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Childhood Anxiety Disorders: A Look into Selective Mutism

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Childhood Anxiety Disorders: A Look into Selective Mutism

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By

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Abstract

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More than likely, a child will encounter a medical or educational professional to help them throughout their educational career sometime in their lives. Speech-language pathologists regularly see students from general education classrooms to special education classrooms. However, some disorders require multiple professionals to work as a team to ensure the child is functioning appropriately for his/her age. Selective mutism is a childhood anxiety disorder that causes such anxiety to the point where the child is unable to speak. Due to this being a frequent misdiagnosed disorder, a team of professionals is required to treat it. For this study, graduate students from the Clinical Psychology program and Communication Disorders program at Eastern Kentucky University were surveyed to discover their knowledge and confidence with their treatment practices in the past for those affected by Selective mutism. Hopefully, these preservice professionals will either feel confident treating this anxiety disorder or take this survey as reminder as to how important it is to continue researching Selective mutism for the generations to come.

Keywords and Phrases: *speech-language pathologist, Selective mutism, Clinical Psychology, children, anxiety disorder, preservice professionals, treatment*

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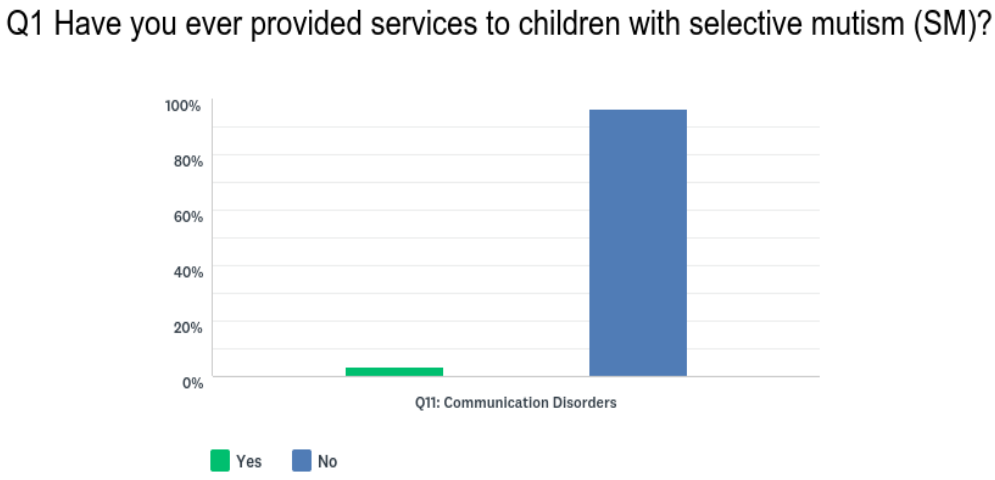

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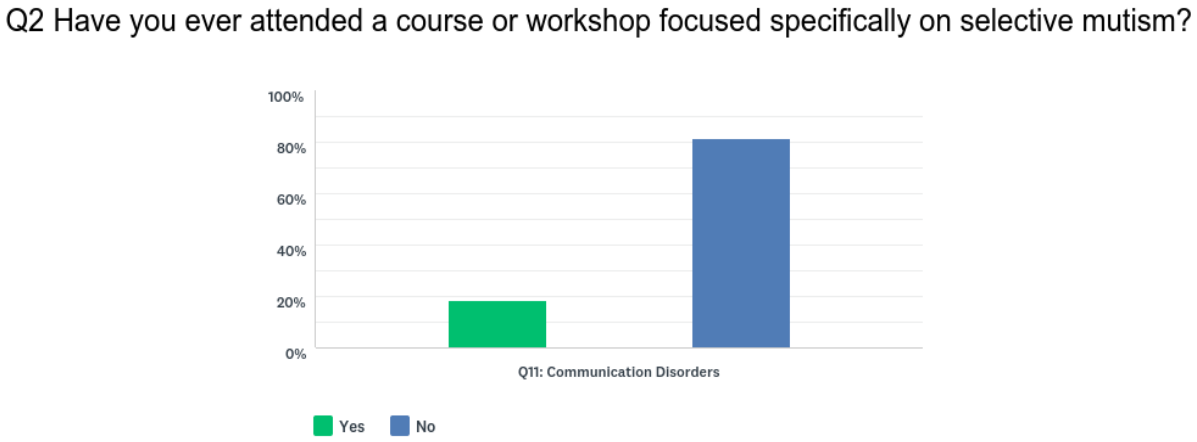

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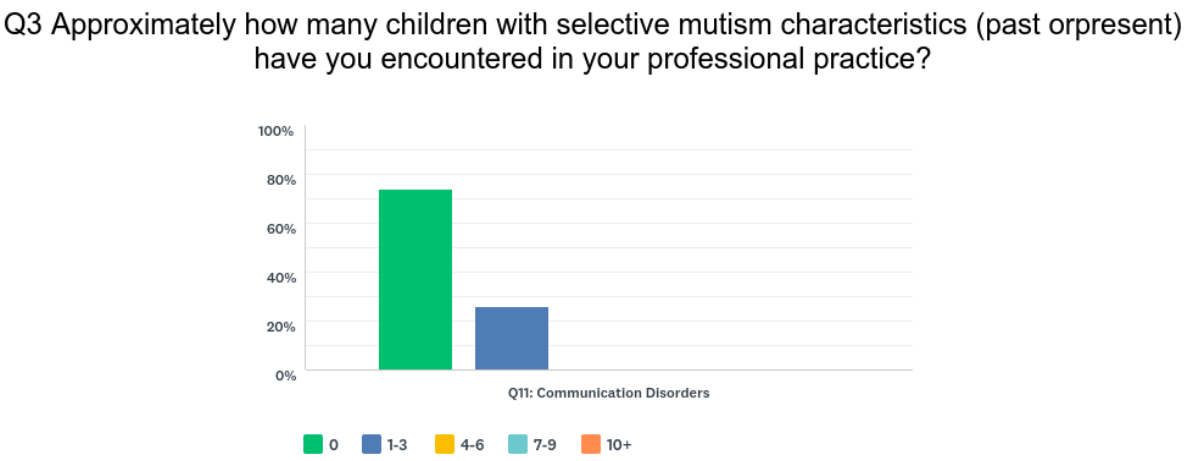

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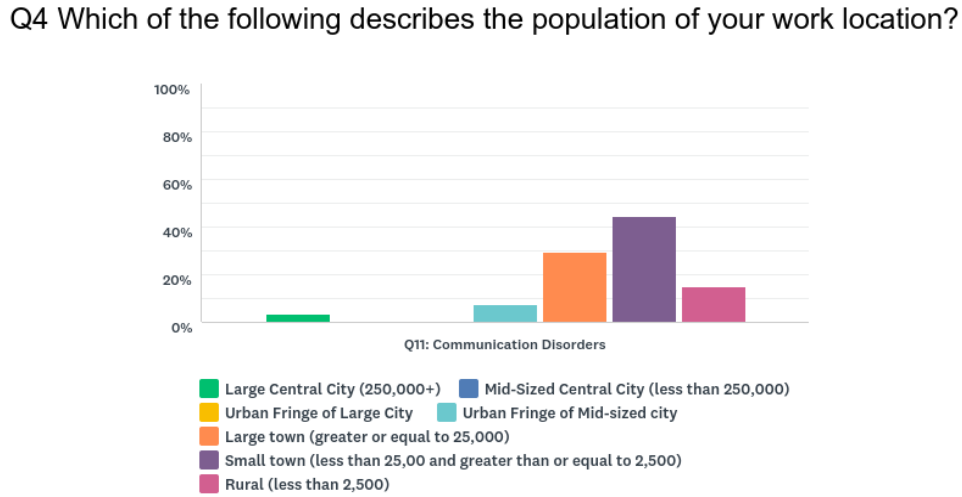


Clinical Psychology:

Figure 2

Q1 Have you ever provided services to children with selective mutism (SM)?

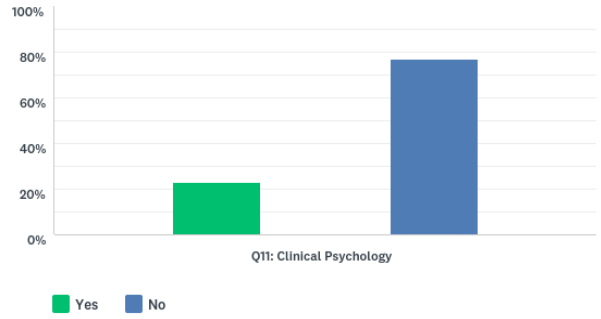


Figure 2.1

Q2 Have you ever attended a course or workshop focused specifically on selective mutism?

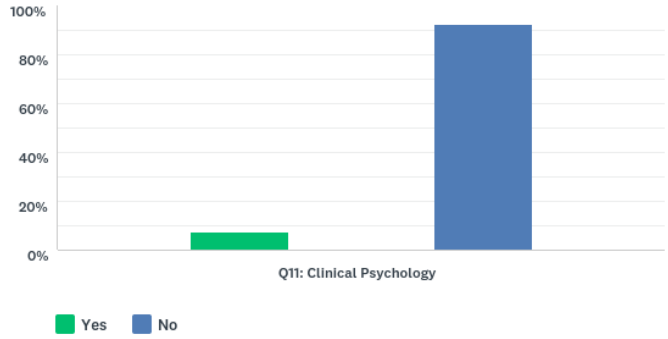


Figure 2.2

Q3 Approximately how many children with selective mutism characteristics (past or present) have you encountered in your professional practice?

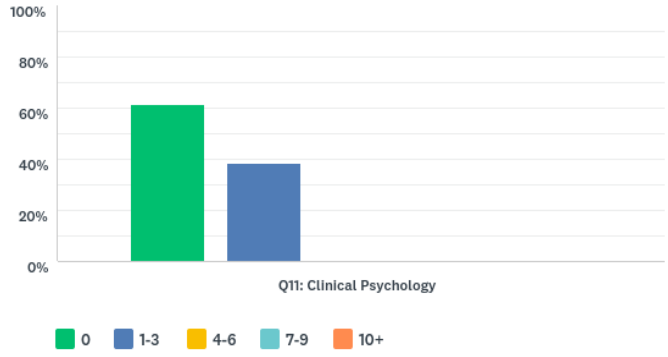
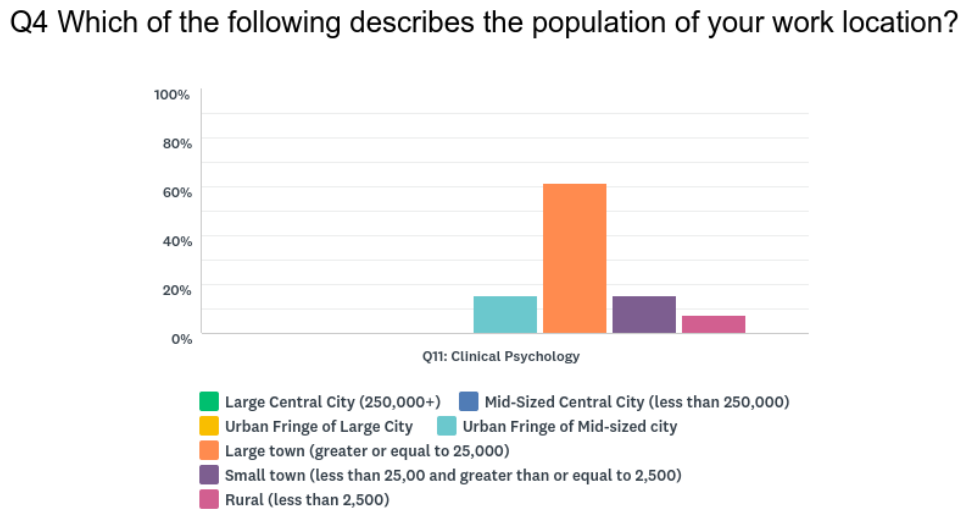
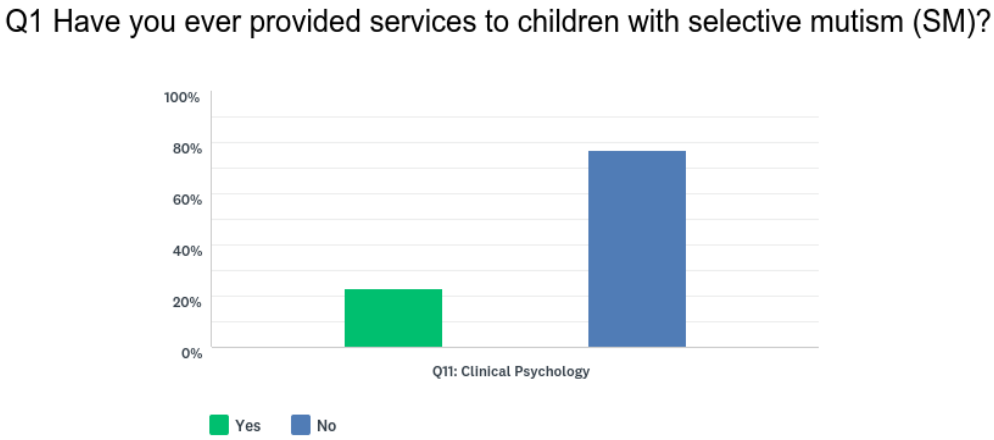


Figure 2.3


Q4 Which of the following describes the population of your work location?
100%
80%
60%
40%
20%
0%
Q11: Clinical Psychology
Large Central City (250,000+)
Mid-Sized Central City (less than 250,000)
Urban Fringe of Large City
Urban Fringe of Mid-sized city
Large town (greater or equal to 25,000)
Small town (less than 25,00 and greater than or equal to 2,500)
Rural (less than 2,500)


Q1 Have you ever provided services to children with selective mutism (SM)?
100%
80%
60%
40%
20%
0%
Q11: Clinical Psychology
Yes
No

Chapter One

Introduction

The Need for Awareness

Throughout a child's life, parents are usually the first individuals to realize a disturbance in behavior. However, this would be difficult to tell if the child were to only display this behavior in different social settings and not at home. Selective mutism is an under researched disorder and needs more individuals to raise awareness for it. A child with Selective mutism will only speak in comfortable environments and "systematically refrains from speaking in some settings where speaking is expected…" (Schum, 2006). Graduate students from Communication Disorders field and graduate students from a Clinical Psychology field were surveyed to explore pre-service individuals' experience with treating Selective mutism. Not only that, but this author argues that many future professionals and current professionals do not have complete knowledge of the disorder to properly treat it due to little research and specific training.

Communication has more than likely been a common topic among many theses. It is crucial, however, to make work original and provide another contribution towards the respective field. Selective mutism is important to this author because I shared common symptoms when I was younger. I would get in trouble for being incredibly shy and refused to talk to anyone but maybe three family members. I would be petrified of speaking publicly and would prefer being alone. Speech therapists are obviously an important discipline to be involved when public communication is at issue. Clinical Psychologists could be concerned with decreasing a child's anxiety and helping a child cope with being in different environments that require speech. Overall, "effective intervention for SM is provided within trusting relationships and is

collaborative, educative, and multicomponent in nature" (Zakszeski, 2018). This thesis will explore the knowledge of two different pre-service treatment professionals and will encourage professionals to work together to create fully functioning lives for those with Selective mutism.

Overall, research is highly needed with this disorder. No child deserves to experience their first years fueled by anxiety. Professionals and future professionals need to be equipped to treat and help children with Selective mutism reach their maximum potentials. As a future speech pathologist and someone who grew up in an anxiety ridden home, it is heartbreaking to know these children have a voice, but may not be able to use it due to extreme fear. My thesis is being created to hopefully raise information and awareness for those individuals affected by this anxiety disorder and to inspire pre-service professionals to help give these kids' voices back. Not only that, but this author is arguing for pre-service disciplines to educate students more about Selective mutism and the need for research. Speech Pathology, Clinical Psychology, Occupational Therapy, teachers, etc. can have an impact on someone with Selective mutism. Ultimately, individuals need to simply love, encourage, and be more understanding of the challenges and needs of children with Selective mutism.

The following Research Questions were posed to the two different disciplines of graduate students:

1.) "Have you ever provided services to children with Selective Mutism (SM)?

2.) "Have you ever attended a course or workshop focused specifically on Selective Mutism?

3.) "Approximately how many children with selective mutism characteristics (past or present) have you encountered in your professional practice?"

4.) "Which of the following describes the population of your work location?"

(Dorsey, 2017)

Chapter Two

Literature Review

Selective Mutism is an under researched disorder that deprives children the ability to speak due to extreme anxiety. This disorder deserves more research and more professionals dedicated to learning about how to best treat children affect by it. Whether the most effective treatment is medication or a multitude of teaching strategies in school, these children deserve more awareness and given an anxiety free childhood no matter what the cause might be.

Among the sources that were gathered for the current literature review, a few demonstrate particular qualities that have been beneficial to the current research. A journal article written by Zakszeski (2018) depicts Selective mutism through a Clinical Psychology lens. This author provides a great deal of information about the criteria and assessments for this disorder. The author included specific questions she would ask during an interview with the child's parents. Not only that, but the author provides several tables explaining key aspects. For example, Zakszeski provides a table that thoroughly explains the different instruments used to assess Selective mutism, the focus of the assessments, the rater, age range, and items needed. Therefore, this clear and concise information can allow a professional needing assistance with diagnosing Selective mutism the assessment they need to use. She is also an advocate of continuous progress monitoring. "Progress monitoring enables the consideration whether intervention practices should be continued, modified, replaced, or terminated" (Zakszeski, 2018). Being provided the tables with the numerous assessments and detailed interventions, this psychology journal article will be useful for professionals getting started with treatment in this area.

Another useful piece of research Schum's (2006) review of Applied Behavior Analysis in use with speech pathology. This author claims that medication may be useful for treating Selective mutism but based proved not effective in past research. Most of this research was performed more than twenty years ago and proved medication was not a long-lasting treatment for the disorder. The author also claims that contingency management could be beneficial for treatment. Reinforcements could increase the likelihood of the child speaking in settings where he/she may feel anxious (Schum, 2006). Schum presents comorbid behavioral instances with Selective mutism. He argues oppositional behavior may cooccur with Selective mutism and toileting troubles due to anxiety with public restrooms. He explains the rareness of both but does so to make the statement that therapy needs to be individualized for each child. The author includes several valuable aspects, but the most valuable is the techniques he gives for working with the child. He stands firm with using behavior techniques to improve speech where the previous author, Zakszeski, provides other beneficial techniques. Schum and Zakszeski both provide exceptional strategy options for treating a child with Selective mutism. Articles such as these could provide pre or in-service therapists with valuable clinical information.

Muris and Ollendick's (2015) article focuses on research about the causes of Selective mutism. There has not been one identified particular cause of the disorder, but research has suggested many factors can contribute to causing it. These authors narrowed etiology down to temperament, environment, genetics, and neurodevelopmental issues that may cause children to have an excessive amount of anxiety when speaking (Muris & Ollendick, 2015). They provide research that supports their claims of the causes of Selective mutism, including genetics, temperamental, environment, and neurodevelopmental factors. A child's mother or father might pass this disorder down. It could also be caused by the child's temperament. If they are more

reserved as it is, Selective Mutism will be more prevalent. The environment the child is raised in can influence how the child interacts with individuals and could affect their temperament as well. Neurodevelopmental factors can potentially cause Selective Mutism. If the child were to have some sort of articulation disorder due to a cleft palate, they might refrain from speaking because they are embarrassed that their voice does not sound the same as their peers (Muris & Ollendick, 2015). Many other researchers appear unaware of what can cause Selective mutism and many of the other articles do not provide concrete reasons as to why the disorder is prevalent within children that may have anxious parents, communication disorders, immigration families, or oppositional behavior tendencies.

The three sources discussed thus far all contribute to the field of psychology and speech pathology. Zakszeski (2018) would probably agree with Ollendick and Muris (2015) that the environment a child is raised in can contribute to their anxiety. These authors note that immigrant families have a higher rate of Selective mutism and how the family can contribute to this if they have the fear of being deported (Zakszeski, 2018). Not only that, but Schum (2006) argues that psychology-based strategies can best help the child from a speech pathologist standpoint. Therefore, it seems as if psychology-based techniques are most beneficial to children with Selective mutism and this should encourage speech-language and psychological service professionals to work together to adopt helpful strategies. For example, one study concluded that children with Selective mutism have a significantly higher chance of having a comorbid anxiety disorder (Schum, 2006). In 2013, Selective mutism was reclassified as an anxiety disorder in the DSM-5. Therefore, the DSM-5 authors focus more on the contributing factors of anxiety (American Psychiatric Association, 2013). Muris and Ollendick (2015) state children with Selective mutism usually are beginning to fully speak after eight years of being diagnosed with

the disorder. Further, they state a child must be selectively mute for a solid month to reach the criteria for the diagnosis.

Muris and Ollendick (2015) viewed Selective mutism as a "failure" to speak. This is technically true, but the child may feel as if she/he is completely incapable of forming speech due to extreme anxiety. Therefore, the authors could have referred to Selective mutism somewhat more neutrally to avoid creating a sense of blame on the child. These authors began to examine the social aspects of Selective mutism and mentioned autism. However, they only briefly mentioned this and left the readers wondering how Selective mutism can be mistaken for autism. While the current researcher does not agree with how the authors viewed Selective mutism in some cases, the factors they claimed contributed to Selective mutism were of interest and note. The review of many previous studies and the statistics provided are also beneficial to the current thesis when identifying the characteristics of this disorder (Muris & Ollendick, 2015).

Ponzurick (2012) demonstrates the role of a health professional when encountering Selective mutism. As a nurse, Ponzurick wants others to realize the importance of her profession interacting with a child with Selective mutism. She argues that Selective mutism is best treated with cognitive behavioral therapy and medication. Not only that, but she insists those with Selective mutism must have professional help from various backgrounds. For example, Ponzurick focuses more on the medical aspect of this disorder but believes teachers can play a major role in improving the outcomes of Selective mutism by various intervention plans. She also considers herself to be an educator for parents, teachers, and many other professionals because Selective mutism can be considered a medical condition. The author completed research over the history and etiology of this disorder. She reported that Selective mutism is neither a communication

disorder nor developmental delay. In 2012, it was categorized as “Other Disorders” in the DSM, but commonly confused as a developmental disability. In all, it is apparent Ponzurick feels the need to continue educating others about this disorder and it is her duty to do so, as a health professional.

Ponzurick (2012) reviews many therapies and strategies for parents to consider. These strategies are some of the strengths within the article. She is considerate and realizes the importance of compassion when working with families. Her work also includes the addition of the history and etiology. Selective mutism for the current thesis is being based more on the treatment by Clinical Psychologists and Speech Pathologists. This article focuses on how to educate others about the disorder through the lens of a school nurse. Therefore, one limitation is that the audience is getting the perspective of Selective mutism as a nurse. Nurses are a valuable resource to families coping with this disorder, but therapists may be more commonly to be more hands on with this type of disorders. Ultimately, this source is being used in the current research because it was one of the only studies that included the history of Selective mutism.

Schum (2006), provides intricate details about the general overview of Selective mutism and argues there are several therapies that improve functioning for those with it. Even though there has not been a most effective route of treatment mandated, Schum suggests several therapies or ways of treatment that may work best for children with Selective mutism. One treatment this author suggested was medication. Medication could be used to decrease the child’s level of anxiety and might help them start speaking in uncomfortable environments. Another suggested treatment was behavioral therapy. Operant conditioning could be used to reinforce positive behaviors. If the child were to speak in an environment that they typically do not, then that behavior would be rewarded

and hopefully it would cause them to speak more frequently in that setting. In addition to reviewing these therapies, Schum pleads for researchers to keep devoting their time to figuring out this bizarre anxiety disorder. Schum believes many individuals can play a crucial role in assisting someone with Selective mutism and making them feel comfortable to speak. Therefore, he strongly urges the primary goal for any kind of treatment for Selective mutism is to make them feel more confident and comfortable to speak in any setting, especially school.

This author reflects on past treatments that have been used to treat it. Ultimately, Schum concludes there should be ongoing research on this disorder. He argues this disorder may be hereditary in some cases and different styles of parenting can contribute to how anxious a child is to speak. The mother may be prone to more anxiety, which is carried on to the child. Also, if parents are overly protective and punishes the child for not speaking, the chances of Selective mutism significantly rise. The author attempts to argue the best treatment for Selective mutism is operant conditioning. Someone reinforces the child whenever they engage in communication. Schum does use many examples throughout the article about how to use a certain treatment. For example, he explains a technique called a “talking scale.” This helps the child realize where he/she is more comfortable at when speaking and can help them achieve an even closer relationship with the therapist. He uses several examples when discussing operant conditioning and how you could reinforce the child for communication. Schum includes many details about the disorder and discusses each therapy option in detail. Most importantly, Schum raises awareness for individuals with Selective mutism and strongly advocates continued research to be done. One of the only weaknesses present in this article is how Schum creates a sense of blame on the parents. Parenting has a great deal with this disorder, but he seems to focus extensively on

it. Parenting in this disorder is important, but Schum may have been able to focus a little less on it and more on the different therapies.

Even though Schum's article may have some weaknesses, it is valuable to the research. It was important to choose articles to raise awareness about this disorder. Schum demonstrates many therapies used and provides many ways on how to improve the lives of many who are inflicted by Selective mutism. Schum's view may have discouraged parents when handling their child with this condition. Instead, a more helpful approach would give parents more insight on how to handle this condition and confidence to do so. It is important when distinguishing the differences between how Clinical Psychologists and Speech Pathologists treat Selective mutism. Some of the techniques Schum suggests will more than likely will be used by the professionals being surveyed.

Mitchell and Kratochwill (2013) conducted an experiment in hopes of decreasing severity and anxiety with Selective mutism in several children. This research study argues that conjoint behavioral consultation can be effective in improving how comfortable the child feels when speaking and can increase the amount of times they do speak. Conjoint behavioral consultation occurs when parents, teachers, and professionals all work together to benefit the child. The researchers started the study by taking multiple baseline data to be able to compare how effective the treatment would appear to be after it was performed. After utilizing the multiple-baseline design, researchers discovered that increasing family involvement and interacting with each other was crucial when treating Selective mutism. The parents felt as if the treatment improved their child's condition and caused them to speak more. Another aspect was how the research focused on the social aspects of the disorder (Mitchell & Kratochwill, 2013). For example, if the

child does not want to interact with anyone at school, he or she will become isolated and miss out on important social opportunities. Therefore, the child also loses opportunities to develop more language by engaging with peers and their emotional state may decline due to the lack of friendship. Along with the conjoint behavioral consultation process, many psychological techniques were used. For instance, stimulus fading, shaping, and contingency management were some of the techniques used, which were proved to be valuable for the treatment of Selective mutism.

This source provided data from several children that solidifies these strategies can be incredibly useful with treating Selective mutism. Based on the parents' and teachers' reviews, the therapy approaches decreased the severity of Selective mutism and made their children less anxious to speak in situations that were not considered their natural environments (Mitchell & Kratochwill, 2013). One strength is how the authors focused on the social aspect of this disorder. Many people do not realize the value of communication and how being incommunicable can have multiple effects on someone's mental state. The anxiety portion of Selective mutism can leave children overly worried to speak and this seems frightening enough to parents. However, it impacts them in the future, even if they were to overcome their anxieties. It could result in speech and language delays because they are too anxious to have interactions with others and this lack of exposure can be detrimental to development. The anxiety could leave children even more stressed and cause them to feel alone. These researchers stayed goal-oriented and encouraged parents to do so. Focusing on goals and providing reinforcement for desired behavior are beneficial strategies too. This research did have some weaknesses and limitations. The researchers only studied four children and a larger number of participants could strengthen their claims. Regarding the treatment, the amount of time it took to observe and carry it out was a

limitation for this study. Many teachers and professionals are already busy throughout the day and the treatment demanded a high amount of time to complete. These authors particularly contributed to discussing the social aspect of this disorder and how the effects can be long-lasting. Therefore, this emphasizes how crucial it is to start intervention as soon as possible with children who have Selective mutism. This thesis highlights the importance of family involvement with this disorder and how a childhood with the lack of verbal communication can have impact on individuals' lives for a lifetime if not treated promptly.

Shriver, Segool & Gortmaker (2011) identified what treatments may work best with Selective mutism. The authors reveal that the two major treatments for this disorder is pharmaceuticals or behavioral interventions. In their opinion, behavioral interventions are the most effective way to treat Selective mutism. Stimulus fading and shaping are what they proposed could be the best strategies to use for Selective mutism. They believe a child with Selective mutism should have the goal of being able to speak in all environments and primarily focuses on the need for children with Selective mutism to speak in an educational environment (Shriver, Segool, & Gortmaker, 2011). However, each treatment plan needs to be unique to each child to ensure they are obtaining benefits from it. When it comes to designing the treatment plan, professionals need to examine recent observations and interviews closely to choose what interventions would best fit for a child. The article contains several case studies of children with Selective mutism and the therapy interventions that worked best for them. Overall, researchers found identifying the antecedent and behavior can assist them in developing a treatment plan. Ideally, the researchers would have liked to utilize the ABC model that includes consequences. Using this ABC model could provide information about what environments the child is most anxious to speak in, how reinforcement may result in a more favorable behavior, and how

punishment may cause the target behavior to not be reached. However, researchers chose to use the AB model because discerning whether silence was a consequence would be difficult. They did find that identifying where the child does and does not speak and when they choose to communicate is essential to providing necessary treatment (Shriver, Segool, & Gortmaker, 2011).

The addition of case studies supported the authors claim that stimulus fading and shaping can increase the likelihood of target behaviors in children with Selective mutism. Concerning strengths, this study realizes the difficulty of pinpointing an exact treatment for Selective mutism. However, it does provide examples with how behavioral interventions typically work best when molded to fit the child's needs. On the other hand, the researchers were not trying to prove the exact effectiveness of these treatments, but how functional analysis can be used to reach more desirable behaviors. This could be misleading to readers because it seems as if they are suggesting stimulus fading and shaping are the way to treat Selective mutism. Though, they hoped they could have proved the best treatment, but only could depict the usefulness of the AB intervention model with this disorder. This research focuses on techniques for professionals to use in the educational system that may allow children with Selective mutism to be more comfortable. For example, instead of calling on the child, the teacher can include more play activities in her lessons to increase the chances of the child verbally communicating. Not only that, but using certain functional analysis models can help individuals identify which behaviors are desirable and can keep data to see if their interventions are making a difference. Ultimately, this resource highlights the importance of professionals remaining patient and being flexible with different treatments to hopefully assist children with Selective mutism to feel comfortable to speak in all environments.

The presented research article demonstrates different interventions a professional can use when working with Selective mutism or what they may call, “highly reluctant speech” (Howe & Barnett, 2013). The authors argue that different strategies can be used to help a child’s ability to speak in other environments than just home. They also want to emphasize the importance of teachers and family members who will work with the child essentially every day. Therefore, a case study is conducted to show the effects of different interventions and their effectiveness. Christopher, a four-year-old, shown signs of Selective mutism and was highly reluctant to speak in school. Whenever teachers became more informed of the disorder, they began to be more mindful with the interventions they chose. For example, if Christopher had not responded within three seconds whenever called on, the teacher moved on. This relieved the anxiety and pressure Christopher had when being called on in front of the class. The teachers’ and professionals’ dedication to making Christopher comfortable allowed him to successfully whisper words to them. Another outcome the authors founded was how treatments and intervention need to be individualized. Stimulus fading, contingency management, desensitization, shaping, and modeling can be some techniques used (Howe & Barnett, 2013). Some of these techniques may not work as well with other clients, but many techniques should be explored to see which best fits.

Evidence and examples are evident within Howe & Barnett (2013) to strengthen their arguments. It bases their treatment on applied behavior analysis and an AB design. Baseline data was taken, and intervention data was taken after to see if the interventions had any impact on the behaviors. I do think the lack of participants could be a weakness in this article. With more participants, their suggestions for interventions could be strengthened and provide more confidence to families about under researched disorder. Not only that, but the article seems to

only focus on teachers' roles and no other professionals. The addition of Speech pathologists, Developmental interventionists, Occupational therapists, etc. would have made this article broader and a resource for a larger group of professionals to aid in the treatment of Selective mutism. This research article highlights the importance of needed research in this field. It identifies several techniques for Selective mutism and provides useful insight as to how everyone needs an individualized plan. The addition of the Tier 1 intervention was informational to help others understand the different levels of intervention. Tier 1 is the less of the three tiers and simple interventions can highly benefit individuals. Therefore, I will use this for my research to suggest treatments for Selective mutism and the importance of assisting a child feel comfortable in an educational environment.

Nowakowski (2009) conducted a study to determine the academic abilities of those with Selective mutism. The study included a control group with twenty-seven participants and a group of 46 with anxiety disorders to compare the results. The researchers hypothesized the group with thirty participants with Selective mutism would have lower scores on the given standardized test. Not only that, but they assumed those with Selective mutism would have lower receptive and expressive language skills. The research design led to many findings about Selective mutism. Two questions the researchers wanted to explore were: would there be any difference in test scores with the three groups and are there are sex differences between the groups due to more girls being diagnosed (Nowakowski et al., 2009)? Children with Selective mutism scored lower on receptive vocabulary tests and mathematic tests compared to the community group. However, girls scored in an age-appropriate range on the receptive vocabulary group that had been diagnosed with Selective mutism and mixed-anxiety disorders. Both sexes with Selective mutism and mixed-anxiety disorders scored age-appropriately on the mathematics test too. Thus,

expressive skills are what children with Selective mutism and maybe even mixed-anxiety disorders are lacking. They can understand what is going on and decipher what they are reading but are too anxious to express their needs and wants.

Researchers compared their results with other notorious research done with Selective mutism. The research itself support the authors claims by revealing answers to the two questions they wanted to examine. For example, the study proved that there is not a distinctive sex difference between those diagnosed with Selective mutism. It is still unclear why more girls are diagnosed, but both sexes performed similarly on the tests given. This research highlighted how speech may be nonexistent, but a child is not inept to continue to learn with this disorder or other anxiety related disorders. The research emphasizes the importance of being patient and realizing the child probably needs more help than he or she wants to ask. Another strength was the number of participants the researchers were able to obtain. Even though this article was exceptional, it did include a few limitations. The Selective mutism group was not purely based on one diagnosis being Selective mutism. Instead, this was many of the children's primary diagnosis and they had another coexisting anxiety disorder. Thus, researchers could not be entirely sure if their responses to the tests were based on their anxiety or lack of speech. Another limitation was how the children were not required to give verbal responses, but the experimenter was always with them, which could have inhibited them to perform to their upmost potential due to the increased anxiety. It discusses how those with Selective mutism can perform well with academic tasks even with an abundance of social anxiety. Also, it is an exceptional resource when it comes to discussing how expressive language skills may affect receptive language skills. For instance, if a child is too nervous to ask for assistance with math, their understanding of math will begin to decline. Children with Selective mutism do not necessarily have low receptive skills, but it can

be altered by the decreased use of expressive language skills. Ultimately, this source is being used in the current research to depict the importance of needed research and understanding for Selective mutism to help children feel comfortable expressing their wants and needs.

Purpose:

The study being conducted is exploring the comfortability, experience, and availability of resources of the Communication Disorders graduate cohort at Eastern Kentucky University and the Clinical Psychology graduate cohort at Eastern Kentucky University. Due to the relatively small amount of research concerning Selective Mutism, this research is to promote awareness for the disorder and hopefully educate preservice individuals about Selective Mutism. Within the study, the hypotheses that both graduate cohorts have little to no experience treating the disorder and they feel uncomfortable treating it due to lack of information given by preservice programs are being examined. In 2017, Gwendolyn Dorsey completed an Eastern Kentucky University Honors thesis concerning Selective Mutism and focused primarily on school-based speech pathologists and their experience with treating Selective Mutism (Dorsey, 2017). With her permission, the survey questions from her thesis are being used to conduct this study given to Communication Disorders graduate students and Clinical Psychology graduate students.

Chapter Three

Methods

After being IRB approved by Eastern Kentucky University, Survey Monkey was used to create the survey given to students. The Communication Disorders graduate student cohort and Clinical Psychology graduate cohort were given the survey via Dr. Kellie Ellis from the CDS department and Dr. Dustin Wygant from the PSY department. After surveys were distributed,

students had the opportunity to rate their comfortability and experience with treating Selective Mutism. After gathering the data from the two graduate cohorts, the groups were compared to see if one cohort had more experience with treating Selective mutism by comparing their averages through a Chi-square test with the two samples. The following three questions were asked (Questions 1-3):

1.) "Have you ever provided services to children with Selective Mutism (SM)?

2.) "Have you ever attended a course or workshop focused specifically on Selective Mutism?

3.) "Approximately how many children with selective mutism characteristics (past or present) have you encountered in your professional practice?"

(Dorsey, 2017)

T-tests were then conducted based on the following Likert scale questions to see if there was a significant difference between the two graduate cohorts. Questions 5-10 were:

5. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? I am familiar with SM and can recognize its signs and symptoms."

6. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? I feel comfortable providing therapy services to children with SM?"

7. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? I possess adequate knowledge of SM to act as a resource for teachers and parents."

8. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? There are enough journal articles and books available for Clinical Psychologists and SLPs to assist in working with children affected by SM."

9. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? Information about SM should be taught more in college/university preservice training programs?"

10. "On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement? I have located adequate resources for referring a child with SM to professionals within my community."

(Dorsey, 2017)

Chapter Four

Results

Participants were asked how many clients with selective mutism they had treated or encountered. Psychology students had encountered one SM client on average, with slightly less than one on average for Communication Disorder graduate students. There was no significant difference between numbers of clients treated.

Chi Square analysis found that no association was found between graduate student cohorts and history of direct experience or training events on selective mutism (X^2)>=1.91, p=1.66

An independent samples t-test was conducted to compare responses to the 6 Likert Scale questions between the psychology and speech-language graduate student groups. There were no significant differences in the scores between the two graduate student groups, suggesting equal ratings across groups on questions measuring concepts such confidence in treating selective mutism, feeling that there are enough journal articles and books available about selective mutism, and so on. The highest ranked item for both groups of students was the following item: "Information about Selective Mutism should be taught more in college/university pre-service training programs."

CDS Program Stats:

1.) "Have you ever provided services to children with Selective Mutism (SM)?	Yes=3.70% (1 student)	No=96.30% (27 students)
2.) "Have you ever attended a course or workshop focused specifically on Selective Mutism?	Yes=18.52% (5 students)	No=81.48% (22 students)
3.) "Approximately how many children with selective mutism characteristics (past or present) have you encountered in your professional practice?"	0=74.07% (20 students)	1-3=25.93% (7 students)

PSY Program Stats:

1.) "Have you ever provided services to children with Selective Mutism (SM)?	Yes=18.18% (4 students)	No=81.82% (18 students)	
2.) "Have you ever attended a course or workshop focused specifically on Selective Mutism?	Yes=4.55% (1 student)	No=95.45% (21 students)	
3.) "Approximately how many children with selective mutism characteristics (past or present) have you encountered in your professional practice?"	0=63.64% (14 students)	1-3=31.82% (7 students)	4-6=4.55% (1 student)

For the Likert scale questions, the mean ranged from 3-3.5 for both graduate cohorts, except for Question number nine asking whether SM should be taught more in preservice programs ("On a scale 1-5, 1 being strongly disagree and 5 strongly agree, how do you feel about this statement?

Information about SM should be taught more in college/university preservice training programs?")

This response pattern suggests that both preservice graduate cohorts agree that more information about Selective Mutism should be provided and taught in preservice programs. The mean for question nine was the highest of the Likert scale questions. The PSY cohort had a 4.6 mean and the CDS cohort had a 4.7 mean on this question.

Chapter Five

Discussion

Perhaps one reason there has been little research completed with this disorder is because "...it was estimated that the prevalence of the condition was less than 1 %..." (Muris & Ollendick, 2015). Therefore, it is not entirely surprising that professionals may have to research Selective mutism on their own. Professionals do not have a clear treatment path for Selective mutism and are somewhat unsure of the causes too. These factors increase the challenge for children with Selective mutism to obtain the proper services and reduce their anxieties.

The low scores for graduate students that have worked with children with SM could have been because it is not taught frequently in programs. Both psychology and CDS students reported relatively little direct experience with individuals with Selective Mutism. It was expected that the graduate students would have little experience with treating Selective Mutism. However, it was unsettling to know that many graduate students did not have direct instruction or information provided by preservice programs about Selective Mutism. While we didn't find any significant differences in reported comfort in treating, knowledge about, available information about, and locating resources for selective mutism, it is notable that the question endorsed most strongly by both groups of graduate students relates to the need for more training about this

specialized disorder. Therefore, preservice programs need to include Selective Mutism within their programs more to expose graduate students to the signs and therapy strategies to utilize when confronting with a client who might have it.

Previous research (Dorsey, 2017) involved school-based speech pathologists and gathered data to see how comfortable and knowledgeable the speech pathologists were with treating Selective Mutism. She found that the majority of the speech pathologists were comfortable with treating it, could recognize its signs and/or symptoms, and had experience with doing so (Dorsey, 2017). However, these speech pathologists have had more direct experience within the field than graduate students. This implicates that either some preservice programs offer extensive amount of information about Selective Mutism, there are a lot of resources concerning Selective Mutism, and/or that treating Selective Mutism is something professionals must learn about as they encounter it. Not only that, but Selective Mutism is most commonly seen in environments where speaking is highly expected. School is intimidating for may students, but those that are more susceptible or have Selective Mutism may struggled immensely in a school setting. Therefore, surveying speech pathologists that work in schools would gather more individuals who are experienced with treating Selective Mutism because a school setting seems to be where children might display symptoms of Selective Mutism first.

Within the current study, it was interesting to find that Clinical Psychology students had encountered on average almost one more child client with Selective Mutism than Communication Disorders graduate students. The reasoning might be that many individuals do not believe Selective Mutism could have impacts on speech and language. However, if children are refraining from speaking in social settings, this can cause them to not have as many learning experiences as a peer who has a lot of friends. Not only that, but they might be struggling with

social aspects of communication, which is called pragmatics. Many people do not know that teaching social skills is within the scope of a speech pathologist. Plus, if a child is refraining from speaking because they are embarrassed of a speech or language delay, then there is no opportunity for improvement or self-correction. As a result, speech pathologists are not viewed as someone who might be able to help with treating Selective Mutism because many people might automatically assume only a Clinical Psychologist should assist the child because it is referred to as a childhood anxiety disorder.

Another noteworthy aspect about the current research was the result of analysis of Question #4. Both graduate cohorts were asked: "Which of the following best describes your work population?" (Dorsey, 2017). The participants from the Communication Disorders graduate program stated that over half of them worked in a small town. For the Psychology graduate students, almost 60% said they worked in a large town. This is interesting because the population size of the towns the graduate students worked in for their field work experiences could have an effect on how many children they see with Selective Mutism. Since the Communication Disorders student sample was a smaller population, the number of children they had seen in general could have potentially been smaller. Therefore, it is interesting to wonder if population size might influence how many children a clinician might come across with specific disorders and disabilities.

Overall, this research is entirely dedicated to those inflicted with Selective Mutism. The field of childhood anxiety disorders seem to be under-researched and these children deserve all the awareness and help professionals can provide to live happy lives. The research was collected to analyze two essential professionals' role and the need for more research when treating Selective mutism. A speech pathologist and clinical psychologist are vital to treatment for these

children, and this research was another stepping stone to prove that more needs to be done to fully understand the best treatments and therapy options.

Limitations

One limitation to the current study is that both graduate cohorts were small, and a bigger sample could have led to more statistical power and more data to reach conclusions. The CDS graduate program usually contains around twenty students across both years and the Psychology graduate program will contain 45 or less across all years of on campus students. Another limitation is that this study did not take age into consideration. If we were to ask the age of the graduate students, this could have influenced our data because an older graduate student may have had more experience with children before entering the graduate program and therefore more potential encounters with Selective Mutism. Also, graduate students may be used to working with basic disorders that are well within their scope of expertise to gain experience with therapy. For example, CDS students work in the Speech-Language-Hearing clinic on campus to gain experience and knowledge about how to provide therapy. Most likely, graduate students are given a client that has an articulation disorder or language disorder that is simpler to conceptualize and potentially easier to treat than Selective Mutism would be because there are no concrete treatments for SM. Similarly, graduate Psychology students might be given a client with straightforward anxiety or depression, disorders about which there have been a lot of researched methods for treatment.

Implications and Further Research

Ultimately, the results from this research suggest that Selective Mutism is not taught frequently in preservice programs. Both graduate cohorts surveyed in this study are not entirely comfortable with treating Selective Mutism because the lack of information provided and the lack of workshops provided within preservice programs. Due to this lack of information, individuals have had little to no experience with treating Selective Mutism or recognizing its symptoms. This research could motivate future and present speech pathologists and clinical psychologists to learn more about Selective Mutism and feel more comfortable treating it. Not only that, but this research could motivate the general public to care about children inflicted with Selective Mutism and to support more education and information for parents and families raising a child with it. As a future speech pathologist, it is unimaginable to think about a child so full of anxiety that speaking is not an option. Thus, it is heartbreaking to think about parents who have to try to understand this disorder and attempt to find a solution to their child's anxiety. It is crucial for preservice programs to teach more about this disorder so professionals can provide advice to families who are affected by it.

Preservice programs need to provide instruction specifically about Selective Mutism and challenge students to use their knowledge to provide the best treatment for it. Within preservice programs, specific workshops should be taught or certain classes should be offered concerning childhood anxiety. Whether Selective Mutism was an added lecture or chapter within a child development class or a class to itself, it simply needs to be more taught in programs. For example, ASHA (American Speech and Hearing Association) could easily require clinicians to have a workshop or class over the disorder before they get their license. This would ensure preservice individuals are being exposed to Selective Mutism and will increase their comfort when encountering, assessing, and treating it in a clinical setting.

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