



# Selective Mutism

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## Definition

The revised fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV T) defines selective mutism (SM) as an early childhood disorder that is characterized by a consistent failure to speak in specific social situations where there is an expectation of speech (e.g., in school). Further, this lack of speech must interfere with achievement or communication. For diagnosis, the disturbance must last at least one month and not be limited to the first month of school, a time in which many children may be hesitant to speak. The DSM states that SM should not be diagnosed if the failure to speak is due solely to the lack of knowledge of, or comfort with, the spoken language required in the social situation. Also, the disorder may not be diagnosed if better accounted for by a communication disorder, such as stuttering, or if it occurs exclusively during a pervasive developmental disorder, or psychotic disorder.

## Prevalence and Diagnosis

Based on few published studies with discrepant results, SM has previously been thought of as a rare disorder. Recent research has focused on the school setting to determine the prevalence rate of SM. Using standard diagnostic criteria, one U.S. community prevalence study surveyed kindergarten, first, and second grade teachers in an urban public school district and found a .71 percent prevalence rate for SM (Bergman, Piacentini & McCracken, 2002). Another study conducted in Israel found a similar rate of .76 percent in the community (Elizur & Perednik, 2003). These most recent and consistent findings suggest that SM may be more common than generally believed, with a prevalence rate similar to or greater than rates of other more publicized and commonly known childhood psychiatric disorders, including obsessive-compulsive disorder, major depression, and autism.

It appears that more girls than boys are affected by SM, with some studies finding a female to male gender ratio as large as 2.6 to 1 respectively (Dummit et al., 1997). The onset of SM is usually before age five, yet the diagnosis of the disorder typically occurs when a child enters school. Because SM children typically speak at home, the problem is often first identified at school (Stone et al., 2002).

## Etiology

Characteristics of SM were recognized as early as 1877, yet the disorder, previously termed *elective mutism*, did not appear in the DSM until 1980. The shift in terminology from *elective* to *selective mutism* in 1994 represented a de-emphasis in oppositionality as the underlying cause of selective mutism. Rather than stubbornness or control, currently held attitudes regard social inhibition and social phobia as

the underlying cause for the selectively mute child's lack of speech. Although the role of oppositional behavior has been deemphasized, there is some evidence that such behavior may play a role in the phenomenology of the disorder (Yeganeh et al., 2006).

There are mixed findings on the relationship between SM and speech or language dysfunctions. Although language problems are exclusionary criteria for the diagnosis of SM when these speech problems cannot be ruled out as the cause of the child's lack of speech, recent research suggests that SM may involve subtle expressive language deficits. In comparison to children with social phobia, selectively mute children produce significantly shorter narratives when asked (McInnes, Fung, Manassis, Fiksenbaum, Tannock, 2004) and have more difficulty discriminating speech sounds and matching pictures to a spoken word (Manassis et al., 2003).

The causes of SM are unclear; however, research suggests that there could be a genetic component, as studies have found that social anxiety tends to run in families of children with SM (Dow et al., 1995; Black & Uhde, 1995). While in the past, some have suggested that SM is linked to trauma in the child's life, this has not been found in research studies and remains unconfirmed in large, community-controlled studies (Cunningham et al., 2004).

## Characteristics

Home, while in the presence of family, is most commonly the location where children with SM have no difficulty speaking. In fact, parents of children with SM commonly report that their child is often talkative and uninhibited at home, despite his or her lack of speech and social inhibition outside of the home. Children with SM most frequently fail to speak at school (Standart & Le Counteur, 2003). Although apprehension regarding speaking in unfamiliar circumstances or with unfamiliar persons is, in fact, common at all ages, and is particularly common among preschool children, SM is a persistent and enduring failure to speak and may represent the most severe end of the spectrum of childhood speech inhibition and social anxiety. In fact, studies of children with selective mutism indicate that nearly all children with SM (90 to 100 percent) also meet diagnostic criteria for social phobia (Black and Uhde, 1995; Dummit et al., 1997; Yeganeh et al., 2003).

Consistent with current beliefs that SM is an expression of social phobia, children with SM are often described as shy and self-conscious, with associated features including social isolation and withdrawal, fear of social embarrassment, and clinging (American Psychiatric Association, 2000).

Although the absence of speech most typically occurs at school, children with SM have individually distinct and stable speaking patterns. The manner in which children speak also varies with the individual child. While some children with SM may fail to speak in all situations, others may whisper with no signs of distress, and still others may speak loudly, but in an altered voice. Rather than communicating through standard verbalization, children with SM often use alternative methods of communication such as gestures, nodding or shaking of the head, pulling or pushing, or (in some cases) by monosyllabic, short, or monotone utterances (American Psychiatric Association, 2000).

### **Functional Impairment**

SM is considered to hinder both educational achievement and socialization (Tancer & Klein, 1992). Because the preferred approach to teaching in early elementary school grades is often group settings in which verbal communication is expected and central (Johnson & Johnson, 1987), it is not surprising that academic impairment is common among selectively mute children. Bergman, Piacentini, and McCracken (2002) have suggested that because of the selectively mute child's lack of speech, teachers and school staff may be unable to evaluate a child's basic understanding of a concept, resulting in a decreased opportunity to give the child fundamental feedback. These researchers believe that professionals working with SM children often do not consider the potential negative academic consequences suffered by a child who, while not disruptive, does not participate in class.

Children with SM are often characterized as behaviorally inhibited, sometimes appearing frozen and inactive. There is some indication that children with SM are also less socially skilled than other children; they may be less confident socially, have difficulty making friends, and be less likely to join groups of other children. However, despite the assumption that children with SM would suffer from negative self-concept, data suggests that children with SM are not less well-liked than their peers (Cunningham, McHolm, & Boyle, 2006).

### **Course and Prognosis**

The degree of persistence of the SM is variable. A child's lack of speech may persist for only a few months (transient SM) or it may continue for several years (persistent SM). While persistent SM may be associated with severe impairment, even a relatively short period of SM (transient SM) can negatively impact functioning (Bergman, Piacentini, & McCracken, 2002).

Researchers conducting a six-month follow-up of SM children who failed to speak during the few weeks of school found that most of these children continued to have difficulty speaking at school, with only 27 percent of the children showing some improvement in their speaking behavior at the end of the school year (Bergman et al., 2002).

Recently, researchers have found that the best predictors of treatment are the duration of a child's SM and his or her age (Stone et al., 2002), supporting the importance of early intervention rather than delaying treatment to determine if a child's SM will be spontaneously resolved.

### **Treatment**

Published research on the treatment of SM remains primarily limited to single case studies and case series. Most of this literature fails to identify diagnostic procedures as well as details of treatment method. Despite these shortcomings, these preliminary findings provide a foundation for the development of behavioral treatment of SM (Bergman & Piacentini, 2002). The belief that behavioral strategies are an essential component to treatment is widely held, and the literature on the efficacy of pharmacotherapeutic intervention with selective serotonin reuptake inhibitors (SSRIs) is growing.

Use of behavioral techniques such as contingency management, stimulus fading, systematic desensitization, negative reinforcement, and shaping has been shown to be successful in the treatment of SM (Bergman & Piacentini, 2002). Behavioral therapy approaches involve using a hierarchy of situations in which the child has trouble speaking. The child is guided through this ordered-list and engages in increasingly more difficult speaking situations with time. Over the course of repeated successes, the anxiety associated with speaking dissipates through the process of autonomic habituation. Typically, the child receives corresponding positive reinforcements, or rewards, after attempting to engage in speaking-related behaviors. Parent and school involvement are also essential components to the successful implementation of a behavioral treatment plan for a child with SM. Although there are no published randomly controlled behavioral treatment studies of SM, there is one currently underway at UCLA.

No medications are currently approved by the U.S. Food and Drug Administration for the treatment of SM, yet SSRI medications appear to be an effective treatment for SM. A double-blind placebo controlled trial of fluoxetine (Prozac) found significant improvements in parent ratings of SM children's speech and anxiety (Black & Uhde, 1994). Open trials of various SSRI medications have indicated similar results (Dummit, Klein, Tancer, Asche, 1996; Carlson et al., 1999). Additionally, a large multisite study of fluvoxamine (Luvox) for the treatment of children with separation anxiety disorder, social phobia, and generalized anxiety disorder included children with SM who appeared to have benefited from this treatment (Research Unit on Pediatric Psychopharmacology Anxiety Study Group, 2001).

### **Case Example**

*Jenny, a five-year old Asian American girl living with her biological mother, father, and two-year old twin brothers was brought in by her parents for evaluation and treatment of SM. Her parents reported that she met all developmental milestones on time and had no history of cognitive disability. She was the product of a full-term pregnancy, had no history of medical problems, and was on no medication. Jenny was seen by a psychologist for treatment of SM at age three but her parents reported that the play therapy that was done was ineffective at reducing anxiety or increasing speech. Jenny is bilingual, speaking both English and Cantonese, but her primary language is English. Jenny's mother reported significant social anxiety and a history of SM as a child. No other family history of psychiatric disturbance was reported.*

*During initial evaluation, Jenny failed to make eye contact or respond to the intake evaluator. Her parents were interviewed (without Jenny present) using a structured clinical interview, and Jenny met DSM-IV criteria for both SM and social phobia. Her teacher was interviewed as well. The following information was provided:*

*According to parent's report, Jenny spoke in a normal voice and was talkative at home with her immediate family. When non-family members were present, she did not speak as much or as freely at home. More recently, Jenny had been able to speak to her extended family, including one set of grandparents and her uncle. In general, Jenny was able to speak to her family in public. Sometimes she was also able to speak to and give one-word answers to other adults, such as store clerks and her pediatrician. She was enrolled in ballet and had not spoken to her instructor or peers.*

*Jenny did not speak to either of her two preschool teachers or to her classmates, and she did not respond to her teachers non-verbally. Her teacher reported that Jenny enjoyed being with the other*

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children in the class; however, she only exhibited parallel play and had never spoken at school. Outside of school, parents reported that she had spoken to a few girls who were not in her current class.

Behavioral treatment was initiated shortly after Jenny's evaluation. After treatment was explained to Jenny and her family, Jenny, her mother and the therapist created a list of easy, medium, and hard speaking situations with accompanying small, medium, and large rewards. This hierarchy of speaking tasks served as the foundation of speaking assignments given by Jenny's therapist. Jenny worked through the lists, with the difficulty of the task and reward size increasing over time. Generally, sessions consisted of time with Jenny and her mother together during which previous and current assignments were reviewed. The remainder of each of the sessions was spent between Jenny and her therapist alone.

During the first few sessions, the therapist worked on building rapport primarily through play. In subsequent sessions, the therapist concentrated on Jenny's speech, having her work on increasingly challenging speaking tasks. Jenny and her mother were instructed to continue working on Jenny's speech outside of sessions and were given assignments, both for school and home.

Jenny's initial assignments included speaking to her mother in an empty classroom, having a play date with a classmate where no talking was requested, and leaving a voicemail message for her therapist. Her assignments increased in difficulty throughout her treatment, and her later assignments included having play dates with classmates in which talking was requested, having phone conversations with classmates and her teacher, and asking her teacher, librarian, P.E. teacher, and other adults and classmates interview questions.

Improvement was evidenced after 12 sessions as noted by lowered clinician severity ratings on the Anxiety Disorders Interview Schedule (ADIS) for DSM-IV, as well as improvements on both the Selective Mutism Questionnaire (SMQ) and Clinical Global Impressions Scales. Specific improvements were noted in terms of speaking to her teacher and peers more frequently. At the end of treatment, after twenty sessions, ratings by an independent evaluator indicated that Jenny no longer met diagnostic criteria for SM. Jenny's teacher and parents also rated Jenny's speech as "much improved" on standardized measures.

### Future Directions

Clearly, additional research is required to better understand which ingredients are essential for effective treatment of SM. In addition, some suggest that children with SM are a heterogeneous group with anxiety, oppositionality, and communication disorders contributing varying degrees to the symptomatology of SM (Cohan et al, 2007). With this in mind, priority should be placed on developing better methods for assessment and classification of children with SM, and a broader framework for understanding of the disorder. Lastly, although most agree that early intervention is important when symptoms of SM are noticed, there is some data to suggest that SM may remit spontaneously (Bergman et al, 2002). There is very little quality data on the longitudinal course of SM, and more information is required to inform us on the developmental course and stability of the symptoms of SM. ▼

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### References

- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revised (DSM-IV-TR)*. Washington, DC: American Psychiatric Association.
- Bergman, R.L. & Piacentini, J. (2002). Selective Mutism. In: *Comprehensive Textbook of Psychiatry* (8th ed.), Sadock, B, Sadock, V., eds. Baltimore: Williams & Wilkins Press.
- Bergman, R.L., Piacentini, J. & McCracken, J.T. (2002). Prevalence and description of selective mutism in a school-based sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41, 938-946.
- Black, B. & Uhde, T. (1994). Treatment of elective mutism with fluoxetine: A double-blind, placebo-controlled study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 1000-1006.
- Black, B. & Uhde, T.W. (1995). Psychiatric characteristics of children with selective mutism: a pilot study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34: 847-856.
- Carlson J.S., Kratochwill T.R. & Johnston H. (1999). Sertraline treatment of 5 children diagnosed with selective mutism: an open trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, 9(4), 293-306.
- Cohan, S., Chavira, D.A., Shipon Blum, E., Hitchcock, C., Roesch, S. & Stein, M.B. (2007, March). Delineating subtypes of selective mutism: A clinical application of latent profile analysis. Poster presented at the Society for Research in Child Development 2007 Biennial Meeting, Boston, MA.
- Cunningham, C.E., McHolm, A.E., & Boyle, M.H. (2006). Social phobia, anxiety, oppositional behavior, social skills, and self-concept in children with specific selective mutism, generalized selective mutism, and community controls. *European Child and Adolescent Psychiatry*, 20, 1-11.
- Cunningham, C.E., McHolm, A.E., Boyle, M.H. & Patel, S. (2004). Behavioral and emotional adjustment, family functioning, academic performance, and social relationships in children with selective mutism. *Journal of Child Psychology and Psychiatry*, 45(8), 1363-1372.
- Dow, S., Sonies, B., Scheib, D., Miss, S. & Leonard, H. (1995). Practical guidelines for the assessment and treatment of selective mutism. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 836-846.
- Dummit, E.S., Klein, R.G., Tancer, N.K. & Asche, B. (1996). Fluoxetine treatment of children with selective mutism: An open trial. *Journal of the American Academy of Child Adolescent Psychiatry*, 35, 615-621.
- Dummit, E.S., Klein, R.G., Tancer, N.K., Asche, B., Martin, J. & Fairbanks, J.A. (1997). Systematic assessment of 50 children with selective mutism. *Journal of the American Academy of Child Adolescent Psychiatry*, 36, 653-660.
- Elizur, Y. & Perednik, R. (2003). Prevalence and description of selective mutism in immigrant and native families: a controlled study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1451-1459.
- Johnson, D.W. & Johnson R.T. (1987). *Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning*. Englewood Cliffs, NJ: Prentice Hall.
- Manassis, K., Fung, D., Tannock, R., Sloman, L., Fiksenbaum, L. & McInnes, A. (2003). Characterizing selective mutism: Is it more than social anxiety? *Depression and Anxiety*, 18, 153-161.
- McInnes, A., Fung, D., Manassis, K., Fiksenbaum, L. & Tannock, Rosemary. (2004). Narrative skills in children with selective mutism: an exploratory study. *American Journal of Speech-Language Pathology*, 13(4), 304-315.
- Research Unit on Pediatric Psychopharmacology Anxiety Study Group. (2001). Fluvoxamine for the treatment of anxiety disorders in children and adolescents. *New England Journal of Medicine*, 344, 1279-1285.
- Standart, S. & Le Couteur, A. (2003) The quiet child: A literature review of selective mutism. *Child and Adolescent Mental Health*, 8, 154-160.
- Stone, B.P., Kratochwill, T.R., Sladeczek, I. & Serlin, R.C. (2002). Treatment of Selective Mutism: A Best Evidence Synthesis. *School Psychology Quarterly*, 17(2), 168-190.
- Tancer, N.K. & Klein, R.G. (1992). Elective mutism: a review of the literature. In: *Advances in Clinical Child Psychiatry*, Vol 14, Lahey, B.B., Kazdin, A.E., eds. New York: Plenum Press.
- Yeganeh, R., Beidel, D.C., Turner S.M., Pina A.A. & Silverman W.K. (2003). Clinical distinctions between selective mutism and social phobia: An investigation of childhood psychopathology. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1069-1075.
- Yeganeh R., Beidel, D.C. & Turner, S.M. (2006) Selective Mutism: More than social anxiety? *Depression and Anxiety*, 23, 117-123.