

School-to-Prison Pipeline: Biases and Contributions of Educators Regarding Individuals with Communication Disorders

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Abstract

Some individuals with communication disorders are disproportionately affected by the school-to-prison pipeline and can be at increased risk for being charged for an offense and interacting with the criminal justice system. Many factors contribute to the pipeline, including zero-tolerance behavior policies and the lack of intervention services, so educators can contribute significantly to the issue. This study intends to determine the influence and perception of educators on individuals with communication disorders by understanding their ability to recognize signs of the disorders and the effectiveness of training programs. A survey was designed to determine beliefs on policies, the ability to recognize behaviors of communication differences, and the influence of training. Educators from a state in the southeastern region were invited to participate in the survey through email and social media. Educators who received training from a speech-language pathologist (SLP) were less likely to discipline students for behaviors that could be due to a communication difference and more likely to refer them to services. Additionally, they reported a significant desire to have more training and increased communication with an SLP. The results of this research emphasize the

importance of the need for advocacy from speech pathologists and interdisciplinary collaboration among these professionals to prevent negative consequences of the pipeline.

Keywords: Educators, Speech-language pathologists, Biases, School-to-prison pipeline, Contributions, Professional training

1. Introduction

The American Speech-Language-Hearing Association (ASHA) defines communication as "... the active process of exchanging information and ideas" utilizing "both understanding and expression" (American Speech-Language Hearing Association [ASHA], n.d.). Many consider access to communication a human right, with the World Health Organization (WHO) recognizing literacy and speech as "universally relevant personal skills," as those abilities allow the development of social relationships and the expression of needs (Bryan et al., 2015). Social communication is communication between two or more individuals and a vital part of daily activities, including the components of social interaction, social cognition, social understanding, pragmatics, and language processing (ASHA, n.d.). Being able to socially communicate requires both effective expression of ideas in a culturally appropriate way and a thorough understanding of the context of the situation. Many communication disorders affect either or both expressive and receptive aspects of social communication.

Language and speech develop rapidly in school-age children (Snow et al., 2012). For many children, educational settings are often the first environment where they can significantly develop some aspects of social communication, such as forming relationships with their peers and learning to conform to situational behavioral expectations. However, a communication disorder, difference, or disability significantly inhibits a child's ability to follow and socially understand the behavioral expectations of the typically developing child the expectations are modeled from, thus making it more difficult for them to conform to classroom procedures and policies and forming the first stage of the pipeline.

1.1 Presented Behaviors of Communication Disorders and Differences

The uncommon behaviors resulting from communication impairment may even cause the individuals who experience these impairments to be more likely to be misunderstood and disciplined by authority figures, such as teachers (Stanford & Muhammad, 2018). Many types of speech, language, and communication differences, as well as some other disabilities and disorders, can be affected. While not all disorders and disabilities mentioned are directly related to communication, they can and do influence communicative behaviors, especially socially. These types of disorders are often described or referred to as invisible disabilities, as they are not quickly or easily physically identifiable.

Many classroom misbehaviors could be determined to be a result of a communication disorder when examined by a Speech-Language Pathologist (SLP). Some of these may include running away, defiance, disruptive or unruly behavior, truancy, or disobeying orders or instructions (Stanford, 2019). Not only can behaviors of communication differences be perceived as problematic, but having an impaired ability to communicate and use language can lead to frustration, which manifests as challenging behavioral issues in the classroom and when

interacting with peers in an effort to express themselves (Nungesser & Watkins, 2005).

When interacting with authoritative figures, especially law enforcement officers, there is a specific decorum that is expected when speaking, and when an aspect of one's social communication ability is altered or absent, it can very easily be perceived as disrespectful. Expectancy violations theory is a theory that explains how untrained individuals may react improperly in situations where the communicative partner's social behavior is not what they expect based on societal norms, resulting in the abnormal communication being perceived as a threat or sign of guilt to an officer, as it violates their expectations (Logos et al., 2021). Educators typically get to know their students throughout a school year and may still make mistakes and misinterpret behaviors, but law enforcement officers (LEOs) may have to react within seconds of encountering an individual. It has been determined that any behavior that is atypical for that social encounter could be flagged, as it can easily be misinterpreted as being deceptive or criminal behavior (Shackleford & Nale, 2016).

1.2 History of the School-to-Prison Pipeline

Zero-tolerance behavior policies, inadequate access to resources, lack of trainings for educators, incentivizing of pushing out low-performing students, implicit biases, and use of police force in educational settings are believed to have contributed to the funneling of students out of schools into the juvenile and criminal justice systems (Equal Justice Society, 2016). Students who are most likely to be affected by this include those in poverty, with a disability, of a racial minority, from a background of abuse and neglect, or in need of additional support and resources (American Civil Liberties Union [ACLU], n.d.). There are many reasons that schools have implemented zero-tolerance behavior policies, such as the increase in school shootings resulting in a desire to lower gun violence and drug activity, but these policies often harm students more than help them (Huang & Cornell, 2019).

Yearly, three million students are suspended from schools, often for minor, nonviolent infractions, such as willful defiance, disrespect, talking back, failure to complete homework, not paying attention, or classroom disruption (Equal Justice Society, 2016). School suspensions are one of the most significant predictors of whether or not students will drop out of school or be incarcerated (Losen & Gillespie, 2012).

The US Department of Education Department for Civil Rights released a report on school discipline in 2014, in which they found minority students and students with disabilities to be most adversely affected by school discipline practices. Further, minority students with disabilities are even more likely to be affected than white students with disabilities. This is evidenced by examining national school suspension rate trends—black students are three times more likely to receive school suspension compared to white students, and students with disabilities are twice as likely to receive suspension than those without (US Department of Education, 2014). Both groups are also more likely to be suspended more than once. Additionally, the report stated that students with disabilities make up 12% of the school population, but account for 25% of school arrests and referrals to law enforcement. From the increase in suspension rates, some may suspect that these students have more severe behavioral issues, but it is instead due to the zero-tolerance policies awarding harsh punishments for minor

infractions, especially to these more affected groups (Equal Justice Society, 2016).

For many students, the pipeline begins from a lack of access to resources in their school district and classroom, such as intervention services, educator training programs, and even classroom supplies like textbooks (American Civil Liberties Union [ACLU], n.d.). Punishments like school suspensions cause students to lose valuable classroom instruction time, which perpetuates the cycle further. Intervention services have been proven to decrease the risk of offending, but many impoverished school districts lack these resources. Even in schools that do have adequate access, not all students are being diagnosed and receiving services.

1.3 Educators, Classroom Discipline, and Communication Disorders

A 2018 study found that more than 80% of children affected by zero-tolerance behavior policies in schools had a cognitive and communication disorder, a learning disability, or a combination of the two (Stanford & Muhammad, 2018). Diagnosed and undiagnosed communication disorders have a significant influence on the issue of the school-to-prison pipeline, despite communication specific deficits not being commonly recognized in discussions of this topic. Many students who are undiagnosed, especially racial minorities and students in poverty, may display behaviors that are deemed problematic instead of a manifestation of a communication difference. Because they do not have a diagnosis, their behaviors are being misinterpreted, and they cannot receive any form of intervention, especially in underfunded school systems. Often, children are misdiagnosed with mental illness and do not receive treatment for their communication disorders (Stanford, 2019).

Certain classroom behaviors, such as defiance, running away, disruptive behavior, truancy, and disobedience may all be indicators of communication or cognitive disorders (Stanford, 2019). These are also some of the same nonviolent behaviors that are causing many students, especially those who are minorities or have disabilities, to receive school suspension. If the teacher can recognize these behaviors as more than willful disobedience, they could refer the student for services, rather than succumbing to harsh punishments and school suspensions that are characteristic of zero-tolerance policies.

1.4 Need for Intervention

Intercepting the students who are at risk while they are in school is vital in preventing the pipeline, so they can be provided with the resources and early intervention they need to communicate and utilize language more effectively (Stanford, 2019). Since a lack of resources often begins the pipeline for many students, it is vital that when resources are available, children who need them can benefit from them. One 2017 study examined individuals with developmental language delays, with one group who had received childhood intervention, and one group who had not. The group who received targeted intervention during their early school years reported less interaction with police and lower levels of aggression than the group who did not receive those services (Winstanley et al., 2017).

Behavioral disorders, mental illness, and communication disorders can often co-occur, so these children should be not only receiving support for one issue but also for their communication (Stanford, 2019). Educators often overlook communication issues and instead try to treat

behavior, even though receiving communication support from an SLP helps with more than just their communication and language problems. Having sufficient use and access to language allows students with complex profiles to receive proper intervention in other areas they may need assistance in, such as behavioral or psychological therapies (Bryan et al., 2015).

1.5 Interprofessional Collaboration, Training, and Awareness

The social model of disability argues that disabilities are not caused by individual limitations, but instead by a society that does not accommodate them. This recognizes the importance of making changes in society, rather than just helping individuals with disabilities adapt to the world (Oliver, 2013). Although there are many therapy techniques that SLPs utilize with clients to help prepare them for adverse situations, it is impossible to simulate authentic, unpredictable real-world scenarios in a therapy setting. Many factors cannot be predicted, such as the knowledge and actions of professionals who may not be trained in interacting with individuals with communication differences.

Therefore, there is a need for interprofessional collaboration and education. Every professional who works in an environment where they may interact with individuals with differences could benefit from collaboration and training from professionals experienced in these fields to assist in helping individuals with differences and disabilities. There are numerous examples of the successful implementation of such training programs in education settings, such as two SLPs who have provided training to first responders on how to communicate with individuals who are nonverbal in emergency situations (Mankey & Rang, 2018). Some other examples of training programs include short online modules, in-person training of teachers by SLPs, the use of actors, and courses that occur over many weeks. However, it is unclear how widespread, impactful, and effective these training programs truly are. Many of the programs are implemented once in some institutions and never replicated elsewhere.

Educators must be willing to work with SLPs and other professional resources in their school districts, recognize biases, and understand how differences may manifest in their classrooms. Knowing when to refer a child for services is important, as educators hold a crucial role in seeing the child throughout their daily activities, and they can assist in a child getting assessed and treated for any disorders (Zamani et al., 2018). However, many educators may not know which signs to look for as a basis for referral to SLP services, what is and is not developmentally appropriate, and everything that falls under an SLP's scope of practice.

2. Methods

The purpose of this study was to determine if the biases and perceptions of educators toward individuals with communication disorders affect their educational, behavioral, and criminal outcomes. A survey was designed to determine perspectives and knowledge of communication disorders that was approximately 30 questions in length. Survey questions were written to align with situations the profession may encounter in their occupational experiences. The survey was designed using Qualtrics software by the co-investigators. The project received Institutional Review Board (IRB) approval from the university's Institutional Review Board prior to beginning survey distribution.

2.1 Selection of Participants

Participants were required to be currently employed in education, 18 years of age, and willing to agree to participate in research.

The first fifty respondents of the survey could be considered for a \$10 Amazon gift card incentive. At the end of the survey, participants were prompted to enter an email address if they wanted to be considered to receive an incentive. In the recruitment materials and informed consent, participants were informed that only the first fifty participants would be guaranteed to receive the incentive, and only those who completed the survey in its entirety were eligible.

To recruit participants, email invitations were distributed, and the survey invitation was posted on social media. The email provided some background on the research, information on incentives, and a link to the survey. 316 recruitment emails were sent to educators in three specific school districts; however, due to posts on social media, the survey could have been accessed by educators outside of those districts.

2.2 Survey Questions

The survey was designed primarily to determine the professionals' knowledge of communication disorders as it relates to behaviors they may typically encounter in their field. Further, it attempted to determine any training completed, confidence, comfortability, and biases that may impact how the professional interacts with individuals who communicate differently. As minorities and disabilities are most affected by the school-to-prison pipeline, the participants were asked if they have completed Diversity, Equity, and Inclusion (DEI) training and specialized training from an SLP on communication differences as it relates to their respective fields. Because it has been determined that early intervention is vital to avoiding the school-to-prison pipeline, educators were also asked how likely they would be to refer a student to speech-language pathology services based on classroom behaviors and their beliefs on discipline and zero-tolerance behavioral policies in their classroom. Survey questions are provided in Appendix A.

2.3 Data Collection

Data was collected and stored through Qualtrics and contained to the investigators' password-protected computers that was only accessed by the co-investigators.

As a result of posting the survey on social media, there was a high number of responses that appeared to be fraudulent, bot, or AI-generated. Any response recognized as a bot through the Qualtrics ExpertReview bot detection system was automatically eliminated. However, many similar responses remained after the suggested deletions. To combat this, the investigators developed criteria to eliminate apparently fraudulent responses to protect the integrity of the dataset. The criteria for deletion included multiple respondents with identical open-ended responses, responses with Chinese characters, email addresses with randomized characters and numbers, or multiple duplicate responses within a minute or following a similar pattern.

2.4 Data Analysis

Data was collected and stored using the Qualtrics software system provided by the university. Inferential statistics were completed using SPSS. Inferential statistics included independent samples *t-tests* to compare groups of data.

3. Results

There was a total of 83 respondents, and all consented to participate in the study. Of the 83 respondents, only 67 completed the entire survey, but all responses were considered in the data. 81.93% of respondents were female and 18.07% were male. A majority were white, at 83.13%, with 10.8% being African American. Other racial and ethnic groups had low representation, with two respondents reported “Other” One reported Asian, one reported Native American, and one reported Pacific Islander. The largest demographic group represented in respondents was white females, which was 68.8% of the respondents.

Of all the educators surveyed, 92.77% reported that they believe they have experience teaching students who have received speech-language services. Tables 1 and 2 report the years of experience and grade levels of educators who responded to the survey.

Table 1. Experience working in education

<i>n</i> = 83	%
1-5 years	30.12%
6-10 years	30.12%
11-15 years	9.64%
16-20 years	15.66%
More than 20 years	14.46%

Table 2. Educator grade levels

<i>n</i> = 83	%
Kindergarten	16.87%
1 st Grade	10.84%
2 nd Grade	9.64%
3 rd Grade	16.87%
4 th Grade	9.64%
5 th Grade	6.02%
6 th Grade	6.02%
7 th Grade	3.61%
8 th Grade	3.61%
Other*	16.87%

Note. Other may include educators who teach multiple grade levels, such as special education, music, art, etc.

Regarding the training the educators have received, 56.58% reported they have participated in Diversity Equity and Inclusion (DEI) training, while the remaining 43.42% had not participated. Less respondents reported having received training from a speech-language pathologist, with 31.58% of respondents receiving SLP training, and the remaining 68.42% not. Further examining the reported training, 26.31% of respondents have received both DEI and SLP training, and 38.15% have received neither SLP nor DEI training (see Table 3). Of the trainings completed, 40.63% occurred within the last year.

Table 3. Trainings completed by educators

<i>n</i> = 76	Yes	No
SLP training	31.58%	68.42%
DEI training	56.58%	43.42%

When asked about experiences working with students with communication needs and SLP training, one respondent reported that they “have never had specific training regarding communication needs of students. It is hard to know what will or will not help a student with these issues. In an effort not to embarrass students, often nothing is done.”

When asked to rate the accessibility to SLPs and related services in their schools and districts, 15.79% reported having either “poor” or “terrible” access to school resources like SLP services,

and 26.32% reported average access to resources. Most respondents reported positive interactions with access to services and their SLPs, with 32.89% rating access to resources as good and 25% as excellent, such as one respondent who stated, “Our speech teachers provide fantastic services to our students, not only in speech services, but also act as another support for all classes and life outside of school.”

However, many educators reported that they have poor communication with their SLP, and do not feel properly equipped or informed on how to appropriately help these students. One reported, “I wish there were more communication between the teacher and speech pathologist.” Another stated, “I know that the student is receiving services, but I do not have any communication with the teacher who is providing those services for how to monitor or provide additional support in the classroom.” Additionally, some teachers who teach rotation classes of multiple grade levels, such as music and art, reported a lack of communication and a large number of students taught. “The biggest challenge for me, since I’m a music teacher, is I am frequently uninformed regarding students’ special needs including communication disorders. Without knowing their special needs, I cannot address them. With 750 students, I cannot check all their cumulative files. The regular classroom teacher has to inform me.”

Regarding the quality of services, one reported, “Being a special education teacher, most of my caseload has students receiving speech services. Overall, my school district is blessed with an amazing SLP; however, it is often seen that the SLP has an enormous caseload not allowing much time for each kid or having to have kids come in groups just to be able to see each of them.”

Refer to Table 4 for data representing classroom misbehaviors that may or may not be able to be attributed to a communication difference, and respondents reported how likely they were to discipline students following those behaviors.

Table 4. Mean scores of educators’ likeliness to discipline students for listed behaviors

	<i>n</i>	Extremely unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Extremely likely
1. Failure to sit still	72	16.67%	26.39%	20.83%	26.39%	9.72%
2. Loud or disruptive during instruction	72	4.17%	6.94%	4.17%	55.56%	29.17%
3. Difficulty following directions	72	8.33%	18.06%	19.44%	43.06%	11.11%
4. Defying adults	72	2.78%	4.17%	8.33%	40.28%	44.44%
5. Impulsivity	72	8.33%	16.67%	33.33%	34.72%	6.94%
6. Outbursts	72	1.39%	16.67%	22.22%	41.67%	18.06%
7. Side conversations	72	12.50%	22.22%	20.83%	36.11%	8.33%
8. Conflicts with peers	72	5.56%	22.22%	19.44%	37.50%	15.28%
9. Disengaged in academics	72	11.11%	22.22%	26.39%	33.33%	6.94%

Question 11, regarding whether a respondent has received specialized training from an SLP, was utilized to create two subgroups for analysis. An independent samples t-test was conducted to compare the means from these two groups on question 14. The Levene's Test for Equality of Variances was conducted to determine if equal variances were assumed or not prior to t-test analysis. The following behaviors were identified to have statistically significant differences between the two groups: loud or disruptive behavior, defying adults, and outbursts. See Table 5 for statistical information. There was a significant difference in the likelihood of behaviors such as loud or disruptive behaviors during instruction, defying adults, and outbursts as prompts to seek disciplinary action in those who had SLP training and those who did not. The group of respondents who have had specialized training reported that they are less likely to seek disciplinary action if any of the listed behaviors occur.

Table 5. Significant differences in SLP training subgroup likelihood to discipline

	t	p
Loud or disruptive behavior	-3.154 = 23.190	.004
Defying adults	-3.184 = 70	.002
Outbursts	-2.934 = 35.913	.022

Table 6 represents the same list of behaviors as presented in Table 4; however, in this question, respondents were asked to report how likely the behaviors would prompt them to refer the student to SLP services. Respondents overall reported being much less likely to refer students to SLP services for these behaviors compared to other behaviors listed and rated by respondents (see Table 6).

Table 6. Mean scores of educators' likeliness to refer students to SLP services

	<i>n</i>	Extremely unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Extremely likely
1. Failure to sit still	71	49.307%	21.13%	12.69%	12.699%	4.23%
2. Loud or disruptive during instruction	71	40.85%	25.35%	14.08%	18.31%	1.41%
3. Difficulty following directions	71	19.72%	28.17%	14.08%	35.21%	2.8%
4. Defying adults	71	42.25%	18.31%	14.08%	22.54%	2.82%
5. Impulsivity	71	46.48%	21.13%	15.49%	14.08%	2.82%
6. Outbursts	71	39.44%	15.49%	23.94%	16.90%	4.23%
7. Side conversations	71	40.85%	16.9%	22.54%	16.90%	2.82%
8. Conflicts with peers	71	39.44%	14.08%	23.94%	18.31%	4.23%
9. Disengaged in academics	71	23.94%	25.35%	15.49%	28.17%	7.04%

Question 11, regarding whether a respondent has received specialized training from an SLP, was utilized to create two subgroups for analysis. An independent samples t-test was conducted to compare the means from these two groups on question 15 as well. The Levene's Test for Equality of Variances was conducted to determine if equal variances were assumed or not prior to t-test analysis. The following behaviors were identified to have statistically significant differences between the two groups.

There was a significant difference in the likelihood to refer based on the behavior of being loud or disruptive during instruction, defying adults, impulsivity, outbursts, side conversations, and conflicts with peers as prompts to refer to speech-language services in those who had specialized training by an SLP and those who did not. The group of respondents who have specialized training reported that they are more likely to refer to speech-language services if any of the listed behaviors occur (see Table 7).

Table 7. Significant differences of SLP training subgroup likelihood to refer

	t	p
Loud or disruptive behavior	2.150 = 29.791	.040
Defying adults	3.495 = 69	< .001
Impulsivity	2.236 = 29.063	.033
Outbursts	2.310 = 69	.024
Side conversations	2.480 = 69	.016
Conflicts with peers	2.849 = 69	.006

To determine educators' intentions behind discipline in their classrooms, they were asked a series of questions on their behavioral policies and beliefs. Table 8 displays data on the extent to which educators disagreed or agreed with the listed statements. Beliefs on zero-tolerance behavior policies were very divided, with 40.57% agreeing, 40.57% disagreeing, and 18.84% neither agreeing nor disagreeing (see Table 8).

Table 8. Mean perceptions of discipline and communication behaviors

	<i>n</i>	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
“Avoiding eye contact is disrespectful.”	69	13.04%	34.78%	26.09%	20.29%	5.80%
“When I take disciplinary action, the same behavior receives the same consequence for all students.”	69	14.49%	34.78%	11.59%	26.09%	13.04%
“Zero tolerance policies are beneficial.”	69	10.14%	30.43%	18.84%	30.43%	10.14%
“Classroom discipline is the most effective way to manage misbehavior.”	69	10.14%	24.64%	24.64%	28.99%	11.59%

When responding on if they would attempt to find the source of the misbehavior of a child who shows consistent undesirable behaviors in the classroom, 64.18% of respondents reported that they are extremely likely to determine the source. Additionally, when asked how likely they would be to consider a child's Individualized Education Program (IEP) when determining disciplinary action for misbehavior in the classroom, 61.19% of respondents said they were extremely likely, while 8.96% of educators said they are neither likely nor unlikely and 2.99% said they were somewhat unlikely to consider.

When asked if the educators have had a child in their classroom with a communication disorder of difference that they did not feel equipped to handle, 26.87% of respondents reported that they definitely have and 20.9% of respondents probably have. Of the respondents who reported receiving training from an SLP, 43.18% of those had experienced a student that they did not feel prepared to handle, while another 41.17% reported they did.

When asked about interest in training for recognizing communication in the classroom, 74.63% of educators reported that they would probably or definitely benefit from additional or increased training. In an open-ended question, respondents reported areas that they desire more training and information for, including bilingualism, English language learners, autism, Alternative and Augmentative Communication (AAC), nonverbal children, oppositional defiant disorders, untreated Attention Deficit Hyperactivity Disorder (ADHD), emotional regulation/anger, deafness with limited sign language or English language ability, and selective mutism.

4. Discussion

Previous research overwhelmingly shows that many educators are not identifying common

classroom misbehaviors as being a cause for referral for intervention services and are instead punishing them with common zero-tolerance policies (Stanford, 2019). When presented with some common misbehaviors that can indicate a speech, language, or communication issues, educators who responded to this survey did not commonly identify problem behaviors as being a cause for referral for speech services. A range of only 1.41% to 7.04% of respondents selected that they would be extremely likely to refer a child to services for any of the given behaviors (see Table 6). Conversely, significantly more respondents selected that they were extremely likely to discipline students for the same behaviors, with as many as 44.4% selecting extremely likely for some behaviors (see Tables 4 and 7). For example, only 2.82% of educators would be extremely likely to refer students to services for defying adults, but 44.4% would be extremely likely to discipline the student. This discrepancy confirms the idea that educators are more likely to perceive certain misbehavior as needing discipline, rather than intervention.

The behaviors presented in questions 14 and 15, such as defying adults, are not ideal classroom behaviors and do deserve to be addressed and corrected. However, as they have been identified as potentially indicating underlying communication disorders, it is important that they are not always strictly punished in all students because these behaviors can indicate or be the result of a disability or disorder needing intervention.

There was a statistically significant difference in educators who have received specialized training from an SLP being more likely to recognize some of the behaviors—outbursts, defying adults, and being loud or disruptive during instruction—as a reason to refer students to services compared to the group who did not receive training. There were some behaviors they were less likely to discipline as well, including outbursts, impulsivity, conflicts with peers, side conversations, defying adults, and being loud or disruptive during instruction. Therefore, training does seem to have a slight influence on educators' perceptions of some misbehavior, but not for all behaviors that could indicate the need for intervention.

It is unclear from the survey what kind of training the educators participated in from their SLPs and if it was relevant to displayed behaviors of communication differences. It seems that there is a need for a more comprehensive training program that covers more communication disorders and differences and prepares teachers how to respond more thoroughly. Educators overwhelmingly indicated that they have an interest in more training, with 74.63% selecting that they believed they would probably or definitely benefit. They also reported several areas related to communication differences that they have experienced in their classroom that they wished they would have had more training and communication on, so they could best serve the student. Some of the topics that educators reported wanting to know more about were bilingualism, English language learners, autism, Augmentative and Alternative Communication (AAC), nonverbal children, oppositional defiant disorders, untreated ADHD, emotional regulation/anger, deafness with limited sign language or English language ability, and selective mutism, all of which can cause atypical behaviors and make a child more likely to be subjected to the school to prison pipeline.

Although 57.89% of educators reported favorable opinions on their school speech-language pathologists, increased communication between the school SLP and educator may be needed.

Many reported that they have a great SLP in their districts and schools, but they wish they had more awareness of how the student is affected by their disorder and how to help and “continue to monitor in the classroom.” Increasing communication between the two professionals could provide comfort and confidence of educators and be a more feasible solution for bridging the gap of understanding for educators since training programs offered can be infrequent, inaccessible, or not always effectively implemented into practice.

This would require SLPs to take on a more aware and active role in their schools with educators to advocate for their students. SLPs work often do work collaboratively in schools, such as when developing an Individualized Education Plan (IEP), but more regular communication may be important to ensure the educator feels knowledgeable and informed. However, many school SLPs have large caseloads, limiting their time and ability to provide extra services. Some educators reported noticing the strenuous caseload and their SLP’s limited time and ability to provide resources, expressing, that they often cannot meet individually with the students.

Some of the reported beliefs on disciplinary actions provided interesting insight. A majority of the educators, 64.18%, reported that they would be extremely likely to attempt to find the sources of misbehavior if a child is a consistent behavioral issue in the classroom. Additionally, 61.19% also reported that they are extremely likely and 26.87% are somewhat likely to consider a child’s IEP to determine disciplinary action for misbehavior. However, many also reported believing that all the same behaviors and actions should receive the same consequence, as well as significant support for zero-tolerance policies, which conflicts with the idea that punishments should be individualized to the student. When reporting beliefs about if the same behaviors should receive the same punishment, 26.09% indicated that they somewhat agree and 13.04% indicated that they strongly agree.

Responses for beliefs on zero-tolerance behavioral policies were very divided, with 40.57% agreeing that they are helpful, 40.57% disagreeing that they are helpful, and 18.84% neither agreeing nor disagreeing. Unsurprisingly, many are in support since multiple school districts heavily enforce zero-tolerance behavior policies and many educators tend to be in favor, despite feeling less safe at school than those who do not utilize these policies (Huang & Cornell, 2021). However, zero-tolerance behavior policies are not proven to be in the best interest of the student and can instead negatively impact students, especially those with disabilities who would have IEPs (Equal Justice Society, 2016).

4.1 Limitations

This survey was issued in a region of one state within the United States of America. While the information is highly valuable, replicating this study on a larger scale throughout the United States would greatly increase its generalization abilities.

Additionally, the fraudulent bot traffic the surveys received following posting to social media was not anticipated. While the investigators relied on Qualtrics ExpertReview software support and an agreed upon set of criteria for filtering responses, there is no way to ensure that all participants were not bots. For future projects, to protect the integrity of the data, the survey

should be considered as a closed survey or using tools such as producing custom individual survey links, password protecting, or ensuring the link cannot be reshared publicly.

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Appendix A

Survey Questions

(Q1) Consent to Participate in Research You are being invited to participate in research conducted by Jane Cromer, a senior Speech Pathology and Honors College student at the University of Southern Mississippi, under the supervision of Dr. Amanda Mathews. Prior to your participation in this survey, I would like to inform you of your rights as a participant. You should know that even if you consent to participate, you are free to withdraw at any point. I am conducting this study to better understand the school to prison pipeline and its relation to people who have communication disorders, as they are disproportionately represented in that population. To do so, I am surveying educators and law enforcement officers regarding any experiences with and perceptions of people who may communicate differently and their problematic behaviors.

To be eligible for this study, you must be:

- (1) 18 years of age
- (2) Currently employed in education

Description of Study: If you agree to participate in the study, you will be asked to complete this survey that should take less than 15 minutes to complete. You will be presented with a series of questions to collect your experiences regarding communication with the people you encounter in your occupation.

Benefits: The first 50 participants to respond to this survey will receive a \$10 Amazon gift card. Outside of this incentive, some other benefits may include further knowledge on an important topic and increased awareness of personal biases. Gift card incentives will only be awarded to those who complete the survey in its entirety. If you complete the survey after the first 50 participants have responded, you will not receive the gift card incentive.

Risks: Participating in this study will have very minimal risk. Emotional discomfort may occur as the survey prompts you to consider and share your own personal biases, although this survey is entirely anonymous. You may choose to exit the survey at any time.

Confidentiality: Research data collected through Qualtrics will be entirely anonymous and confidential, and all data collected will be password protected. You will not be asked to report any identifying information in the survey.

Participant's Assurance: This project and this consent form have been reviewed by the Institutional Review Board under protocol ID (22-1402), which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-5997. Any questions about this research project should be directed to the Principal Investigator, Jane Cromer at jane.cromer@usm.edu. I understand that participation in this project is completely voluntary, and I may withdraw at any time without penalty, prejudice, or

loss of benefits. Unless described above, all personal information will be kept strictly confidential, including my name and other identifying information. All procedures to be followed and their purposes were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected. Any new information that develops during the project will be provided to me if that information may affect my willingness to continue participation in the project.

(Q2) By clicking the box below, I give my consent to participate in this research project. If you do not wish to participate in this study, please close your browser now.

- Yes, I consent to participate. (1)

(Q3) What is your gender?

- Male (1)
- Female (2)
- Non-binary/third gender (3)
- Prefer not to say (4)

(Q4) What is your ethnicity?

- White (1)
- Black or African American (2)
- American Indian or Alaska Native (3)
- Asian (4)
- Native Hawaiian or Pacific Islander (5)
- Other (6)

(Q5) How old are you?

- 20-29 (1)
- 30-39 (2)
- 40-49 (3)
- 50-59 (4)
- 60+ (5)

(Q6) How many years have you worked in education?

- 1-5 years (1)
- 6-10 years (2)
- 11-15 years (3)
- 16-20 years (4)
- More than 20 years (5)

(Q7) What grade level do you teach?

Kindergarten (1) ... Other (10)

(Q8) Do you have experience teaching students who receive speech language services?

- Yes (1)
- No (2)

(Q9) Please provide any information you would like to share about that experience.

(Q10) Have you ever participated in diversity, equity, and inclusion (DEI) training as it relates to your students?

- Yes (1)
- No (2)

(Q11) Have you ever received specialized training from a speech language pathologist regarding communication differences in the classroom?

- Yes (1)
- No (2)

(Q12) If yes, how recent was the last training participated in?

- Within the last year (1)
- 1-2 years ago (2)

- o 3-5 years ago (3)
- o Over 5 years ago (4)

(Q13) How would you rate accessibility to additional resources at your school, such as a speech language pathologist?

- o Terrible (1)
- o Poor (2)
- o Average (3)
- o Good (4)
- o Excellent (5)

(Q14) How likely are the following behaviors seen in the classroom to prompt you to seek disciplinary action?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
Failure to sit still (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loud or disruptive during instruction (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty following directions (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defying adults (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impulsivity (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outbursts (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Side conversations (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflicts with peers (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disengaged in academics (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Q15) How likely would the following behaviors prompt you to refer the student to speech language services?

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
Failure to sit still (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loud or disruptive during instruction (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty following directions (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Defying adults (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impulsivity (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outbursts (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Side conversations (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflicts with peers (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disengaged in academics (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Q16) Please respond to the following statements to indicate the degree in which you personally agree/disagree with them.

(Q17) Avoiding eye contact is disrespectful.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

(Q18) When I take disciplinary action, the same behavior receives the same consequence for all students.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)

- o Somewhat agree (4)
- o Strongly agree (5)

(Q19) Zero tolerance behavior policies are beneficial.

- o Strongly disagree (1)
- o Somewhat disagree (2)
- o Neither agree nor disagree (3)
- o Somewhat agree (4)
- o Strongly agree (5)

(Q20) Classroom discipline is the most effective way to manage misbehavior.

- o Strongly disagree (1)
- o Somewhat disagree (2)
- o Neither agree nor disagree (3)
- o Somewhat agree (4)
- o Strongly agree (5)

(Q21) How confident do you feel managing students in the classroom who have different needs?
(ex: a communication disorder, autism, ADHD)

- o Extremely unconfident (6)
- o Somewhat unconfident (7)
- o Neither confident or unconfident (8)
- o Somewhat confident (10)
- o Extremely confident (11)

(Q22) Have you ever had students with a communication difference that you did not feel prepared or equipped to handle in the classroom?

- o Definitely not (1)
- o Probably not (2)
- o Might or might not (3)

- o Probably yes (4)
- o Definitely yes (5)

(Q23) If yes, please describe that experience. Include anything you learned or wished you would have known to better equip you to teach and accommodate that student.

(Q24) If a child is a consistent behavior issue in the classroom, how likely are you to attempt to find the source of the misbehavior?

- o Extremely unlikely (1)
- o Somewhat unlikely (2)
- o Neither likely nor unlikely (3)
- o Somewhat likely (4)
- o Extremely likely (5)

(Q25) How likely are you to consider a student's IEP when determining disciplinary action for a student's misbehavior in the classroom?

- o Extremely unlikely (1)
- o Somewhat unlikely (2)
- o Neither likely nor unlikely (3)
- o Somewhat likely (4)
- o Extremely likely (5)

(Q26) Do you feel that you would benefit from increased training in the area of recognizing communication disorders in the classroom?

- o Definitely not (1)
- o Probably not (2)
- o Might or might not (3)
- o Probably yes (4)
- o Definitely yes (5)

(Q29) Thank you for responding to this survey. If you would like to be considered to receive the \$10 Amazon gift card incentive, please provide your email address below. Participation in this is optional, and only the first 50 who respond will receive the incentive. Incentives will be distributed after 50 responses have been recorded. If you are selected, you will receive notification through email at that time.

(Q30) E-mail address:

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