THE ROLES OF SPEECH-LANGUAGE PATHOLOGISTS AND PSYCHOLOGISTS IN THE TREATMENT OF SELECTIVE MUTISM: A COMPARATIVE STUDY

By

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For the degree of Master of Arts

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(date) March 15, 2010

*We also certify that written approval has been obtained for any proprietary material contained therein.
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The Roles of Speech-Language Pathologists and Psychologists in the Treatment of Selective Mutism: A Comparative Study

Abstract

by

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Objective: The objective of this study was to compare current beliefs and practice trends in selective mutism between the speech-language pathologist and the psychologist.

Methods: Questionnaires addressing the areas of knowledge, treatment, collaboration, and demographics were constructed on Survey Monkey. Links to the questionnaire were sent to speech-language pathologists and psychologists via e-mail. Results were collected and analyzed by informal observation of trends and cross-tab analyses for each group. Group results were compared in order to draw conclusions about current beliefs and practice trends. Results: The psychologist had higher self-ratings of knowledge regarding selective mutism than the speech-language pathologist. However, both professionals reported a similar number of children with selective mutism on their caseloads. Additionally, the speech-language pathologist reported treating the disorder as a communication disorder by focusing on expressive language and pragmatic skills, whereas the psychologist focused on anxiety-relief strategies. Finally, collaboration among the professionals was uncommon although both recognized the advantages of collaboration. Conclusions: There is a disconnect between the two professionals, which may be preventing a more comprehensive assessment and treatment approach to selective mutism.
The Roles of Speech-Language Pathologists and Psychologists in the Treatment of Selective Mutism: A Comparative Study

Definition and Diagnostic Criteria

Selective mutism (SM) is a childhood disorder marked by failure to speak in specific social situations despite speaking in other contexts (Bergman, Piacentini, & McCracken, 2002; Cohan, Chavira, & Stein, 2006; Manassis & Tannock, 2008; Schwartz, Freedy, & Sheridan, 2006; Sharkey, McNicholas, Barry, Begley, & Ahern, 2008; Sharp, Sherman, & Gross, 2007; Yeganeh, Beidel, Turner, Pina, & Silverman, 2003). There are additional DSM V diagnostic criteria for selective mutism including: (1) the disturbance interferes with educational or occupational achievement or with social communication; (2) the duration of the disturbance is at least one month (not limited to the first month of school); (3) the failure to speak is not due to a lack of knowledge of, or comfort with, the spoken language required in the social situation; (4) the disturbance is not better accounted for by a communication disorder, such as stuttering; (5) the disturbance does not occur exclusively during the course of a pervasive developmental disorder, schizophrenia or other psychotic disorder (American Psychiatric Association, 2010; Keen, Fonseca, & Wintgens, 2009).

Selective mutism was first documented by German physician Adolf Kussmaul in 1877. Kussmaul termed the condition *aphasia voluntaria* signifying the belief that the child voluntarily chose not to speak. In 1934, Swiss child psychiatrist Moritz Tramer applied the term *elective* mutism still suggesting that the mutism was voluntary. Only recently has the term *selective mutism* been used to avoid previous beliefs that the child was refusing to speak (Viana, Beidel, & Rabian, 2009).
Currently, little is understood about the diagnosis of selective mutism even though the condition has been documented for over a century. However, several studies within the past 15 years have uncovered new evidence addressing the development of the disorder. The prevalence of the disorder ranges from .03% up to 2% in school settings (Keen et al., 2009). This is consistent with observations by Sharp et al. (2007) who noted that prevalence estimates in schools seem to be higher than those from clinical samples. The disorder seems to occur up to twice as much in girls than boys with an estimate range of 2.6 females:1 male to 1.5 females:1 male (Sharp et al., 2007). The diagnosis typically occurs once the child enters school as episodes of mutism are first recognized in the new social setting. However, a referral for professional services to address the symptoms does not usually occur for another few years (Sharkey et al., 2008; Sharp et al., 2007).

Most recently, studies have shown a strong relation between selective mutism and anxiety disorders. The majority of literature supports the co-morbidity of an anxiety disorder with selective mutism or describes selective mutism as a symptom of a social anxiety disorder or social phobia (Bergman et al., 2002; Cohan et al., 2006; Dummit et al. 1997; Fiskar, Oliveros, & Ehrenreich, 2006; McInnes, Fung, Manassis, Fiksenbaum, & Tannock, 2004; Manassis & Tannock, 2008; Schwartz et al., 2006; Sharkey et al., 2008; Sharp et al., 2007; Steinhausen, Wachter, Laimbock, & Winkler-Metzke, 2006; Viana et al., 2009; Yeganeh et al., 2003). Out of this evidence come new approaches to assessment and treatment. However, current literature offers scant evidence on the effectiveness of these approaches. There is also a disconnect between professionals who typically assess and treat selective mutism, specifically the speech-language pathologist and psychologist (Keen et al., 2008). Although it is evident that the psychologist is trained to treat anxiety
disorders and so will focus on symptoms of anxiety in the treatment of selective mutism while the speech-language pathologist is trained to treat communication disorders and so will focus on communication deficits in the treatment of selective mutism, current literature does not give a clear explanation of each professional’s role in the assessment and treatment of selective mutism in collaborative treatment. Therefore, this lack of information calls for more exploration in order to form a more strategic and comprehensive approach to the assessment and treatment of selective mutism between these professionals.

**Existing Literature in Speech-Language Pathology**

Very little literature addressing selective mutism exists in the field of speech-language pathology. Of the literature that does exist, most offers an explanation of the disorder as an anxiety disorder. There are very few experimental studies, and of the experimental studies that exist, many involve case studies, are not randomized and/or do not contain a control group. The literature reports assessment procedures by parent-rating scales regarding the child’s difficulty in settings other than the home environment and child self-rating scales regarding personal difficulty in settings other than the home environment as well as use of standardized tests and other psychological rating scales (Schwartz et al., 2006; Sharkey et al., 2008; Viana et al., 2009). This suggests that speech-language pathologists mainly rely on parent reports regarding the child’s difficulties in settings other than the home and standardized testing scores to assess children with selective mutism, often resulting in an expressive language disorder diagnosis when no language disorder actually exists. However, the speech-language pathologist may also screen hearing to rule out hearing deficits that could be contributing
to mutism, examine the oral mechanism to rule out deficits in the coordination and strength of oral musculature that could be contributing to mutism, and evaluate speech and language through standardized testing to rule out the possibility of expressive, receptive, and other non-verbal communication deficits that could be contributing to mutism (The American Speech-Language-Hearing Association, 2010). This more comprehensive assessment approach may give the speech-language pathologist more information regarding the child’s speech and language abilities, which may lend to a more appropriate diagnosis.

The literature also examines different therapies, ranging from manual-based approaches to group approaches, each claiming to be effective (Schwartz et al., 2006; Sharkey et al., 2008; Viana et al., 2009). This may result in error in the assessment and progress of the patient with selective mutism as well as a lack of knowledge about the diagnosis of selective mutism. The American-Speech-Language-Hearing Association (2010) describes the speech-language pathologist’s role in the treatment of selective mutism as one that depends on the specific needs of the child and family. This may involve a combination of strategies in a behavioral treatment program including stimulus fading, shaping, and self-modeling techniques. If the assessment reveals a specific speech or language deficit, the speech-language pathologist must focus on those deficits while continuing to address the mutism (The American-Speech-Language-Hearing Association, 2010). Finally, the speech-language pathologist is typically the professional to coordinate intervention among the family, classroom teachers, and other clinicians (Schum, 2002). Therefore, the speech-language pathologist is also responsible for coordinating an integrated approach for the child among the school staff (Schum, 2002). However,
according to Schum (2002), speech-language pathologists may not contribute deficits to anxiety and consequently ignore symptoms that should be addressed in treatment. This disconnect calls for a more knowledgeable approach to the assessment, diagnosis, and treatment of selective mutism on behalf of the speech-language pathologist.

Existing Literature in Psychology

The field of psychology contains much more literature on selective mutism but is still limited when compared to literature on other childhood psychological disorders. The literature again points out the need for a systematic and comprehensive approach to the assessment and treatment of children with selective mutism (Schwartz et al., 2006; Sharkey et al., 2008; Viana et al., 2009). Many different assessment and treatment methods have been proposed in the field of psychology, but there remains some discrepancy between these various approaches as assessment relies on parent report of their child’s difficulty in settings other than the home, and many treatments claim to be effective. The NYU Child Study Center (2010) discusses effective treatment that addresses three basic problems: (1) the child’s high level of anxiety in social situations, (2) the limited experience the child has had in speaking with people other than family members, and (3) the high level of support that is present for nonverbal communication. Also emphasized is a behavioral therapy approach with family intervention along with the use of medication (NYU Child Study Center, 2010). Finally, the use of selective serotonin reuptake inhibitors have been shown to be helpful in this population as they seem to increase the number of situations in which the child will speak (NYU Child Study Center, 2010).
Literature also shows a high rate of co-morbid communication disorders, which may be incorrectly diagnosed as they are difficult to assess (Bergman et al., 2002; Cohan et al., 2006; Dummit et al., 1997; Fiskar et al., 2006; McInnes et al., 2004; Manassis & Tannock, 2008; Schwartz et al., 2006; Sharkey & McNicholas, 2007; Sharp et al., 2007; Steinhausen et al., 2006; Viana et al., 2009; Yeganeh et al., 2003). This again suggests error in the assessment and progress of the patient with selective mutism.

Most of the literature does involve treatment by both the speech-language pathologist and psychologist. However, it should be noted that both of these professionals should be included when conducting a research study in order to assess all variables. The question remains if these professionals collaborate in everyday treatment of children with selective mutism and if that collaboration has shown evidence of higher efficacy than separate or individual treatment.

Some general themes in literature include: (1) differences on the prevalence of selective mutism, but all literature agrees that it is more prevalent than previously hypothesized; (2) reports that the cause of selective mutism is unknown; (3) a focus on the school-age population; (4) reports of high rates of co-morbid communication disorders, especially in expressive language; (5) concurrence that a more dynamic assessment needs to be in place for children with selective mutism; (6) concurrence that a more comprehensive approach to the treatment of selective mutism needs to be determined. See Table 1 for a summary of experimental literature.
The research questions to be addressed in this study include (1) Do psychologists or speech-language pathologists have higher self-ratings of knowledge about selective mutism?, (2) What specific treatment strategies are employed by the speech-language pathologist and psychologist?, and (3) How common is collaborative treatment for selective mutism between the psychologist and speech-language pathologist?. It is hypothesized that the psychologist will have higher self-ratings regarding knowledge of selective mutism since the disorder is strongly linked to anxiety disorders, such as social phobia. However, it is also hypothesized that speech-language pathologists will have a similar number of children with selective mutism on their caseloads due to the fact that many children with selective mutism are typically thought to have a language disorder.

<table>
<thead>
<tr>
<th># Subjects</th>
<th>Age, Gender</th>
<th>Settings</th>
<th>Variables analyzed</th>
<th>Research design</th>
<th>Types of measurement</th>
<th>Threats to validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>3-17</td>
<td>Clinic</td>
<td>Medical hx, fear, avoidance</td>
<td>Pseudo</td>
<td>Rating scales, clinical assess.</td>
<td>Non-random, no control, co-morbid dx</td>
</tr>
<tr>
<td></td>
<td>2.6 Females, 1 Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>Clinic</td>
<td>Parent education, # of verbalizations, IQ</td>
<td>Case study</td>
<td>Interview, scales, questions</td>
<td>Dual dx, cultural barrier, non-compliance</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>7-14</td>
<td>Home and Clinic</td>
<td>Narrative skills, expressive language</td>
<td>Pseudo</td>
<td>Rating scales, standard. tests, narrative</td>
<td>Small sample, homogeneity in groups</td>
</tr>
<tr>
<td></td>
<td>Equal # males and females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6.1</td>
<td>Clinic</td>
<td>Functional impairment scores</td>
<td>Pseudo, pre and post</td>
<td>Pre- and post-test</td>
<td>Small sample, no control, no objective data</td>
</tr>
<tr>
<td></td>
<td>4 Females, 1 Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample 1=33</td>
<td>21-22</td>
<td>Clinic</td>
<td>SM symptoms, other major psychopathology</td>
<td>Retrospective</td>
<td>Data collected at first assessment, follow-up interview, follow-up psychiatric assessment</td>
<td>Cohort effects, limited data, lack of control</td>
</tr>
<tr>
<td>Sample 2=26</td>
<td>Matched for gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample 3=30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regarding treatment strategies, it is hypothesized that the speech-language pathologist will treat the mutism as a communication disorder, when no disorder may really exist, whereas the psychologist will focus on relieving anxious symptoms during treatment. Finally, it is hypothesized that collaborative treatment of selective mutism between the psychologist and speech-language pathologist is uncommon in the majority of cases.

Methods

Participants

Speech-language pathologists and psychologists in Ohio were recruited via e-mail and list-serv distribution. The Ohio Speech Language and Hearing Association member directory was accessed through paid membership in order to obtain the e-mail addresses of speech-language pathologists. Surveys were sent to a total of 954 speech-language pathologists regardless of sex, age, geographic and work location, or experience. A total of 148 speech-language pathologists started the survey, and a total of 128 speech-language pathologists completed the survey, resulting in an 86.5% completion rate. The Ohio Psychological Association member list-serv was accessed through paid membership in order to distribute the survey to psychologists. Again, surveys were distributed to over 800 psychologists regardless of sex, age, geographic and work location, or experience. A total of 27 psychologists started the survey, and a total of 24 psychologists completed the survey, resulting in an 88.9% completion rate. See Table 2 for participant descriptions.
Table 2. Demographic Characteristics of Study Participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Speech-Language Pathologists (n=148)*</th>
<th>Psychologists (n=27)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3 (2.3%)</td>
<td>4 (20%)</td>
</tr>
<tr>
<td>Female</td>
<td>125 (97.7%)</td>
<td>16 (80%)</td>
</tr>
<tr>
<td>Geographic Area of Practice, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>41 (32%)</td>
<td>8 (42.1%)</td>
</tr>
<tr>
<td>Suburban</td>
<td>61 (47.7%)</td>
<td>11 (57.9%)</td>
</tr>
<tr>
<td>Rural</td>
<td>26 (20.3%)</td>
<td>0</td>
</tr>
<tr>
<td>Setting of Practice, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>64 (51.2%)</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>Hospital</td>
<td>15 (12%)</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>Private Practice</td>
<td>5 (4%)</td>
<td>10 (55.6%)</td>
</tr>
<tr>
<td>Other</td>
<td>34 (27.2%)</td>
<td>4 (22.2%)</td>
</tr>
<tr>
<td>Years as Licensed Professional, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>75 (61.9%)</td>
<td>11 (64.7%)</td>
</tr>
<tr>
<td>10 or less years</td>
<td>36 (29.7%)</td>
<td>6 (35.3%)</td>
</tr>
</tbody>
</table>

*Participants were able to skip questions on the questionnaire, accounting for discrepancies in sample size and percentages for each question.

**Procedures**

Two surveys, one for speech-language pathologists and one for psychologists, were constructed via Survey Monkey1 to collect data from speech-language pathologists and psychologists. Survey items were developed based on a review of the literature, consultation with a practicing psychologist who specializes in the treatment of selective mutism, informal observation and discussion with practicing speech-language pathologists, and discussion with parents of children with selective mutism. The questions were designed to explore beliefs and practices among speech-language pathologists and psychologists regarding treatment of selective mutism and collaboration among treating professionals. Questions were also designed to rate knowledge of selective mutism and identify demographic information. Both surveys contained the same or very similar questions and were comprised of various response types including forced choice, open-ended response, and Likert scale. The research proposal was submitted to

1 Survey Monkey is an online survey tool allowing users to create their own surveys and collect and analyze results.
the CASE Institutional Review Board (IRB) and the survey was deemed exempt as the participants were anonymous.

Once the questions were developed, the survey was piloted by having 10 practicing speech-language pathologists and six practicing psychologists comment on practicality of questions, wording of questions, and ease of completion. Based on this feedback, several minor revisions were made to both surveys, and final surveys were produced. See appendices for surveys.

A link to the speech-language pathology version of the survey on Survey Monkey was sent to a total of 954 e-mail addresses for speech-language pathologists, and 75 of those emails were returned, resulting in a total of 879 surveys distributed to speech-language pathologists. A response rate of 17% was obtained from speech-language pathologists, which according to Kongsved et al. (2007), is typical for online survey research. The survey link was distributed one time with no follow-up reminder e-mails.

The link to the psychologist version of the survey on Survey Monkey was distributed via list-serv to over 800 psychologists. Due to a poor response rate, the survey link was distributed via the list-serv a second time, and 15 individual e-mails were sent to e-mail addresses of psychologists obtained from a personal contact. An overall response rate of 3.3% was obtained from psychologists, which according to Kongsved et al. (2007), is much below average for online survey research.

Validity and Confidentiality

All surveys completed on Survey Monkey remained anonymous as the research team was unable to trace surveys back to any particular participant. There were no questions on the survey that revealed the identity of the participant.
Analysis

The research completed in this study was exploratory and, in part, subjective. Individual and collective surveys were analyzed by hand to identify trends. SPSS Statistics data analysis software was used to calculate frequencies and cross-tabs for select variables. Chi² analyses were used to observe significance of identified trends in order to draw conclusions and identify direction for future research.

Results

Hypothesis 1: The psychologist has higher self-ratings regarding knowledge of selective mutism

<table>
<thead>
<tr>
<th>Table 3. Hypothesis 1 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
</tr>
<tr>
<td>Please rate your knowledge of selective mutism.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Where did you obtain your knowledge of the disorder?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>If you were confronted with a case of selective mutism today, would you feel comfortable treating the client?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Have you previously had or do you currently have children with selective mutism on your caseload?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>How many referrals do you get each calendar year for children with selective mutism?</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*The two most prominent answers for both groups are represented.

Results support hypothesis 1 as psychologists did have higher self-ratings of knowledge regarding selective mutism than speech-language pathologists. One speech-language pathologist (0.8%) reported never hearing of selective mutism, and four speech-language pathologists (3%) reported hearing of the disorder without knowing anything about the disorder. No psychologists reported on either of these options. Only 4.5% of speech-language pathologists reported having extensive knowledge of selective mutism.
as compared to 20% of psychologists. Neither psychologists nor speech-language pathologists reported having expert knowledge.

Both psychologists and speech-language pathologists reported obtaining information from the same sources including personal research and professional training. However, psychologists reported more use of scholarly journals to obtain information.

Twice the percentage of psychologists reported feeling comfortable treating the disorder if confronted today. However, there was not a significant difference between the psychologist and speech pathologist regarding experience with children with selective mutism on their caseloads, although 25% more psychologists reported 1-2 referrals each year than speech-language pathologists. See Table 3 for a summary of hypothesis 1 results.

*Hypothesis 2: The speech-language pathologist will treat the mutism as a communication disorder, whereas the psychologist will focus on relieving anxious symptoms during treatment*

**Table 4. Hypothesis 2 Results**

<table>
<thead>
<tr>
<th>Question</th>
<th>Speech-Language Pathologists</th>
<th>Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which skills do you most often focus on during treatment?</td>
<td>44.1% Expressive language</td>
<td>76.2% Anxiety relief strategies</td>
</tr>
<tr>
<td></td>
<td>36.8% Pragmatic skills</td>
<td>9.5% Language</td>
</tr>
<tr>
<td>On average, how many total treatment sessions are necessary to effectively treat children with selective mutism?</td>
<td>47.1% More than 30</td>
<td>31.8% More than 30</td>
</tr>
<tr>
<td></td>
<td>20.7% Other</td>
<td>22.7% Other</td>
</tr>
<tr>
<td>How often do you typically treat a single child with selective mutism?</td>
<td>67.9% Once a week</td>
<td>43.5% Once a week</td>
</tr>
<tr>
<td></td>
<td>27.1% Other</td>
<td>43.5% Other</td>
</tr>
<tr>
<td>Which approach do you most often use when treating children with selective mutism?</td>
<td>78.9% Both group and individual</td>
<td>66.7% Individual therapy</td>
</tr>
<tr>
<td></td>
<td>14.1% Individual therapy</td>
<td>33.3% Both group and individual</td>
</tr>
<tr>
<td>In which setting does treatment most often take place?</td>
<td>47.1% Clinic</td>
<td>76.2% Clinic</td>
</tr>
<tr>
<td></td>
<td>27.9% Other</td>
<td>19% Other</td>
</tr>
<tr>
<td>Which reinforcement schedule do you most often use during treatment?</td>
<td>43.6% Continuous</td>
<td>61.9% Intermittent</td>
</tr>
<tr>
<td></td>
<td>29.3% No specific schedule</td>
<td>23.8% No specific schedule</td>
</tr>
</tbody>
</table>

*The two most prominent answers for both groups are represented.

Results supported hypothesis 2 as the speech-language pathologist reported focusing on expressive language and pragmatic skills during treatment, and the
psychologist reported focusing on anxiety relief strategies during treatment. Both the speech-language pathologist and psychologist agreed that more than 30 treatment sessions were necessary or that the number of treatment sessions needed depended upon the specific case. However, there was disagreement in the frequency of treatment as most speech-language pathologists reported that a child with selective mutism should be seen at least once a week and perhaps multiple times a week for most effective treatment, whereas the psychologist reported that a child with selective mutism should be seen once a week or only a few times per year as progress is made for most effective treatment.

There was also disagreement in the therapy approach as the majority of speech-language pathologists reported delivering treatment through a combination of individual and group therapy, whereas the majority of psychologists reporting using individual therapy most frequently.

The speech-language pathologist reported delivering treatment in a clinic most often or in a school therapy office or across multiple settings. The psychologist also reported delivering treatment in a clinic most often but also reported using a private office and focusing on homework for generalization of techniques.

Finally, speech-language pathologists reported using a continuous reinforcement schedule most frequently followed by no specific schedule, whereas the psychologist reported using an intermittent reinforcement schedule most frequently followed by no specific schedule. See Table 4 for a summary of findings for hypothesis 2.
Hypothesis 3: Collaborative treatment of selective mutism between the psychologist and speech-language pathologist is uncommon

**Table 5. Hypothesis 3 Results.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Speech-Language Pathologists</th>
<th>Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which professionals do you regularly collaborate with in the assessment and treatment of children with selective mutism?</td>
<td>35.2% Psychologist</td>
<td>40% Other</td>
</tr>
<tr>
<td></td>
<td>27.3% School teacher</td>
<td>25% School teacher</td>
</tr>
<tr>
<td>How often do you collaborate with these professionals during a single treatment plan?</td>
<td>32.8% Every other session</td>
<td>56.3% Other</td>
</tr>
<tr>
<td></td>
<td>32.8% Other</td>
<td>12.5% Every other session</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.5% Never</td>
</tr>
<tr>
<td>If you do not collaborate treatment with another professional, why?</td>
<td>28.6% Inconvenient</td>
<td>40% Not available in workplace</td>
</tr>
<tr>
<td></td>
<td>28.6% Not available in workplace</td>
<td>20% Unnecessary</td>
</tr>
<tr>
<td></td>
<td>*Majority skipped question</td>
<td>*Majority skipped question</td>
</tr>
<tr>
<td>How many referrals do you get each calendar year for children with selective mutism?</td>
<td>52.5% 1-2 referrals</td>
<td>76.5% 1-2 referrals</td>
</tr>
<tr>
<td></td>
<td>43.3% 0 referrals</td>
<td>23.5% 3-4 referrals</td>
</tr>
</tbody>
</table>

*The two most prominent answers for both groups are represented.

Results supported hypothesis 3 as neither the speech-language pathologist nor psychologist reported a high instance of regular collaboration. Most speech-language pathologists reported collaboration with the psychologist or with multiple professions either every other session or as needed for the specific case. Most psychologists reported collaborating with multiple professionals, including the speech-language pathologist, and the child’s teacher as needed for the specific case. A small minority of both speech-language pathologists and psychologists reported that they never collaborate and that collaboration was unnecessary. An equal number of speech-language pathologists reported that collaboration was inconvenient or that no professionals were available for collaboration in the workplace as reasons for not collaborating. The psychologist reported that there were no professionals available for collaboration in the workplace or that collaboration was unnecessary as reasons for not collaborating. It is important to note that many participants in both groups skipped the survey question regarding the reason why they did not collaborate with other professionals.
The majority of speech-language pathologists reported 1-2 referrals each year closely followed by 0 referrals each year. The majority of psychologists reported 1-2 referrals each year followed by 3-4 referrals each year. See Table 5 for a summary of results for hypothesis 3.

Additional Analyses of Questionnaires

Data analysis of results obtained from speech-language pathologists in SPSS shows significance among variables in several areas. While these results do not directly address the hypotheses in this study, they contribute some significant and interesting findings.

**Table 6. Crosstab Analysis for Speech-Language Pathologist’s Previous Experience with Selective Mutism**

<table>
<thead>
<tr>
<th>Question</th>
<th>Have you previously had or do you currently have children with selective mutism on your caseload?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What reinforcement schedule do you most often use during treatment?</td>
<td><em>(p=0.000)</em></td>
</tr>
<tr>
<td>Do you incorporate parents and/or other caregivers into the treatment sessions?</td>
<td><em>(p=0.000)</em></td>
</tr>
<tr>
<td>Which professionals do you regularly collaborate with in the assessment and treatment of children with selective mutism?</td>
<td><em>(p=0.009)</em></td>
</tr>
<tr>
<td>Which setting describes your job as a speech-language pathologist?</td>
<td><em>(p=0.003)</em></td>
</tr>
</tbody>
</table>

Speech-language pathologists who reported having had a child with selective mutism on their caseload differed from those who did not in their responses to the reinforcement used, incorporating parents into therapy, collaboration with other professionals, and work setting. Speech-language pathologists who reported having had a child with selective mutism on their caseload also reported that they did not use a specific treatment schedule, did involve parents into therapy sessions, received 1-2 referrals each year, collaborated most frequently with the child’s school teacher, and worked in a school setting.
Speech-language pathologists who reported working in a school setting differed from those who reported working in other settings in their responses to the most common setting in which treatment takes place, the number of referrals they receive each year, collaboration with other professionals, and geographic area. Speech-language pathologists who reported working in a school setting also reported that they conducted therapy in a clinic or school therapy office, received 1-2 referrals each year, collaborated most frequently with the child’s school teacher, and worked in a suburban setting.

Speech-language pathologists who reported being licensed for 10 or more years differed from those who reported being licensed for less than 10 years in their responses to collaboration with other professionals, comfort level with selective mutism, and work setting. Speech-language pathologists who reported being licensed for 10 or more years also reported that they did not collaborate because appropriate professionals were not 

---

**Table 7. Crosstab Analysis for Speech-Language Pathologist’s Job Setting**

<table>
<thead>
<tr>
<th>Question</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>In which setting does treatment most often take place?</td>
<td>0.026</td>
</tr>
<tr>
<td>How many referrals do you get each calendar year for children with selective mutism?</td>
<td>0.091</td>
</tr>
<tr>
<td>Which professionals do you regularly collaborate with in the assessment and treatment of children with selective mutism?</td>
<td>0.046</td>
</tr>
<tr>
<td>Which type of geographic area do you serve as a speech-language pathologist?</td>
<td>0.088</td>
</tr>
</tbody>
</table>

---

**Table 8. Crosstab Analysis for Speech-Language Pathologist’s Number of Years as Licensed Professional**

<table>
<thead>
<tr>
<th>Question</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you do not collaborate treatment with another professional, why?</td>
<td>0.048</td>
</tr>
<tr>
<td>If you were confronted with a case of selective mutism today, would you feel comfortable treating the client?</td>
<td>0.052</td>
</tr>
<tr>
<td>Which setting describes your job as a speech-language pathologist?</td>
<td>0.068</td>
</tr>
</tbody>
</table>

*Group 1 consisted of speech-language pathologists who were licensed for 10+ years, and group 2 consisted of speech-language pathologists who were licensed for less than 10 years.
available for collaboration in their workplace, would feel comfortable treating a case of selective mutism if confronted today, and worked in a school setting.

<table>
<thead>
<tr>
<th>Table 9. Crosstab Analysis for Psychologist’s Previous Experience with Selective Mutism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you previously had or do you currently have children with selective mutism on your caseload?</td>
</tr>
<tr>
<td>Which approach do you most often use when treating children with selective mutism? p=0.042</td>
</tr>
<tr>
<td>Do you incorporate parents or other caregivers into the treatment sessions? If yes, how are they involved? p=0.088</td>
</tr>
<tr>
<td>Do you incorporate parents or other caregivers into the treatment sessions? If no, why aren’t they involved? p=0.082</td>
</tr>
</tbody>
</table>

Psychologists who reported having had a child with selective mutism on their caseload differed from those who did not in their responses to treatment approach and incorporating parents into therapy. Psychologists who reported having had a child with selective mutism on their caseload also reported that they used an individual therapy approach most often, incorporated parents into the therapy session for reinforcement, and if they did not incorporate parents into the therapy sessions, felt that they were a distraction.

<table>
<thead>
<tr>
<th>Table 10. Crosstab Analysis for Psychologist’s Work Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which setting describes your job as a psychologist? p=0.021</td>
</tr>
<tr>
<td>If you were confronted with a case of selective mutism today, would you feel comfortable treating the client?</td>
</tr>
<tr>
<td>Which type of geographic area do you serve as a psychologist? p=0.023</td>
</tr>
</tbody>
</table>

Psychologists who reported working in a clinic setting differed from those who reported working in other settings in their responses to comfort with selective mutism and geographic area. Psychologists who reported working in a clinic setting also reported that they would feel comfortable treating a case of selective mutism if confronted today and worked in a suburban setting.

<table>
<thead>
<tr>
<th>Table 11. Crosstab Analysis for Psychologist’s Number of Years as Licensed Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Years as Licensed Professional* p=0.044</td>
</tr>
<tr>
<td>Are you male or female?</td>
</tr>
</tbody>
</table>

*Group 1 consisted of speech-language pathologists who were licensed for 10+ years, and group 2 consisted of speech-language pathologists who were licensed for less than 10 years.
Psychologists who reported being licensed for 10 or more years differed from those who reported being licensed for less than 10 years in sex. Psychologists who reported being licensed for 10 or more years also reported almost equally to being male or female.

Discussion

The goal of the study was to compare and contrast current practice trends and beliefs regarding selective mutism between the psychologist and speech-language pathologist in order to identify variables that may lead to a more comprehensive approach to the assessment and treatment of the disorder. Through survey research, the responses to questions regarding treatment of selective mutism, collaboration among treating professionals, knowledge of selective mutism, and demographic information answered by speech-language pathologists and psychologists were compared and subjectively measured for trends. Crosstab analyses were also conducted on additional variables for the speech-language pathologists as they offered interesting perspectives and insights to the study. Due to a poor response from psychologists, conclusive comparisons could not be made. However, trends were observed and are discussed in the following.

Hypothesis 1: The psychologist has higher self-ratings regarding knowledge of selective mutism

Based on a sample size of 28 psychologists, it was suggested that psychologists may have higher self-ratings of knowledge regarding selective mutism than speech-language pathologists. As expected, this finding provides support for hypothesis 1. Higher self-ratings may result from the fact that selective mutism involves components on an anxiety disorder, which is commonly treated by a psychologist. However, speech-
language pathologists reported, almost equal to psychologists, minimal to moderate knowledge of selective mutism, and over half of the speech-language pathologists who responded reported having at least one child with selective mutism on their caseload as compared to approximately two-thirds of psychologists. Additionally, the psychologist reported more referrals each year than the speech-language pathologist, of which the majority still reported 1-2 referrals each year. While this finding was expected as noted previously since many initially refer to the speech-language pathologist with the belief that the child is exhibiting a speech or language deficit, it brings to question whether the speech-language pathologist is the most suitable professional to treat selective mutism without collaboration with a psychologist.

Although the majority of speech-language pathologists reported minimal-moderate knowledge and previous experience with selective mutism, only one-third reported feeling comfortable treating a case of selective mutism if confronted today. In contrast, approximately two-thirds of psychologists reported feeling comfortable treating a case of selective mutism if confronted today even though they did not report much more previous experience than the speech-language pathologist in this limited sample. Therefore, it is speculated that the psychologist may have access to more training and information regarding the disorder that lends to confidence in treating the disorder as compared to the speech-language pathologist whose field is just now observing an increase in training and information regarding selective mutism (American Speech-Language-Hearing Association, 1997-2010).

Other comments by speech-language pathologists added interesting insight into the beliefs of speech-language pathologists regarding selective mutism. One speech-
language pathologist noted that in many cases, there has been sexual abuse. While this belief was previously held to be true, it has since been discredited, suggesting misunderstanding of the disorder. This belief was common in the past, but as more is discovered about the disorder, the belief regarding the involvement of sexual abuse or another trauma has been brought into disrepute.

**Hypothesis 2:** The speech-language pathologist will treat the mutism as a communication disorder, whereas the psychologist will focus on relieving anxious symptoms during treatment

Again, results supported this hypothesis as speech-language pathologists reported treatment addressing expressive language skills and pragmatics, whereas a majority of psychologists reported focusing on anxiety-relief strategies as expected. This provides support for the speculation that the speech-language pathologist may lack necessary information and training, hindering the ability to effectively assess and treat selective mutism, a proposed anxiety problem, which the speech-language pathologist is not licensed to train. However, it is important to note that a few speech-language pathologists 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 selective mutism, personal research regarding or interest in selective, mutism, previous experience with the disorder, etc.

Additionally, a large majority of speech-language pathologists reported utilizing a combination of group and individual treatment, which is often appropriate for the treatment of expressive language and pragmatic skills. Since many of the speech-language pathologists who responded are employed in a school setting and execute
treatment in a therapy office, students with selective mutism may be grouped with other students who have different communication problems for therapy, which could be counter-productive for both students. In contrast, a large majority of psychologists reported individual treatment, which may be more appropriate and conducive to progress due to the anxiety component.

Regarding treatment, there were some additional statements that were interesting and lend insight into the beliefs of speech-language pathologists regarding the disorder. One speech-language pathologist noted that she incorporates more students into a group therapy session as the student with selectively mutism gets older. However, another speech-language pathologist noted that the older the selectively mute student gets, the more resistant he/she to group therapy. If the latter was true, it is questionable whether incorporating more students into a therapy session would help or hinder the selectively mute student’s willingness to participate and progress.

Some speech-language pathologists noted that they believe treatment relies on the ability of the student to understand language, communication roles, and pragmatics. Another speech-language pathologist noted that as the student becomes older, she introduces more specific language content. This could suggest that speech-language pathologists believe children with selective mutism have a poor understanding of language, which is not necessarily true unless there is a co-morbid language disorder. Therefore, if these beliefs are common in the field of speech-language pathology, it might be questioned as to whether speech-language treatment is effectively treating selective mutism or if is treating a speech-language disorder that does not exist.
Based on these statements, there may be a discrepancy between the therapists’ beliefs regarding the treatment of selective mutism, which could be due to a lack of information or personal experience with a particular case or cases of selective mutism. This could also suggest some misunderstanding of common characteristics of selective mutism and appropriate treatment strategies. Perhaps this information suggests that there may not be a prescribed model of treatment that can be applied to selective mutism as a disorder but that the speech-language pathologist and psychologist must consider each student with selective mutism individually and develop a treatment plan specifically for that student. If this were the case, more information regarding characteristics and underlying factors of selective mutism is needed, especially in the field of speech-language pathology in order to promote evidence-based practice for effective treatment. 

Hypothesis 3: Collaborative treatment of selective mutism between the psychologist and speech-language pathologist is uncommon

Neither the speech-language pathologist nor psychologist reported a high instance of regular collaboration, but of the collaboration reported, most speech-language pathologists collaborated with the psychologist or with multiple professions either every other session or as needed for the specific case. This suggests that speech-language pathologists recognize the need to collaborate with psychologists since the disorder is believed to be rooted in anxiety. Most psychologists reported collaboration with multiple professionals, including the speech-language pathologist, and the child’s teacher as needed for the specific case. This also suggests that the psychologist may recognize the need to collaborate with the speech-language pathologist in order to deliver the most effective treatment. Psychologists may recognize this need since school systems routinely
employ more speech-language pathologists than psychologists, and so the speech-language pathologist may be mainly responsible for executing treatment of selective mutism in the school system (Schum, 2002). Both professionals reported collaboration as needed, which may be specific to each individual case but does not imply regular, consistent collaboration between the psychologist and speech-language pathologist in the treatment of selective mutism.

A small minority of both speech-language pathologists and psychologists reported that they never collaborate and that collaboration was unnecessary. The speech-language pathologist either believed collaboration to be inconvenient or reported that no professionals were available for collaboration in their workplace, which may again support the fact that there are often few psychologists employed by a school system, making collaboration inconvenient or impossible. The psychologist reported that there were no professionals available for collaboration in the workplace or that collaboration was unnecessary. It is interesting to note that both speech-language pathologists and psychologists recognized the advantages of collaboration, and only a small minority in each group named any disadvantages to collaboration. Therefore, while both professionals recognize the benefits of collaboration in the treatment of selective mutism, neither professional is committed to regular, consistent collaboration.

Conclusions

In conclusion, there is a disconnect between the speech-language pathologist and psychologist in the treatment of selective mutism. This is evidenced by differences in knowledge regarding the disorder, varying treatment strategies, and little reported collaboration. The question now becomes whether there a lack of information that is
causing different approaches or differing beliefs regarding selective mutism between the professions or if there is general disagreement between speech-language pathologists and psychologists about the best way to approach the disorder even with information available.

Although there are some similarities between the professionals regarding beliefs about treatment and collaboration, it has become evident that the speech-language pathologist may not have the same opportunities and resources that may be available to psychologists as selective mutism is not primarily a speech-language disorder. This suggests that the speech-language pathologist may not be the most appropriate professional to assess and treat selective mutism and should regularly collaborate with psychologists upon receiving a referral for a child with the DSM V diagnostic criteria for selective mutism. However, with the emergence of more information regarding selective mutism in the field of speech-language pathology, the speech-language pathologist may begin to have more opportunities and resources available to them, making them a more appropriate professional for the assessment and treatment of the disorder.

Limitations

There were several limitations to this study. First, there was a poor response rate from psychologists, making results difficult to analyze and compare for significance. Future studies may consider recruiting psychologists via other methods in order to obtain direct access to contact information.

Second, the survey was sent to professionals who work in various settings, including settings that do not primarily treat children. Therefore, some survey participants were unable to fully participate as they do not have the opportunity or need
to know about selective mutism. Future studies may consider recruiting only professionals working in pediatric environments.

Third, the use of Survey Monkey was convenient yet unfamiliar to the researchers involved in this study. Therefore, there may have been potential for better formatting of the survey that was not implemented for this study.

Finally, online research typically yields a lower response rate, and this trend was seen in this study as there was only a 17% response rate from speech-language pathologists and a 3.3% response rate from psychologists. Future studies may want to consider the use of paper surveys that are sent via U.S. Postal Service in order to obtain a higher response rate. This method was not used for the current study due to financial and time restraints.

Implications

Responses to the questionnaires for this study made clear the differing beliefs and practices between speech-language pathologists and psychologists, which raises speculation regarding the most appropriate treating professional for a child with selective mutism. While this study lends some insight into common beliefs held by the speech-language pathologist compared to the psychologist, the next step is to determine how to address the differences in these beliefs and practices in order to execute the most efficient assessment process and most effective treatment procedures.

Future research is needed to confirm the results of this study, to expand responses from psychologists, and to add to the existing literature. There are few studies that currently examine the most effective assessment and treatment of selective mutism, and a
clear understanding and common belief among treating professionals will be useful in forming the most comprehensive system for assessing and treating the disorder.

Acknowledgements

Many thanks are extended to Kay McNeal, M.S. and Kyra Rothenberg, Ph.D., for their valuable feedback, Carin Cunningham, Ph.D., for her willingness to participate in the research and for sharing her expertise in the topic, and Barbara Lewis, Ph.D., for her support and guidance.
Appendix A: Speech-Language Pathologist Questionnaire

Section 1: Treatment Strategies (Check all that apply)

1. On average, how many total treatment sessions are necessary to effectively treat children with selective mutism?
   - [ ] 1-10
   - [ ] 11-20
   - [ ] 21-30
   - [ ] More than 30
   - [ ] Depends on

2. How often do you typically treat a single child with selective mutism?
   - [ ] Once a week
   - [ ] Once every two weeks
   - [ ] Once every three weeks
   - [ ] Once a month
   - [ ] Other: ____________________

3. Which approach do you most often use when treating children with selective mutism?
   - [ ] Group therapy
   - [ ] Individual therapy
   - [ ] Both

4. Which skills do you most often focus on during treatment?
   - [ ] Expressive language
   - [ ] Receptive language
   - [ ] Pragmatic
   - [ ] Other: ______________

5. In which setting does treatment most often take place?
   - [ ] Clinic
   - [ ] Classroom
   - [ ] Home
   - [ ] Other: ______________

6. Which reinforcement schedule do you most often use during treatment?
   - [ ] Continuous
   - [ ] Intermittent
   - [ ] No specific schedule
7. Which type of reinforcement do you most often use during treatment?
   - Verbal praise (“Good job!”)
   - Tangible rewards (Sticker, token, etc.)
   - Free time at the end of the therapy session
   - Early dismissal from session
   - Repetition of correct / incorrect responses
   - Other: __________________________

8. Do you incorporate parents and/or other caregivers into the treatment sessions?
   - Yes                      No
   - Sometimes

9. If yes, how are they involved?
   - Reinforcement
   - Encouragement
   - Modeling
   - Other: ________________

10. If no, why aren’t they involved?
    - No interest
    - Distraction
    - Unable to attend
    - Unnecessary for effective treatment
    - Other: ________________

11. Do you use the same treatment approach for selectively mute children of all ages?
    - Yes                      No
    - Only select treatment approaches vary by age

12. If applicable, how does treatment differ as the child gets older?
    ____________________________________________________________________________________

Section 2: Collaboration

1. How many referrals do you get each calendar year for children with selective mutism?
   - 1-2
   - 3-4
   - 5-6
   - 7-8
   - 9-10
   - More than 10
2. Which professionals do you regularly collaborate with in the assessment and treatment of children with selective mutism?
   - [ ] Psychologist
   - [ ] Psychiatrist
   - [ ] School teacher
   - [ ] Other school personnel: _______________________
   - [ ] Pediatrician
   - [ ] Other physician: _____________________________
   - [ ] Other: _____________________________________
   - [ ] None

3. How often do you collaborate with these professionals during a single treatment plan?
   - [ ] During the session
   - [ ] Before/after every session
   - [ ] Every other session
   - [ ] Every ____ session
   - [ ] Other: _______________________
   - [ ] Never

4. What are the advantages/disadvantages of collaborative treatment for children with selective mutism?
   __________________________________________________________

5. If you do not collaborate treatment with another professional, why?
   - [ ] Inconvenient
   - [ ] No other professionals available for collaboration in my workplace
   - [ ] Unnecessary
   - [ ] Other: ______________________________________________

Section 3: Self-Ratings

1. Please rate your knowledge of selective mutism:
   (0=never heard of SM, 1=have heard of SM but don’t know what it is, 2=minimal knowledge of SM, 3=moderate knowledge of SM; 4=extensive knowledge of SM; 5=expert knowledge of SM)
   
<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

2. If applicable, where did you obtain your knowledge of the disorder?
   - [ ] Information presented at professional convention
   - [ ] Personal research
   - [ ] Personal experience
   - [ ] Magazine or newspaper article
   - [ ] Article in scholarly journal
   - [ ] Feature on news program
   - [ ] Internet
   - [ ] Other: ________________________________
3. If you were confronted with a case of selective mutism today, would you feel comfortable treating the client?
   □ Yes  □ No  □ Depends
   Why or why not?

Section 4: Demographic Information

1. □ Male  □ Female

2. Which type of geographic area do you serve as a speech-language pathologist?
   □ Urban  
   □ Suburban  
   □ Rural

3. Which setting describes your job as a speech-language pathologist:
   □ School  
   □ Hospital  
   □ Private practice  
   □ Preschool  
   □ Other: _______________________

4. In what year did you obtain licensure as a speech-language pathologist? ________________

5. From what university did you obtain training as a speech-language pathologist?

6. Have you previously had or do you currently have children with selective mutism on your caseload?
   □ Yes  □ No

7. If yes, how many children have you seen or do you see with selective mutism? ____________

8. How many of these children had a co-morbid diagnosed language disorder? ______________
Appendix B: Psychologist Questionnaire

Section 1: Treatment Strategies (Check all that apply)

1. On average, how many total treatment sessions are necessary to effectively treat children with selective mutism?
   - 1-10
   - 11-20
   - 21-30
   - More than 30
   - Depends on

2. How often do you typically treat a single child with selective mutism?
   - Once a week
   - Once every two weeks
   - Once every three weeks
   - Once a month
   - Other: ______________________

3. Which approach do you most often use when treating children with selective mutism?
   - Group therapy
   - Individual therapy
   - Both

4. Which skills do you most often focus on during treatment?
   - Language
   - Pragmatic
   - Anxiety relief strategies
   - Other: _______________

5. In which setting does treatment most often take place?
   - Clinic
   - Classroom
   - Home
   - Other: _______________

6. Which reinforcement schedule do you most often use during treatment?
   - Continuous
   - Intermittent
   - No specific schedule
7. Which type of reinforcement do you most often use during treatment?
   - Verbal praise (“Good job!”)
   - Tangible rewards (Sticker, token, etc.)
   - Free time at the end of the therapy session
   - Early dismissal from session
   - Repetition of correct / incorrect responses
   - Other: _______________________________________________________________________

8. Do you incorporate parents and/or other caregivers into the treatment sessions?
   - Yes          No          Sometimes

9. If yes, how are they involved?
   - Reinforcement
   - Encouragement
   - Modeling
   - Other: ________________

10. If no, why aren’t they involved?
    - No interest
    - Distraction
    - Unable to attend
    - Unnecessary for effective treatment
    - Other: ________________

11. Do you use the same treatment approach for selectively mute children of all ages?
    - Yes          No          Only select treatment approaches vary by age

12. If applicable, how does treatment differ as the child gets older?
    ____________________________________________________________________________
    ____________________________________________________________________________
    ____________________________________________________________________________

Section 2: Collaboration

6. How many referrals do you get each calendar year for children with selective mutism?
   - 1-2
   - 3-4
   - 5-6
   - 7-8
   - 9-10
   - More than 10
7. Which professionals do you regularly collaborate with in the assessment and treatment of children with selective mutism?

- Speech-language pathologist
- Psychiatrist
- School teacher
- Other school personnel: _______________________
- Pediatrician
- Other physician: _____________________________
- Other: _____________________________________
- None

8. How often do you collaborate with these professionals during a single treatment plan?

- During the session
- Before/after every session
- Every other session
- Every ____ session
- Other: _______________________
- Never

9. What are the advantages/disadvantages of collaborative treatment for children with selective mutism?

___________________________________________________________________________________

10. If you do not collaborate treatment with another professional, why?

- Inconvenient
- No other professionals available for collaboration in my workplace
- Unnecessary
- Other: ________________________________________________

Section 3: Self-Ratings

2. Please rate your knowledge of selective mutism:
(0=never heard of SM, 1=have heard of SM but don’t know what it is, 2=minimal knowledge of SM, 3=moderate knowledge of SM; 4=extensive knowledge of SM; 5=expert knowledge of SM)

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

2. If applicable, where did you obtain your knowledge of the disorder?

- Information presented at professional convention
- Personal research
- Personal experience
- Magazine or newspaper article
- Article in scholarly journal
- Feature on news program
- Internet
3. If you were confronted with a case of selective mutism today, would you feel comfortable treating the client?
   □ Yes  □ No
   Why or why not?
_____________________________________________________________________________________

Section 4: Demographic Information

9. □ Male  □ Female
10. Which type of geographic area do you serve as a psychologist?
    □ Urban
    □ Suburban
    □ Rural

11. Which setting describes your job as a psychologist:
    □ School
    □ Hospital
    □ Private practice
    □ Preschool
    □ Other: _______________________

12. In what year did you obtain licensure as a psychologist? ________________

13. From what university did you obtain training as a psychologist?
    __________________________________________________________________________

14. Have you previously had or do you currently have children with selective mutism on your caseload?
    □ Yes  □ No

15. If yes, how many children have you seen or do you see with selective mutism? _____________

16. How many of these children had a co-morbid diagnosed language disorder? _______________
References


SPSS Inc. (1999). SPSS base 10.0 for windows user's guide. SPSS Inc., Chicago IL.

