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A Review on Pediatric Social Phobia and Selective Mutism

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Review Article

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ABSTRACT

Selective mutism (SM) is a psychological disease that affects children and is defined by a complete lack of speech in certain social contexts while speech production appears normal in others. Separation anxiety disorder, social anxiety disorder (previously known as social phobia), agoraphobia, and panic disorder, as well as shyness and anxiety, can all be associated with

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selective mutism. SM is a rather uncommon condition. Estimates of its point prevalence have been found in clinic or school samples in a variety of countries, and typically range between 0.03 percent and 1.9 percent depending on the setting. To properly establish the disorder's diagnosis, clinicians can use the SM module of the Anxiety Disorders Interview Schedule for Children and Parents (ADIS-C/P) or the Schedule for Affective Disorders and Schizophrenia for Children (Kiddie- or K-SADS). Nonmedication and medication-based therapies are the two basic types of treatment for selective mutism. Psychodynamic therapy, behavioural therapy, and family therapy are among the most common nonmedication-based or psychotherapy treatments. Selective seratonin reuptake inhibitors (SSRIs) (fluoxetine in particular) have been demonstrated to improve mutism and anxiety when used as a treatment option. The study aims to evaluate and treat selective silence and social phobia in children.

Keywords: Pediatric social phobia; selective mutism; anxiety.

1. INTRODUCTION

The Diagnostic and Statistical Manual of Mental Health Disorders, Fifth Edition (DSM-5) defines selective mutism as “an anxiety disorder, given that the vast majority of children with selective mutism are anxious.” Selective mutism is a condition in which a person is unable to speak aloud in some settings where conversational discourse is expected. Although selective mutism can coexist with language and communication difficulties, such persons' communicative language is often intact [1].

Selective mutism (SM) is a psychological disease that affects children and is defined by a complete lack of speech in certain social contexts while speech production appears normal in others. Children with SM, for example, may not answer to a question presented by the teacher in class or speak to peers at school, but they do communicate vocally with their parents, siblings, or other familiar people in the home environment. Current classification systems assume that the selective non-speaking behaviour must be present for at least one month, cannot be attributed to a lack of knowledge of, or discomfort with, the spoken language required in the social situation, and must significantly interfere with daily functioning in school, work, or social life in order to be formally diagnosed. Furthermore, the problem is not better described by a communication disorder (e.g., childhood-onset fluency disorder) and does not occur only in the context of autism spectrum disorder, schizophrenia, or another psychotic condition [2].

Separation anxiety disorder, social anxiety disorder (previously known as social phobia), agoraphobia, and panic disorder, as well as shyness and anxiety, can all be associated with selective mutism; however, it can also exist without other anxiety-related diseases. Selective mutism normally begins at the age of five, although it isn't diagnosed until the child begins school. Adolescents and adults, in certain situations, continue to be unable to communicate in public. This handicap is most noticeable at school, where the child is unable to assert himself and speak up when called upon by teachers. When public speaking or lecturing is essential in one's vocation, functional impairment occurs in adults. Frequently, a child with selective mutism chooses a friend or close family member to act as an interpreter of communication and whispers into that person's ear, allowing communication to take place through the selected intermediary [1].

For nearly 150 years, academics and clinicians in psychology and psychiatry have been baffled by the extreme symptomatology of SM. Initially, SM was thought to be an oppositional behaviour disorder, as shown by names like "voluntary aphasia" and "elective mutism," which implied that these children chose to remain silent in particular settings or with certain people.The current perspective on children's motivations is more neutral, with the term "selective" alluding to the fact that children's lack of speech occurs only in specific scenarios or places. Furthermore, it is widely assumed that the prototypical non-speaking conduct of children with this illness is motivated by fear and apprehension that occurs most frequently in specific social contexts, which is why SM is now classified as an anxiety pathology [2-5].

Although there is little agreement that SP and SM are related in terms of clinical presentation, the exact nature of their association is unknown. It's unclear if children with SM are overwhelmed by anxiety to the point where communication is impossible, or whether withholding speech is

used as an avoidance tactic. The conclusion that silence is a result of increased anxiety has been based on therapists' and parents' subjective assessments, but these measurements may not correctly reflect the children's experiences. As a result, objective anxiety measurements, such as those offered by psychophysiological evaluation, represent one path for objectively answering this topic [6].

2. EPIDEMIOLOGY

SM is a rather uncommon condition. Estimates of its point prevalence have been found in clinic or school samples in a variety of countries, The prevalence of social mutism ranges from 0.47 to 0.76 percent of the population based on pooled case studies from Western Europe, the United States, and typically range between 0.03 percent and 1.9 percent depending on the setting (e.g., clinic vs. school/general population) and the ages of the children in the sample. SM the onset of selective mutism typically occurs between ages three and six, and diagnosis occurs between ages five and eight, most often discovered after the child enters school is a condition that normally begins before the age of five years and commonly becomes the focus of therapeutic attention once children enter school.The course of SM varies: some children retain the characteristic muteness associated with the illness, but in many young adults, selective non-speaking behaviour fades over time, while social reluctance and social anxiety symptoms commonly persist, People with selective mutism do not necessarily improve with age. Effective treatment is essential for the child to develop properly, Selective silence can contribute to chronic depression, more anxiety, significant social and academic impairment in those affected by it, and other social and emotional problems and thus, treatment at an early age is important if unaddressed, selective silence tends to be self-reinforcing, Others may eventually expect the affected child not to speak and therefore stop trying to initiate verbal communication [2,7-10].

3. CLASSIFICATION AND EVALUATION

To properly establish the disorder's diagnosis, clinicians can use the SM module of the Anxiety Disorders Interview Schedule for Children and Parents (ADIS-C/P) or the Schedule for Affective Disorders and Schizophrenia for Children (Kiddie- or K-SADS). Other components of these instruments can be used to screen for common comorbid diseases, such as SAD and anxiety disorders. In most cases, both the child and the parent are subjected to these semi-structured clinical interviews. Given the predominant symptom of the disease (i.e., non-speaking behaviour), it is likely that the parent will be the sole source of information. The Selective Mutism Questionnaire (SMQ) can be used to assess the severity of the problem and, eventually, to track therapeutic progress. This parent-based scale contains 17 items that assess the frequency of non-speaking behaviour in children in various circumstances, such as at home, school, and other public/social settings. The SMQ is a trustworthy scale with data to support its validity. The Frankfurt Scale of Selective Mutism is a freshly developed alternative instrument (FSSM).The FSSM is a parent-reported scale that not only provides a severity index for SM symptoms, but also includes a diagnostic scale that may be used to assess the presence of the disorder's basic criteria, assisting in the diagnosis [2,11-16].

DSM-IV-TR diagnostic criteria of SOP and SM in children: [17]

4. SOCIAL PHOBIA

1. Primary symptoms:

   - Fear of embarrassment or humiliation in one or more social or performance circumstances with peers that is severe and persistent. Evidence of the ability to form age-appropriate social relationships with familiar persons is required.
   - Exposure to the feared social setting nearly always causes anxiety, which might manifest as sobbing, tantrums, freezing, or a desire to avoid social situations with new individuals.
   - The child may or may not be aware of their overwhelming dread.
   - Social or performance circumstances that are dreaded are avoided or endured with great worry or distress.

2. Impairment: The avoidance, nervous anticipation, or suffering in the dreaded social or performance situation(s) severely interferes with the person's usual routine, occupational (academic) functioning, social activities, or relationships, or there is significant distress over having the phobia.
3. Duration: 6 months

4. Not due to/better accounted for by: A substance's physiologic impacts, a general medical condition that isn't better explained by another mental disorder

5. SELECTIVE MUTISM

1. Primary symptoms: Consistent failure to speak in specific social situations where speaking is expected (eg, school) despite speaking in other situations (eg, home)
2. Impairment: The disturbance interferes with educational or occupational achievement or with social communication
3. Duration:1 month (not the first month of school)
4. Not due to/better accounted for by: Communication disorder, pervasive developmental disability, schizophrenia, or other psychotic condition due to a lack of familiarity or difficulty with the native language.

Although doctors and the parents who inform those physicians tend to assess children with SM as having high social anxiety symptoms, it is uncertain whether these children actually have more severe symptoms than other children with SP who do talk. Children with SM do not have greater symptoms of social anxiety, more severe social anxiety, more dread of unfavourable assessment, or more comorbid generalised anxiety disorder than children with SP Turner, according to self-report data. Furthermore, during a peer-interaction test, no differences in self-reported anxiety were detected between children with SM and children with SP [6].

Some theorists have proposed that SM is a more severe variation of social phobia due to the high rates of comorbidity between the two illnesses (Black & Uhde, 1992). Yeganeh, Beidel, Turner, Pina, and Silverman (2003) compared 23 children with comorbid SM and social phobia to 23 age-matched children with social phobia only to test this theory. On structured interview and behavioural observation assessments, children with SM were judged as considerably more nervous, although they did not report greater levels of social anxiety on a self-report instrument or during a behavioural task.In a later follow-up study comparing children with SM to those with social phobia and healthy controls, Yeganeh and colleagues (2006) corroborated these findings. Clinicians judged the children with SM as having higher levels of social anxiety than children with social phobia alone, despite the fact that they did not consider themselves to be more socially anxious. The authors concluded that children with SM do not necessarily suffer from a more severe or intense form of social phobia as a result of their findings.Manassis and colleagues (2007) discovered that children with SM scored higher on a self-report measure of social anxiety symptoms than children with anxiety disorders in another recent study (generalized anxiety disorder, social phobia, separation anxiety disorder). On a self-report assessment of general anxiety symptoms, children in the SM group scored lower than those with anxiety disorders, implying a relationship between SM and social anxiety [18].

6. TREATMENT

With the recognition that SM is predominantly a fear and anxiety-driven condition, it's encouraging to note that cognitive-behavioral therapy (CBT) is widely acknowledged as the most practicable strategy for children with this disorder, at least in the scientific literature.In summary, CBT for MS consists of the same components that make up CBT for other anxiety disorders, namely (1) Psychoeducation: definition of MS as an expression of fear and, especially, social fear; (2) physiological training: breathing and muscle relaxation; (3) Behavioral training: emergency management, hierarchical exposure, modeling, modeling and gradual desensitization; (4) cognitive training: positive self-talk and cognitive restructuring; and (5) parenting education: improving parents' ability to help their children and gradually ceasing mutism behaviors [2].

Family, school, and medical reinforcement of the importance of attending school despite the child's desire to stay at home and avoid social situations to relieve anxiety can help prevent sequelae of selective mutism (e.g., school phobia, academic failure owing to poor attendance). SSRIs are useful and superior to placebo in the treatment of individuals with social phobia and the associated illness, selective mutism, with efficacy rates of at least 65 percent when taken in conjunction with cognitive-behavioral therapy (CBT). Doses given to children and adults may be higher than those given to those with affective disorders. Cognitive-behavioral therapy, which should be administered by a therapist with experience in such therapy (e.g., a psychologist, psychiatrist, or a behavioral/developmental paediatrician), can be tremendously beneficial in improving the

degree of the child's independent functioning [1].

For other childhood anxiety disorders, drug therapy and, in particular, treatment with selective serotonin reuptake inhibitors (SSRIs) is considered a viable intervention option. The general clinical guideline is that SSRIs are indicated when CBT shows an inadequate response to treatment, but there is evidence that a combination of CBT and drug therapy may be even more effective than either of them in treating anxiety disorders in children and teens both on monotherapies on their own. Research on the effectiveness of SSRIs in children with MS is scarce, which is not so surprising given the potential for side effects of these types of medications and the relatively young age of most children with this condition. The few Studies that have been conducted are due to a limited number, a heterogeneous design, the lack of a comparison group, and the lack of consistent outcome parameters. However, the results suggest that SSRIs lead to symptomatic improvement, although it remains unclear how many children achieve complete remission. So far, there is no support for a combined treatment of CBT and SSRIs in the treatment of MS [2,19-23].

Nonmedication and medication-based therapies are the two basic types of treatment for selective mutism. Psychodynamic therapy, behavioural therapy, and family therapy are among the most common nonmedication-based or psychotherapy treatments. Selective seratonin reuptake inhibitors (SSRIs) (fluoxetine in particular) have been demonstrated to improve mutism and anxiety when used as a treatment option [24].

Psychodynamic therapy: is a type of psychotherapy that involves the use of Individual play therapy is a type of psychodynamic therapy for children. This is a time-consuming procedure that entails a thorough examination of the patient's medical history. The main goal is to reveal an underlying intrapsychic conflict. The efficacy of this psychodynamic therapy is unknown because only a few case studies have been investigated [24].

Behavioral therapy is a term that refers to a type of Behavioral therapy is usually a multimethod approach that takes into account the child's symptoms in the context of his or her environment. More empirical data-substantiating efficacy is provided by specific strategies like as reinforcement, stimulus fading, token processes, shaping or prompting, contingency management, self-modeling, and response initiation. The best way to start treating selective mutism is to address the verbal and nonverbal negative reinforcement that keeps the habit going. Teachers who refuse to allow students to talk, for example, are exhibiting one type of negative reinforcement that helps to maintain behaviour [24].

Family Therapy: Another therapeutic option is family therapy, which is especially important when family issues play a role in the development and persistence of selective mutism. While the efficacy of family therapy has yet to be demonstrated, including the family in the therapeutic process can be extremely beneficial to the child's recovery. Parental and sibling cooperation and understanding assist the youngster in overcoming fear and avoidance. Given that the diagnosis is frequently made as children reach school age, collaborating with school professionals is an important part of the healing process [24].

Pharmacological Treatment: Interventions that are based on medication. Given the link between selective mutism and social anxiety, pharmacotherapeutic approaches may be useful in the treatment of selective mutism. Carlson et al found that antidepressants were the most widely utilised treatment for selective mutism in a comprehensive study of child and adolescent psychiatrists. Depending on the child's comorbidities, antidepressants, anti-anxiety medicines, and other psychotropic therapies are used after antidepressants. Six SSRIs (fluvoxamine and fluoxetine in particular) have been linked to a reduction in selective mutism symptoms in case studies [24].

7. CONCLUSION

The rare condition of SM has prevalence of less than 1% in the general population with onset ages ranging from 2.7 to 4.1 years. Although there is little agreement that SP and SM are related in terms of clinical presentation, the exact nature of their association is unknown. Due to similarity of the diseases a systemic approach can be used for diagnosis such as DSM-IV-TR diagnostic criteria of SOP and SM. Treatment of these disease focusses on the non-pharmacological part, Psychodynamic therapy, behavioural therapy, and family therapy are among the most common nonmedication-based

or psychotherapy treatments. Selective seratonin reuptake inhibitors (SSRIs) (fluoxetine in particular) have been demonstrated to improve mutism too.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. American Psychiatric Association, & American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-5. Arlington, VA; 2013.
2. Muris P, Ollendick TH. Current challenges in the diagnosis and management of selective mutism in children. Psychology Research and Behavior Management. 2021;14:159.
3. Scott S, Beidel DC. Selective mutism: An update and suggestions for future research. Current Psychiatry Reports. 2011;13(4):251-257.
4. Sharkey L, Mc Nicholas F. Female monozygotic twins with selective mutism-A case report. Journal of Developmental & Behavioral Pediatrics. 2006;27(2):129-133.
5. American Psychiatric Association, A. Diagnostic and statistical manual of mental disorders. Washington, DC: American Psychiatric Association. 1980;3.
6. Young BJ, Bunnell BE, Beidel DC. Evaluation of children with selective mutism and social phobia: A comparison of psychological and psychophysiological arousal. Behavior Modification. 2012;36(4): 525-544.
7. American Psychiatric Association, A. Diagnostic and statistical manual of mental disorders (Vol. 3). Washington, DC: American Psychiatric Association; 1980.
8. Viana AG, Beidel DC, Rabian B. Selective mutism: A review and integration of the last 15 years. Clinical Psychology Review. 2009;29(1):57-67.
9. Remschmidt H, Poller M, Herpertz-Dahlmann B, Hennighausen K, Gutenbrunner C. A follow-up study of 45 patients with elective mutism. European Archives of Psychiatry and Clinical Neuroscience. 2001;251(6):284-296.
10. Steinhausen HC, Wachter M, Laimböck K, Metzke CW. A long-term outcome study of selective mutism in childhood. Journal of Child Psychology and Psychiatry. 2006; 47(7):751-756.
11. Silverman WK. Anxiety disorders interview schedule for DSM-IV.: parent interview schedule (Vol. 1). Oxford University Press; 1996.
12. Nishiyama T, Sumi S, Watanabe H, Suzuki F, Kuru Y, Shiino T, Hirai K. The Kiddie schedule for affective disorders and schizophrenia present and lifetime version (K-SADS-PL) for DSM-5: a validation for neurodevelopmental disorders in Japanese outpatients. Comprehensive Psychiatry. 2020;96:152148.
13. Bergman RL, Keller ML, Piacentini J, Bergman AJ. The development and psychometric properties of the selective mutism questionnaire. Journal of Clinical Child & Adolescent Psychology. 2008; 37(2):456-464.
14. Letamendi AM, Chavira DA, Hitchcock CA, Roesch SC, Shipon-Blum E, Stein MB. Selective mutism questionnaire: Measure-ment structure and validity. Journal of the American Academy of Child & Adolescent Psychiatry. 2008;47(10):1197-1204.
15. Chapman AD. Numbers of living species in Australia and the world; 2009.
16. Gensthaler A, Dieter J, Raisig S, Hartmann B, Ligges M, Kaess M, Schwenck C. Evaluation of a novel parent-rated scale for selective mutism. Assessment. 2020;27(5): 1007-1015.
17. Keeton CP, Budinger MC. Social phobia and selective mutism. Child and Adolescent Psychiatric Clinics. 2012;21(3): 621-641.
18. Cohan SL, Chavira DA, Shipon-Blum E, Hitchcock C, Roesch SC, Stein MB. Refining the classification of children with selective mutism: A latent profile analysis. Journal of Clinical Child & Adolescent Psychology. 2008;37(4):770-784.
19. Ollendick TH, March JS. (Eds.). Phobic and anxiety disorders in children and adolescents: A clinician's guide to effective psychosocial and pharmacological interventions. Oxford University Press, USA; 2004.
20. Muris P. Treatment of childhood anxiety disorders: what is the place for antidepressants? Expert opinion on pharmacotherapy. 2012;13(1):43-64.

21. Walkup JT, Albano AM, Piacentini J, Birmaher B, Compton SN, Sherrill JT, Kendall PC. Cognitive behavioral therapy, sertraline, or a combination in childhood anxiety. New England Journal of Medicine. 2008;359(26):2753-2766.
22. Manassis K, Oerbeck B, Overgaard KR. The use of medication in selective mutism: a systematic review. European Child & Adolescent Psychiatry. 2016;25(6):571-578.
23. Østergaard KR. Treatment of selective mutism based on cognitive behavioural therapy, psychopharmacology and combination therapy–a systematic review. Nordic Journal of Psychiatry. 2018;72(4): 240-250.
24. Wong P. Selective mutism: A review of etiology, comorbidities, and treatment. Psychiatry (Edgmont). 2010;7(3):23.

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