Effective Educational Approaches to Foster School Inclusion of Children with Selective Mutism

Fernando Sarracino
Suor Orsola Benincasa University
fernando.sarracino@docenti.unisob.na.it

Federica Badii Esposito
University of Naples "Parthenope"
federica.badiiesposito@uniparthenope.it

Giovanna Scala
University of Campania "Luigi Vanvitelli"
giovanna.scala@unicampania.it

Fabiola Palmiero
University of Macerata
f.palmiero@unimc.it

Abstract
Selective mutism (SM) is an anxiety disorder that manifests in childhood and is characterised by the inability to speak in specific social environments, despite normal verbal communication in others. This research explores how targeted teaching strategies can effectively support the school inclusion of children with SM. A mixed-method approach was adopted, combining quantitative and qualitative assessments based on validated instruments widely acknowledged in the literature. The tools employed to evaluate student progress included the Selective Mutism Questionnaire (SMQ), the Student Well-Being Questionnaire (SWQ), structured behavioural observations, and semi-structured interviews conducted with teachers, parents, and students. The findings indicate a marked improvement in both the inclusion and active engagement of pupils with SM, highlighting the positive effects of the implemented personalised teaching strategies. These approaches proved beneficial not only for students' learning and academic outcomes but also for their psychological well-being and social integration.

Keywords: *Inclusion, Special Pedagogy, Innovative Teaching, Selective Mutism, Anxiety Disorders.*

Introduction

Selective mutism (SM) is a relatively rare, multifaceted, and debilitating anxiety disorder that affects approximately 1% of school-aged children, as reported by the American Psychiatric Association. This condition is characterised by a persistent inability to speak in specific social settings—most notably in school environments—despite the ability to speak fluently in familiar and comfortable contexts. The impact of SM is substantial, often compromising academic performance, peer relationships, and overall development, and limiting the affected child's ability to engage in classroom learning and social exchanges.

Cunningham, McHolm, Boyle, and Patel (2004) conducted an in-depth analysis of the emotional and behavioural functioning, family dynamics, academic outcomes, and social interactions of children with SM. Their findings indicate that "children with selective mutism

have significant behavioural and emotional difficulties that negatively affect their family functioning, school performance and social relationships." These consequences may persist over extended periods, undermining self-esteem and emotional growth, and in more severe cases, can become chronic and have lasting effects on an individual's social well-being.

Further emphasizing the significance of this condition, Bergman, Piacentini, and McCracken (2002), in a study published in the *Journal of the American Academy of Child & Adolescent Psychiatry*, investigated the prevalence and defining characteristics of SM within a school population. Their research underscored the disorder's relevance in educational settings, highlighting the need for increased awareness and tailored intervention strategies. They detailed the associated behaviours, symptoms, and implications for school environments, calling attention to the importance of a multidisciplinary approach in addressing the needs of children with SM.

Kumpulainen (2002) also offered a comprehensive review of the clinical presentation and treatment of selective mutism. The study reiterated that children with SM exhibit normal language competence in safe contexts but are unable to speak in specific social situations, often resulting in substantial disruption to their social and educational development. Kumpulainen proposed a range of therapeutic options including behavioural, pharmacological, and psychotherapeutic treatments.

Despite its early onset, selective mutism remains one of the least recognised and understood disorders, both in Italy and internationally. In many cases, it may be initially misinterpreted as extreme shyness until the child enters school and the persistent silence in public settings, particularly in classrooms—often perceived as high-stress environments—becomes evident. Although still relatively infrequent, cases of SM have increased in recent years, presenting considerable challenges for educators and school professionals.

Timely intervention plays a crucial role in supporting children with SM. Vecchio and Görtler (2009) provided a detailed overview of assessment and intervention strategies for young children affected by this disorder, emphasising the value of early diagnosis and targeted, multi-faceted treatments. They advocate for an integrated approach combining behavioural techniques, educational support, and family involvement to effectively address the complexities of selective mutism.

This study contributes to the growing body of research by assessing the efficacy of specific educational strategies aimed at fostering school inclusion and enhancing the psychological well-being of children with selective mutism. It also evaluates changes in anxiety levels and overall well-being through the use of standardised assessment instruments.

1. **Specific objectives of the study include:**
    - Enhancing both verbal and non-verbal communication in children with selective mutism through the use of augmentative communication tools and peer pairing techniques.
    - Promoting active engagement in classroom activities to facilitate inclusive participation of students with SM.
    - Reducing anxiety and improving psychological well-being through gradual familiarisation strategies and targeted psychological support.
    - Fostering social inclusion and peer interaction through structured group activities designed to strengthen interpersonal relationships among children with SM.

2. Analysis of the Educational Relationship Between School and Family

The study involved 30 children diagnosed with selective mutism, aged between 6 and 10 years, from 20 primary schools in different Italian provinces and regions. Participants were selected in collaboration with child neuropsychiatry services and local schools and based on diagnostic criteria established by the DSM-5, ensuring accurate and consistent diagnosis of the disorder. Participating schools were selected based on their willingness to implement the proposed teaching strategies and the presence of a sufficient number of children with SM.

The tests were administered with the support of school psychologists and trained teachers to ensure that responses were interpreted correctly and to provide the necessary support to children showing signs of psychological distress. Data were collected for quantitative and qualitative analyses using:

- Selective Mutism Questionnaire (SMQ): a standardised questionnaire used to assess the frequency and severity of selective mutism. The SMQ consists of 17 questions that measure the child's ability to speak in different social contexts.
- Student Well-Being Questionnaire: a questionnaire specifically designed to assess students' overall psychological wellbeing, taking into account factors such as life satisfaction, quality of social relationships, perceived support and emotional regulation.
- Structured Behavioural Observation: a qualitative observation grid used to monitor and collect data on social interaction and classroom participation. It consists of systematic annotations of students' behaviour with a focus on the communicative and relational domains. This grid was completed by independent observers once a week for the duration of the intervention in order to assess pre- and post-intervention changes.
- Semi-structured interviews: interviews were conducted with teachers, parents and pupils to obtain in-depth qualitative data on experiences and perceptions of the intervention and to determine the effectiveness of the teaching strategies. Interviews were transcribed and analysed to identify recurring themes and patterns.

Kearney and Vecchio (2007) state that 'selective mutism is a complex disorder that requires a multidisciplinary approach for understanding and effective treatment'. For this reason, the educational activities introduced in the study were designed to reduce social anxiety and promote school inclusion in children with selective mutism.

The study lasted 6 months, during which there was regular individual and group psychological support to deal with stressful situations, anxieties and fears related to communication, and close collaboration between teachers, school psychologists and families through regular meetings to ensure a coherent and integrated approach between school and home, and to monitor progress by adapting strategies in a timely manner according to the individual needs of the children. The following teaching strategies were used:

Table 1: Educational Strategies

Activities	Description	Goal
Teacher Training	Training sessions were held for teachers to raise awareness of selective mutism and provide them with practical strategies to support students affected by	To increase teachers' awareness and skills in dealing with the needs of students with SM.
	it. Teachers learned inclusive teaching methods for case management of selective mutism, non-verbal communication techniques and effective strategies for creating a safe and welcoming environment. The training included interactive workshops, case study discussions and role-playing to simulate real classroom situations with the support of experts in selective mutism and educational psychologists.	
Positive Reinforcement Techniques	The initial training enabled teachers to recognise and reward even the smallest attempts at verbal communication and/or participation. The use of verbal praise, rewards and incentives proved useful in encouraging children to communicate and participate.	To increase the frequency of the communicative behaviour and the active participation in the class.

Gradual Settlement	Children participated in group activities gradually, starting with small interactions and gradually increasing their participation. They were then gradually exposed to increasingly complex social situations, starting with small group interactions and progressing to larger interactions. Activities included role play, small group discussions and guided presentations. This approach allowed the children to gradually build their confidence and get used to participating in a safe and controlled environment.	Gradually increase ability to speak in the presence of strangers and reduce anxiety associated with communicating in social contexts.
Cooperative Working Groups	Teachers formed small mixed ability groups in which children with selective mutism worked with their peers on group projects and activities designed to increase confidence and social interaction and to encourage dialogue and cooperation. The groups were structured so that each child had a specific role and the activities required communication and cooperation. This was done to reduce social anxiety through positive peer interaction and to increase the sense of belonging and cooperation that underlies all group activities.	Encourage social interaction and cooperation among peers to build self-confidence and confidence in communication skills.

Use of Visual Aids and Alternative Communication Devices	Teachers used communication cards, illustrated social stories and other visual resources in the classroom, using pictures, posters and other visual materials to facilitate communication and learning. Teachers were also trained in how to effectively integrate alternative communication devices into daily classroom activities. Blackboards, tablets and communication apps were introduced to facilitate interaction. These devices allowed the children to express themselves without having to speak, reducing the anxiety associated with verbal communication.	Reduce the communicative pressure on children with selective mutism and provide them with alternative means of expression.

2. Results

2.1. Quantitative Analysis

Quantitative data were collected and analysed using statistical tests to measure changes in Selective Mutism Questionnaire (SMQ) and Student Well-Being Questionnaire (SWQ) scores at two points in time, i.e. before the start of the programme and at the end of the intervention period. Specifically, paired sample t-tests were used to determine the significance of pre- and post-intervention differences. Qualitative data were analysed through thematic coding of structured observations to identify recurring themes and patterns in children's interactions and participation.

Table 2: SMQ Results.

Selective Mutism Questionnaire (SMQ)		
Before (average score)	After (average score)	Average Reduction
42	28	33% ($p < 0.05$)

These data indicate a significant reduction in the frequency and severity of selective mutism, suggesting that the strategies implemented had a positive impact on the children's behaviour.

Table 3: SWQ Results

Student Well-Being Questionnaire (SWQ):		
Before (average score)	After (average score)	Average increase
55	70	27% ($p < 0.05$)

The increase in scores on the Student Well-being Questionnaire indicates a significant improvement in the children's psychological well-being, with reduced anxiety and greater satisfaction with school life and social relationships.

2.2. Qualitative Analysis

Structured observations and semi-structured interviews with teachers, parents and children provided qualitative data to support the quantitative findings.

The structured observations revealed:

1. Increased Participation: children with SM showed a 30% increase in participation in class activities.
2. Improved Social Interaction: teachers reported a 25% improvement in communication and interaction with peers.
3. Inscreased Confidence: increased confidence and active participation in group discussions and school activities.

These qualitative findings highlight improvements in the inclusion and social interaction of children with SM.

Similarly, data collected through interviews with teachers confirm improvements in pupil behaviour in the classroom, with greater participation in group activities and peer communication, and a reduction in anxiety. In addition, after the training, teachers felt more prepared and confident in dealing with students with selective mutism and were more aware of how to deal with situations related to selective mutism and had a better understanding of the needs of children with selective mutism. Parents, in turn, were pleased to report improvements in their children's general wellbeing, reporting a reduction in social avoidance behaviour and a general improvement in mood and emotionality. In addition, the pupils themselves showed clear improvements in their academic performance and relationships with classmates and teachers as a result of the strategies adopted; they also described the classroom as a more welcoming and less stressful environment for them, which encouraged communication.

3. Discussion

The findings indicate that targeted and individualised teaching strategies can significantly benefit children with selective mutism by reducing symptoms of the disorder and levels of social anxiety, while also promoting school inclusion, academic performance, interactions with peers and teachers, and overall well-being. A comparable approach is presented in the literature by Shipon-Blum (2007), who outlines the key features of an optimal school environment for children with selective mutism in an article published by the Selective Mutism Group. The author highlights the importance of creating a safe and welcoming atmosphere in which children can feel secure and gradually build the confidence needed to communicate. Recommended strategies include raising awareness, fostering positive social interactions, and involving teachers and peers in a continuous support process. The primary goal is to support the transition toward spontaneous and natural verbal communication by adapting the educational approach to each child’s specific needs.

In this study, a combination of psychological support, family collaboration, and integrated methods—such as positive reinforcement, gradual exposure techniques, cooperative learning, visual aids, and teacher training—proved particularly effective in enhancing communication and reducing stress and anxiety. However, due to the individual variability among children with SM, it is essential to adopt a flexible and responsive approach tailored to each case in order to maximise outcomes. The intervention demonstrated that an inclusive and supportive school environment can greatly improve the psychological well-being and classroom participation of children with selective mutism, provided there is continuous collaboration between schools, specialised services, and families. As McHolm, Cunningham, and Vanier

(2005) emphasise, the practical and consistent involvement of parents plays a crucial role in helping children with selective mutism overcome their fear of speaking.

Conclusions

Based on the outcomes observed, this study reaffirms the effectiveness of employing specific, targeted teaching strategies to support the school inclusion of children with selective mutism, aligning with findings already established in the existing literature. The notable reduction in social anxiety and the improvement in classroom engagement underscore the value of personalised educational approaches. These results highlight the essential role of adequately trained teachers, continuous psychological assistance, and active family involvement. Together, these elements can substantially enhance both the social interactions and academic success of students with SM, contributing positively to broader aspects of their development. As children become more capable of managing anxiety and facing socially demanding situations with greater awareness and resilience, their overall quality of life improves. Future research could extend these findings by applying similar strategies in diverse educational settings and involving larger sample groups, thereby strengthening and enriching the current understanding of how best to promote the inclusion of students with selective mutism in school environments.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).

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 & Adolescent Psychiatry, 41* (8), 938-946.

Cunningham, C. E., McHolm, A. E., Boyle, M. H., & Patel, S. N. (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.

Kearney, C. A., & Vecchio, J. (2007). *When a child won't speak: Understanding and treating selective mutism*. Oxford University Press.

Kumpulainen, K. (2002). Phenomenology and treatment of selective mutism. *CNS Drugs, 16* (3), 175-180.

McHolm, A. E., Cunningham, C. E., & Vanier, M. K. (2005). *Helping your child with selective mutism: Practical steps to overcome a fear of speaking*. New Harbinger Publications.

Shipon-Blum, E. (2007). The ideal classroom setting for the selectively mute child. *Selective Mutism Group*.

Vecchio, T. D., & Görtler, J. (2009). Assessment and treatment of selective mutism in young children. *Journal of Child Psychology and Psychiatry, 50* (8), 1037-1047.