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Austin Arroyo
Eastern Kentucky University, austin_arroyo1@mymail.eku.edu

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EASTERN KENTUCKY UNIVERSITY

Exploring Selective Mutism and Determining the Best Treatment Options

Honors Thesis

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By

Austin Arroyo

Faculty Mentor

Dr. Dan Florell

Department of Psychology

Exploring Selective Mutism and Determining the Best Treatment Options

Austin Arroyo

Dr. Dan Florell, Department of Psychology

Abstract: Selective mutism is a complex childhood anxiety disorder characterized by a child's inability to speak or communicate effectively in certain social situations but ability to communicate in settings where they are comfortable and relaxed. This paper seeks to explain selective mutism including the description of theories of anxiety, history and etiology of selective mutism, and common characteristics associated with selective mutism. It also contains information about treatment options and determines which treatment is considered the most effective. The conclusion is that there is not one treatment that is considered the best for selective mutism. Selective mutism manifests differently from person to person, so an individualized treatment plan is required that includes both therapy and medication. It is also essential for the parents and teachers of children with selective mutism to be involved in the treatment to ensure that it is effective. Early recognition and treatment of selective mutism can have a profound impact on its prognosis so it is important that selective mutism is taught more so that individuals will be more likely to recognize selective mutism in the future. Overall, treatment for selective mutism is the most effective when it is individualized and includes aspects of therapy and medication combined with family/school education and involvement.

Keywords and Phrases: selective mutism, children, anxiety, treatment, therapy, medication

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Page 26 Table 1. Example of a talking scale that may be used in treatment of selective mutism.

Introduction

Many people take speaking for granted. For most, speaking and communicating is easy and is something with which they do not struggle. Imagine being unable to speak or communicate in certain situations, even though you desperately want to or are trying to. This is often the reality for those with selective mutism, a debilitating anxiety disorder that is primarily found in children.

Selective mutism is a multifaceted anxiety disorder that is characterized by a child's inability to speak and converse effectively in certain social situations. Children with selective mutism are not completely mute; they are able to speak and communicate in settings where they are relaxed, comfortable, and secure. Those with selective mutism have a fear of speaking and of social situations where there is an expectation of speaking or communication. Along with not being able to communicate vocally in certain social situations, many children with selective mutism have difficulty responding or initiating communication in a nonverbal manner (Shipon-Blum, 2022).

The mean age of onset of selective mutism is between 2.7 and 4.6 years of age (Driessen et al., 2020). Alpaslan et al. (2016) indicated the onset is generally not sudden; it is usually slow and subtle. Most children with selective mutism are diagnosed with it between the ages of 3 and 8 years old (Shipon-Blum, 2022). The age of referral and diagnosis of selective mutism is generally between 5 and 7 years which directly corresponds to the first years of formal schooling when selective mutism is usually first noticed. Selective mutism often does not become obvious until children enter school where there is an expectation to interact, speak, and perform. It has been found that selective mutism is more often found in girls than boys at an early age. The sex ratio

varies from 1:1.5 to 1:2.6 (Alpaslan et al., 2016, p. 131). Although muteness gradually diminishes in most cases of selective mutism, social and communication problems often continue into adolescence and sometimes adulthood (Muris & Ollendick, 2021).

Not all children with selective mutism show their anxiety in the same way. Some may be completely mute while others may be able to speak to a select few people or whisper. Some children may stand motionless when confronted with specific social settings. They may freeze, be unemotional, expressionless, or be socially isolated or withdrawn. Schwenck et al. (2022) reported the freeze response is a passive coping strategy. It is expressed in immobility, which includes motor and vocal inhibition, which are typical symptoms in children with selective mutism. Children that are less severely affected may look carefree and relaxed and are able to socialize with a few other peers but are unable to talk or communicate effectively with most peers or teachers (Shipon-Blum, 2022).

Selective mutism often goes undiagnosed or misdiagnosed because it is remarkably similar to other anxiety disorders. According to Shipon-Blum (2022), over 90% of children with selective mutism also have social anxiety. Selective mutism is also comparable to generalized anxiety disorder. Selective mutism and generalized anxiety disorder share a common anxious core although children with selective mutism show higher avoidant and oppositional levels than children with generalized anxiety disorder. Parents of children with selective mutism also show higher levels of anxiety, hostility, and obsessive-compulsive characteristics (Capozzi et al., 2016).

There is not one universally accepted treatment regimen for selective mutism. There are several therapies and medications involved in its treatment. Selective mutism is often hard to treat because it manifests itself differently in everyone.

This paper will describe selective mutism, its symptoms, etiology, and comorbidities. It will then describe the treatment options associated with selective mutism and decide which options are the most effective while also suggesting techniques and tools to help parents and teachers identify selective mutism and help treat it. To understand selective mutism, it is important to first understand the theories on why anxiety develops.

Theories of Anxiety

There are many theories of anxiety that seek to explain how and why anxiety develops in individuals. There is not one theory that is primarily used to explain anxiety so this paper will highlight the most prevalent theories.

The behavioral theory of anxiety asserts that anxiety disorders are mostly caused by modeling, conditioning, or through experiences that trigger their development such as specific phobias. Behaviors are learned through interaction with the environment. Steimer (2002) reported the physiological reaction perception is characterized by increased arousal, expectancy, autonomic and neuroendocrine activation, and specific behavior patterns. There is a physiological reaction perception of individuals to anxiety.

The cognitive theory of anxiety states that social anxiety is related to overestimating negative aspects of social interactions and underestimating positive aspects. Those with anxiety underestimate their ability to manage social interactions. Patterns of thoughts and beliefs play a significant role in social anxiety.

The existential theory of anxiety states that anxiety is an inevitable part of life that everyone will experience. Existential theorists believe that anxiety is positive and can teach important life lessons. One other theory that seeks to explain anxiety is the family systems theory. It suggests that individuals cannot be understood individually, but instead as a part of their family because the family is an emotional unit. Families are systems of independent and interconnected individuals, and those individuals cannot be understood in isolation of the family system.

Developmental psychopathology conceptualizes pathology as a dynamic process that results from multilevel, complex interactions between the individual and the environment over time. Developmental psychopathologists view psychopathology as deviations from the normal developmental trajectory, and as a longitudinal process that is continually being shaped by intra- and extra-individual influences. No single risk factor can fully or accurately predict a particular psychopathological pathway. Children or individuals may display the same behaviors or are subjected to the same set of circumstances yet follow quite different developmental trajectories. This phenomenon is known as multifinality. Alternatively, individuals may start developmentally at quite different places yet end up on the same trajectory. That phenomenon is known as equifinality (Viana et al., 2009).

Developmental psychopathology combines concepts from multiple theoretical perspectives (biological, developmental, psychodynamic, behavioral, ecological, and family systems). It is the most comprehensive of the theories of anxiety. No single methodology accurately captures the complexity of the development of anxiety so

developmental psychopathology integrates multiple concepts to come closer to understanding the development of anxiety.

History of Selective Mutism

The origin of selective mutism can be traced back to the German physician, Adolf Kussmaul (1822-1902). His work on speech disturbances in 1877 supplied clinical descriptions of "absence of speech without disturbance of speech" (Driessen et al., 2020). Kussmaul referred to selective mutism as "aphasia voluntaria" which highlights the impression that children voluntarily withheld speech in certain settings or circumstances (Viana et al., 2009). In 1934, the Swiss child psychiatrist, Moritz Tramer (1882-1963), suggested the term "elektiver Mutismus." According to Tramer, children with this diagnosis choose to remain silent and are not aphasic. After this, the term elective mutism was used almost universally (Driessen et al., 2020).

Elective mutism research was scarce and only eight studies included samples of ten or more children with elective mutism before 1991. Powell and Dalley (1995) described the term transient mutism, stating that a child with transient mutism may only need to be monitored by the teachers to allow for spontaneous remission of the disorder with therapeutic intervention not needed. Bork and Harwood (2010) believed that the majority, if not all, children with selective mutism begin with transient mutism. Transient mutism occurs when (1) the child is 5 years of age or younger, (2) selective mutism has existed less than 6 months, (3) selective mutism has existed intermittently, and (4) selective mutism exists in one environment. However, the few longitudinal studies that are available so far indicate that selective mutism is not a temporary state that resolves by itself (Schwenck et al., 2022).

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a handbook that is used by medical professionals that contains descriptions, symptoms, and other information for diagnosing mental health disorders. Elective mutism was included as a diagnostic category in the DSM-III (American Psychiatric Association, 1980) under the heading *Other Disorders of Infancy, Childhood, or Adolescence*. It was referred to as a "persistent refusal to speak" in one or more social situations which emphasized the spontaneous choice of affected children to not speak (Capobianco & Cerniglia, 2018). In the DSM-IV (American Psychiatric Association, 1994), "elective mutism" was replaced with "selective mutism" which makes it clear that the mutism is found in specific contexts and is not self-chosen. The DSM-IV-TR (American Psychiatric Association, 2000) replaced the concept of "refusal" with "inability."

After the DSM-IV, many researchers suggested that selective mutism should be moved to the group of anxiety disorders. The DSM-5, which was published in 2013, reclassified selective mutism into the group of anxiety disorders. The current diagnostic criteria for selective mutism in the DSM-5 (American Psychiatric Association, 2013) includes:

> (a) consistent failure to speak in social situations in which there is an expectation for speaking (e.g., at school) despite speaking in other situations, (b) the disturbance interferes with educational or occupational achievement or with social communication, (c) the duration of the disturbance is at least 1 month (not limited to the first month of school), (d) the failure to speak is not attributable to a lack of knowledge of, or comfort with, the spoken language required in the social situation, and (e) the disturbance is not better explained by a communication

disorder (e.g., childhood-onset fluency disorder) and does not occur exclusively during the course of autism spectrum disorder, schizophrenia, or another psychotic disorder.

The prevalence rates of selective mutism throughout history have remained exceptionally low. According to Driessen et al. (2020), the prevalence rate of selective mutism is between 0.03 and 0.79%. Supporting this, Alpaslan et al. (2016) asserts that the prevalence rate of selective mutism is estimated to be between 0.3 and 1.8 children/1000 among preschools and elementary schools. Higher prevalence rates of selective mutism are found in bi-/multilingual children (Schwenck et al., 2022). Selective mutism is also more common among girls than boys, with ratios ranging from 1.5 to 2.6 girls for every boy identified (Schum, 2006). Alpaslan et al. (2016) also state that selective mutism accounts for less than one percent of clinical consultations in mental health settings. The prevalence rate of selective mutism is probably higher than what is reported because according to Schwenck et al., compared to other mental disorders in adolescence and childhood, selective mutism is highly understudied and underdiagnosed.

Etiology

There is not a single identifiable cause of selective mutism. The disorder may be better conceptualized as evolving from the interaction of various environmental and genetic factors (Viana et al., 2009). There are various etiological theories that exist for selective mutism. The psychodynamic perspective highlights unresolved internal conflicts, behavioral theorists suggest maladaptive reinforcement patterns, and family systems theorists suggest maladaptive family dynamics as potential causes of selective mutism. A genetic predisposition has been suggested because there have been findings

that children with selective mutism often have parents who meet the criteria for an anxiety disorder. Black and Uhde (1995) found that first degree family history of social phobia and selective mutism, obtained by family history method, was present in 70% and 37% of families, respectively. According to Standart and Couteur (2003), maternal social phobia has been linked to shyness in their children.

Traumatic experiences have also been suggested as an etiological factor, however, recent evidence does not support this view. Black and Uhde (1995) found there is no evidence of a causal relationship between physically or psychologically traumatic experiences and development of selective mutism. To support the claim that traumatic experiences are not an etiological factor for selective mutism, only 4 of 30 children with selective mutism showed significant early trauma (Black & Uhde, 1995).

Behavioral inhibition has been found to play a significant role in anxiety disorders in general, and especially selective mutism. Behavioral inhibition includes features of shyness, fear, and distress to unfamiliarity. Schwenck et al. (2022) state that early behavioral inhibition has been found to be a strong predictor of anxiety disorders. To account for multiple etiological factors, a developmental psychopathology perspective may be useful. Developmental psychopathology does not adhere to any one theory; multiple pathways are assumed (equifinality).

Common Characteristics of Selective Mutism

There are a wide variety of symptoms that are manifested in selective mutism. The most common characteristics will be covered in this section. Social anxiety is typically the prominent feature of selective mutism, but children with the disorder are

also likely to present with communication delays and/or behavioral problems (Cohan et al., 2008).

Temperamental Inhibition

Temperamental inhibition is common in children with selective mutism. Temperamental inhibition is usually evident from infancy on and results in the child being timid, cautious in new and unfamiliar situations, and restrained. More evidence of temperamental inhibition includes separation anxiety in young children. Children with selective mutism are also more likely to have overprotective parents and show conflictual relationships with their mothers and fathers (Capobianco & Cerniglia, 2018). Children with selective mutism are often stubborn and inflexible, moody, assertive, bossy, and domineering at home. They may also exhibit mood swings, crying spells, withdrawal, avoidance, procrastination, and denial. They have a need for inner control, order, and structure, and may resist change or have difficulties with transitions. Some children may act negatively or act silly in school, parties, and in front of family or friends because they have developed maladaptive mechanisms to combat their anxiety (Shipon-Blum, 2022).

The majority of children and adolescents with selective mutism have age-appropriate social skills and are on target developmentally. However, some children with selective mutism have a frozen-looking, blank, expressionless face, and stiff, awkward body language with a lack of eye contact when feeling anxious. As the child gets older, they are less likely to exhibit stiff and frozen body language. When the child is more comfortable in a setting, the less likely they are to look nervous. One hypothesis states that a heightened sympathetic physiological response causes vocal cord paralysis and muscle tension (Shipon-Blum, 2022).

Diliberto and Kearney (2018) examined a large sample of children with selective mutism aged 6-10 years old to identify symptom profiles and link those profiles to key aspects of social functioning and temperament. They used latent class analysis and found three classes. Class 1 was moderately anxious, oppositional, and inattentive, class 2 was moderately oppositional, inattentive, and highly anxious, and class 3 was mildly to moderately anxious, inattentive, and mildly oppositional. Class 2 was found to be the most impaired and was associated with greater shyness, social problems, and emotionality. Class 3 was the least impaired and had better social competence and sociability. Class 1 was mostly between classes 2 and 3. These results indicate that there are oppositional and anxiety profiles among children with selective mutism and these classes contain subtle variations of impairment.

Developmental Delays

A proportion of children with selective mutism have developmental delays. Some may have multiple delays and diagnosis of autism spectrum disorder. The developmental delays include communication, motor, and/or social development (Shipon-Blum, 2022). In most cases, children with selective mutism have average intelligence but they often have difficulties in certain domains which shows the presence of specific developmental disorders (Capobianco & Cerniglia, 2018). The majority of children/adolescents with selective mutism are on target developmentally and have age-appropriate social skills. However, they generally show sensory integration dysfunction (DSI) symptoms and processing difficulties/delays. For many children with selective mutism, the underlying reason for their mutism or being “shut down” is sensory processing difficulties (Cohan et al., 2008).

Physical Symptoms

Symptoms for selective mutism can vary greatly on a case-to-case basis. Physical symptoms may include mutism, nausea, stomachache, vomiting, joint pains, chest pain, headaches, shortness of breath, diarrhea, and nervous or scared feelings. Other symptoms associated with selective mutism include being a picky eater, bowel and bladder issues, sensitivity to crowds, lights (shown by hands over eyes and avoidance of bright lights), sounds (dislikes loud sounds, hands over ears, and comments that it seems loud), touch (being bumped by others, hair brushing, tags, socks), heightened senses, and self-regulation difficulties (acting out, defiant, disobedient, easily frustrated, stubborn, inflexible). Schum (2006) asserts that toileting problems are associated with selective mutism. Children with selective mutism may resist using the restroom in public settings such as at school and occasionally, some are resistant to sit on the toilet at home (Shipon-Blum, 2022).

Symptoms in the Classroom

Children with selective mutism display different symptoms in a classroom environment than at their home. In the classroom environment they may display withdrawal, hesitation in responding (even nonverbally), distractibility, difficulty following directions or staying on task, difficulty completing tasks, and playing alone instead of with peers. Other children are less avoidant and do not seem as uncomfortable. They may play with one or a few children and be participants in groups. However, they will still be mute or barely communicate with other peers and teachers. Sensory processing difficulties may or may not cause learning or academic difficulties. Many children with selective mutism can compensate academically and do well in classes. They

may focus on their academics and leave behind social interaction in school. However, in some children with selective mutism, there are processing problems, such as auditory processing disorder, which cause learning issues as well as heightened stress (Shipon-Blum, 2022).

Cognitive Symptoms

There are many cognitive and emotional elements associated with the symptoms that children with selective mutism present. Children with selective mutism often show inadequacy and inability; the child experiences constant disorientation with their perception of danger in unfamiliar situations and perception of inability and of personal devaluation. They have a fear of the judgment of others which is the idea that others will judge what the child says and does negatively. Those with selective mutism also show shame and meta-shame which is the fear of being ashamed and to show that fear to others. There are also numerous cognitive distortions in children with selective mutism. Those cognitive distortions include catastrophizing the consequences of their own mistakes, hyper-generalization (fear and perceptions of incapacity in any unfamiliar context), selective abstraction on their ability, and minimizing their resources (Capobianco & Cerniglia, 2018).

Children with selective mutism are often uncomfortable being introduced to people, being the center of attention and bringing attention to themselves. Those with selective mutism are also often perfectionists, have shy bladder syndrome (paruresis), and are embarrassed to eat in front of others. In large, crowded environments where multiple stimuli are present, where the child feels an expectation for interacting with others, sensory modulation and specifically, sensory defensiveness exists (Cohan et al., 2008).

Social Communication

Children with selective mutism show social engagement difficulties. They are generally unable to socially engage properly and when confronted with a stranger or unfamiliar individual, the child may withdraw, avoid eye contact, and shut down. Greeting others and initiating needs or wants are often impossible for those suffering with selective mutism and many shadow their parents in social environments and avoid social interaction when possible. Children with selective mutism often show signs of anxiety before and during most social events. Physical symptoms and negative behaviors are common before school or social outings. Most children have difficulty or are unable to initiate play with peers or go up to a teacher (Shipon-Blum, 2022). Communication difficulties for those with selective mutism include difficulty responding verbally and nonverbally to others. However, this mutism is situational, because they are able to speak freely when in a comfortable environment.

According to Schwenck et al. (2022), children with selective mutism tend to divide their world rigidly and consistently into the people, places, and activities that are associated with either being able to talk or not being able to talk. Once the speaking pattern is established and a person is assigned to the role of a non-speaking person, it is more difficult for the child to overcome the silence than to start talking with a new person with whom the child does not have a history of silence with. This is a reason why moving schools while/after being treated for selective mutism is often effective. There is considerable variation in a child's willingness to talk with different extended family members. They tend to talk more freely with extended family members that visit the

house often. Children with selective mutism are less likely to speak with extended family members that rarely visit the house.

Over time, children learn to cope with their selective mutism and participate in certain social situations. They usually communicate nonverbally or talk quietly to a select few people. As children with selective mutism become older, social relationships become more difficult. Adolescents with selective mutism may remain isolated, alone, and more aloof while their peers begin socializing more and dating. The child's nonverbal communication may persist for years and become ingrained unless the child is accurately diagnosed and treated (Shipon-Blum, 2022)

Comorbidities

Considering the wide range of symptoms and characteristics of children with selective mutism, there are many comorbidities associated with selective mutism. Capobianco and Cerniglia (2018) state that there is comorbidity between selective mutism and language and learning disorders, separation anxiety disorder, and attention-deficit/hyperactivity disorder (ADHD). Anxiety symptoms coexist with selective mutism at a rate of 74 to 100% (Schum, 2006). Schwenck et al. (2022) state that children with selective mutism show an elevated rate of agoraphobia (27%). Agoraphobia is an extreme or irrational fear of entering crowded or open places. It is a fear of situations and places that may cause helplessness, panic, or embarrassment which is extremely similar to the symptoms associated with selective mutism.

There is also a correlation between selective mutism and oppositional defiant disorder (Capobianco & Cerniglia, 2018). In the cases where the children with selective

mutism produce behaviors associated with oppositional defiant disorder, the parents and teachers tend to believe that the child's selective mutism is a form of passive-aggressive opposition. These oppositional behaviors may include a deliberate refusal to obey parents' orders and temper tantrums when a preferred activity is not allowed (Schum, 2006). Clinical experience proposes that these oppositional behaviors are an expression of a child's attempts to cope with underlying anxiety since the behaviors often occur in direct proportion to the amount of pressure applied by adults to encourage talking and socialization. These oppositional behaviors often become entrenched over time. Oppositional problems often can take on a life of their own and become a well-practiced routine that will require intervention such as therapy.

More than 90% of children with selective mutism also have social anxiety or social phobia (Shipon-Blum, 2022). Driessen et al. (2020) state that 80% of children diagnosed with selective mutism were also diagnosed with another anxiety disorder. Krysanski (2003) stated that selective mutism may be a form of social phobia, but that has since been disproven. Selective mutism and social phobia represent separate but closely related disorders and have specific patterns of lifetime comorbidities (Gensthaler et al., 2016). Other comorbidities described by Alpaslan et al. (2016) include developmental delays, premorbid speech and language abnormalities, depression, obsessive-compulsive disorder, encopresis (child resists having bowel movements), and enuresis (involuntary urination, especially by children at night). All the comorbidities associated with selective mutism make it especially hard to diagnose and treat because there are many anxiety disorders that are extremely similar to selective mutism which can make it hard to distinguish from other disorders.

Treatment Options

There are many different symptoms of selective mutism that vary on a case-to-case basis which makes treatment difficult. There is not one universally accepted treatment regimen. According to Capobianco and Cerniglia (2018), the primary goal of treatment of selective mutism is to reduce social anxiety upon understanding the specific behavioral and cognitive dynamics that characterize the mutism in the child. It is important to make the child more at ease and comfortable around adults. The gap between symptom onset and time to referral can lead to a greater resistance to intervention due to the pattern of negative reinforcement, or the withdrawal of request for verbal behavior, which evolves when a child does not communicate (Kehle et al., 1998). The pattern of avoidance in children with selective mutism becomes entrenched in behavior over time if the disorder is not treated soon after symptom onset. The longer that selective mutism goes untreated, the more entrenched the mutism becomes in the child.

Medication

Medication is often prescribed as a treatment for selective mutism, however, studies concerning psychopharmacological treatment are lacking. Serotonin reuptake inhibitors (SSRIs) such as Paxil, Zoloft, Celexa, fluoxetine, and Luvox have been found to be highly effective. The most empirical evidence has been gathered for the medication fluoxetine, so it is often the first medication that is chosen but data is lacking on the optimal dosage and duration of treatment. In a study completed in 1994 on children with selective mutism, fluoxetine was found to be more helpful in improving symptoms of selective mutism compared to those that were not treated with medication. However, fluoxetine did not completely get rid of the symptoms of selective mutism; both groups

were still found to be very symptomatic (Alpaslan et al., 2016). A naturalistic, retrospective follow-up study that included seventeen children diagnosed with selective mutism and lasted 6-8 months found that those who received treatment with SSRIs showed greater improvement than the children that were not medicated (Alpaslan et al., 2016). However, Shipon-Blum (2022) reported there is not a definite conclusion as to which SSRIs are the best for treating selective mutism in terms of safety and efficacy.

There are some cases that suggest that medication can be effective, but these reports are anecdotal (Schum, 2006). Dummit et al. (1996) treated twenty-one children with fluoxetine (SSRI) for a 9-week open trial. The children that were treated showed improvement in rating scales of social behaviors and anxiety. Ratings by psychiatrists indicated that sixteen of the children improved on global measures. However, there were no details given about the children's specific behaviors before or after the trial. Despite the response to treatment, the authors noted that complete remission of the mutism required more time than the 9-week trial. They did not specify how many (if any) children showed complete remission of selective mutism or how long the complete remission took. The efficacy of medication in treatment of selective mutism seems meager at best. However, it is clear that early intervention with medication is much more advantageous (Schum, 2006). Alpaslan et al. (2016) also state that SSRI medication (especially fluoxetine), may improve the outcome of selective mutism when it is paired with therapy. Medication should not be the only treatment used for selective mutism; it should be combined with psychosocial intervention (Hung et al., 2012).

Other drugs proven to be effective in treating selective mutism are those that affect one or more neurotransmitters such as dopamine, serotonin, norepinephrine, and

GABA. Examples of those medications are Effexor XR and Buspar. These both work well in children with a true biochemical imbalance which is often the case with many children that have selective mutism.

Other effective medications for selective mutism include citalopram, escitalopram, and monoamine oxidase inhibitors (MAOI). Çöpür et al. (2012) found the level of social and verbal interactions improved significantly in children with selective mutism when treated with citalopram and escitalopram.

The goal for duration of treatment of selective mutism with medication is 9-12 months (Shipon-Blum, 2022). The goal for duration of treatment with medication is about a year because it is important that the child with selective mutism does not become completely reliant on the medication.

School/Teacher Involvement

In order to help children with selective mutism, it is important for their teachers to be involved in the treatment process. There are many classroom strategies that can be implemented by teachers to assist children with selective mutism. These strategies may include providing a warm classroom environment, using a hierarchy of communication and fixed choice questions, increasing wait-time for questions, and using video recordings for communication (Kovac & Furr, 2019). Capobianco and Cerniglia (2018) state multiple recommendations to create a safe environment for children with selective mutism. It is important to reduce fear: never force a child to speak but stimulate the relationship with their peers. It is also essential to stimulate nonverbal communication when verbal communication is not possible. Nonverbal communication can be completed through symbols, gestures, cards, or even comic strips. This increases general

communication, facilitates social contact with peers, and makes the child feel more confident about themselves. Teachers should stimulate social interaction when possible. Work in small groups and plan activities where verbal activities are not necessary and stimulate socialization.

If a child that displays transient mutism is immediately provided with a nurturing environment that does not promote anxiety, chances are the child may start to speak whenever they feel comfortable to. However, if the child with transient mutism is not being accommodated and has the same expectations put on them as other children (such as expectation of speaking and eye contact), that child may feel more anxious and become even more unresponsive. Bork and Harwood (2010) suggest that teachers implement a pedagogy of listening orientation. The teacher can become a nurturer, facilitator, and guide. The teacher must maintain a balance between being a keen observer and being fully engaged with the child. If a student with selective mutism has a peer that consistently speaks for them, the child will likely remain mute. It is important that the child with selective mutism communicates on their own (even if it is nonverbal) and not rely on others to communicate for them. The teacher should monitor the behavior of classmates that may be tempted to answer for the child with selective mutism. It is preferred that the child use whatever communication behaviors that are currently available to them than to allow them to be reliant on a friend to communicate for them.

School involvement is necessary for treatment to be successful. Parents of children with selective mutism should educate school personnel and teachers about selective mutism and keep them updated on their progress. The school needs to understand why the child is not speaking so that they are not punished. They need to

know that the child with selective mutism is not being stubborn or defiant, they just cannot speak (Shipon-Blum, 2022). Since teachers are in daily contact with the child, they should be invited to collaborate with the therapist to develop a plan to support the child's progress in the classroom. The teacher and therapist could work together to form a hierarchy of communication where it is revealed which situations cause the most anxiety for the child (Schum, 2006).

The therapist can encourage the teacher to reinforce any small improvements in communication. The teacher can also pair the child with selective mutism with a friend in a learning dyad or send the child on school errands such as taking a message to the office or library. The teacher should be counseled not to try and trick or coerce the child into speaking, as that is often ineffective. The teacher can also be informed about activities that the child finds to be stressful and how those activities can be modified to reduce stress or anxiety. For example, some children with selective mutism do not like to be the center of attention on their birthdays. The therapist should anticipate the child's upcoming birthday and devise a plan with the child that can be communicated to the teacher. Some therapists may see this as the child avoiding a social situation, but others see it as an example of the child using an appropriate communication technique to make a sensible request (Schum, 2006).

It can be valuable for the child with selective mutism and the therapist to collaborate with a school speech-language pathologist (SLP). A speech-language pathologist is a communication expert that can support the child in many different ways. An SLP can be asked to observe the child in the classroom and document the communication attempts that may be difficult for the teacher to notice while teaching the

entire class. An SLP can also work directly with the child to encourage and reinforce communication behaviors. Children with selective mutism qualify for speech and language intervention since selective mutism is a pragmatic deficit and interferes with academic progress (Schum, 2006). The involvement of early childhood educators is extremely important and instrumental in the identification and referral process of selective mutism because symptoms initially present in school and there is an absence of symptoms in the home (Kovac & Furr, 2019).

Therapy

There are many therapies associated with the treatment of selective mutism but first, it is important to understand therapy from a broader perspective. In initial visits with therapists, children with selective mutism will typically refrain from speaking with the therapist and are reluctant to establish eye contact. They often cling to or hover around their parents. Because of this, it is beneficial to start therapy with the least intrusive tasks such as a nonverbal assessment to estimate the child's cognitive abilities and determine the extent of their social interaction. A frequent symptom of selective mutism is that children often have trouble answering specific questions or making choices so some children will respond by pointing to pictures or placing markers on a receptive vocabulary test or matrix test and other children will not make any choices at all. Occasionally, a child will talk to the therapist in the initial meeting. These children appear to feel secure when they can control the conversational topic with their personal interests. This reduces the apprehension that they will not know an answer or make a mistake. Some children will never speak if there is someone present that is not an immediate member of their household. Some children will communicate with the

therapist by whispering in their parents' ear so that they will then talk with the therapist (Schum, 2006).

An important goal of the initial therapy visits is to determine the frequency and types of nonverbal communication signals that are produced by the child. A principle for therapy is that any form of communication is good communication, and the therapist should be sensitive to the signals that the child produces during their first meeting. The therapist should look for eye contact with the child during therapy although many children will try to avoid it at first (Schum, 2006). Schum also states that self-perception is a critical component of therapy. The therapist can ask the child to describe their feelings such as shy, stubborn, or scared. Later in therapy, children often articulate their fear of making mistakes. Children should be encouraged to bring someone with whom they are comfortable speaking with to therapy such as a friend or sibling. This offers the opportunity to pair a successful communicative situation with a new location. The children can do an activity with the therapist and the visitor can serve as a model in talking freely with the therapist.

There is not a consensus on therapy schedules in treatment for selective mutism. Schum (2006) states that weekly therapy may be ideal but is often difficult to maintain because few families can afford to pay at that pace and few third-party payers will authorize it. Most busy therapists and families find it difficult to maintain a weekly schedule. Clinical experience suggests that it is easier to schedule and maintain biweekly therapy appointments, totaling 20-25 sessions per year.

There are many types of therapy associated with the treatment of selective mutism so this paper will describe most of them in depth to understand which is regarded as the

best. Social communication anxiety therapy includes the development of an individualized treatment plan that focuses on the whole child and also incorporates an approach that includes the child, parents, school personnel, and therapist/clinician. Therapeutic techniques and tactics are implemented to build comfort in social situations and comfort communicating verbally or nonverbally in various social settings. The goals of this therapy are to lower anxiety, increase self-esteem, increase communication, and increase social confidence (Shipon-Blum, 2022).

Play therapy and psychotherapy are also used in the treatment of selective mutism. These therapies are effective if the pressure of verbalization is removed. They have an emphasis on helping the child relax and open up to the therapist. It is important to confront selective mutism in a non-threatening way so that the child will feel more comfortable communicating (Shipon-Blum, 2022). Fernandez and Sugay (2016) conducted a case study where a 9-year-old girl with selective mutism was treated with psychodynamic play therapy. The focus was to determine how psychodynamic play therapy changes and shapes the behavior of a child with selective mutism. The therapy allowed the child to communicate through symbolic forms about underlying conflicts, situations, and feelings. It was revealed that the child may have had feelings of anger towards her environment and that caused her to not want to speak. Overall, it was found that psychodynamic play is healing.

Behavioral therapy is another therapy that is often used in treating selective mutism. Positive reinforcement and desensitization techniques are the primary behavior treatments for selective mutism. There is an emphasis on understanding the child and acknowledging their anxiety. To help the child with selective mutism remain

comfortable, it is important to introduce them to stressful social situations in subtle, non-threatening ways. For example, small groups with a small number of children are helpful (Shipon-Blum, 2022).

Operant conditioning can also be extremely beneficial when working with young children. For example, the therapist can reward successive approximations of communication, and move gradually toward fluent speech. In the beginning, any communication is good communication and should be rewarded. Although many children with selective mutism dislike being the center of attention, they often respond positively to a warm and supportive approach from the therapist. Individual steps should be quite modest because children with selective mutism are extremely anxious and are resistant to making big changes, especially at first. Some children may start therapy by hiding behind furniture or under a table in the therapy room. If the therapist ignores that avoidance and waits patiently, oftentimes the child will try to initiate some form of contact or communication. The child may make noises or extend a toy into the visual range of the therapist. At that point, the therapist can respond positively to the child's communicative act by commenting on the child's presence or making a remark about the toy. This may start the process of reinforcing any type of communication. The therapist may use classical conditioning techniques to help the child be more relaxed and spontaneous in a new and semi-public setting. This can occur when familiar and preferred objects from home are paired with communication activities that involve the therapist (Schum, 2006).

Cognitive techniques are able to modify dysfunctional thinking, or irrational beliefs, which underlie the emotional and behavioral disorder of children with selective mutism through restructuring and modification of thoughts. They reduce the mental states

of catastrophization, hyper generalization, and selective attention. Dysfunctional thoughts can be restructured through role-playing and simulations of different imaginary or real situations that commonly cause discomfort for the child through drawing, reading of stories, or puppets (Capobianco & Cerniglia, 2018).

Cognitive behavioral techniques are helpful for children to redirect their fears and worries into positive thoughts. The focus of this therapy is on emphasizing the child's positive attributes, building confidence in social settings, and lowering overall worries and anxieties (Shipon-Blum, 2022). According to Schum (2006), cognitive behavioral therapy is the recommended treatment for selective mutism. Schum also states that many children are diagnosed with selective mutism around the ages of 4 or 5 when they lack cognitive insight, social awareness, and self-monitoring which are needed to participate in cognitive behavioral therapy. It is stated that intervention may begin with operant and classical conditioning to shape more expanded communication behaviors and cognitive behavior techniques can be implemented as children mature.

A talking scale (Table 1) may also be helpful to treat selective mutism. It consists of a hierarchy of speaking situations that are identified with the therapist in collaboration with the child. A talking scale is a dynamic instrument that will change over time. The child or therapist can add in changes during a therapy session if the child expresses different views or reports changes in their experiences. Talking scales often help children conceptualize the nuances of their communication and give them a method to discuss their communication with their therapist. Some children find that a variation of the talking scale is helpful, such as a talking map where they map out places and situations that cause the most anxiety for them (Shipon-Blum, 2022).

TABLE

EXAMPLE HIERARCHY FOR SYSTEMATIC GRADUAL EXPOSURE TO FEARED SPEAKING SITUATIONS

Exposure Task	Subjective Units of Distress[a]
Raise hand in class to answer question	10
Answer one-word question when called on	10
Answer one-word question one-on-one with teacher	9
Say "hi" to teacher with eye contact	9
Talk to mom with teacher at table	8
Say "bye" to teacher when leaving	8
Talk to mom with teacher in back of room	7
Watch video with teacher	6
Record video for teacher to watch	5
Record message for teacher to hear	4
Do math problem on chalkboard	4
Shake hands with teacher	3
Talk to mom alone in classroom	3

[a] Indicates the level of anxiety (scale of 1 to 10, with 10 being the highest level of anxiety) the child with selective mutism anticipates for a proposed speaking task.

Table 1. Example of a talking scale that may be used in treatment for selective mutism (Smith-Schrandt & Ellington, 2021).

Picture boards are also commonly used to help children with selective mutism communicate nonverbally. Mcleod (2022) summarized a case of a 5-year-old kindergarten student that had failed to interact or speak with others in her school. The conclusion from the case study was that after the introduction of a picture communication board for a two-week period, the child with selective mutism began to respond to the teacher's prompts and questions. The main conclusion was that professional interventions for the child was warranted, but the introduction of the picture board was essential towards the efficiency and productivity of the teacher.

According to Schwenck et al. (2022), crowds should also be used as a form of exposure therapy. Treatment for selective mutism should be through gradual exposure and small steps so that certain situations are not "contaminated" with silence. Capobianco and Cerniglia (2018) describe self-modeling as a principle of self-reinforcement and consists of audio and/or video recordings of the child speaking in order to initiate positive self-evaluation and improve trust in their relational and verbal skills. Self-modeling has been shown to be an effective and harmless intervention for varied disorders including stuttering, behavior disorders, attention-deficit/hyperactivity disorder, depression, and selective mutism (Kehle et al., 1998).

Important aspects in successful behavioral treatment also include defocused communication and child directed interaction. These procedures take away the pressure to talk from the child and allow the child to maintain the necessary distance and control over what is going on through the therapeutic process (Schwenck et al., 2022). A combination of behavioral strategies such as contingency management, shaping, stimulus fading, self-modeling, and systematic desensitization are helpful. Capobianco and Cerniglia (2018) describe systematic desensitization as helpful for treating selective mutism. Systematic desensitization is based on imagery and/or real exposures to situations that gradually become more anxiety-causing. Contingency management involves the addition of positive reinforcement after verbalization from the child. Reinforcement is often provided for initial approximations to communicative behavior, such as nodding or pointing, and is continued until it is shaped into the desired outcome which is verbalization (Viana et al., 2009).

Parental psychoeducation can be hugely beneficial for the treatment of selective mutism. Sometimes, in attempts to correct shyness and mutism, parents will try home treatments that are often more harmful than useful. For example, it is common for parents of children with selective mutism to use a "quiz mode" to get their child to speak. The parent will ask their child questions to get their child to improve their speech repertoire or speak in front of extended family members or others outside the household. Since many children with selective mutism are anxious about being the center of attention and giving the wrong answer, this may lead the child to become more avoidant and engage in coping behaviors associated with avoidance (Schum, 2006).

Therapists should support parents by helping them with activities to help facilitate confidence and independence in their child. This support should follow the principles of reassurance, focus, and binding. It is important to reassure anxious parents by letting them know that they are no longer alone in trying to solve their child's mutism. They now have the help of a therapist that can lend their expertise. Reassurance should continuously be offered as parents cope with challenges that require them to be patient with their child's progress. Therapists should help parents focus on relevant aspects of the child's problems. Finally, it is important to bind energy that is generated from parents' own anxiety to positive activities that they can do with their child. Well-intentioned but unhelpful strategies should be redirected towards tasks that are more effective (Schum, 2006).

Psychodrama has also been described as a therapy option for selective mutism. Psychodrama is the direct involvement of a patient, under the guidance of a psychotherapist and other patients/subjects, performing a stage action that is linked to

their personal history which should bring forward the unconscious conflicts that cause the disturbance (Capobianco & Cerniglia, 2018).

Capobianco and Cerniglia also describe parent-child interaction therapy (PCIT) as a technique to use with selective mutism. PCIT was developed for the treatment of externalization disorders in young children. It is based on the theory of attachment and the theory of social learning. PCIT is a family-oriented intervention and a behavior-based parenting system that is designed to help improve the relationship with the child through interaction by facilitating the relationship and development of effective parenting techniques. It can contribute to reducing behavioral problems by improving the parent-child bond and forming a more solid family relationship. Family involvement in interventions has been cited to be critical for success in treatment (Cleave, 2009)

Boosting self-esteem is helpful in the treatment of selective mutism. It is important to emphasize the child’s positive attributes to help with their confidence. Frequent socialization is also useful during the treatment of selective mutism. It is crucial to encourage socialization without pushing the child. The goal is for the child to feel comfortable enough to communicate with others so spending time with peers may make them more comfortable around them (Shipon-Blum, 2022). Schum (2006) states that parents should arrange appropriate social opportunities for their child. Many children with selective mutism will start talking to others outside their immediate family when those outsiders spend time in the safe environment of the child’s home. Since children with selective mutism feel more comfortable in their own house, parents can arrange playdates for the child at their home (Shipon-Blum, 2022).

Relaxation training has been used in treating selective mutism with limited success. It appears to be most effective in older children who can specify which situations cause them to feel the most symptoms of anxiety. It is more difficult to use it with younger children that have a limited capacity for self-reflection. Some examples of relaxation training include deep breathing and imagery (Schum, 2006).

Alternative or augmentative communication (AAC) such as sign language or electronic talkers is often not recommended as treatment for selective mutism. Most children with selective mutism speak fluently in situations where they are comfortable and do not need alternative methods for communication. Instead, they need support for generalizing their use of communication signals to an expanded range of contexts. Children with selective mutism that were provided with an opportunity to use an AAC were often not interested in doing so (Schum, 2006).

Conclusion

Selective mutism has a broad range of characteristics. Symptoms vary from person to person. Common characteristics include temperamental inhibition, developmental delays, numerous physical symptoms associated with nervousness or anxiety, difficulty in the classroom, cognitive symptoms that deal with anxiety, and difficulty in social communication. These characteristics interact in a way that makes selective mutism extremely similar to other anxiety disorders such as social anxiety or social phobia. Comorbidities associated with selective mutism make it especially hard to accurately diagnose and treat.

Theories of anxiety can be used to understand which treatments for selective mutism work best. The cognitive and behavioral theories of anxiety can be studied to

understand which aspects of cognitive and behavioral therapy are helpful for children of selective mutism. Positive reinforcement and desensitization techniques are helpful in the behavioral treatment of children with selective mutism because the behavioral theory of anxiety states that anxiety disorders are mostly caused by conditioning or modeling. Family systems theory explains that individuals cannot be explained in isolation of their family system. This theory explains why it is essential for the family to be involved in the treatment of selective mutism. Developmental psychopathology is the most extensive of the theories of anxieties and combines aspects of the other theories. It states that children may display the same behaviors or symptoms yet follow quite different developmental trajectories. This theory is helpful in explaining why a highly individualized treatment plan is necessary for selective mutism because children with selective mutism do not present their symptoms in the exact same way.

Although there are several different treatment options for selective mutism, they all have certain aspects in common. For example, every treatment for selective mutism requires family and school involvement. Treatment will not be successful if there is not a collaboration between the therapist and the parents and teachers of the child with selective mutism. Other common aspects of treatment include providing a warm and welcoming environment for the child, never forcing them to speak, encouraging any communication (including nonverbal), and stimulating relationships with their peers. Medication can also be effective if therapy alone is not successful.

Professionals do not have a clear understanding of what treatment path works best for selective mutism. Treatment of young children with selective mutism often extends over an age range that makes it necessary for therapists to adjust their use of interventions

to fit the socio-cognitive ability of children that are at different developmental levels. In conclusion, therapy for selective mutism must be highly individualized. This is supported by the fact that there are limitations in socio-cognitive capacity and the presence of comorbidities. Different techniques are appropriate depending on the child's symptoms and developmental level at various times in the therapeutic process. There is an overarching assumption that selective mutism reflects anxiety disorders, and that behavioral therapy is the treatment of choice. However, there is not one clear treatment that is considered the best for selective mutism. Treatment should be individualized on a case-to-case basis and often involves a combination of medication and therapy.

Early screening for selective mutism should be done in daycare or preschool children. Early recognition and treatment of selective mutism can have a profound impact on the prognosis. It is important for educators to know the difference between shy behavior and symptoms of selective mutism. They should also know where to find information regarding selective mutism and aspects surrounding referral for intervention. Selective mutism needs to be taught more in preservice programs, specific workshops, or certain classes. This ensures that individuals will be exposed to selective mutism and will be more likely to recognize it in the future. Overall, treatment for selective mutism is most effective when medication and therapy are combined along with family/school education and involvement.

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