

How the Extended Psychological Effects of Selective Mutism Allows Researchers to Have a

Better Understanding of the Disorder: A Meta-Analytic Review

Capstone Research

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### Abstract

**OBJECTIVE:** Understanding how the psychological impact selective mutism has on children, their families, and their neighborhood correlates to understanding the disorder.

**METHOD:** Literature from the NCBI database and ASHA database was examined in a meta-analytic review.

**RESULTS:** Selective mutism in children occurs due to the child's own personal anxiety in specific social settings. The child's condition can either negatively or positively impact their familial relations and relations with their community. If schools are properly funded and families have the proper means, children with selective mutism have a greater chance of overcoming their affliction. Due to the limited knowledge on selective mutism, there is only a limited understanding on the psychological states of the afflicted and the afflicted parents and teachers.

**CONCLUSION:** Selective mutism is highly uncommon in children appearing approximately 1% of the child populace (ASHA, 2016). The affected children are often met with insufficient means of assistance if they are in a community of a lesser socioeconomic status, which will further negatively impact their futures, their familial situation, and interactions with the community.

*Keywords:* selective mutism, social anxiety, meta-analysis

## **Background**

### **Definition**

Selective mutism usually occurs during childhood. A child with selective mutism does not speak in certain situations, but will speak at other times. This most commonly can be seen in a child's interactions in a school setting as opposed to their interactions in a home setting (ASHA, 2016).

Selective mutism often starts before a child is 5 years old. During this period of time, teachers or guidance counselors may mistake the selective mutism for extreme shyness, but once the stop in speech becomes more prominent after a month of instruction diagnosis is possible. That being said, teachers and counselors should consider cultural issues, where a student has recently moved to a new country and is still uncomfortable with the new language. The student's stop in speech is not caused by a reflex that cannot be controlled, rather it is caused by the individual's personal discomfort in speaking in the new language. This is not selective mutism a speech-language disorder, rather it is a sociological phenomena (ASHA, 2016).

Additionally, selective mutism can also be seen in people who have had immense trauma occur in their lives. These individuals may, at times, exhibit the symptoms of selective mutism (ASHA, 2016).

### **Causes**

While it is known that selective mutism is most common in children under age 5, the cause and/or causes of the disorder remain unknown. Despite this lack of a definitive answer, many experts believe that children with the condition have inherited a tendency to be anxious and inhibited. What is known is that affected children often have a family history of selective

mutism, extreme shyness, or anxiety disorders. Many times a child with selective mutism has or is experiencing an anxiety disorder, inner self/self-esteem issue, and/or a speech, language, or hearing problem (ASHA, 2016).

### **Symptoms**

Symptoms of selective mutism include the ability to speak at home with family, but the inability to speak in settings outside of the house, a child's fear or anxiety around people they do not know very well, social isolationism or withdrawal, fear of social embarrassment, and shyness. Children with selective mutism show an inability to speak in certain social settings where speech is expected of them, but they have no issue speaking in other social settings without constraint. Children with selective mutism often experience interferences while conversing and misunderstanding in their school, work, and other social settings. Selective mutes often experience this stop in speech for over a month outside their first month of school (in fact if this stop in speech occurs for less than one month then the child was merely shy and not selectively mute), and this failure to talk is notably not due to the child's lack of knowledge or comfort in the language. Most notably, selective mutism is not due to a communication disorder, like stuttering, rather it is a disorder in it of itself (ASHA, 2016).

### **Diagnosis**

In order to properly diagnose selective mutism the child who potentially has selective mutism should be seen by a speech-language pathologist (SLP), in addition to a pediatrician and a psychologist or psychiatrist. Together these professionals will work as a team with teachers, family, and the individual in order to help alleviate the disorder.

It is important that a complete background history and a completed educational history review are gathered and a hearing screening, oral-motor examination, parent/caregiver interview, and a speech and language evaluation are all administered (ASHA, 2016).

The purposes of the educational history review, hearing screening, oral-motor examination, parent/caregiver interview, and the speech-language evaluation is to understand fully the state at which the child is at. The educational history review should focus on academic reports, parent/teacher comments, previous testing (e.g., psychological, speech pathological), and standardized testing, and it will help serve the SLP with the information necessary in understanding the child's situation at school. The hearing screening will help establish the child's hearing ability which will help determine whether or not the child has a speech-language disorder, and it will help determine whether or not the child has a middle ear infection that has been inhibiting their speaking ability. The oral-motor examination seeks information on the coordination of muscles in lips, jaw, and tongue and the strength of muscles in the lips, jaw, and tongue. By understanding the oral-motor functions of the child, the SLP has the ability to determine if a different SLP has caused the child's ailment. The parent/caregiver helps the SLP understand whether any mental illnesses (e.g., schizophrenia, pervasive developmental disorder), environmental factors (e.g., amount of language stimulation), the child's amount and location of verbal expression (e.g., how he acts on playground with other children and adults versus how he acts at home with siblings and parents), child's symptom history (e.g., onset and behavior), family history (e.g., psychiatric, personality, and/or physical problems), and speech and language development (e.g., how well does the child express himself and understand others). By understanding these different aspects of the child's life the SLP has a better understanding of the child's social and behavioral tendencies that impact his or her ability to speak. The speech and

language evaluation seeks information on the expressive language ability of the child (if the child does not speak with the SLP parents may have to help lead a structured story telling or bring home videotape with child talking), language comprehension (e.g., standardized tests and informal observations), and verbal and nonverbal communication which can be seen in pretend play and drawings. By understanding these speech tendencies of the child, the SLP is better able to determine whether or not selective mutism is the cause of the child's inability to talk (ASHA, 2016).

### **Treatment**

Treating selective mutism requires a change in the child's behavior. The child's family and school should participate in the treatment process. Due to the fact that many children with selective mutism often exhibit social anxiety, treatment may involve specific medications that treat anxiety and social phobia that have been previously used safely and successfully (ASHA, 2016).

Individuals struggling with selective mutism and their families potentially have support groups that they can utilize including but not limited to K12 Academics, NYU Child Study Center, Selective Mutism Foundation, and Selective Mutism and Childhood Anxiety Disorders Group (ASHA, 2016).

Children with this syndrome can have different outcomes. Some may need to continue therapy for shyness and social anxiety into the teenage years, and possibly into adulthood while others may only need therapy for the beginning of their adolescence (ASHA, 2016).

The type of intervention offered by an SLP will differ depending on the needs of the child and his or her family. The child's treatment may use a combination of strategies, again depending

on individual needs. The SLP may create a behavioral treatment program, focus on specific speech and language problems, and/or work in the child's classroom with teachers. If specific speech and language problems exist, the SLP will target problems that are making the mute behavior worse and use role-play activities. These activities will help the child gain the confidence necessary to speak in a variety of social settings despite the child feeling that their voice sounds strange (ASHA, 2016).

Additionally, a behavioral treatment program will most likely also be utilized in order to assist the child with their ailment through the usage of stimulus fading, shaping, and self modeling techniques. Stimulus fading involves a child is speaking freely to an individual they are comfortable speaking to alone. Then a stranger is introduced into the situation so the child has to overcome their anxiety in order to speak to the other individual. Shaping is a structured approach that is meant to reinforce all efforts the child makes to communicate. These efforts include, but are not limited to, gestures, mouthing, and whispering. Shaping is done until audible speech is achievable in a self-modeling technique. Here, a child videotapes himself or herself performing a specific behavior like talking at home in order to facilitate confidence that will transfer to settings where the mutism occurs (ASHA, 2016).

Many of the aforementioned efforts solely involve the child's efforts and their family's support. Other methods involve the utilization of the child's community, most notably the utilization of the child's teachers. For children with selective mutism, a teacher can serve the purpose of encouraging communication and lessening anxiety about speaking by forming small cooperative groups instead of large ones and helping the child communicate nonverbally with peers through the usage of signals or cards. The teacher also sets goals for the child to achieve: These goals will help the child gradually improve their speaking ability in social settings where

they are uncomfortable. that will gradually help the child speak in a variety of social settings (ASHA, 2016).

Overall treatment for selective mutism requires the involvement of the child and the involvement of the child's family and community (e.g., teachers, SLP, psychologists). Through proper treatment a child can see vast improvements. Likewise if the child is not properly treated the state of the disorder will only worsen (ASHA, 2016).

### **Methodology**

Meta-analytical research requires the researcher to identify relevant literature that identifies similar issues in a way that a missing link among the issues is fulfilled. To identify relevant literature, a systematic search of the peer-reviewed published literature was conducted from September 2015 to March 2016 using the public library, online research journals, and online databases including American Speech-Language-Hearing Association (ASHA) and the National Center for Biotechnology Association (NCBI). Databases were searched using a comprehensive strategy developed by identifying keywords, controlled vocabulary relating to selective mutism, autism, and apraxia of speech, Medical Subject Headings (MeSH), and free text related to socioeconomic status, gender, and familial interactions. Additional studies were identified by reviewing the reference lists of full-text articles, reviews, meta-analyses, and guidelines. To be included in this research paper, a study had to be written in English, published in a peer-reviewed journal between January 1970 and December 2015, and provide original data addressing the targeted question. Studies and literature were excluded if they examined the effects of speech-language disorders on the functionality of the afflicted in society because past research has examined the social outcomes of speech-language disorders.

The systematic search yielded twelve pieces of relevant literature. The relevance of the literature was determined by a checklist the researcher created, which can be seen in the chart on the next page. What the chart entails is that every piece of literature determined relevant was evaluated by whether or not it was peer reviewed, it discussed the psychological implications of society, and had a credible author.

| <b>Relevance of Literature used in Meta-Analysis</b> |                                  |  |   |
|--|----------------------------------|--|---|
|  | Literature Presents this Feature | Literature does not Present this Feature | Further Research must be Done in order to Determine an Answer |
| Peer Reviewed  |                                  |  |   |
| Solely Discusses Psychological Implications          |                                  |  |   |
| Author(s) is/are Credible                            |                                  |  |   |

Additionally, each included study was assessed for methodological rigor by two independent evaluators defined by an appraisal tool created by ASHA (Cherney, Patterson, Raymer, Frymark, & Schooling, 2008; Mullen, 2007). Additionally, any fallacies presented in the research were documented and considered as integral parts of the literature review. The fallacies, whether logical or not, were utilized in the meta-analysis as a means of finding an answer to the question presented. Fallacies established potential flaws in future research and they allowed the articles to differ in methodology without changing the outcome of the meta-analysis. The primary aim of the meta-analysis is to determine possible future outcomes. Differences in literature (e.g., logical fallacies and flaws in research) were extracted and summarized. Differences in participants (e.g., age, diagnosis, socioeconomic status, gender), treatment (e.g.,

intervention provided, frequency and intensity of services), and outcomes were extracted and summarized as a means of providing a conclusion on the psychological implications of speech-language disorders (ASHA, 2016).

### **Limitations of Meta-Analysis/These Studies**

Students, especially high school students, do not have the means to properly do research in a short series of months. The number of literature reviewed is, in a sense, was limited by the resources available to the student and the student's mentor. While most fallacies in the studies were logical, there were a few that seemed illogical due to the student's limited initial understanding of the topic. This created a situation where in the beginning of the research process some relevant studies were excluded due to the student's misinformation: Some articles were also included for being relevant to the research question when they were actually irrelevant.

### **Literature Review**

Dow, Sonies, Scheib, Moss, and Leonard (1995) are all established researchers in the topic of selective mutism, they have all previously published articles discussing selective mutism. These researchers studied the likelihood of having a provided practical guidelines for the assessment and treatment of children with selective mutism. They decided to pursue this topic in light of a new hypothesis that claims that selective mutism might be best conceptualized as a childhood anxiety disorder.

These researchers went about finding an answer by An extensive literature review was completed on the phenomenology, evaluation, and treatment of children with selective mutism. Additional recommendations were based on clinical experience from the authors' selective mutism clinic. The issue with the research presented in this study was that the researchers were

unsure whether or not to clarify selective mutism as an anxiety disorder or not (Dow, et al. 1995).

Despite this confusion, researchers were able to determine that the hypothesis claiming that selective mutism could be categorized as an anxiety disorder could help determine future treatment of the disorder as well help researchers have a better understanding of the psychological state of the child with the disorder (Dow, et al. 1995).

The aforementioned confusion was cleared up in an article published four years later in the journal of anxiety disorders, Anstendig (1999) observes whether or not selective mutism is actually an anxiety disorder, questioning the DSM-IV classification of the disorder. In this study, Anstendig observed the temperamental, environmental, and biological etiologies of children with selective mutism. In addition to observing and remarking on the etiologies of children with selective mutism, the article also treated selective mutism as a symptom of the anxiety disorders of social phobia, separation anxiety, and posttraumatic stress disorder. In the end, the author concluded that the conceptualization of selective mutism as an anxiety disorder is helpful in effectively treating afflicted children, but is not a definitive label. The author believed that there was enough literature that could challenge the DSM IV classification of selective mutism. This article is the precursor to the DSM V classification of selective mutism.

This challenge on the DSM IV classification created change in the form of the DSM V definition of selective mutism. Accredited researchers Muris P & Ollendick TH (2015) looked at the the how selective mutism related to a childhood anxiety in terms of the 2015 Diagnostic and Statistic Manual of Mental Disorders (DSM-5) definition of selective mutism as an anxiety disorder which was a drastic change from the past where elective mutism (the previous name for selective mutism) was characterized as a speech language disorder. The study notes how a

current review of literature confirms that anxiety is a prominent symptom in many children suffering from this condition. The study also determined that further research on the etiology and treatment of selective mutism corroborates the definition of selective mutism as an anxiety disorder. At the same time, the study notes that there are critical points that can be raised regarding the classification of selective mutism as an anxiety disorder. These critical points include the fact that many children when they are young experience anxiety in uncomfortable social situations, but those children still maintain the ability to cooperate correctly when confronted. Individuals with selective mutism do not have the ability to speak when they are placed in uncomfortable social circumstances. The study also discusses how this change has created a new diagnostic conundrum for psychologists, psychiatrists, and other mental health workers who deal with selective mutism. The new definition of the disorder implies that a new method of diagnosis is necessary which is confounding when there is no accurate existing method of diagnosing selective mutism (Anstendig. 1999).

The fact that the disorder could be labeled as something other than a speech language disorder began to show a drastic change in the way parents and teachers began to treat the disorder. What was once believed to be a disturbance in a child's learning ability slowly began to be viewed as an inability to speak due to extreme shyness. Teachers and parents could now empathize more with the afflicted individual and understand their psychological state. Researchers predicted that this would subsequently cause parents and teachers to empathize more with the child's plight, hence acting as support systems for the child (Anstendig. 1999).

Researchers did not have a similar empathetic reaction to the disorder. Much of what was known about selective mutism was still a mystery, and the state of comprehension of the child's

psychological state was still very much unknown. As a result of the questions selective mutism still posed to researchers, Cohan, Price, and Stein (2006) looked into how a developmental psychopathology perspective was necessary in order to properly analyze the etiology research. In the past, etiology research had been a feature that seemed to define previous studies of selective mutism, because it was the only way researchers knew they could accurately understand the disorder. The question now was how etiology could be correlated to the new current understanding of selective mutism as an anxiety disorder. This questioning perspective caused Cohan, Price, and Stein to organize existing literature by compartmentalizing the etymologies by various genetic, temperamental, psychological, and social/environmental systems. It was believed that by understanding these systems researchers could better understand the conditions that cause selective mutism (Anstendig. 1999).

What these researchers determined was that the child's psychological state and psychopathological stability depended on their conditions. The paper also did note how parent and teacher expressions of happiness or support affected the child's performance. If parent's and teacher's were happier and more supportive of the child, that child had a greater chance of overcoming their selective mutism by approximately about 20 percent (Cohan, et al. 2006).

Another study looked to explore the differences between social phobia and selective mutism (Yeganeh, Beidel, Turner, SM., Pina, Silverman, 2003). This study took in parent and teacher reports in order to determine the impact selective mutism etymologies have on the child's speaking ability.

Ultimately what was determined from this study was that individuals with selective mutism differed greatly from their peers with social phobia because of the reaction

individuals had to praise and a slow build up of self-confidence. Kids with selective mutism were not afraid of speaking in front of people as kids with social phobia are, instead they were anxious to speak in front of new people in new circumstances because of issues these children had with the way their voices and sentences sound (Yeganeh, et al. 2003).

The study did note that these children were all very similar in their profiles, but teachers and parents noted that selective mutism had a distinctive profile when compared to their peers. The article even concluded that teachers viewed their selectively mute students as those who created the most social disruption in classrooms hinting at the psychological angst a teacher faces when dealing with selectively mute students (Yeganeh, et al. 2003).

That being said, after effective treatment these social issues that teachers presented diminish significantly. Researchers and doctors Oerbeck, Stein, Pripp, and Kristensen (2015) looked at the outcome of a selectively mute child after one year of effective treatment. The children were treated through cognitive behavioral therapy (CBT) and home and school-based intervention in a randomized controlled treatment study. These students averaged 6.5 years (ages anywhere from 3-9) and were primarily girls (selective mutism occurs more often in girls than boys). This study was able to get its results through a School Speech Questionnaire (SSQ) and diagnostic status given to teacher to determine whether or not a change had happened.

Overall, younger children showed 78% improvement when compared to their older peers who showed 33% improvement. This larger increment of improvement in younger children highlights how important it is that intervention occurs early and diagnosis be accurate. Younger children are not as socially aware of their surroundings as their older

counterparts are, so they can be more easily treated into letting go of their anxiety to speak in school settings (Oerbeck, et al. 2015).

While a questionnaire may seem to be a very qualitative way for understanding the psychological state of parents and teachers, as well as their opinion of the students they work with, accredited researchers and doctors Andrea Letamendi, Denise Chavira, Carla Hitchcock, Scott Roesch, Elisa Shipon-Blum, Murray Stein, and Scott Roesch (2008) looked into the validity of a Selective Mutism Questionnaire. They found that the questionnaire did prove to hold accuracy when it included social situations outside of school, school situations, and home and family situations as integral parts of the paper. The research implied that the state a child's family and home was in affected the degree of a child's selective mutism. What makes the questionnaire so effective and accurate is that a questionnaire takes into account that parents and teachers are not psychiatric professionals with an adept understanding of selective mutism. There is no test to be taken because parents and teacher only have to write down their observations and opinions. Researchers and doctors are the ones who take the next step in determining the psychological state of the child and their family as well as the condition of their selective mutism.

### **Conclusion**

Overall it can be determined that selective mutism can impact the afflicted psychological state, their family's psychological state, and their community's psychological state. Selective mutism is a disorder that is still much a mystery for researchers, but what can be inferred from current research is that the psychological state of the family of the selectively mute child and the

psychological state of the child's community members can be impacted by the selective mutism itself.

Many parents initially start off confused when treating their child, and as time passes this confusion transforms into frustration if the treatment administered to the child is ineffective. This ineffective treatment has a negative psychological impact on the family of the child, the child's teachers, and the child because a sense of failure tints the child's life. This sense of failure can create familial divide, tension in school settings, and it can cause the child to be depressed. The opposite can be said when the child begins to show improvement with the treatment they receive. Children who respond well to the treatment they are receiving often gain self-confidence they had once lacked. Their parents are more prone to feeling content with their situation

Factors other than failure impact the psychological state of the child, the child's family, and the child's community. One of the most prominent factors outside of failure is the socio that impacts the psychological state of the child; their family, and their community. Socioeconomic status also has the ability to affect the psychological states. If a family's socioeconomic status is below or on the poverty line, then the possibility of treating selective mutism decreases due to limited resources. Because of this limitation, children with selective mutism are not exposed to the necessary resources that would help them overcome their illness. As a result of these inadequate conditions a child's selective mutism often becomes worse and their social interactions diminish. Parents and teachers find themselves in a situation where they cannot administer help despite wanting to.

### **Discussion and Future Research**

As outlined previously, selective mutism does have a drastic impact on the child, his or her family, and his or her community. The purpose of this paper was to help researchers gain a

better understanding of the psychological state of the parents and teachers of the child, and understand how selective mutism affected the psychological outlook of both the afflicted individual and the people close to that individual. In a sense this goal was achieved by analyzing research that addressed the treatment of selective mutism and comparing that research to research that examined the psychological state of the the child, the parents, and the teachers. The research method did have a flaw because of the lack of studies that address both the psychological state of the individual and the psychological state of the people that support that individual it was difficult to understand how these two features held importance to one another. By understanding the psychological status of the individuals involved in treating selective mutism the mystery that surrounds the disorder could potentially be resolved. This resolution could potentially pave the way for researchers to find preemptive cures for selective mutism.

Despite this lack of literature, it is clear that selective mutism can be better understood by researchers if they examined both the psychological implications of the disorder and the etymologies of the disorder. Selective mutism does have an impact on the psychological state of kids, their parents and their teachers of the afflicted. What this effect is depends on the society the child lives in.

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