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Training School Psychologists to be Experts in Evidence Based Practices for Tertiary Students with Serious Emotional Disturbance/Behavior Disorders

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Abstract

Selective mutism is characterized by a persistent failure to speak in specific social situations despite the ability to speak and the presence of speech in certain settings. Selective mutism has been characterized as a form of oppositional defiant behavior as well as a form of anxiety. It is estimated that selective mutism occurs in less than one percent of school age children and results from a combination of genetic and environmental factors. This article further discusses the history, diagnostic criteria, characteristics, etiology and course of selective mutism as well as methods of assessment and intervention. A case study is also reviewed.

Selective Mutism

History, Definition and Classification

Selective Mutism (SM) is characterized by a failure to speak in specific social situations despite speaking in other settings (DSM-IV-TR). Selective mutism was first described in 1877 as 'aphasia voluntaria' by Adolf Kussmaul when he documented a condition in which an individual did not speak in certain situations despite the ability to speak (as cited in Sharp, Sherman, & Gross, 2007; Viana, Beidel, & Rabian, 2008). Selective Mutism was first conceptualized as a form of oppositional behavior. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders – Third Edition (DSM-III) and DSM-III-TR labeled this condition as elective mutism to reflect the voluntary condition of SM. Later, in the 1994 publication of the DSM-IV, the term was changed to selective mutism to reflect that the refusal to speak is selective based upon the social context. Therefore, across history, SM has been characterized as a form of oppositional defiant behavior as well as a form of anxiety. Currently, both conceptualizations are accepted as well as debated.

Diagnostic criteria for SM specifies that the disturbance must interfere with educational or occupational achievement or social communication. The duration of the disturbance must last at least one month before acquiring a diagnosis of SM. The failure to speak may not be due to a lack of knowledge of the spoken language required in the particular setting and may not be better accounted for by a

Communication Disorder and can not occur during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorders (DSM-IV-TR).

Characteristics

Children with SM typically talk freely with parents and siblings in the home setting, but when in the school setting do not speak to teachers and peers (Sharp, Sherman, & Gross, 2007). Children with SM often rely on other forms of communication to function and interact in social settings. Examples of these forms of communication include using gestures, shaking their head, pointing and grunting (Sharp et al., 2007). Behavioral characteristics include shyness, behaviorally avoidant, being fearful and often oppositional (Kehle, Madaus, Baratta, & Bray, 1998).

Prevalence, Etiology and Course

It is estimated that less than one percent of school age children meet the diagnostic criteria for SM (Sharp et al., 2007). The onset of SM is not associated with any specific genetic or environmental factor but more likely results from a combination of factors (Viana, Beidel, & Rabian, 2008). For example, genetic factors such as a family history of social phobia or other anxiety disorder is likely to contribute to the onset of SM. Environmental factors such as having parents who reinforce maladaptive behavior patterns may also contribute to the onset of SM.

The typical age of onset for SM is estimated to be between the ages of 2 and 5 years old (Cunningham, McHolm, Boyle, Patel, 2004). However, there is often a significant

lag between the onset and the diagnosis. Although a child may develop SM around the age of 2 years, it is likely to go unnoticed until the child enters school full-time. Before entering preschool or kindergarten, the opportunities for the child to speak in other social situations are likely to be less frequent and of shorter duration, therefore, the failure to speak in such situations may be misinterpreted as a personality characteristic such as shyness. Due to the lag between onset and diagnosis there is a subsequent lag in beginning intervention which further elongates the course of this disorder due to the fact that the earlier intervention begins in the course of this disorder, the stronger the effect of treatment (Stone, Kratochwill, Sladezcek, & Serlin, 2002). Cunningham et al. (2004) found the duration to be between 37 and 151 months, with the average duration lasting 6.9 years.

Selective mutism often occurs comorbidly with other anxiety disorders and psychological symptoms. Some characteristics of SM overlap with those of social phobia and people with SM often display internalizing symptoms (Sharp et al., 2007; Viana et al., 2008). Viana et al. (2008) found that comorbidity with externalizing disorders occurs in 6 to 10 percent of children diagnosed with SM.

Assessment

Currently, there is no standardized assessment of SM. However, a thorough assessment of SM can be conducted through the use of behavioral observations, parent and teacher interviews, functional behavior assessments, ratings scales and

adherence to the diagnostic criteria. Obviously, one of the best ways to assess a child is to observe them directly in their natural environment. When assessing a child believed to have SM, it is imperative to observe them in the classroom or other setting of concern (i.e. daycare). The examiner should be looking at the ways in which the child interacts with his environment, peers and teacher. It may also be necessary to observe the child in the home environment. Most children with SM will speak freely in the home environment, however, the presence of an examiner may invoke the refusal to speak. Therefore, parent report of the child's behavior may be relied upon. It may also be beneficial to have the parents videotape their child interacting at home if direct observation is unattainable.

In addition, to parent report, an interview with the child's teacher will also lend valuable information for diagnostic and intervention purposes. Important information to gather is the number of months the child has refused to speak, if the child uses other methods of communication such as gestures to convey information, and how the child interacts with his peers. Often times, classroom peers will take over functions for the child with SM such as making requests, answering questions, and performing tasks for the child. A functional behavior assessment can also be a valuable tool in determining the reinforcers of the child's behavior.

Behavior rating scales can be used in conjunction with direct behavioral observations and interviews as a method of assessment. Common rating scales that are used include the Behavior Assessment Scale for Children – Second Edition

(BASC-2), Child Behavior Checklist (CBCL), Anxiety Disorders Interview Schedule (ADIS), and the Revised Child Manifest Anxiety Scale (RCMAS).

Another integral part of the assessment process is collaborating with other health professionals. It may be necessary to refer the child to an audiologist or speech and language pathologist (SLP) to rule-out any hearing or communicative disorders. In addition, it may be beneficial to work with the child's pediatrician so the parents can be fully aware of the available treatment options.

Interventions

A number of interventions have been used in the treatment of SM. One of the most common is the behavior therapy model using Applied Behavior Analysis (ABA). ABA uses the principles of operant conditioning in conjunction with social learning theory. It consists of techniques such as shaping, stimulus fading, contingency management, and positive and social reinforcement (Stone et al., 2002).

Self-modeling or self-as-a-model is another technique that has been used in the treatment of SM. The result of self-modeling is a positive change in behavior that results from the repeated observation of oneself producing the desired behavior (Kehle, Owen, & Cressy, 1990). Self-modeling is implemented by creating a videotape of the child producing the desired behavior (i.e. speaking to his teacher) and allowing the child to view it repeatedly over a certain amount of time.

Social skills training has also been used to teach children with SM the skills needed to successfully interact in social situations such as how to use eye contact and greet another person (Fisak, Oliveros, Ehrenreich, 2006). Fisak et al. (2006) recommends conducting parent training with parents of children with SM. Parent training includes teaching parents how to help their child manage anxiety. Parent training also encourages parents to increase the number of opportunities the child has to practice speaking and how to provide positive reinforcement to their child when he speaks. Social Problem Solving Intervention (SPSI) is also used for children with SM (O'Reilly, McNally, Sigafoos, Lancioni, Green, Edrisinha et al., 2008). In this intervention the child is taught a generic set of social rules that can be easily adapted to different social settings.

In addition to behavioral and social interventions, pharmacological interventions are also widely used when SM is perceived as a form of anxiety disorder. Prescriptions commonly used for the treatment of SM include selective serotonin reuptake inhibitors (SSRIs) and monoamine oxidase inhibitors (MAOIs)(Carlson, Mitchell, & Segool, 2008).

The research literature on SM consists largely of single-case experimental designs. To date no controlled trials of treatment methods for SM have been conducted which therefore limits the generalizability of treatment outcomes (Viana et al., 2008; Stone et al., 2002).

Case Study

Beare, Torgerson, and Creviston (2008) conducted an intervention with a 12 year-old boy named Luke who was in the sixth grade and had been selectively mute for seven years. Luke was referred for special education services when he was 5 years-old. At this time he was placed on a 30-day trial in a self-contained classroom for children with emotional and behavioral disorders (EBD). Over the course of his treatment he received various levels of treatment and was placed in a variety of educational settings. At the time of the study, Luke was in a general education classroom under the management of an aide and 30 minutes of resource support per day. Cognitive assessments suggested that Luke's cognitive abilities were within the average range. Observations of Luke across settings showed that he did not speak in any of them but communicated nonverbally through pointing, smiles, head nods, or head shaking. The goal of Luke's intervention was for him to speak in the regular classroom with few or no prompts.

Experimenters conducted an A B B' multiple-baseline design across settings. The dependent measures were the number of verbal responses (see Figure 1) and the rate of speaking per minute (see Figure 2). The conditions consisted of baseline (A), reducing prompts daily (B), and the goal condition of three or fewer prompts (B'). Settings included the resource room, study room and mainstream classroom respectively.

The intervention consisted of simple reinforcement strategies that could be implemented across settings. The intervention also used a stimulus fading component so that if the intervention was effective Luke would not be dependent upon prompts to speak. Stimulus fading was used to decrease the number of prompts used to obtain speech and by changing settings to approximate the general education classroom.

Baseline data was collected in each setting using event-recording over a 30-minute time period. Experimenters asked Luke a series of specific questions without prompting or rewarding for a verbal response. The length of baseline differed for each setting because a multiple-baseline design was employed.

At the beginning of each intervention session Luke was instructed to select a reinforcer that he would like to earn during the session. Reinforcers included items such as soda, candy, game time or free time. The first session he was told that he could have the reinforcer if he verbally responded at least 20 times in a voice that was loud enough to be heard by the teacher with twelve or fewer prompts. The intervention goal remained steady, but prompts were designed to be reduced by two for each subsequent session. However, during the first intervention session Luke only needed one prompt and the following session he didn't need any. At this point it was decided to move Luke to the goal condition of less than four prompts.

Results indicated that the reinforcement and shaping procedure was effective in increasing Luke's verbal responses within each setting. The mean number of responses during the B conditions were 25, 23, and 25 respectively. In the B' condition mean responses increased to 33, 32, and 34 verbal responses. Although the method proved effective in increasing responses, generalization across setting did not occur.

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Figure 1
Verbal Responses Made per 30-Minute Session Across Three Settings

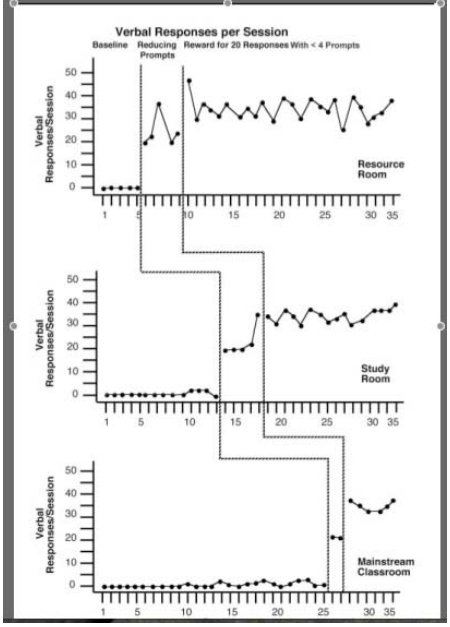

Figure 2
Words Spoken per Minute Across Three Settings