Selective mutism in immigrant children

Lauren Cummings

University of Northern Iowa

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SELECTIVE MUTISM IN IMMIGRANT CHILDREN

A Thesis Submitted
in Partial Fulfillment
of the Requirements for the Designation
University Honors

Lauren Cummings
University of Northern Iowa
May 2022
This Study by: Lauren Cummings

Entitled: Selective Mutism in Immigrant Children

has been approved as meeting the thesis or project requirement for the Designation

University Honors

Date    Dr. Ken Bleile, Honors Thesis Advisor, Communication Sciences & Disorders Department

Date    Dr. Jessica Moon, Director, University Honors Program
INTRODUCTION

Purpose

Selective mutism is a highly debilitating anxiety disorder that is characterized by a child’s lack of verbal speech in certain situations, despite having the ability to speak (Elizur & Perednik, 2003). Children with selective mutism may present with a variety of symptoms, including high levels of anxiety and isolation, which significantly impacts their social and language development, educational and occupational achievement, and mental health (Elizur & Perednik, 2003). Children who are diagnosed with selective mutism in early childhood often have communication or cognitive difficulties and may display higher rates of psychiatric disorders later in life compared to children without selective mutism (Muris & Ollendick, 2015). If a child with selective mutism does not receive treatment, the negative symptoms of selective mutism worsen. It is important to educate speech-language pathologists about the risk factors and symptoms associated with selective mutism, so they can provide children with early intervention to minimize the consequences of selective mutism.

Although selective mutism is considered to be a rare anxiety disorder, the number of children with selective mutism is believed to be much higher than what is currently reported. The overall prevalence of selective mutism is debated, but there is clear evidence that immigrant children are at least three times more likely to be identified with selective mutism than native children (Toppelberg et al., 2005). There is little research to support why immigrant children have a higher prevalence of selective mutism than native children, but previous studies have shown that immigrant children are less likely to be served in schools and are less likely to be diagnosed with language disorders (Hamilton et al., 2020). It is crucial to examine the role that complex communication disorders play in immigrant childrens’ development, especially as the
number of immigrant children in the United States continues to increase (Hamilton et al., 2020). The goal of this thesis is to analyze the existing literature about selective mutism in immigrant and native children, second language acquisition, immigration trauma, and the etiology of selective mutism, to provide a comprehensive view of the appropriate assessment and treatment strategies for immigrants with selective mutism.

**Central Themes Addressed**

This thesis reviews the existing literature regarding immigrant children with selective mutism. The central themes to be addressed are:

A) Effects of immigration trauma on language development.

B) Assessment and treatment considerations for immigrant children with selective mutism.

**REVIEW OF LITERATURE**

The literature review will explore information on selective mutism symptoms and diagnostic criteria, immigration, second language acquisition, the potential etiology of selective mutism (anxious temperament, environment, genetics, neurodevelopmental disorders/delays, behavioral inhibition, auditory efferent feedback pathway), and assessment and treatment strategies.

**Selective Mutism**

The terminology, diagnostic guidelines, and theories surrounding selective mutism have evolved over time as more research on the disorder has emerged. The term, “elective mutism,” was introduced in 1934 to describe a child who does not speak in any situation (Elizur & Perednik, 2003). In 1994, the American Psychiatric Association changed the term to “selective mutism,” to more accurately describe the behavior of the child with the disorder; the child
chooses to verbally communicate in certain scenarios (Elizur & Perednik, 2003). The changes in terminology reflect how professionals view selective mutism and their treatment of the disorder.

It is difficult to determine the prevalence of selective mutism because of the complex diagnosis process for the disorder. The prevalence of selective mutism is stated to be between 0.71-2.0% of all children, although it is widely presumed that the prevalence is much higher (Doll, 2022). In immigrant children, selective mutism is found to be at least three times greater than in native children (Toppelberg et al., 2005). However, new studies show that the rates of immigrants with selective mutism may be as high as 22% in the United States, 21% in Canada, 39% in Switzerland, and 23% in Germany (Muris & Ollendick, 2015). These findings suggest that immigrant children are more likely to be diagnosed with selective mutism than native children; however, there is little research supporting why immigrant children are more prone to developing this disorder.

If a clinician knows the typical age of onset for selective mutism, they can be aware of the signs of selective mutism to create age-appropriate treatment strategies. As early as one year old, children may present with characteristics that are risk factors for selective mutism, including extreme shyness, fear of new people, and reluctance to communicate in certain situations (Shipley & McAfee, 2019). It is believed that the average age of onset for selective mutism is 2.7 years in native children and 3.9 years in immigrant children; therefore, the age of onset for selective mutism in immigrant children is significantly older than in native children (Elizur & Perednik, 2003). The variance in the age of onset of selective mutism between immigrant and native children is important to examine because the age at which the symptoms first are noticed can affect the treatment strategies and treatment outcomes.
The most common characteristics of selective mutism include anxiety, avoidance, passive aggression, and emotional immaturity (Elizur & Perednik, 2003). However, children with selective mutism often present with a range of symptoms, that may also include oppositional behavior, and speech and language disorders (Kearney & Rede, 2021). Researchers have identified three clinical symptom profiles of children with selective mutism (Kearney & Rede, 2021). The first category of symptoms is anxiety-mild oppositional, representing 44.6% of children in the sample, and characterized by mild behavioral problems and clinically significant social anxiety (Kearney & Rede, 2021). The second symptom profile is an anxious-communication delay, which includes 43.1% of children in the sample, and is characterized by clinically significant social anxiety and behavioral problems, and poor receptive language skills. The last category is exclusively anxious, representing 12.3% of children in the sample, and is notable for less anxiety and better receptive language skills (Kearney & Rede, 2021). The profiles of selective mutism symptoms can be a helpful resource when creating a treatment plan but may only describe general characteristics of the disorder. Selective mutism is a disorder that consists of a wide spectrum of symptoms and each child’s individual characteristics should be noted during the assessment.

It is common for children with selective mutism to have a comorbid diagnosis of a neurodevelopmental disorder/delay, speech disorder, language disorder, or social skill deficit (Elizur & Perednik, 2003). In a 2000 study, the number of children with selective mutism that presented with symptoms of a speech disorder, or displayed overall speech below normal ranges, was five times higher than the control group (Elizur & Perednik, 2003). Children with selective mutism are also found to participate less in school activities and have less engagement with classmates (Doll, 2022). Kumpulainen et al., (1998), found that of children with selective
mutism, 58% did not speak to their teacher, 45% did not speak to most peers, 34% did not speak to any peers, and 21% did not speak in school at all. The lack of communication in schools can negatively impact the child’s educational achievement if selective mutism symptoms are present for a long period of time. Many times, children with selective mutism are diagnosed with another communication disorder, which impacts their ability to communicate in certain scenarios. Although the comorbid disorder is not the main cause of the lack of communication in different situations, it may be a factor in the child’s reluctance to communicate.

**Diagnostic Criteria**

Selective mutism is categorized as an anxiety disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). According to Mayworm, et al. (2015), to diagnose a child with selective mutism, they must meet five diagnostic criteria found in the DSM-V.

(a) Consistent failure to speak in specific social situations in which there is an expectation for speaking despite speaking in other situation; (b) the disturbance interferes with education or occupational achievement or with social communication; (c) the duration of the disturbance is at least 1 month; (d) the failure to speak is not attributed to a lack of knowledge of, or comfort with, the spoken language required in the social situation; (e) the disturbance is not better explained by a communication disorder and does not occur exclusively during the course of the autism spectrum disorder, schizophrenia, or another psychotic disorder. (p.1)

Remarkably, selective mutism is the only anxiety disorder in the DSM-V that does not reference anxiety in its diagnostic criteria, partially because of the lack of evidence on the etiology of the disorder (Muris & Ollendick, 2015). Given the diagnostic guidelines, there are
many factors that a professional should examine before making a diagnosis. The professional should determine if the mutism is better explained by a communication disorder or psychotic disorder, if the child has been introduced to a new language environment, or if the child is mute in all settings (Elizur & Perednik, 2003). Typically, if a child does not speak in any setting, the mutism is a result of a traumatic event, so selective mutism would not be an appropriate diagnosis (Elizur & Perednik, 2003). To be diagnosed with selective mutism, the child must choose certain situations to speak in (Elizur & Perednik, 2003). During the assessment process, it is crucial to examine the child’s communication in a variety of settings to determine if the child has selective mutism.

Diagnosing bilingual children with selective mutism is more nuanced, due to the complexities of second language learning. When determining if a bilingual child fits the criteria for selective mutism, the speech-language pathologist should consider if the mutism is present in both languages, in multiple unfamiliar settings, and for an extended period of time (Toppelberg et al., 2005). If the mutism is only seen in the language the child is learning, a diagnosis of selective mutism is not suitable; diagnosing selective mutism in bilingual children requires mutism to be present in all languages the child speaks (Toppelberg et al., 2005). Another factor that leads to the complexity of diagnosing bilingual children with selective mutism is the strict criteria in the DSM-V, which states that children who are unfamiliar with a language in a new country may present symptoms of mutism but should not be diagnosed with the disorder (Toppelberg et al., 2005). The guidelines may lead to the underdiagnosis of bilingual children with selective mutism, but it is consistent with the research that supports the complex process of second language acquisition in children to prevent a misdiagnosis of selective mutism.
Professionals must be aware of the important differences when diagnosing bilingual children, to provide an accurate diagnosis.

When diagnosing bilingual children with selective mutism, it is important to be aware of the silent period that is part of the second language acquisition process (Mayworm et al., 2015). During the silent period, the child will not verbalize because they are intaking a large amount of new information (Mayworm et al., 2015). It may be difficult for speech-language pathologists to distinguish between the silent period and selective mutism during this time because they may first appear to be similar (Mayworm et al., 2015). If a child does not speak their first and second language in the classroom despite having the ability to vocalize, a selective mutism diagnosis may be appropriate (Mayworm et al., 2015). If the silent period lasts longer than six months or is present in older children, this may also indicate that the bilingual child has selective mutism (Mayworm et al., 2015). The difficulties in diagnosing bilingual children with selective mutism highlight the importance of educating speech-language pathologists on second language acquisition and bilingual service delivery, to provide an accurate diagnosis.

**Second Language Acquisition**

The number of language minority groups and English-Language Learners in the United States is growing. Language minority groups make up 21.5% of the United States population, according to the 2020 United States Census (U.S. Census Bureau). English-Language Learners in grades K-12 have increased over the past decade, representing 10.2% of all children in the United States, according to the United States Department of Education (Toppelberg et al., 2005). Although there are many English-Language Learners in schools in the United States, they are more likely to be underserved and mistreated by their classmates (Toppelberg et al., 2005). Many English-Language Learners experience stress, particularly because of the lack of classroom
support, disconnect between their families and the school, negative treatment from their peers, and discrimination (Toppelberg et al., 2005). Despite the growing number of English-Language Learners in the United States, many children who are learning a second language are more likely to be bullied by their peers and do not receive the same services as monolingual children.

Bilingual children who are described as anxious are more vulnerable to experiencing difficulties with second language acquisition (Toppelberg et al., 2005). Toppelberg, et al. (2005) states that the process of learning a second language is extremely complex, despite the myth that learning a second language is easy for children. Professionals must know the process of second language acquisition to understand how immigration may impact selective mutism treatment (Mayworm et al., 2015). When a child is learning a second language in a monolingual English classroom, they will begin by using their first language (Mayworm et al., 2015). As they realize that communicating in their first language is not effective, they will enter a silent period, typically lasting four to five months (Mayworm et al., 2015). Children observe their environment and focus on learning vocabulary and language input during the silent period. After the child intakes information, they begin to use one or two-word phrases in the new language (Mayworm et al., 2015). The child will have conversations in the second language after they grow more confident (Mayworm et al., 2015). If a child is not following this second language acquisition process or does not begin to use the second language after six months, further assessment should be completed.

**Immigration**

Immigrants and their children make up 28% of the United States population, with 18 million children from birth to 17 years having at least one immigrant parent (Hamilton et al., 2020). The large increase in the number of immigrants in the United States requires professionals
to know difficulties that are specific to immigrant populations to provide the best treatment. The process of immigration can be traumatic to many families, from arriving in a new country to the familial struggle of cultural transition, and the potential loss of a first language (Hamilton et al., 2020). Unfortunately, many immigrant families lack access to mental health resources, which are necessary due to the higher levels of stress and trauma they may experience (Tummala-Narra, 2014). Immigrant children with communication disorders require a more complex and comprehensive treatment plan, with a multidisciplinary team, that addresses both the disorder and resilience skills (Hamilton et al., 2020).

Many immigrants face trauma, which can dramatically affect the person’s quality of life. The traumatic experiences can occur before migration, during migration, and after migration, and the timing of the trauma impacts each individual differently (Tummala-Narra, 2014). A person’s Life Course Perspective (LCP) takes into account all of the person’s experiences, age, gender, and social, historical, and political contexts, to illustrate how the person may respond to trauma (Kim, et al., 2019). It is important to fully comprehend at what point the traumatic experiences occurred and their social context to navigate resilience solutions (Tummala-Narra, 2014). Often, some of the highest times of stress an immigrant can experience are when they first enter a new country and are navigating their connection or disconnection with their cultural origins and the new cultural identity that they are developing (Tummala-Narra, 2014). Although not everyone is impacted by trauma in the same way, often trauma can significantly affect an immigrant's life course and mental health (Kim, et al., 2019).

There are many factors that contribute to a person’s response to trauma, including immigration status (Kim, et al., 2019). When a person migrates to a new country, the status as an immigrant or refugee may be an initial predictor of their exposure and response to trauma (Kim,
et al., 2019). Many refugees that come to the United States previously experienced war-related violence or political persecution, impacting their pre-migration trauma levels and their later reaction to trauma (Kim, et al., 2019). Immigrants and refugees are also given different resources when they move to the United States, which may impact how they respond to trauma (Kim, et al., 2019). Refugees are often provided financial assistance and help with resettlement, while immigrants are not afforded these resources (Kim, et al., 2019). For a person to gain refugee status, they are subjected to an extensive questioning process, leading many refugees to experience stress in reliving their past trauma (Kim, et al., 2019). A person’s immigrant status may impact their past experiences, access to resources in a new country, and cultural identity.

Age, gender, and exposure to racial discrimination are also factors that may influence a person’s response to trauma after the migration (Kim, et al., 2019). A study on Vietnamese refugees and immigrants found that gender is a significant predictor of psychological stress in refugees, as refugee women report higher rates of stress than men (Kim, et al., 2019). However, immigrant women do not have higher stress levels than men, indicating that refugee women may have experienced pre-migration trauma at higher rates than immigrant women (Kim, et al., 2019). The 2019 study also found that when refugees migrate to the United States at an older age, they experience higher levels of stress, possibly due to the difficulty in adapting to a new environment (Kim, et al., 2019). For both immigrants and refugees, racial discrimination can negatively impact the development of cultural identity in a new environment (Kim, et al., 2019). Vietnamese immigrants and refugees both reported high rates of racial discrimination leading to psychological stress, but racial discrimination was only found to be a significant predictor of stress in immigrants, not refugees (Kim, et al., 2019). Age, gender, racial discrimination, and many other factors may influence an immigrant’s traumatic experiences and reaction to trauma.
Selective Mutism: Etiology

The etiology of selective mutism is unknown because of the conflicting and limited data regarding the disorder. Most researchers agree that selective mutism is likely due to complex interactions of many factors, including an anxious temperament, the environment, genetics, a neurodevelopmental disorder/delay, behavioral inhibition, and disrupted auditory efferent feedback pathway (Manassis et al., 2003).

Anxious Temperament

One of the main theories of the etiology of selective mutism is that anxiety causes selective mutism (Manassis et al., 2003). According to this theory, mutism is a coping mechanism for anxiety, allowing the child to feel safer in threatening situations (Schum, 2002). Recent studies have found that 69% of children with selective mutism are also diagnosed with a social anxiety disorder (Steains et al., 2021). The extremely high rates of children with selective mutism who also have an anxiety disorder suggest a correlation between anxiety and selective mutism. Manassis, et al. (2007) found that child and parental reports of social anxiety were greater in children with selective mutism compared to the control group. In the same study, researchers concluded that there was no significant difference in anxiety ranges between children with selective mutism and children with social phobia (Manassis et al., 2003). The overall findings from this study suggest that selective mutism and social phobia may be closely related due to the extremely similar characteristics (McInnes et al., 2004). Multiple other studies have also found that levels of anxiety are comparable to social phobia, which strengthens this theory (Muris & Ollendick, 2015). Researchers have hypothesized that the similarities between the two disorders are indicative of the etiology of selective mutism being anxiety (McInnes et al., 2004). The theory that anxiety is the cause of selective mutism is one of the most researched theories.
and has resulted in a large amount of evidence suggesting a correlation between selective mutism and anxiety. More research is needed, but the current literature supports the idea that anxiety is a risk factor for selective mutism.

**Environment**

The impact of the environment on selective mutism has been explored but results in conflicting data. Due to the significantly higher rate of selective mutism in immigrant children, there appears to be a link between the environment and the etiology of selective mutism (Elizur & Perednik, 2003). Immigrant children are more likely to have social anxiety, which may be due to the trauma related to immigration, second language acquisition, and mistreatment by peers and the community (Elizur & Perednik, 2003). Immigrant children with higher levels of anxiety are more likely to develop selective mutism, reflecting the impact of the environment on temperament (McInnes et al., 2004). Research has shown that environmental factors may lead to immigrant children becoming more anxious, resulting in a greater vulnerability to selective mutism.

Early studies proposed that trauma, unrelated to immigration, is the etiology of selective mutism. Kumpulainen et al. (1998) discovered that 47% of children with selective mutism in their study had experienced a traumatic event in their lives, with 16% of those events occurring immediately before the diagnosis of selective mutism. However, research has not been consistent in linking trauma with developing selective mutism with more recent literature not supporting these claims. In addition, most mutism caused by traumatic events is seen in all settings and with all communication partners, so this would not be a diagnosis of selective mutism (Manassis et al., 2003). Although there is inconsistent research on the impact of trauma, unrelated to immigration, it may still be a risk factor and should be considered during the evaluation process.
Family and parental conflict have been associated with selective mutism in many studies. Elizur and Peredink (2003) found that 50% of students with selective mutism experienced parental conflict, although these results are not consistent with other studies. The studies that support parental conflict as a potential etiology of selective mutism state that the anxiety that a child feels may be heightened if they are in an unstable environment. Overprotective parenting styles are also very commonly observed in children with selective mutism (Muris & Ollendick, 2015). If a parent is overbearing and does not allow the child to explore their environment, the child may develop a fear of new situations. If a child is more anxious and their parent speaks over them, they may develop a fear of speaking in certain situations if they lack practice. Overall, there is no consistent data to determine a correlation between parental conflict and selective mutism to suggest a direct etiology (Muris & Ollendick, 2015). Research is needed to determine if parental conflict may impact a child’s likelihood to develop selective mutism; however, parental conflict may be a contributing factor a clinician may note during an assessment.

**Genetics**

There is a strong association between parental social anxiety and children with selective mutism, suggesting a genetic component in the etiology of selective mutism (Elizur & Perednik, 2003). Many studies have been conducted and have consistently found that parents of children with selective mutism have higher levels of anxiety than parents in the control group (Muris & Ollendick, 2015). A 2001 study of 45 children with selective mutism found that 9% of fathers, 18% of mothers, and 18% of siblings had a history of selective mutism, which is much higher than the overall prevalence of selective mutism (Muris & Ollendick, 2015). The increased levels of anxiety and selective mutism in parents of children with selective mutism indicate that the
disorder may be passed down genetically. In 2001, a study of 99 families with a child with selective mutism focused on a contactin-associated protein-like 2 gene (CNTNAP2), which has been previously linked to social anxiety (Muris & Ollendick, 2015). The study found a significant correlation between selective mutism and one of the polymorphisms in CNTNAP2, rs2710102, which is also associated with social anxiety and general anxiety (Muris & Ollendick, 2015). The link between the gene found in many families with children with selective mutism signifies a correlation between selective mutism and anxiety, genetically. Further research is required to determine the implications of a possible genetic component to selective mutism, which may impact diagnostic criteria, assessments, and treatment of selective mutism in the future.

**Neurodevelopmental Factors**

Another major theory of the etiology of selective mutism is that a neurodevelopmental disorder/delay causes selective mutism (Manassis et al., 2003). In a 2003 study, researchers found that 46.3% of children with selective mutism met the guidelines for a neurodevelopmental disorder/delay, compared to just 0.9% of children in the control group (Elizur & Perednik, 2003). The children with selective mutism who met the criteria for neurodevelopmental disorders/delays displayed features of motor, linguistic, cognitive, language, and social development deficits (Elizur & Perednik, 2003). The extreme rates of neurodevelopmental disorders/delays in children with selective mutism compared to their peers suggest that selective mutism may be caused by a neurodevelopmental disorder/delay.

Many studies have been conducted to assess speech, articulation, expressive language, receptive language, and narrative skills of children with selective mutism compared to control groups. A 2003 study found that 50% of children with selective mutism showed immaturities of
speech, 25% had delayed onset of speech, 21% had an articulation disorder and 38% had an expressive language disorder (Manassiss et al., 2003). Researchers from this study ultimately concluded that their results displayed a link between a neurodevelopmental disorder/delay and selective mutism, due to the significantly higher rates of a neurodevelopmental disorder/delay in children with selective mutism (Manassiss et al., 2003). Another study performed in 2004 discovered that children with selective mutism presented narratives that are linguistically simplistic compared to children with social phobia in both familiar and unfamiliar settings (McInnes et al., 2004). This study also found that the children displayed normal receptive language skills and cognitive ability, but appeared to have expressive language deficits, which is suspected to be due to the nature of selective mutism (McInnes et al., 2004). The researchers stated that the expressive language difficulties a child with selective mutism often has may be due to a communication disorder (McInnes et al., 2004). Speech-language pathologists should be involved in the assessment, due to the high rates of communication disorders in children with selective mutism.

**Behavioral Inhibition**

Behavioral inhibition is characterized by the avoidance of new or threatening situations and is linked to anxiety disorders (Muris & Ollendick, 2015). Children with behavioral inhibition are at a higher risk of developing psychiatric disorders, specifically social phobia, later in life (Muris & Ollendick, 2015). The symptoms of selective mutism overlap with behavioral inhibition characteristics, such as anxiety, fearfulness, lack of spontaneous speech, avoidance, and social deficits, resulting in the discussion of a possible correlation between this temperament and selective mutism (Manassiss et al., 2003). During preschool years, behavioral temperament is common and presents as a lack of communication with unfamiliar partners, mirroring selective
mutism symptoms (Muris & Ollendick, 2015). Although there is no direct correlation between behavioral inhibition and selective mutism, recent literature has emerged that supports this theory (Muris & Ollendick, 2015). More research is needed to further examine these claims and to record behavioral inhibition patterns in children with selective mutism.

There is often a behavioral inhibition cycle for children with selective mutism, which is reinforced by the child’s parents. When a child becomes anxious about speaking in certain scenarios, they will often initially avoid speaking (Shipley & McAfee, 2019). If they are successfully able to leave the environment, the expectation for the child to speak disappears (Shipley & McAfee, 2019). Often, a parental figure may attempt to relieve the child from the anxiety-provoking situation, to aid the child (Shipley & McAfee, 2019). When the adult assists the child in the behavioral inhibition cycle, the child’s avoidance response is negatively reinforced and their anxiety lessens (Shipley & McAfee, 2019). The cycle can strengthen the maintenance of a child’s selective mutism because the child is able to successfully avoid speaking (Shipley & McAfee, 2019). If a child appears to be exhibiting this cycle, the clinician should provide further testing to identify the child’s underlying symptoms, such as anxiety, that may be causing the behavioral inhibition cycle.

**Auditory Efferent Feedback Pathway**

The auditory efferent feedback pathway monitors and regulates self-vocalization, but may be negatively impaired in children with selective mutism (Muris & Ollendick, 2015). The middle-ear acoustic reflex (MEAR) contracts the middle-ear muscles to mask the individual’s voice, but evidence suggests MEAR may not work as effectively in children with selective mutism (Muris & Ollendick, 2015). Weak MEAR functioning may cause a child to have an altered perception of their voice, potentially causing them to produce fewer verbalizations.
Although a disrupted auditory efferent feedback pathway is likely not a singular cause of selective mutism, in combination with other risk factors, it may contribute to selective mutism development (Muris & Ollendick, 2015).

**Assessment**

A comprehensive assessment of children with selective mutism is essential due to the complexity of the disorder. If a speech-language pathologist is the first professional to suspect selective mutism, they should refer the child to their physician and behavioral health professional for further assessment (McInnes et al., 2004). During an assessment for selective mutism, the clinician will collect information about the child’s medical, developmental, and academic history (Mayworm et al., 2015). Since a communication disorder may explain a nonverbal period, it is important to assess the child’s full medical history (Mayworm et al., 2015). Speech-language pathologists will perform assessments related to the child’s language and cognitive skills, to assess for any communication disorders that may explain the mutism (McInnes et al., 2004). Typically, psychiatric, neurological, developmental, clinical, and language assessments are all completed during the evaluation of selective mutism (McInnes et al., 2004). An extensive assessment is required due to the diagnostic criteria that state that the mutism behavior is not due to another communication or psychiatric disorder.

During an assessment for selective mutism, an interdisciplinary team will be included, assessing many areas, including anxiety (Harbaugh, 2018). Speech-language pathologists should be included during the diagnostic process to consider concomitant communication disorders (Harbaugh, 2018). When determining if a child has communication disorders, the speech-language pathologists will use informal and formal assessments to gather information about the child’s voice, fluency, articulation, receptive and expressive language skills, pragmatic language,
orofacial structures and function, and hearing (Shipley & McAfee, 2019). Typically, the most comprehensive data is collected from a home environment via video recordings from a parent (Harbaugh, 2018). Notably, most speech-language pathologists report that they obtain limited data during assessments because of the child’s mutism, causing clinicians to primarily rely on nonverbal measures and informal expressive tasks (Harbaugh, 2018).

If a child is bilingual, the clinician will collect information about the child’s second language development and abilities, which is important when determining if the treatment should be conducted in the child’s first or second language (Mayworm et al., 2015). When interviewing a teacher or parent about a bilingual child, the speech-language pathologist should inquire about the child’s language history, languages spoken at home, and fluency in all languages they speak (Mayworm et al., 2015). The speech-language pathologist should also collect a language sample in all languages to provide information about the child’s language development, fluency, and other potential speech or language disorders (Mayworm et al., 2015). The details about the languages a child speaks will influence their treatment plan because this information gives the clinician baseline data that is required to create the child’s goals. The child’s language history also helps the clinician understand the child’s individual strengths and areas that need improvement, which will influence their goals and treatment strategies. Clinicians must know the child’s full range of abilities, in both languages, for the treatment plan.

Interviews

Interviewing the child, parent, and teachers during a selective mutism diagnostic assessment is important in gathering concrete and observable data about the child’s behaviors (Mayworm et al., 2015). During the interview, the speech-language pathologist should focus on the “four Ws of selective mutism behavior.” The “four Ws” are questions that allow the clinician
to examine the behavior and determine if the child meets the criteria for a selective mutism diagnosis (Mayworm et al., 2015). The questions that the clinician may ask include, “Where does the child speak and not speak? When is the child more or less likely to speak? With whom is the child more or less likely to communicate? What form of communication does the child use?” (Mayworm et al., 2015). The information that a clinician gathers from interviews with the parent and teachers of the child suspected of having selective mutism is crucial to the diagnosis because the child may not speak during other forms of assessment.

**Behavioral Rating Scale**

Behavioral rating scales can be beneficial when determining a child’s anxiety level, during treatment planning, and for distinguishing between children with selective mutism and children with other anxiety disorders (Bergman et al., 2008). Although behavioral rating scales are less commonly seen in research literature, many different questionnaires are used during clinical assessment (Mayworm et al., 2015). Some behavioral scales that are used for children with selective mutism are the School Speech Questionnaire (SSQ), Selective Mutism Questionnaire (SMQ), Social Phobia and Anxiety Inventory for Children (SPAI-C), and Anxiety Disorder Interview Schedule for Children and Parents (ADIS-C/P) (Mayworm et al., 2015). Each behavioral scale can be used for different functions, but they are effective in assessing the disorder.

The Selective Mutism Questionnaire (SMQ) is a behavioral scale that is frequently given to parents of a child with selective mutism (Steains et al., 2021). The SMQ is normed for children aged 3-11 years old (Shipley & McAfee, 2019) and is often the first assessment tool that is used because it has been found to have good reliability, validity, and consistency (Steains et al., 2021). The questionnaire consists of 17 items that measure the child’s behaviors in school,
home, and other settings, where the parent reports the frequency of the child’s speech from “never” to “always” (Steains et al., 2021). The SMQ was found to be helpful in evaluating symptoms of selective mutism during and after treatment and assessing the efficiency of treatment (Bergman et al., 2008).

**Expressive Language Assessment**

There are only a few studies on standardized, norm-referenced expressive language assessments for children with selective mutism because children with selective mutism often do not speak with professionals (Klein, et al., 2013). Expressive language assessments that are found to be the most successful are conducted in the home (Klein, et al., 2013). Since the expressive language skills of children with selective mutism vary greatly depending on the individual, the assessment should be conducted in multiple settings (McInnes et al., 2004). If the speech-language pathologist is unable to complete an expressive language assessment due to a lack of verbal communication between the child and the clinician, there are other ways to collect this information. Interviews with parents and informal audio recordings collected by parents will give speech-language pathologists a small sample of the child’s expressive language abilities (McInnes et al., 2004). The clinicians may need to be creative in the ways that they collect an expressive language assessment, because of the complex symptoms of selective mutism.

In a recent study, a speech-language pathologist trained parents to give the children the expressive language assessment as the test presenter to reduce anxiety in the child (Klein, et al., 2013). In the study, only 61% of the children spoke to the clinician as the test presenter during the assessment but 100% of children spoke to the parent as the test presenter during the assessment (Klein, et al., 2013). Children were more comfortable communicating with their parents, displaying a more accurate picture of their language skills. It was found that parents
were 96% accurate in effectively presenting stimuli from the standardized test (Klein, et al., 2013). The study concluded that the parents were highly successful in presenting the test stimuli and the children with selective mutism performed significantly better when the parents presented the test (Klein, et al., 2013). Ultimately, the study found that when clinicians present expressive language assessments to the child with selective mutism, the results may be affected by underestimating their language skills because the child does not communicate as openly with the clinician (Klein, et al., 2013). Further research is needed to determine if a child’s expressive language skills are stronger than what is currently reported because of their reluctance to communicate. Information about the child’s full range of expressive language skills can help clinicians create more effective intervention strategies.

**Intervention**

The goal of any treatment strategy is to alleviate general anxiety and help children use their voices in all situations (Muris & Ollendick, 2015). The overall presence of treatment for children with selective mutism is the most important factor in any intervention (Harbaugh, 2018). Early intervention is extremely valuable and treatment is most effective if it is close to the time of diagnosis (Harbaugh, 2018). Intervention must be individualized and implemented as soon as selective mutism is diagnosed because the symptoms of selective mutism will likely worsen if treatment is not present (Harbaugh, 2018). Treatment has been found to have a positive effect on minimizing selective mutism-specific symptoms, such as verbal output, and non-selective mutism-specific symptoms, including internalizing behavior and anxiety (Steains et al., 2021). However, selective mutism is notorious for being unresponsive to intervention due to the nature of the condition (Zakszeski & DuPaul, 2017). Selective mutism may be resistant to
treatment, but clinicians must provide effective intervention to minimize the consequences of selective mutism.

The most common professionals who conduct therapy for children with selective mutism are school-based speech-language pathologists and other school-based professionals (Zakszeski & DuPaul, 2017). Speech-language pathologists are often in charge of coordinating treatment between all professionals involved with intervention, including the child, parents, classroom teacher, psychotherapist, school counselor, special education teacher, and any other necessary professionals, depending on possible comorbid disorders (Schum, 2002). For any intervention technique, the clinician should be patient and progress slowly through the treatment (Doll, 2022).

Research has found that behavioral, psychodynamic, family systems, and psychopharmacological approaches are effective intervention approaches (Mayworm et al., 2015). However, a multimodal approach that includes behavioral intervention is thought to be the most effective (Mayworm et al., 2015). Of the reviewed studies from 2005 to 2015, 38.1% used one treatment approach, 57.14% used two treatment approaches, and 4.76% used three treatment approaches (Zakszeski & DuPaul, 2017). In these studies, it was found that incorporating different treatment approaches based on the child’s strengths, symptoms, other disorders, and cultural background to help individualize the treatment is more likely to be effective (Zakszeski & DuPaul, 2017). Clinicians are encouraged to monitor the child’s progress on an ongoing basis to change interventions and goals as needed (Zakszeski & DuPaul, 2017).

A major consideration for the intervention of bilingual children is what language to use during the treatment (Mayworm et al., 2015) English has been seen to be effective for intervention in bilingual children with selective mutism, but it is not the only option (Mayworm et al., 2015). When deciding what language to use, the speech-language pathologist should
consider the child’s proficiency and comfort level, parent’s preferences, and translator availability (Mayworm et al., 2015). Deciding what language to use during intervention is a complicated process and should be evaluated on an individual basis.

**Behavioral Approach**

Behavioral treatment is based on the theory that selective mutism is a learned emotional-regulation strategy to reduce anxiety (Steains et al., 2021). Research has shown that behavioral or behavioral-systems treatment is the most effective approach to alleviating selective mutism symptoms (Zakszeski & DuPaul, 2017). The techniques used in the behavioral treatment are intended to decrease the child’s anxiety and help to promote their speech through behavioral modification strategies, such as contingency management, stimulus fading, self-modeling, shaping, and hierarchical exposure (Fernandez & Sugay, 2016). Typically, speech-language pathologists determine a systematic hierarchy of speaking scenarios, beginning with nonverbal communication and working towards total verbal communication in a social setting (Schum, 2002). The clinicians work closely with other professionals to gradually expose the child to more difficult situations, and to encourage full verbal participation. The behavioral techniques help prompt speech from the child and can also be used by clinicians in combination with other treatment approaches.

Since selective mutism is a rare communication disorder, there are limited clinics that specialize in selective mutism treatment, leaving many clients in rural areas without access to the most effective intervention methods (Cornacchio et al., 2019). A new therapy method to treat selective mutism, based on the behavioral approach, has been developed to allow for concentrated therapy that is accessible to a wide range of clients (Cornacchio et al., 2019). The Intensive Group Behavioral Treatment (IGBT) for children with selective mutism is an
intervention that is provided to clients and their families in a short time period, five days of
treatment for six to eight hours each day (Cornacchio et al., 2019). IGBT focuses on the child
externalizing their problems with parental support and positive social reinforcement (Cornacchio
et al., 2019). There are two main strategies in IGBT, child-directed interaction and verbal-
directed interaction (Cornacchio et al., 2019). During child-directed interactions, the clinicians
break down the child’s negative reinforcement patterns through praise, behavioral descriptions,
and verbal reflections (Cornacchio et al., 2019). The clinician does not ask the client direct
questions and instead focuses on building a positive rapport with the client (Cornacchio et al.,
2019). The clinician prompts verbalizations and works to elicit speech from the child with
verbal-directed interaction (Cornacchio et al., 2019). By avoiding yes/no questions, the clinician
focuses on forced-choice questions that require a verbal response from the child (Cornacchio et
al., 2019). The clinician will gradually introduce more challenging questions and will give praise
to the child after all verbalizations (Cornacchio et al., 2019). The IGBT for children with
selective mutism is just one behavioral treatment program, out of many, that researchers have
found to be successful.

Studies have found evidence supporting IGBT for selective mutism and highlight the
program’s use of parent-child interaction therapy (Cornacchio et al., 2019). The 2019 study
found that parents reported very high satisfaction with the IGBT program, with 96.2% of parents
rating the quality of services as “excellent” (Cornacchio et al., 2019). A high parent satisfaction
rating describes how effective this treatment strategy is with its use of parent-child interaction
therapy. The study also found that four weeks after the program, 7.1% of children did not meet
the criteria for a selective mutism diagnosis, and eight weeks after the program, 45.8% of
children no longer met the diagnostic guidelines (Cornacchio et al., 2019). Many times, selective
mutism intervention takes years to reduce selective mutism behaviors, so it is very significant that a higher number of children did not meet the diagnostic criteria in a short time period. Overall, the treatment was found to be very effective in minimizing selective mutism behaviors and social anxiety in the children that participated in IGBT (Cornacchio et al., 2019).

**Psychodynamic**

Psychodynamic treatment is based on the theory that selective mutism is a result of an unresolved conflict (Steains et al., 2021). The approach attempts to understand the root of selective mutism in the child (Zakszeski & DuPaul, 2017). With this treatment approach, art and play techniques are used to help the child express their feelings of conflict (Steains et al., 2021). Through play therapy, children are allowed to communicate their feelings in a developmentally appropriate manner (Fernandez & Sugay, 2016). Play therapy can help reduce anxiety, allow children to explore new situations, and facilitate relationships with other children (Fernandez & Sugay, 2016).

In play therapy for children with selective mutism, clients are encouraged to communicate in whatever manner they find most comfortable, and the clinician does not require the child to produce verbal communication (Fernandez & Sugay, 2016). Instead of relying on speech, the clinician takes note of how the child plays and the symbolism of their actions (Fernandez & Sugay, 2016). The clinician is then able to further understand the child’s feelings (Fernandez & Sugay, 2016). Play therapy for children with selective mutism does not directly target reducing the mutism behavior but instead provides the child with an avenue to express their inner conflicts and feelings. Through this process, the child is encouraged to learn new skills and make sense of traumatic experiences that may have occurred in the past (Fernandez &
Sugay, 2016). The main goal of play therapy is for the child to express their feelings, minimize anxiety, and for the clinician to discover their unconscious thoughts (Fernandez & Sugay, 2016).

**Family Systems**

Family systems intervention is based on the theory that the child’s relationships help maintain their mutism behaviors and requires a team approach to identify the child’s relationships (Steains et al., 2021). Some clinicians who use the family systems approach see the selective mutism behavior as the child’s response to family dynamics, so the intervention specifically focuses on the entire family (Fernandez & Sugay, 2016). Family systems strategies that are often incorporated into a behavioral-systems treatment approach are adult skills training, psychoeducation, and consultation (Zakszeski & DuPaul, 2017). This intervention approach is most seen to be incorporated with other intervention techniques.

**Psychopharmacological**

Psychopharmacological intervention involves prescribing medicine to children with selective mutism to reduce their symptoms (Zakszeski & DuPaul, 2017). Currently, there is limited evidence on the effectiveness of psychopharmacological intervention for selective mutism (Manassis et al., 2016). Typically, medication is only used to treat selective mutism when other treatments are unsuccessful or if the child has been diagnosed with selective mutism for several years (Manassis et al., 2016). In these instances, selective serotonin reuptake inhibitors (SSRIs) and monoamine oxidase inhibitors (MAOIs) can be prescribed to reduce the symptoms of selective mutism (Manassis et al., 2016). In a study, it was found that 83.5% of children who were prescribed SSRIs saw a reduction in symptoms (Manassis et al., 2016). Fluoxetine is the most commonly prescribed SSRI to treat selective mutism and has been found to reduce symptoms, with minimal side effects, in 76% of children that were prescribed the
medication (Muris & Ollendick, 2015). If the root of the child’s selective mutism behavior appears to be their anxiety or if they have an anxiety disorder, the use of medication may be beneficial (Manassis et al., 2016). If a clinician is considering prescribing medication as a treatment, they should weigh the risks and benefits in each individual situation (Manassis et al., 2016). Children with selective mutism may fall behind, academically and socially, if they do not see relief in their symptoms after several years and selective mutism symptoms lasting for a prolonged period of time have been linked to psychiatric disorders later in life (Manassis et al., 2016). The side effects of the medications are a risk that needs to be evaluated before the child is prescribed medication and the family and physician will determine if the benefits are worth the side effects (Manassis et al., 2016). The physician should also assess the cultural and familial views before prescribing the medications (Manassis et al., 2016). Ultimately, there are few studies on the use of medication to treat selective mutism, so the clinician should be cautious before encouraging this treatment (Manassis et al., 2016).

**DISCUSSION**

Trauma that immigrant children often face can severely impact their overall development. The high levels of cortisol that many immigrants have because of stress during childhood can affect their brain development. When a child has extremely high levels of stress hormones, it can change the structures and functions of the brain, which are serious consequences with a lasting impact. When immigrant children become secluded, the language input that they receive is reduced, which can impact their language development because they are not able to learn about the world around them. For immigrant children who are learning a second language, rich and diverse language input is crucial for development. When children are bullied or discriminated against, they often become reluctant to produce verbal communication, with a fear of being
ridiculed. If a child produces limited verbalizations, they may fall behind in their expressive language skills because they lack the practice necessary to become proficient. The trauma that many immigrants face before migration and after migration can severely affect overall development because it can change how the brain functions. Children who are naturally less outgoing and have greater anxiety are at a higher risk of experiencing difficulties with language development. Educators and clinicians should be aware of the risk factors for trauma and provide support for the second language acquisition process.

Although the etiology of selective mutism is unknown, it can be concluded that anxiety, which may be influenced by environmental and genetic factors, is one of the greatest risk factors for developing selective mutism. Other factors, such as neurodevelopmental disorder/delay and auditory efferent feedback pathway impairment, may also impact the child’s likelihood of being diagnosed with selective mutism when combined with other risk factors. Across the literature, many studies focused on anxiety as the root of selective mutism and determining if anxiety is heightened by environmental factors or a genetic predisposition. It can be theorized that immigrant children are more likely to develop selective mutism because they have higher levels of anxiety than native children. Immigrant children may also have a genetic inclination to become anxious if their parents experienced trauma. More research is needed to explore the etiology of selective mutism and its implications; however, the existing research indicates that anxiety is a major risk factor.

There are special considerations for the assessment of immigrant children suspected of having selective mutism, to ensure the clinician gathers all the information necessary to make a diagnosis. During the assessment of the child, the clinician will collect details about the child’s medical, developmental, and academic history, as well as their language fluency and language
history. If the clinician and parent of the child do not share the same first language, an interpreter will be obtained before the interview. During the initial interviews, the clinician will build rapport with the family and obtain information that will assist the clinician in making a diagnosis. Clinicians may give the parents a behavioral rating scale to complete about their child if they require more specific details about the child’s mutism behavior. When collecting an expressive language sample for a bilingual child, the clinician should be aware that the child may be more anxious if there are several adults in the room, such as multiple clinicians, an interpreter, and parents. The clinician should provide extra steps to decrease the child’s anxiety so they can gain an accurate picture of the child’s expressive language skills. The clinician will gather a language sample in all the languages that the child speaks during this assessment. If the child does not communicate with the clinician, parents may be asked to record a video of the child speaking at home, to have representation of the child’s communication skills in all languages that they speak. With the strict diagnostic criteria, it is important that the clinicians can rule out other disorders before diagnosing the child with selective mutism. The assessment process will also give the clinician information that will aid them in creating a treatment plan for the child, so it is important that the professionals can gather details about the child’s condition and family’s medical preferences.

The intervention to treat selective mutism in immigrant children is highly individualized and there are many different strategies that can be used. It is most common for clinicians to incorporate multiple strategies into the intervention, based on the needs of the child, current literature, and the parent’s preferences. Before beginning intervention, the clinician will have conversations with the parents about which language will be used during the treatment if the child is bilingual. Once a language is determined, the clinician can create the intervention plan.
The behavioral approach is the most researched technique to treat selective mutism and may be an optimal approach for immigrant children because it focuses on decreasing the child’s anxiety to increase speech. The clinician will make a hierarchy of anxiety-provoking situations for the child, and they will move methodically through the scenarios, rewarding the child when they produce verbalizations. This approach allows the clinician to work on decreasing both the selective mutism symptoms and non-selective mutism symptoms, impacting the child’s social communication. Play therapy, which is based on the psychodynamic perspective, may also be effective for immigrant children with unresolved conflict and trauma. Play therapy will help decrease the child’s anxiety, give them the opportunity to express their emotions in a safe environment, and help build relationships with other children. This treatment approach is targeted at children who have experienced trauma or conflict in their life, so play therapy may be used for children with immigration trauma. Play therapy will require a multidisciplinary team but may be highly effective in young children with selective mutism. Medications can be prescribed to children with selective mutism if all other treatment options are ineffective. The clinician should be aware of different cultural preferences that may impact the parent’s decision to use medication to treat selective mutism symptoms. With the limited research on the effectiveness of using medication to treat selective mutism and its side effects, other forms of intervention should be used before considering medication. In all treatment methods, it is important to have open communication with the child, parents, and members of the interdisciplinary team, and use an interpreter, if needed. The treatment plan may change based on the child’s progress and multiple perspectives can be used during intervention.
CONCLUSIONS

The purpose of this thesis is to analyze the existing literature about selective mutism and to provide considerations about the etiology, treatment, and assessment of immigrant children with selective mutism. Currently, there is little research about selective mutism and more exploration is needed to provide the most effective treatment strategies for selective mutism, especially in immigrant populations. Throughout the literature, it was found that anxiety, which may be caused by environmental or genetic factors, is one of the greatest risk factors for developing selective mutism and may be a potential etiology of selective mutism. Since immigrant children have higher levels of anxiety than native children, it is theorized that the combination of anxious temperament and environment is why more immigrant children have selective mutism than native children. Although there are many treatment strategies for selective mutism, it was found that the behavioral and psychodynamic approaches may be the most effective at treating this specific population. Clinicians must consider the individual's needs, but research suggests that these two strategies are highly effective in treating children with high levels of anxiety and past trauma. It was concluded that despite selective mutism being a difficult disorder to treat, intervention can decrease selective mutism symptoms with an interdisciplinary team.

The major limitation of this thesis is that the thesis reviews the existing literature on this disorder and is not an independent study. Since selective mutism is a very rare disorder, an independent study was not possible at the time of the thesis. However, this limitation allowed for an in-depth examination of several studies from around the world. The ability to analyze multiple studies from various professionals allows for conclusions to be made across both central themes of the thesis. With the current limitations, further research is necessary to explore the etiology,
assessment, and treatment strategies for immigrant children with selective mutism. A large study is needed to examine why immigrant children are more likely to develop this disorder, which can help professionals gain more insight into treating selective mutism.

Immigrant children are more likely to be diagnosed with selective mutism, a highly debilitating disorder that has serious side effects that often worsen without treatment. Since there are few studies on selective mutism, many clinicians, educators, and parents have little knowledge about the disorder, which can lead to an underdiagnosis of selective mutism. More education and research are needed to provide children with early intervention that can help improve their mental health, social communication, language development, and educational and occupational achievement.
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