASD] being seen and they're kind of involved with their peer group at a level that's appropriate" as compared to settings that did not have a safe space that could be frequented or those with a different service location for each session.

When asked how the idea of the Home Base was managed during the COVID-19 pandemic, Lucy reported that "the hardest part about not being in-person is I can't just pop into a classroom" which made it difficult to monitor learned skills in the classroom and whether additional supports may have been helpful. The use of the Home Base strategy was explained as having a specific location for students with ASD that allows them to be included in the general education classroom at a variety of levels. Lucy expressed that other SLPs in similar situations may benefit from the use of a familiar room for services to support their inclusion at a multitude of levels.

Advocacy

The concept of Advocacy is not new in the speech-language pathology community. However, throughout the interview, Lucy described Advocacy as a strategy to support student learning through teaching her students self-advocacy skills. In addition to student advocacy, Lucy reported the need for SLPs to advocate for placement types or additional supports for their students with ASD that may/may not be mentioned by other members of the IEP team. While

Lucy shared her experiences with the intensive autism program at the high school, she described one high school student with ASD who "really did not want to be in special ed. He really thought that he didn't need it." In this moment, Lucy chose to use his motivation to exit services to improve his grades and meet his speech-language goals. She utilized this strategy to advocate for this student to be given an active voice in his treatment and taught him positive, effective self-advocacy skills as he enters the workforce. Lucy further used Advocacy to target multiple therapy outcomes (academic access, independence, and other pragmatic goals), by setting self-advocacy goals that focus on salient experiences. For examples of the need for advocacy goals, Lucy explained that "If your [student's] pencil broke, you can't just sit there and do nothing" and "if you're [student is] sitting too far away from the plug and you need to charge…you need to know how to do that without just like shoving it off the desk." Lucy described the strategy of Advocacy to aid in the inclusion of students with ASD as both vital to building peer relationships and as multidimensional.

Teaching students with ASD self-advocacy skills was only a piece of how Lucy further explained Advocacy during the interview. Lucy further shared that her experience with Advocacy also extended to the IEP team. Lucy reported that she often advocated with other staff regarding the need for specific supports with their students. For example, Lucy felt that it was important to ensure that students have consistent access to the materials, such as visual schedules or paper communication boards, they need to interact with their peers and academic content. However, she reported that this can be a challenge because teachers "have to remind the child to have it, that they have to ask where it is. They have to change out the pictures and model how to use it." Throughout this conversation, further frustration built regarding the misuse of materials even when repeatedly explaining their importance with the staff; she stated that "more often than

not, you find stuff like this just crammed into the desk;" thus, indicating a need for multifaceted advocacy skills. Lucy also expressed some difficulties in finding her students during in-person learning. Specifically, she stressed the importance for school based SLPs to advocate for themselves to be included in the discussions of scheduling changes to better keep track of the best times to see her students for direct minutes.

Lucy then explained the challenges of knowing and exploring what supports her students with ASD needed during distance learning. She reported that it was hard to know what technological supports students with ASD would need to be successful participants in therapy sessions, with their classmates, and when accessing academic content. Lucy described a time where a general education teacher "made a spreadsheet with his [a student with ASD's] schedule and then embedded the link in every box so that everything he needed was in one place" which made this student a more active participant in his classes and therapies. Lucy expressed her struggle in finding concrete ways, such as this schedule, that might aid in bridging the gap between in-person and distance learning.

Lucy's use of Advocacy as a strategy for inclusion for students with ASD appeared to be multifaceted. She runs the gambit from teaching student advocacy skills to stressing the need for school based SLPs to advocate on behalf of their student's needs and the professional needs of the SLP to make treatment more efficient and effective. Lucy demonstrated her strong desire to ensure that SLPs in situations similar to her own use Advocacy to ensure that students are included and supported in their general education classrooms.

Personal Motivators & Functional Communication

Throughout the interview, Lucy described the individual components for ensuring that communicative skills that are taught to students with ASD in their classrooms are functional for

their environment. She also explored the importance of using personal motivators for students to make significant progress in their goals and to support their inclusion in the general education classroom.

By tailoring the individual needs of each student with ASD, Lucy stated her successes in using personal motivators to make progress in their goals and be included in their general education classroom as much as possible. In discussion of this strategy with students at the high school, Lucy described a time when she was struggling to build consistency of AAC use with a student with ASD. In this situation, she knew that the student always had his phone on him and "he navigated through that phone to the music he wanted." So, Lucy was able to transfer the communication application he had on his device to his phone. This transfer ultimately made him use his AAC vocabulary more frequently, and he was better able to communicate his thoughts and ideas with his peers and adults in the classroom. Additionally, Lucy further explained the scenario of the high school student with ASD who did not wish to remain on special education services. In this instance, the IEP team choose to use his personal motivation to exit services to increase his progress towards goals and to allow him to "take more classes outside of this [center-based classroom] environment." Thus, using his desires to formulate a plan that would allow him to spend most of his school day in the general education classroom with minimal supports.

Lucy also described how personal motivators (like preferred activities in proximity) made delivering services during distance learning difficult. She theorized that this was because what students would rather be doing were "right over there and your mom is making you sit in front of the screen." She further explained these challenges with an elementary school student with ASD who spent an entire session refusing to sit at the kitchen table and was instead hiding next to the

pots and pans in the kitchen cabinet. In which she told the student's mother to "just bring the computer down to the floor…we'll just do therapy in the cabinet" in the spirit of how she would have conducted therapy in person and to use the student with ASD's preferred setting to make some progress during the session, rather than participating in a power struggle.

The use of personal motivators extended from gaining buy-in to services from students in high school to elementary students. In elementary schools, Lucy described her frequent use of small groups as personal motivators for her younger students with ASD. She often grouped students with ASD with three other students who were working on language or articulation goals that may have served as typical pragmatic peer models. Lucy also aimed to make these groups from students within the same class, so that they could continue to practice their goals in their functional environment and support each other as "coaches." This strategy appeared to combine the ideas of personal motivators and functional communication. By using small groups of peers with a variety of goals, Lucy stated "you can kind of build everything together" for students with ASD to practice their pragmatic skills with daily communication partners in natural activities.

To adequately use the strategy of functional communication, Lucy expressed her thoughts on creating a predictable way to get a student's needs met. She mentioned that this process may arise from a consistent pattern of communication breakdowns by the student with ASD. Lucy explained this to be the case with a young student with ASD struggling to participate in morning activities and using his communication board. In this situation, Lucy described how she "actually went in there with the communication board one morning when students were arriving" and "showed the teacher and then he took over and it was amazing" which further demonstrated Lucy's desire to use these strategies to help support her students with ASD in their general education classrooms.

Lucy remarked that this became challenging for students during distance learning when her sessions were meant to focus on social communication and teaching hidden curriculum. Lucy stated that her and her students "we were really [only] able to do still pictures of scenarios which aren't natural in terms of interpreting a social situation" when if they were in-person, she would have facilitated these goals in person in their general education classroom. Lucy felt challenged in this and similar scenarios during distance learning where it felt unnatural and technologically difficult to target these goals in the intended environment (their general education classroom which consisted of a meeting via a large-scale platform like Google Meets or Zoom).

Overall, Lucy's discussions of personal motivators and functional communication appeared to be strong foundations of Lucy's approach to supporting students with ASD in their general education classrooms. She explained the strengths and opportunities for growth in the use of both semi-intwined strategies and suggested the use of them to support SLPs in the development of their own approaches to supporting the inclusion of students with ASD in their general education classrooms.

One-At-A-Time

Lucy's final suggestion of a specific strategy to support the inclusion of students with ASD in their general education classroom was denoted One-At-A-Time. In this technique, Lucy explained One-At-A-Time to prevent school based SLPs from feelings of overwhelm when provided with ways to further encourage and support the active participation of students with ASD in classroom discussions and activities. Lucy described this strategy as an SLP choosing one individual technique at a time to teach, model, and practice with a teacher or another member of the IEP team. Regarding this description, Lucy stated, "I think it's easier for teachers when it's not super different." She further provided an example of One-At-A-Time when she

mentioned "say[ing] something like 'you really need to minimize the number of words you're using in an instruction or break it into pieces' … they [the preschool teacher] already know[s] to break that down for the other kids."

Lucy describes her experience using this strategy with a teacher who provided some push back in complying with IEP accommodations and suggestions for supports for a moderately impacted student with ASD in her general education classroom. For instance, when the student transferred schools "he came with a list of suggestions and she [the teacher] was just overwhelmed." When the IEP team attempted to communicate with the teacher that year, the teacher often exclaimed that "I can't do that" and "that's too much." To mitigate the situation and aid the student in getting the supports that he needed, Lucy suggested the One-At-A-Time approach. Lucy then validated this teacher's feelings of overwhelm and asked her to pick one item off the list that she thought she "could do one time a day" and then further suggested that together they could "see how it goes, and then maybe we do the same thing twice a day, or maybe we pick something different."

The concept of the One-At-A-Time strategy was further solidified with Lucy's experience showing a teacher how to use a communication board with an elementary aged student with ASD who solely used unintelligible vocalizations to communicate his needs. Lucy joined the teacher in the classroom and told him that "when he [the student with ASD] comes to you [the teacher] and shows the milk and grunts, I want you to get that communication board and point to the word 'open' and say 'open' and then do [open] it." She then checked in with him the next week and he had "been doing more than I asked because he saw that one thing worked," effectively reducing feelings of stress for the teacher and increasing the student with ASD's participation in the classroom.

Lucy's experiences in using this strategy with general education teachers appeared to be helpful for teachers with a variety of viewpoints and motivations. Ultimately, Lucy's goal of the One-At-A-Time strategy was to reduce teacher's, or other IEP team member's, negative feelings regarding the challenges of supporting a student with ASD in their classroom with neurotypical peers while also increasing their confidence in using the techniques provided to them.

Summary

Throughout this interview, Lucy provided in-depth explanations of her personal and professional perspectives that lay a foundation for her experiences working as a school based SLP; that ultimately lead to specific strategies to support the inclusion of students with autism spectrum disorder in the general education classroom. First, Lucy's perspective of school-based speech-language services was outlined by her many roles in the lives of students with ASD. As a special education teacher, mother of a child with ASD, and speech-language pathologist, there are many facets of Lucy's knowledge that serve as the basis for her professional background, types of settings she has worked in, and the types and sizes of caseloads that she has managed prior to, during, and post the COVID-19 pandemic.

Lucy then described her experiences working with students with ASD in the public education system from the ages of 3 to 21. Her experiences span fully secluded, special education schools to students being primarily included in the general education classroom with neurotypical peers. To further support the inclusion of students with ASD in the general education classroom, Lucy proposed foundational concepts and considerations for the IEP team. These systems and mindsets included the quantity of staff, SLP consultation with the IEP team, staff motivation, and the process for determining service delivery. She expressed the importance of reflecting on the above factors prior to implementing specific strategies.

Once Lucy's perspective and experiences were outlined, she explained specific strategies that she has used to support the inclusion of students with ASD in their general education classrooms. These strategies included Home Base, Advocacy, Personal Motivators and Functional Communication, and One-At-A-Time. She described her positive and negative experiences implementing these strategies before, during, and after distance learning to provide some suggestions for school based SLPs with caseloads or in settings that are like her own.

Throughout the duration of the interview, Lucy made a statement that most effectively explained her passion and approach in using her proposed strategies to ensure the inclusion of students with ASD in the general education classroom: "we all benefit from modeling, not just our kids with autism and other disabilities." In this statement, Lucy appeared to sum up the foundation of her perspective, experiences, and strategies for inclusion. The results of this study are explained in the following chapter and provide some guidance on clinical decision-making for students with ASD who receive speech-language services in general education classrooms.

CHAPTER V

DISCUSSION & CONCLUSIONS

Overall, this project serves as a preliminary attempt to fill the gap of literature relating to informing the clinical decision-making process for school based SLPs with strategies to support students with ASD in the general education classroom. The emerging themes include strategies for inclusion that considers new challenges because of distance learning. Results of this project indicate that there are interpersonal factors alongside specific intervention strategies that should be considered during treatment planning. Additionally, school based SLPs should aim to build service delivery systems that consider the number of staff available, the motivation of the team, consultative (indirect) services, and what settings are available. Once these systems have been explored, the SLP may also use specific strategies to support their students inside the general education classroom. Based on the needs of the student with ASD, the SLP may consider having a home base for students to use as a safe space, model and teach advocacy for students and IEP team members, using personally motivating topics or scenarios, focusing on functional communication for the settings students with ASD are in the most often, and providing one strategy or technique at a time to teachers and students until they are close to mastery.

Given the small amount of information provided here, it is unethical to present a model or theory that could be representative of the entire population of school based SLPs who serve students with ASD in the general education classroom following extraordinary transitions or changes in service delivery. However, many of these experiences and conclusions regarding the participant's responses could be transferable to school based SLPs that have similar

demographics as the participant. It appears that when school based SLPs have a cohesive and collaborative relationship with their IEP team, then they can better individualize effective treatment to support students with ASD in the general education classroom. In instances where SLPs are required to provide services via distance learning, treatment strategies could change to better suit the restrictions of the setting.

Summary of Findings

Preliminary findings from the current study are described in the following subsections and are denoted by umbrella thematic category. Discussion of the participant's experiences and suggestions for strategies in accordance with the external body of literature are included.

Experience Implementing Strategies

Results of the current study state that a higher quantity of staff may improve, and increase, the inclusion options for a student with ASD. The notion of skilled support staff for all students, rather than one-on-one aides for only students with disabilities, is aligned with the findings of Kasari et al. (2011). With the foundation of skilled support staff and teachers with training that could better support the needs of students with ASD in the classroom, the extension of speech-language goals being targeted in the classroom could be natural.

Perryman et al. (2020) found that students with ASD required carryover of therapeutic interventions and skills by other members of the IEP team, not only during direct therapy minutes with the SLP, to ensure progress towards and transfer of academically important skills into all classroom activities and with their peers. Further literature noted that the cooperation of the IEP team was necessary to strengthen pragmatic skills for students with ASD in their general education classroom and was essential to students' functional use of therapeutic strategies in the intended environments (Garrote et al., 2017; Kasari et al., 2011; Lloyd et al., 2016; Locke et al.,

2015). Lucy's statements on her experience using SLP consultative services align with these findings. Specifically, her discussion of ensuring the longevity and quality of taught skills for her students with direct service time once per week by teaching strategies to general education teachers, special education teachers, and paraprofessionals further supports the literature and strengthens the prong of internal factors (clinician experience) for her evidence-based decision-making process.

Despite Lucy's explanation of her experiences with staff motivation as a barrier and as an advantage, there is little literature that explores this concept or that evaluates the feasibility of teacher implementation of strategies (Kunze & Machalicek, 2022). This is potentially due to the qualitative and subjective nature of motivation, making it difficult to adequately represent across large populations and within one individual. While it may be challenging to quantify, Lucy expressed the real implications of staff that are negative and lack the motivation to make changes in their routines or adjust their classroom that could benefit all students, not only to support the needs of one student with ASD.

With the above experiences in mind, Lucy also explained the changes in service delivery and the process for determining the appropriate methods for providing services for students with ASD prior to, during, and following the COVID-19 pandemic and distance learning. Her comments regarding the implementation of speech-language services during distance learning echoed those outlined by Schuck and Lambert (2020) that included students with ASD struggling to understand classroom expectations online, accessing materials, and the abstract nature of video conference calls. Additionally, the literature outlined the challenges of finding or facilitating natural pragmatic language targets and the struggles of school-based SLPs who felt that they were not adequately supporting their students with ASD during distance learning

(Constantino et al., 2020; Schuck & Lambert, 2020). The current study reports that while these difficulties mirrored Lucy's during distance learning, Lucy no longer felt that these were the primary issues following the return to in-person. After the end of distance learning, Lucy reported that she provides services in a similar manner as she did before the COVID-19 pandemic. However, she indicated a change in barriers and feasibility of services since the return to in-person with a heavier influence on consultative services and the quantity of staff.

Specific Strategies to Support Inclusion

While there are not direct connections to the literature, there are many concepts that are represented by the following concrete strategies that Lucy has proposed and experienced using to support students with ASD on her caseload in the general education classroom. To promote attendance in the general education classroom, as much as deemed appropriate, Lucy described her use of the Home Base to provide students with ASD a space that they could return to when they felt overstimulated, dysregulated, or to receive pull out services. The concept of creating a safe space that students could return to as they needed to align with the foundational principles of the dimensions of social participation: acceptance, perceptions of their acceptance by their classmates, presence of positive social interactions between students and their peers, and social relationships/friendships (Koster et al., 2009). Within these dimensions and within the general education classroom, students with ASD are attempting and learning to socially engage and access academic content from a social perspective all while trying to learn educational concepts in the same way as their neurotypical peers. Thus, the work demand is much higher for students with ASD and providing them with a Home Base to return to as needed may increase the quality of their participation in the classroom.

Other specific strategies to support the inclusion of students with ASD in their general education classroom include teaching student advocacy skills, using personal motivators to increase student engagement with speech-language goals, and focusing on functional communication for the natural contexts in which language is being used (rather than fringe vocabulary or broad scopes of targets). These findings align with treatment approaches included in the scoping studies by Garrote et al. (2017) and Kasari et al. (2011) that promote pragmatic language intervention in the general education classroom for students with ASD. While this literature discussed the effectiveness of these types of strategies for inclusion, Lucy's experience provided data regarding their feasibility.

For a school based SLP to effectively use the above strategies, Lucy suggested professional strategies for building relationships for the SLP and other members of the IEP team that may best support therapeutic decisions for the students with ASD on their caseload. For instance, Lucy reported advocating with the IEP team to ensure adequate placements of her students and ensure they were receiving the level of supports that they needed. She also suggested the use of the One-At-A-Time strategy that focuses on teaching general education teachers one strategy to support their students with ASD in the classroom at a time until they are close to mastery to avoid negative feelings of stress or overwhelm. Both strategies provide concrete information regarding and the importance of IEP team collaboration for pragmatic language carryover for students with ASD that Kunze and Machalicek (2022) found to have limited literature discussing. Thus, further solidifying the role of the school based SLP to work collaboratively with members of the IEP team to increase student speech-language and academic outcomes.

Clinical Implications

Although the information presented in this study should be interpreted with caution, it offers important commentary on the lived experiences of school based SLPs attempting to best support their students with ASD in the general education classroom following major transitions in service delivery. As the modality that services are delivered shifts and changes, so does the needs of students with ASD, IEP teams, and families to ensure their needs are being addressed. School based SLPs who are navigating transitions to service delivery for this population and future SLPs who may face similar changes in trying times could use this information to guide their clinical decision-making process for choosing strategies to support their students. Additionally, the information provided in this project may be used as preliminary knowledge for future research regarding impacts, experiences, and perspectives of school based SLPs and their treatment planning for students with ASD in the general education classroom.

Limitations

Due to the nature and scope of this project, it is unreasonable to assume that all avenues of this topic were able to be fully and thoroughly explored. There are also many instances where external, environmental factors may have influenced the lived experiences of school based SLPs, students with ASD, and their families that were not addressed in this project. For instance, students are eligible for special education services (like speech-language therapy) through an IEP, if their diagnoses have a detrimental educational impact. As discussed in the results section, some students enter the public school system with the medical diagnosis of autism spectrum disorder. However, if their presentation does not impact their access or ability to understand academic content and build meaningful relationships with their peers and adults in the classroom setting, then they are not eligible for special education services. When students are required to

access information through a new modality (online versus in-person), then the requirements for educational impact may change.

There is a possible influence of other variables such as population, location of schools, and environmental resources on the findings of the current study. A population of students that were not addressed are those within rural or metropolitan communities and those with varying socioeconomic status. These populations of students and SLPs have diverse resources and access to these resources that may have an impact on the way that service providers can deliver their treatments. In this project, Lucy was able to share her experiences in a small town that has easy access to larger cities. Additionally, SLPs who primarily provide services in charter, private, or other specialty schools that typically have a larger percentage of students with a higher socioeconomic status may also have different experiences regarding the strategies that have been helpful for including their students with ASD in the general education classroom.

In addition to the limitations regarding the lack of inclusion of students from a variety of backgrounds and environments, there are some limitations to the breadth of experiences of this project's participant. In this paper, there was only one participant and therefore themes may not be represented across a significant body of evidence and may be different across counties, cities, states, etc. Although the participant had some experience across a variety of ages in the school system (preschool through high school transition) she has a unique perspective as speech-language pathology is a second career path and thus, holds the lens of a special educator as well. Additionally, her perspective does not include the second major transition that resulted from the COVID-19 pandemic as she remained via telepractice during the hybrid period of transition from distance learning back to in-person learning. Thus, did not directly experience the immediate

impacts of this transition that guidance for supports may have been helpful for other school based SLPs to learn from.

Suggestions for Future Research

As this project only consists of one participant, it is unknown whether the experiences and strategies discussed are shared across clinicians and may be of benefit to a wide variety of students. Future research should aim to explore the experiences of school based SLPs during the transitions to and from distance learning that represent many communities, years of experience, and professional backgrounds. It should also focus on services that were directly provided to students with ASD during the transition from distance-learning back to in-person learning. It may also be beneficial to include information from school based SLPs that focus on specific age ranges of students. Other ideas for future research include peer impact of use of inclusion strategies that are supported by the IEP team daily, additional family and/or school resources and barriers to effectively using these strategies, and the perspectives of parents and/or students with ASD on strategies or challenges for inclusion. To further add to the literature and to better inform school based SLPs regarding the location or supports that are best suited for students with ASD to increase their likelihood of being successful when compared to their neurotypical peers, future research may address these issues in addition to special considerations for social changes caused by the pandemic.

Conclusion

The overall purpose of this qualitative study was to add to a foundational knowledge to inform the clinical decision-making processes of school based SLPs for developing effective and efficacious treatment plans when supporting students with ASD who wish to receive services in the general education classroom. While the culmination of the participant's experience is

discussed in this study, the researcher aimed to discover what strategies this clinician has used that have worked during the time following the return to in-person service delivery after distance learning. The following question was presented as the central question for this study and served as the basis for all questions asked to participants with analysis examined from their perspective:

Q1   What are the reported experiences of a speech-language pathologist on strategies used to support students with autism spectrum disorder in the general education classroom?

The findings of the current study serve as the beginning stages of the culmination of knowledge regarding specific strategies to support the inclusion of students with an autism spectrum diagnosis in the general education classroom following the period of distance learning. While there was discussion of changes in strategies due to shifts in service delivery, this participant of this study found that there was not a significant change in her clinical decision-making process for specific strategies for inclusion between the time periods before and after distance learning. However, she did report that there was an increase in changes to the systems and mindsets (motivation, thoughts on consultative services, quantity of staff, decisions regarding student setting placement) that influenced the experience of implementing these strategies for students with ASD.

When comparing Lucy's perspectives and experiences to the available literature, there were many foundational components to treatment planning and implementation that aligned with the quantitative outcomes of pragmatic language intervention research and reported experiences of school based SLPs struggling through providing services online. In the interview, Lucy provided an outline of the essential components to her clinical decision-making process for supporting the students with ASD on her caseload that wish to be included in the general education classroom. This framework serves as Lucy's foundation for deciding what specific strategies will be the most effective and the most efficient based on the student, the IEP team,

and the school's culture. She also suggested, on multiple occasions, that not all her experiences will be representative of most school based SLPs who serve students with ASD, but that they may find her successful experiences, and those that are less than, as educational and as guidelines for similar students or situations.

Furthermore, the results of this study offer important commentary on the lived experiences of a school based SLP who strived to effectively support her students with ASD in their general education classroom during periods of uncertainty. As the modality that services are delivered shifted, so did the needs of students with ASD and the IEP teams. School based SLPs who may face similar changes in service delivery could use this information to guide their clinical decision-making process for choosing strategies to support their students. The information outlined in this project may be also used as preliminary, foundational knowledge for future research. As described in this chapter, there are many avenues in which this topic was not able to be fully explored. Student, family, SLP, and staff demographics were not representative of many populations of individuals.

Additionally, due to the nature and scope of this project, only one participant was included; thus, indicating that themes may not be representative for school based SLPs or students with ASD in other cities, counties, or educational facilities outside of public schools in school districts. This saying, future research may aim to cover the areas outlined in the limitations and/or may expand on the feasibility of inclusive pragmatic language intervention for students with an autism spectrum diagnosis in the general education classroom. Despite the challenges that school SLPs face and abrupt shifts in service delivery, students with ASD with speech-language goals who wish to participate in inclusion-focused, general education classrooms should feel supported.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
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Institutional Review Board

Date:	11/03/2022
Principal Investigator:	Hayley Mahnke
Committee Action:	**IRB EXEMPT DETERMINATION – New Protocol**
Action Date:	11/03/2022
Protocol Number:	2210045231
Protocol Title:	Experiences and perspectives of speech-language pathologists on serving students with autism spectrum disorder
Expiration Date:	

The University of Northern Colorado Institutional Review Board has reviewed your protocol and determined your project to be exempt under 45 CFR 46.104(d)(702) for research involving

Category 2 (2018): EDUCATIONAL TESTS, SURVEYS, INTERVIEWS, OR OBSERVATIONS OF PUBLIC BEHAVIOR. Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

You may begin conducting your research as outlined in your protocol. Your study does not require further review from the IRB, unless changes need to be made to your approved protocol.

As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and when:

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Institutional Review Board

- You wish to deviate from the described protocol and would like to formally submit a modification request. Prior IRB approval must be obtained before any changes can be implemented (except to eliminate an immediate hazard to research participants).

- You make changes to the research personnel working on this study (add or drop research staff on this protocol).

- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.

- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Research Compliance Manager, Nicole Morse, at 970-351-1910 or via e-mail at nicole.morse@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - http://hhs.gov/ohrp/ and https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/.

Sincerely,

Nicole Morse
Research Compliance Manager

University of Northern Colorado: FWA00000784

APPENDIX B

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Experiences and Perspectives of Speech-Language Pathologists on Strategies and Challenges for Students with Autism Spectrum Disorder in the General Education, Inclusion-Focused Classroom Post Distance Learning

Researcher(s): Hayley Mahnke, B.S., Graduate Student, Communication Sciences & Disorders
Email: mahn0618@bears.unco.edu

Research Advisor: Julie A. Hanks, Ed.D., CCC-SLP, Communication Sciences & Disorders
Email: julie.hanks@unco.edu

The researcher will seek to understand the experiences and perceptions of school-based speech-language pathologists with strategies and challenges for students with autism spectrum disorder in general education, inclusion-focused classrooms. These findings may be applied to clinicians who are searching for ways to provide services to this population in their classrooms with consideration for return to in-person learning and its respective difficulties and to inform future and current clinical decision-making processes. This study will aim to fill a current gap in the existing and emerging literature regarding clinical expertise for creating effective in-classroom treatment plans for students with autism spectrum disorder with special considerations for social and behavioral changes following distance learning.

Through participating in this recorded one-on-one interview, you will be invited to discuss your perspective, share your experiences, and provide information regarding your treatment strategies. Interviews with participants will be transcribed and analyzed to develop core themes that describe these treatment strategies. This interview session is estimated to last twenty to forty-five minutes in length. You may be contacted after the completion of this interview by email to confirm the accuracy of your interview transcript or for a truncated follow-up interview. Your personal information will be altered through your choice of a pseudonym (fake name). Only the researcher will know the name connected with the pseudonym. All data will be stored on a password-protected file on a cloud-based system provided by the University of Northern Colorado and data will be analyzed and reported using the pseudonym.

_____ (Participant's Initials

While no compensation will be provided for the participants in this study, there is little cost associated with participating. Participants will be responsible for transportation related costs for arriving at the interview, the time necessary to complete the interview, and time to confirm the accuracy of their transcript. The foreseeable risks related to participation in this study are not greater than those that might be faced in a conversation with a peer about their experiences.

Participation is voluntary. You may decide not to participate in this study and if you begin participation, you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in a loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Research, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Participant's Signature _____Date_____

Researcher's Signature _____Date_____

APPENDIX C

POTENTIAL INTERVIEW QUESTIONS

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POTENTIAL INTERVIEW QUESTIONS

1. How long have you been an SLP?

2. What is your educational and professional background?

3. How long have you worked with students with ASD?

    a. How long did you do that before the pandemic in the public-school setting?

    (* = Possible follow-up question)

4. How much of your caseload includes students with ASD?

5. What are your options for inclusion for this population in your setting?

6. What are your experiences with inclusion for students with ASD in the general education classroom since returning to in-person?

    a. Is this different than your experiences before distance learning? *

    b. What challenges have you faced when it comes to inclusion? *

    c. If you believe that a general education classroom is the best fit for your student, what systems have you found that works for advocating for inclusive services? *

    d. What have you found that works for building buy in with other staff/faculty? *

7. What are your experiences regarding strategies for serving your students with ASD since returning to in-person?

    a. Has this changed since before distance learning? *

        i. What about during distance learning? *

    b. What strategies have you tried that worked well? *

    c. What did not work quite so well? *

    d. What are some resources you use when choosing treatment approaches or activities? *

8. What challenges have you experienced with providing services to this population since returning to in-person?

    a. How does this differ from before the pandemic? *

b. What challenges have you faced with other staff or faculty? *

    i. What have you found that works for building buy-in with other faculty? *

    ii. What have you found that works for reducing push back with other staff or faculty? *

c. What did the transition look like for you?

    i. Are there any strategies or activities that worked particularly well for your students with ASD? *

9. What successes have you experienced with providing services to this population since returning to in-person?

    a. How has this changed since before distance learning? *

10. Are there any systematic struggles you face, in your setting, that influences the strategies or inclusion option you choose for your students with ASD?

11. If you were in a world where you had a magic wand and could make any changes you would like, no matter how large, what would your dream systems, strategies, or collaboration look like?

APPENDIX D

RECRUITMENT STATEMENT

Flier Recruitment Statement: School-based speech-language pathologists who are currently providing services to students with autism spectrum disorder in their general education classrooms and have participated in online service delivery within the past three years but are back to in-person services are invited to join an IRB-approved research study to share their experiences with strategies related to these aspects.

Please contact Hayley Mahnke (mahn0618@bears.unco.edu) for more information.