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ORIGINAL ARTICLE

Awareness of Selective Mutism among Speech Language Pathologists

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ABSTRACT

Introduction and Aim: Social language skills, or pragmatics, are crucial for building and maintaining relationships. Deficits in these skills can impact a child's mental health, social-emotional well-being, and academic success. Speech-language pathologists (SLPs) play a key role in assessing and treating pragmatic language disorders. Children with selective mutism (SM) often struggle with social communication, making SLPs well-suited to support them. However, misconceptions about SM being solely an anxiety disorder may lead to inadequate awareness and knowledge among SLPs. This study explores SLPs' awareness and knowledge of SM, their ability to identify and treat the condition, and the need for enhanced training and resources. **Methods:** The study, conducted in A.J. Institute of Speech and Hearing, included SLPs, each with at least one year of work experience, regardless of their sex, age, geographic location, or work setting. A questionnaire, developed through a bibliographic review and expert feedback, included forced-choice, open-ended, close-ended, and Likert scale questions. It was distributed to SLPs in both academic and clinical settings. The data collected were analysed using statistical methods. **Results:** Awareness levels varied based on prior experience with SM. SLPs who had worked with children with SM demonstrated significantly higher awareness and understanding of its impact on treatment. **Conclusion:** The findings highlight SLPs' critical role in SM intervention due to its association with speech and language disorders. However, there is a notable gap in their knowledge. To enhance competency, integrating SM-related content into SLP education and providing in-service training programs are essential.

Keywords: Aphasia voluntaria; Co-morbid; Elective mutism; Interdisciplinary approach; Awareness; Competencies; Constant remissness

INTRODUCTION

Selective Mutism (SM) also known as 'aphasia voluntaria' which believes that the child chooses not to speak voluntarily. Moritz Tramer[1], Swiss child psychiatrist introduced the term "elective mutism," still implying that the mutism was a voluntary act. It is only recently that the term "Selective Mutism" has been adopted to move away from the notion that the child is simply refusing to speak[2].

SM is one of the scarcest and multifaceted childhood communication disorder that particularly exerts an impact on school going children[3]. SM has been associated with anxiety linked disorders and this has been recognized as SM according to Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)[2]. Moreover, many research studies within the past 15 years have not exposed to view the support for introducing the development of disorder. The prevalence of the disorder in school settings ranges from 0.03% to 2%[4]. This aligns with observations by Sharp[5] who noted that prevalence estimates in schools appear to be higher than those in clinical samples. The disorder seems to be up to twice as common in girls as in boys, with an estimated ratio ranging from 2.6 females to 1 male to 1.5 females to 1 male[5].

SM in children and adolescents is marked by a consistent inability to speak in particular social settings, such as at

school or with friends, despite having the capability to speak and understand language. Rather than stemming from a specific communication disorder, SM is a widespread psychological issue that falls within the spectrum of anxiety disorders. Therefore, requires expertise in determining how the problem is supported and maintained by a child's history, family, and environment[6]. Young ones with SM exhibits feature such as anxiety, oppositional behaviours, speech and language disorders and other indicators of developmental problems[7].

Few literatures suggest that both SM and anxiety disorder has a high chance of occurring as a co-morbid disorder which could often lead to misdiagnosis among both the conditions[8]. Moreover, the DSM-5 provides numerous other characteristics of SM that involves not only anxiety-based features but along with temperamental (shyness, negativism), social (isolation, withdrawal), and oppositional (temper tantrum) features as well[9]. Some common concepts in the literature include a few relevant points first, being varying estimates of the prevalence of SM, though all agree it is more common than previously thought. Second, the cause of SM remains unidentified. Third, a focus on the school-age community. Fourth, high rates of co-morbid communication disorders, particularly in expressive language. Fifth, a consensus on the need for more dynamic assessment methods for children with SM. Sixth, a consensus on the need for a more comprehensive approach to the treatment of SM[10].

SM is defined as "constant remissness to communicate in particular circumstances (e.g.: school, office, college, etc.,) where speaking is expected, regardless of speaking in other situations"[11]. Recent studies says that SM could be a semblance of Social Phobia[12]. Only a limited amount of information is available regarding the description of SM that is underlying in the field of speech language pathology. In most of the literature available, SM is described as an anxiety disorder. Out of all the case studies that exists, none of them has a control group in their experiments. In order to bring the SLPs into action, they depend up on the statistics obtained from parent reports that explains the condition about their child difficulties in social situations other than their homes and surroundings in which the child feels comfortable along with systematized testing outcomes in order to diagnose individuals with SM which in turn results in expressive language disorders when in actual no such language disorder exits in the child[2].

Within the bounds of DSM-V, SM is categorized as an anxiety disorder, and these are the diagnostic traits:

1. The child invariably does not speak in particular social situations that require speaking (but the child speaks in other situations).
2. Absence of communicating will have an effect on educational and/or social consequences
3. The timeline is at least one month (other than the first month of school
4. Mutism is not because of insufficiency in the knowledge of spoken language in a specified situation.

The mutism cannot be attributed to another communication disorder and is not a result of autism, schizophrenia, or other diagnoses.

According to the criteria mentioned above, an SLP comes into the role of helping individuals to get more comfortable to talk in different situations. SM is not classified as speech impediment. However, an SLP will boost confidence and ease the child's anxiety to a certain extent along with encouraging the child to change their behavioural patterns when facing the social situations.

However, in the intervention of SM, an interdisciplinary approach is involved in the treatment of SM. Evidence in the collaboration of SLP and psychologists can lead to higher efficiency in the medical care given to individuals with SM. Moreover, the speech-language pathologist (SLP) may also test for hearing problems that could contribute to mutism, assess the oral mechanism to rule out issues with coordination and strength of the oral musculature, and assess speech and language through standardized testing to identify any expressive, receptive, or other non-verbal communication deficits that might be contributing to the mutism[2]. The prediction is that psychologists will have a higher rating in their awareness of SM compared to SLPs as there is a strong association with anxiety disorder.

However, hypothetically there is a chance of SLPs having a similar rate of awareness as per the number of cases that SLPs are exposed to. These caseloads are often considered to have language disorder that could be leading to SM.

However, recent literature provides limited evidence on the effectiveness of these approaches. Additionally, there is a lack of coordination between the professionals who typically assess and treat SM, namely SLPs and psychologists[13]. A link to the survey was emailed to 954 SLPs, but 75 of these emails were returned, leaving 879 surveys successfully distributed. The response rate from SLPs was 17%, which is typical for online survey research according to Kongsved et al[14]. The survey link was sent out once without any follow-up reminder emails. The results supported indicating that psychologists rated their knowledge of SM higher than SLPs did. One SLP (0.8%) reported never having heard of SM, and four (3%) reported having heard of the disorder but knowing nothing about it. In contrast, no psychologists selected either of these options. Only 4.5% of SLPs reported having extensive knowledge of SM. Although, SLPs are trained to treat communication disorders and thus focus on communication deficits in the treatment of SM, the current literature does not clearly define the roles of each professional involved in the collaborative assessment and treatment of SM[2]. With a few 'indicators' of speech and language assessment as possible, this study is sought to

produce a richer and comprehensive description of the awareness of SM among the SLPs in the field of Speech and language pathology[4].

The study is to check awareness of SM among SLPs so that it is useful in the successful intervention of SM. It is very crucial in diagnosing the individuals with SM so that it does not get misdiagnosed with other language related disorders thus, leading them to receive the proper and correct intervention. As there are limited studies examining SLPs knowledge and proficiency regarding SM, SLPs conveyed that they should receive more knowledge regarding the interventions of SM related to those children that they have encountered with SM[15].

A study involved 92 SLPs employed in private special education and counselling centres. Data was collected using the "Questionnaire to Determine the Awareness Level on SM." The questionnaire's first section included inquiries about participants' gender, educational background, years of professional experience, and whether they had previously worked with children with SM. The survey results relieved a significant deficiency in the SLPs' knowledge regarding SM. These findings align with previous studies by Dorsey[15] and Toland[16] on the subject. Based on these findings and existing literature, it's imperative to integrate relevant content on SM into SLP education programs and to arrange in-service training sessions for graduates. Future studies could evaluate the effectiveness of such in-service training programs on enhancing SLPs' knowledge about SM and explore in-depth the therapeutic approaches utilized by SLPs working with children affected by SM. Thus, bringing to our aim of the study to assess the awareness and knowledge of SM among SLPs and to evaluate competencies in identifying and intervening in cases of SM among SLPs.

It is essential for SLPs to be aware of SM and to raise awareness about the issue to avoid wasting valuable time by misdiagnosing it. SLPs should recognize that, children with SM are more likely to have developmental delays or disorders. Therefore, ensuring that these children are thoroughly evaluated across all areas of development and supported by the appropriate specialists. The objective of the study is to assess the awareness and knowledge of SLPs regarding SM, to evaluate their ability to identify and treat the condition, also to explore the need for enhanced training and resources to improve their effectiveness in managing SM.

METHODOLOGY

The study was conducted in the academic setup of A.J. Institute of Speech and Hearing where the questionnaire for the survey was validated by five SLPs, each with a minimum of five years of professional experience in the field. These experts had reviewed the questionnaire to ensure its accuracy, relevance, and comprehensiveness in assessing the awareness and understanding of SM among SLPs. The ethical clearance was obtained from the institutional ethical committee.

Informed consent was obtained from all participants. The questionnaire had been generated based on the bibliographic review provided initially and the comments were adopted, and changes were made. The questions were structured and constructed to conduct an inquiry on the credence and practices of the SLPs regarding the treatment of SM and their fraternization with other professionals. Furthermore, the questions were also targeted to form an impression of their understanding of SM and gather demographic information. The questionnaire was composed of several response types such as forced choice, open-ended choices, close-ended and Likert scale.

Questionnaires were circulated among SLPs working in academic and clinical setup. The study was conducted among a total of 34 SLPs with a work experience of minimum one year, irrespective to sex, age, geographic location, or work setting.

Inclusion criteria

1. Professional qualifications of the participants must be certified and practicing SLPs
2. Work experience of the participants should be a minimum of one year of professional experience in the field of speech-language pathology
3. The participants must be proficient in English to ensure accurate comprehension and response to survey questions.
4. Participants must provide informed consent to participate in the study.

These criteria ensure that the study gathers relevant and accurate data from qualified professionals actively engaged in the field.

Exclusion criteria

1. Non-certified individuals i.e., those who are not certified SLPs.
2. Insufficient work experience i.e., SLPs with less than one year of professional experience in the field.
3. Individuals who are not proficient in English.
4. Individuals who do not provide informed consent to participate in the study.

These criteria help ensure that the study focuses on obtaining data from qualified, experienced, and actively practicing professionals

Procedure

In this study, a total of 34 SLPs responded and completed the survey questionnaire. The study conducted by undergraduate students of AJ. Institute of Speech and Hearing observed

42.9% of SLPs with moderate knowledge of SM taking this value as reference at 5% level of significance. An absolute precision of 9%, estimated sample size is 116. However, due to less time a sample size of only 34 was taken. The sample size was estimated using the formula:

$$n = \frac{(Z^{\alpha}/2)^2 \times P \times (1-P)}{l^2}$$

$$Z^{\alpha}/2 = 1.96$$
$$P = 42.9\%$$
$$L = 9\%$$

Statistical analysis

Statistical analysis of data was performed using SPSS=23.0. Descriptive statistics was expressed using Mean, Standard Deviation, Frequency, and Percentage. Categorical variables were analyzed using Chi square test. The 'p' value less than 0.05 was considered statistically significant.

RESULTS

The results of this study shed light on the current awareness levels of SM among SLPs, highlighting potential areas for further education and training. The responses for the questions were the following:

While 88.2% said they have heard of SM, 8.8% said they have not heard of SM. However, 54.4% reported that they have encountered cases of SM and 45.5% have not encountered any cases of SM in their professional experience. About 14.6% felt SM is associated with speech sound disorder, 17.6% felt it is associated with autism spectrum disorder and 3% felt it is associated with receptive expressive language disorder. The responses mentioned above are shown in Figures 1, 2 and 3 below:

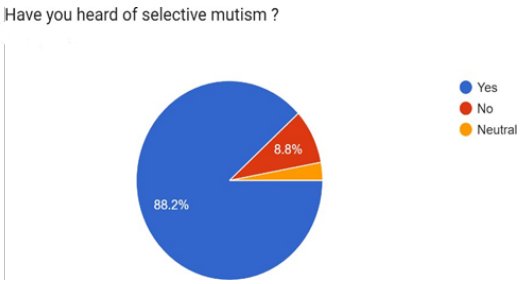

Fig. 1:

About 76.5% reported SM is a complex anxiety disorder that affects pragmatic language, and 5.9% reported SM is not a complex anxiety disorder that affects pragmatic language. While 14. 7% reported that SM can be hereditary around 47.1% reported SM cannot be hereditary; however, 38.2% reported SM can be or cannot be hereditary. 61.8% reported SM results from childhood trauma and 3% reported SM cannot result from childhood trauma. The responses

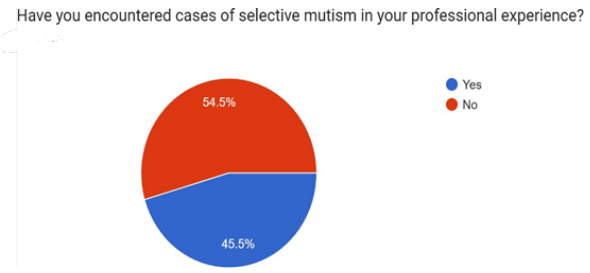

Fig. 2:

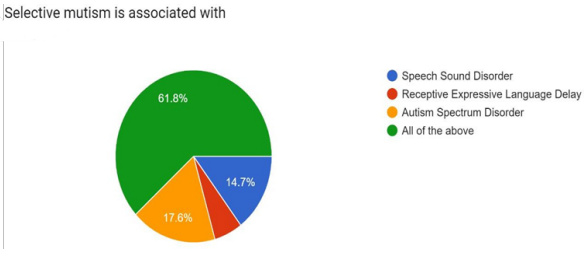

Fig. 3:

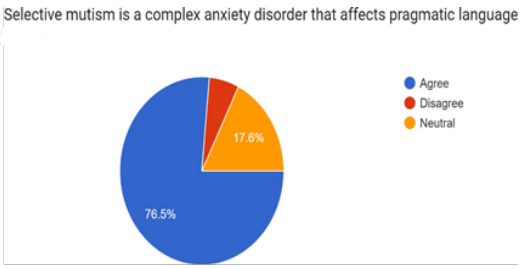

Fig. 4:

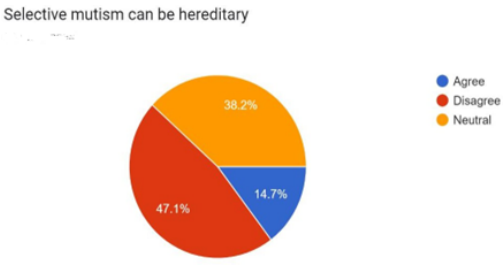

Fig. 5:

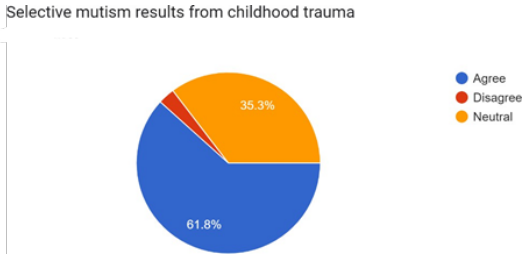

Fig. 6:

mentioned above are shown in Figures 4, 5 and 6.

About 5.9% reported SM is gender specific and 70.6% reported SM is not gender specific. While 35.3% reported that SM is related to introversion about 32.4% reported SM is not related to introversion. 39.4% reported SM is more common in nuclear families and children with no siblings and 30.3% reported SM is not more common in nuclear families and children with no siblings. The responses mentioned above are shown in Figures 7, 8 and 9.

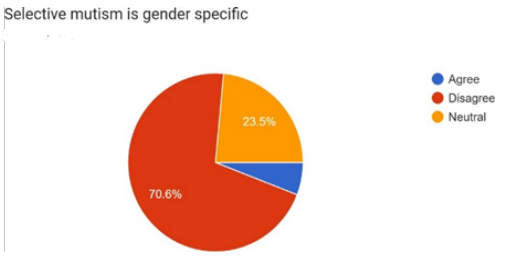

Fig. 7:

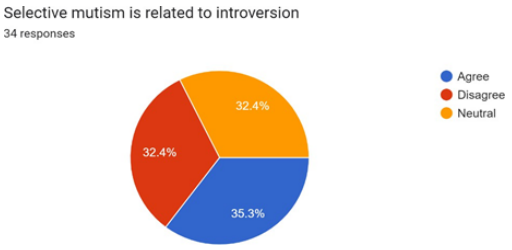

Fig. 8:

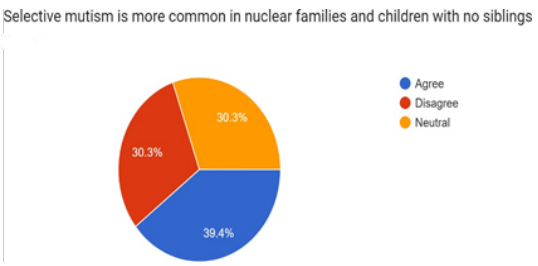

Fig. 9:

About 20.6% reported SM is more common in bilingual and immigrant children and 44.1% reported SM is not more common in bilingual and immigrant children. 52.9% reported childhood trauma is one of the main causes of SM and 11.8% reported childhood trauma is not one of the main causes of SM. While 5.9% reported that drug treatment is useful in SM 64.7% reported drug treatment is not useful in SM. The responses mentioned above are shown in Figures 10, 11 and 12.

About 94.1% reported speech therapy or counselling is beneficial in the intervention of SM and 2.9% reported

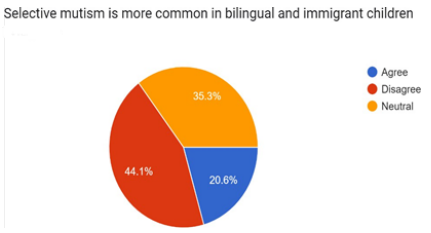

Fig. 10:

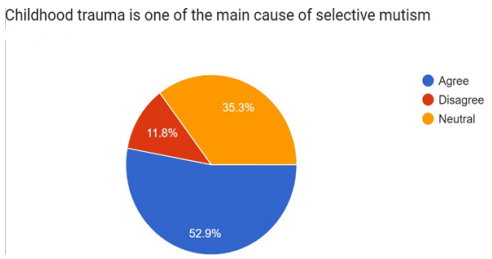

Fig. 11:

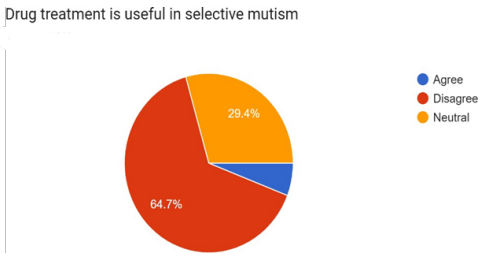

Fig. 12:

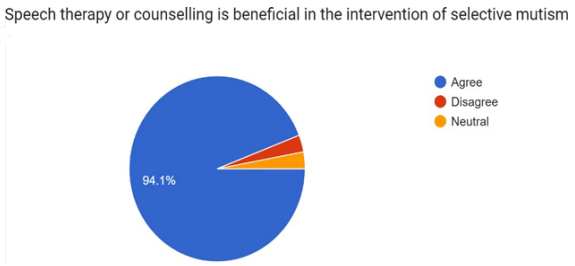

Fig. 13:

Fig. 14:

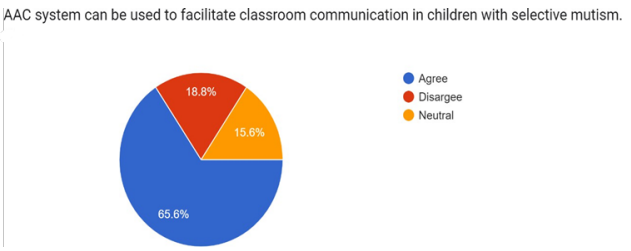

Fig. 15:

speech therapy or counselling is not beneficial in the intervention of SM. Around 97.1% reported interdisciplinary or multidisciplinary course of action is required to promote verbalizations in SM and 2.9% reported interdisciplinary or multidisciplinary course of action is not required to promote verbalizations in SM. 65.6% reported that AAC system can be used to facilitate classroom communication in children with SM and 18.8% reported AAC system cannot be used to facilitate classroom communication in children with SM. The responses mentioned above are shown in Figures 13, 14 and 15.

DISCUSSION

According to the treatment strategies, it is predicted that SLPs will treat this sort of mutism as communication disorder. It is even predicted that, interdisciplinary course of action in the treatment of SM is not very common in majority of the cases[2]. The study reveals a significant deficiency in the knowledge of SLPs regarding SM, which aligns with previous research findings[15,16]. Considering these results and existing literature, it is crucial to integrate pertinent content about SM into SLP education programs and establish in-service training initiatives for graduates. Future studies could evaluate the impact of such in-service training programs on enhancing SLPs knowledge of SM and delve deeper into the therapeutic approaches employed by SLPs when working with children affected by SM. Furthermore, studies could encourage an examination of effective assessment and treatment plan by an interdisciplinary team will be very useful in upbringing the most comprehensive system for the evaluation and management of the disorder.

According to the study conducted among 116 SLPs, only 34 SLPs responded to the questionnaire. Out of all the SLPs, only a very few SLPs reported to have seen at least one child with SM on their caseload. The results reveal that the SLPs have less knowledge about SM that contributes for the hypothesis that the SLP may lack the obligatory information and training, obstructing the ability to effectively assess and treat SM, a proposed anxiety issue, that the SLP is not authorized to train.

This provides support for the speculation that the SLP may lack necessary information and training, hindering the ability to effectively assess and treat SM, a proposed anxiety problem, which the SLP is not licensed to train. However, it is important to note that a few SLPs reported addressing anxiety and feelings about communication. This insight could be due to a variety of factors including emerging literature in the field of speech-language pathology regarding SM, personal research regarding or interest in SM, previous experience with the disorder, etc. Detailed study of this kind would be of great use in the clinical setup and also in addressing issues faced by individuals with SM.

CONCLUSION

According to the study conducted among 116 SLPs, only 34 SLPs responded to the questionnaire. Out of all the SLPs, only a very few SLPs reported to have seen at least one child with SM on their caseload. The results reveal that the SLPs have less knowledge about SM that contributes for the hypothesis that the SLP may lack the obligatory information and training, obstructing the ability to effectively assess and treat SM, a proposed anxiety issue, that the SLP is not authorized to train.

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Conflict of Interest

The authors declare no conflicts of interest.

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