Selective Mutism:

The Child Silenced by Social Anxiety.

A Meta-Synthesis

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Abstract

This meta-synthesis explores the subject of selective mutism across multiple age groups. Selective mutism is present in a very small percentage of students. Given the small number of students that have this disorder there is limited resources and professional collaboration options available for teachers. The low incident rate of selective mutism often leads to students being forgotten about in the classroom setting. Teachers do not know how to help them overcome their disorder and the students are not able to ask for the help they need. This exploration into selective mutism reviewed 30 articles on the topic and attempted to provide identifying characteristics of the disorder as well as interventions for educators to implement while working with students selective mutism.

1. Introduction

1.1. Background

We have all seen the child that hides behind his mama's legs when we try to engage them in a simple conversation. When the child doesn't respond to our questions, we smile and assume this stage of shyness will go away in time. But what about the child that grows older and simply refuses to engage in conversations in public?

Selective mutism, sometimes referred to as *elective mutism,* is a childhood anxiety disorder where children are unable to speak in social situations. A disorder like selective mutism was first described in the late 1800s by Adolf Kussmaul, who called the disorder *aphasia voluntaria*, which stemmed from the interpretation that the disorder involved a voluntary decision not to speak (Busse & Downey, 2011). The *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)* (American Psychiatric Association, 2000) states that the following criteria must be met in order to qualify for a diagnosis of selective mutism:

> The essential feature of selective mutism is the persistent failure to speak in specific social situations (e.g., at school, with playmates) where speaking is expected, despite speaking in other situations (e.g., at home); the disturbance interferes with educational or occupational achievement or with social communication; the disturbance must last for at least one month and is not limited to the first month of school (during which many children may be shy and reluctant to speak. Selective Mutism should not be diagnosed if the individual's failure to speak is due solely to a lack of knowledge of, or comfort with, the spoken language required in the social situation. It is also not diagnosed if the disturbance is better accounted for by embarrassment related to having a Communication Disorder (e.g. Stuttering) or if it occurs exclusively during a Pervasive Developmental Disorder,

> Schizophrenia, or other Psychotic Disorders. Instead of communicating by standard verbalization, children with this disorder may communicate by gestures, nodding or shaking the head, or pulling or pushing, or in some cases, by monosyllabic, short or monotone utterances, or in an altered voice (pp. 125-126).

Frustration sets in for everyone involved. Parents are frustrated because their child talks all the time at home and they can't understand why their child isn't talking at school. Additionally, parents are frustrated because they are under constant scrutiny as to why their child is not talking at school. Omdal (2007) states that another challenge is achieving a common understanding of the problem, as long as the child communicated very differently at home than in the kindergarten/school setting. The parents might think that the school caused the problem as there appeared to be no problem with speaking at home.

Educators are frustrated because we can't always get an accurate picture of the child's educational and social needs. Cleave (2009) states that despite the seemingly low incidents of selective mutism, mute behavior does have a powerful effect on teachers. Although there appears to be no specific studies on teachers' perceptions, it is suggested that teachers with a selectively mute child in class can experience a range of emotions including anger, bewilderment, frustration and helplessness. Omdal (2008) states that selective mutism is a profoundly disturbing condition for teachers. By definition the child excludes others from communication, including the teacher. These children provide a unique challenge for inclusive classrooms.

The child is frustrated because no one understands and continues to put pressure on them to talk. Two participants in the Omdal (2007) study indicate that they found it difficult to be like everyone else. It was embarrassing but at the same time they wanted to be like the other pupils.

1.2 Author's experiences and beliefs

I worked with a student for three years that was a selective mute with a specific learning disability. She has two younger sisters that are also selective mutes and have no known learning disabilities. All three girls have different intensity of selective mutism. One point I found interesting is that the sisters do not converse with each other while at school and try to avoid each other. They don't even sit by each other on the bus.

My student began to talk at school on a very limited basis toward the middle of her 1st grade year. She would speak to me in a whisper voice to have her basic needs met. However, she would not speak to me at all if her parents were present. Even now, as a 6th grader, she will not speak to me if I see her in a public setting. She will smile at me, acknowledge that she knows who I am and will respond to yes/no questions with a head nod.

The middle child, currently in 5th grade, has never uttered one word in school. Her academic test scores that do not require verbal responses are in the proficient range. The youngest sister, currently in 3rd grade, also scores proficient on nonverbal tests and speaks occasionally at school. She whispers and will answer questions, but the answers are mostly limited to "yes," "no," or "I don't know." In my opinion, her "I don't know" response is a coping response. They are simple questions that she clearly knows the answers to, but she doesn't want to incriminate anyone. It's almost as though this is a response that she was taught to use.

All three girls had a tough time socially, especially during kindergarten and 1st grade. They all wet their pants chronically, due to the fact that they would not ask to use the restroom. As their teachers worked out nonverbal systems for communicating this need with them, this behavior decreased.

My experiences with these three sisters with selective mutism have led me to formulate the following research questions:

1. Do children ever outgrow this anxiety disorder? Do children with selective mutism ever reach an age when it's "too late?" When – if ever – should we just throw in the towel because we believe the child will never talk in social situations?
2. What are the causes of selective mutism?
3. Does one gender have a higher percentage of selective mutism?
4. What strategies work to break the silence?

I am particularly interested in the first two research questions. Many of the teachers I have worked with have given up hope for the middle sister ever talking in a social situation. She has gone to the same school since kindergarten and although some staff members have changed, the majority of staff and peers have remained the same. If anxiety cannot be decreased and a trusting relationship established in this school environment, then what will?

As to the causes of selective mutism, I am privy to some background knowledge on this family and am wondering if this is the norm. Last year my former student began to show major signs of regression in regards to her speaking in school. I was immediately brought into a team meeting and we started some interventions in her school day. She did prefer to come to my classroom instead of her current intensive resource teacher's class to do her work. The first thought that popped into all our heads was that she was being bullied, so we all worked hard to try to find out where, when and who doing the bullying. She continually said "No!" when we asked her if she was being bullied. It was very confusing because she regressed so fast and acted in ways of being a target.

She continued to go downhill quickly and I can honestly say it was one of the hardest weeks of my teaching career. It was so obvious she was in emotional pain and wanted to tell us something but she just couldn't speak. No amount of begging, pleading, or bribing made an impact to help her speak her pain. The last time I saw her she was laying in the hallway at school in the fetal position, sobbing and her only words were "I want my mommy". Keep in mind she was in 5th grade! Luckily her mom was very close by. She had driven her daughters to school that day and thought it best to stay in the building and volunteer. Later that day mom confirmed the words we didn't want to hear - sexual abuse by a family member at a young age. The perpetrator is currently incarcerated for the crime. Mom and Dad aren't sure if all three of their daughters were violated. But it's hard for all of us that know these girls to assume the only answer to that is *yes!*

I am very sad to report that all three girls are being homeschooled this year and I wonder constantly what the future holds for them.

1.3 Purpose of this meta-synthesis

This meta-synthesis, which focuses on children that have a social anxiety that prohibits them from speaking in public settings, had multiple purposes. One purpose was to review journal articles that explored issues related to selective mutism. I was particularly interested in articles that were about elementary school (K-5) students, and how to help diminish their anxiety related to speaking in public. A second purpose was to classify each article by publication type, identify the research design, participants and data sources of each study, and summarize the findings of each study. My final purpose was to identify significant themes that emerged from these articles, and to connect these findings to my own experiences as an elementary school

special education teacher to become a more effective instructor for children with selective mutism who may attend my classroom.

2. Methods

2.1 Selection criteria

The 30 journal articles included in this meta-synthesis met the following selection criteria:

1. The articles discussed issues related to selective mutism.
2. The articles focused on elementary school aged children.
3. The articles were published in journals related to the fields of education and psychology.
4. The articles were published between 1981 and 2011.

2.2. Search procedures

I conducted database searches and ancestral searches to locate articles for this meta-synthesis.

2.2.1. Database searches

I conducted advanced searches using the Education Resources Information Center (ERIC, Ebscohost) using the following search terms:

1. ("selective mutism").
2. ("selective mutism" OR "elective mutism").
3. ('selective mutism") AND ("treatment").

These database searches yielded a total of 21 articles (Auster, Feeney-Kettler, & Kratochwill, 2006; Busse & Downey, 2011; Carbone, Schmidt, Cunningham, McHolm, Edison, St. Pierre, & Boyle, 2010; Carlson, Mitchell, & Segool, 2008; Cleave, 2009; Cohan, Chavira, & Stein, 2006; Cohan, Chavira, Shipon-Blum, Hitchcock, Roesch, & Stein, 2008; Facon, Sahiri, & Riviere,

2008; Longo, 2001; Nowakowski, Cunningham, McHolm, Evans, Edison, St. Pierre, Boyle, & Schmidt, 2009; Nowakowski, Tasker, Cunningham, McHolm, Edison, St. Pierre, Boyle, & Schmidt, 2010; Omdal & Galloway, 2007; Omdal, 2007; Omdal, 2008; O'Reilly, McNally, Sigafoos, Lancioni, Green, Edrisina, Machalicek, Sorrells, Lang, & Didden, 2008; Porjes, 1992; Powell, 1995; Reuther, Davis, Moree, & Matson, 2011; Shriver, Segool, & Gortmaker, 2011; Stone, Kratochwill, Sladezcek, & Serlin, 2002; Vecchio & Kearney, 2009).

2.2.2. Ancestral searches

An ancestral search involves reviewing the reference lists of collected manuscripts to identify and locate additional articles (Welch, Brownell, & Sheridan, 1999). I conducted ancestral searches of the reference lists from the articles retrieved through my database searches. These ancestral searches yielded nine additional item/s that met the selection criteria (Asendorf, 1990; Black & Uhde, 1995; Chavira, Shipon-Blum, Hitchcock, Cohan, & Stein, 2007; Dummit, Klein, Tancer, Asche, Martin & Fairbanks, 1997; Kolvin & Fundudis, 1981; Kristensen, 2000; Krohn& Weckstein, 1992; McInness & Manassis, 2001; Steinhausen & Juzi, 1996).

2.3 Coding procedures

I used a coding procedure to categorize the information presented in each of the 30 articles. The coding procedure was based on: (a) publication type; (b) research design; (c) participants; (d) data sources; and (e) findings of the studies.

2.3.1 Publication type

I evaluated and coded each article according to publication type (e.g., research study, theoretical work, descriptive work, opinion piece/position paper, guide, annotated bibliography, review of the literature). A *research study* uses systematic methods to gather and/or analyze quantitative and/or qualitative data. *Theoretical works* use existing research literature to explain,

expand, or refine current philosophical beliefs and/or theoretical concepts regarding specific topics. *Descriptive works* describe experiences and occurrences, but do not employ systematic methods to gather and evaluate data. *Opinion pieces/position papers* discuss the author's opinion about a particular issue; these articles rely on the author's personal experiences and could advocate for certain beliefs or philosophical ideas. *Guides* recommend ways that a professional can implement programs or procedures in their area of skill. *Annotated bibliographies* include a list of articles with a brief synopsis of each piece of work. *Reviews of the literature* are bodies of text that review the critical points of current knowledge including substantive findings and include theoretical and methodological contributions to a particular topic. They are secondary sources and do not typically report any new or original experimental work (Table 1).

2.3.2. Research design

Each empirical study that was located during database searches was further classified by research design (i.e., quantitative research, qualitative research, mixed methods research). *Quantitative research* is a numerical based investigation of a particular occurrence using statistical, mathematical, or computational techniques. *Qualitative research* is a language based investigation of a particular occurrence and uses words (as opposed to numbers) to highlight the occurrences that were studied. *Mixed methods research* uses a combination of quantitative research and qualitative research methods to form conclusions (Table 2).

2.3.3 Participants, data sources, and finding

In each article that I located, I identified the participants in each of the studies (e.g., parents of children with selective mutism, parents of children with selective mutism). Additionally, I identified the data sources that were analyzed for each study (e.g., interviews, surveys). Finally, I summarized the findings of each study (Table 2).

2.4 Data analysis

I used a modified version of the Stevick-Colaizzi-Keen method previously employed by Duke and Ward (2009) to analyze the 30 articles included in the meta-synthesis. My first step was to identify significant statements within each article. For the purpose of this meta-synthesis, I defined significant statements as statements that addressed topics related to: (a) long term effects of selective mutism; (b) causes of selective mutism; (c) treatment strategies; (d) co-morbid characteristics; (e) biological factors; and (f) key factors for educators to consider. Next, I developed a list of non-repeating, verbatim significant statements with (paraphrased) formulated meanings. These (paraphrased) formulated meanings are a representation of my interpretation of each significant statement. Lastly, I grouped the formulated meanings from all 30 articles into emergent themes. These emergent themes represent the core (or content) of the entire body of literature (Table 3).

3. Results

3.1. Publication type

I located 30 articles that met my selection criteria for this meta-synthesis. The publication type of each article is identified in Table 1. Nineteen of the 30 articles (63.3%) in this meta-synthesis were research studies (Black & Uhde, 1995; Carbone et al., 2010; Chavira et al., 2007; Cohan et al., 2008; Dummit et al., 1997; Facon et al., 2009; Gazelle, Workman, & Allan, 2009; Kristensen, 2000; Krohn et al., 1992; Nowakowski et al., 2009; Nowakowski et al., 2011; Omdal, 2007, 2008; Omdal & Galloway, 2007; O'Reilly et al., 2008; Powell, 1995; Reuther et al., 2011; Steinhausen & Juzi, 1996; Vecchio & Kearney, 2009). Seven of the articles (23.4%) were reviews of literature (Auster et al., 2006; Carlson, Mitchell & Segool, 2008; Cleave, 2009; Cohan et al., 2006; Kolvin & Fundudis, 1981; McInnes & Manassis, 2005; Stone, Kratochwill,

Sladezcek, & Serlin, 2002). Two of the articles (6.65%) were guides (Busse & Downey, 2011; Shriver et al., 2011). Two of the articles (6.65%) were theoretical works (Asendorf, 1990; Porjes, 1992).

Table 1

Author(s) & Year of Publication	Publication Type
Asendorf, 1990	Theoretical Work
Auster, Feeney-Kettler & Kratochwill, 2006	Review of Literature
Black & Uhde, 1995	Research Study
Busse & Downey, 2011	Guide
Carbone et al., 2010	Research Study
Carlson, Mitchell, & Segool, 2008	Review of Literature
Chavira, Shipon-Blum, Hitchcock, Cohan, & Stein 2007	Research Study
Cleave, 2009	Review of Literature
Cohan, Chavira, & Stein, 2006	Review of Literature
Cohan et al., 2008	Research Study
Dummit, Klein, Tancer, Asche, Martin, & Fairbanks, 1997	Research Study
Facon, Sahiri, & Riviere, 2008	Research Study
Gazelle, Workman, & Allan, 2009	Research Study
Kolvin & Fundudis, 1981	Review of Literature
Kristensen, 2000	Research Study
Krohn, Weckstein, & Wright, 1992	Research Study
McInnes & Manassis, 2005	Review of Literature
Nowakowski et al., 2009	Research Study
Nowakowski et al., 2011	Research Study
Omdal & Galloway, 2007	Research Study

Omdal, 2007	Research Study
Omdal, 2008	Research Study
O'Reilly et al., 2008	Research Study
Porjes, 1992	Theoretical Work
Powell, 1995	Research Study
Reuther, Davis III, Moree, & Matson, 2011	Research Study
Shriver, Segool, & Gortmaker, 2011	Guide
Steinhausen & Juzi, 1996	Research Study
Stone, Kratochwill, Sladezcek, & Serlin, 2002	Review of Literature
Vecchio & Kearney, 2009	Research Study

3.2 Research design, participants, data sources, and findings of the studies

As previously noted, I located 19 research studies that my selection criteria (Black & Uhde, 1995; Carbone et al., 2010; Chavira et al., 2007; Cohan et al., 2008; Dummit et al., 1997; Facon et al., 2009; Gazelle, Workman, & Allan, 2009; Kristensen, 2000; Krohn et al., 1992; Nowakowski et al., 2009; Nowakowski et al., 2011; Omdal, 2007, 2008; Omdal & Galloway, 2007; O'Reilly et al., 2008; Powell, 1995; Reuther et al., 2011; Steinhausen & Juzi, 1996; Vecchio & Kearney, 2009). The research design, participants, data sources and findings of each of the 19 articles are identified in Table 2.

Table 2

Authors	Research Design	Participants	Data Sources	Findings
Black & Uhde, 1995	Quantitative	30 children (9 males and 21 females) ages 5-16, at least 4 months elapsed since starting school, at least one parent able to speak English, children with mental retardation were excluded	Parent questionnaires; teacher rating scale; parent interviews using the Parent as Respondent Information Schedule; child interviews (yes/no questions); family history checklist	There was a significant correlation between: anxiety, separation anxiety, and social/performance anxiety and selective mutism. The sex ratio is proportional. There was a high familial prevalence for selective mutism and other social phobias. The treatment was successful for some of the participants. The findings suggest that social anxiety may continue even after SM is resolved. Findings do not support any psychological or physical trauma.
Carbone et al., 2010	Quantitative	44 children (23 females and 21 males) with SM mean age 8.2; 65 children (29 females and 36 males) with mixed anxiety mean age 8.9; 49 (25 females and 24 males) community controls mean age 7.7	Diagnostic questionnaires, parent and teacher versions	Children with SM seems to be less socially competent and are prone to internalizing behaviors, additionally they may use their SM as a compensatory strategy to reduce their anxiety in social settings. The findings suggest that SM should be categorized as a social disorder characterized by social anxiety
Chavira, Shipon-Blum, Hitchcock, Cohan, & Stein 2007	Quantitative	Children ages 3-11, SM sample included 26 males and 44 females;	Anxiety Disorders Interview Schedule for Children – Parent (ADIS-P/C), Selective Mutism	Separation anxiety was significantly higher in the SM children than the sample group. Parents of SM children had a significantly higher rate of

		control sample included 9 males and 22 females	Questionnaire, telephone interviews, The Structural Clinical Interviews for DSM-IV Disorders (SCID-IV), The NEO Personality Inventory –Revised	general social phobias and avoidant personality disorder than the sample group. The findings support that SM is related to social phobias and has an inheritable component. Children with SM may have a lifetime social phobia diagnosis.
Cohan et al., 2008	Quantitative	130 parents of children ages 5-12 with SM (44 males and 86 females)	Semi-structured interview and parent questionnaires	Results showed significant elevations in the area of social anxiety for children with SM. The study did not show significant levels of behavior problems among children with SM. There was evidence of some delays in language and the SM group had lower scores on expressive and receptive communication. Social anxiety is a factor in the majority of the cases of children with SM.
Dummit, Klein, Tancer, Asche, Martin, & Fairbanks, 1997	Quantitative	50 English speaking children ages 3-17 with current DSM-III-R diagnosis of SM, without mental retardation or other history of psychotic disorders or pervasive developmental disorder	Clinical interviews, rating scales and parent questionnaires	There were very high rates of anxiety disorders. There was no evidence of depression and oppositional defiant disorder was rare. The question of trauma and gender preponderance remains unanswered. There were three pairs of identical twins and one pair of siblings that had SM.
Facon, Sahiri, & Riviere, 2008	Qualitative	12 year old male with mental retardation	Rating Scale for Elective Mutism	This study confirms that a behavioral approach for therapy of SM is effective and without any targeted

		presenting a severe case of long-term SM		treatment the SM could continue indefinitely.
Gazelle, Workman, & Allan, 2009	Quantitative	192 fourth-grade children in SM group with approximately an equal number in control group	Clinical interviews, inventories, and self-reported measures of social anxiety	There is no data to support whether there are more girls or boys that have SM. The study supports that children with SM generally have a social anxiety disorder.
Kristensen, 2000	Quantitative	54 subjects (32 females and 22 males) with a matched control group of 108, ages 3-17	Parent interviews, teacher questionnaires, medical reports, examination of children	Anxiety disorders, developmental disorders, and speech-language disorders were common in children with SM. There was one set of siblings in this study with SM. There was a prevalence of excessive shyness in family members which may indicate that SM is genetic and an area for future research.
Krohn, Weckstein, & Wright, 1992	Quantitative	20 children (12 females and 8 males) with total mutism for 6 months in at least one setting with an average age of 6-7	Record review	There was one pair of siblings in this study. There is not enough data to establish gender prevalence rates among children with SM. The majority of the parents reported they were excessively shy or used silence in response to a family disagreement. All children fell in the average range for intellectual potential. The findings support an association between SM and an over enmeshed maternal-child relationship as well as underlying anger and oppositional behaviors. The Hawthorn Center Approach for treatment

				had a fair to excellent outcome for all participants.
Nowakowski et al., 2009	Quantitative	**SM group:** 30 children (14 males and 16 females) with a mean age of 8.8 years; **Mixed anxiety group:**46 children (24 males and 22 females) with a mean age of 9.28 years; **Control group** 27 children (12 males and 15 females) with a mean age of 7.8 years	Diagnostic questionnaires completed by primary caregivers	The majority of the children in the SM group had one or more anxiety disorder in addition to SM. Despite SM, the children were able to achieve the receptive vocabulary and academic skills that are expected at their age level.
Nowakowski et al., 2011	Quantitative	63 children ages 5-8; 19 children in the SM group, 18 children in the mixed anxiety group and 26 children in the control group	Parent-report questionnaires and teacher-report questionnaires	SM appears to be an anxiety disorder, with a small percentage of children with SM exhibiting defiant behaviors. Joint attention tasks (i.e., 3 on topic back and forth communication acts) are limited in children with SM. Behavior therapies as a treatment for children with SM are useful and parental involvement in the treatment may improve the therapeutic outcome.
Omdal & Galloway, 2007	Qualitative	Three SM children ages 9-13 (2 females and 1 male)	Conversations with SM children via computer and/or writing	*The Raven's Controlled Projection for Children* (RCPC) was found to be a useful tool to communicate with SM children that are able to write (or type).

Omdal,2007	Qualitative	Six adults that refused to speak in certain social situations during their childhood	Semi-structured interviews	None of the participants remember with SM started. It was more of a gradual withdrawal. They all felt determination to not speak just because someone wanted them to speak. All expressed fear of change and social anxiety. All participants began to speak when they moved to new environment (late teens). All participants were receiving psychological treatment at time of article which suggests the important of a holistic approach to SM treatment.
Omdal,2008	Qualitative	Five children (2 males and 3 females) aged 4-13 with diagnosis of SM	Semi-structured interviews with parents and teachers of children with SM, video observations of SM children in their natural school setting, video observations at home	Verbal communication was achieved when school personal constantly expected speech from the SM child and worked in close cooperation with the parents. Schools that did not encourage speaking or interaction with other students failed to help the child overcome SM.
O'Reilly et al., 2008	Quantitative	Two sisters, aged 5 and 7 diagnosed with SM living in a socially disadvantage area of a city in Ireland	Therapy sessions	There is potential effectiveness in treating SM with use of social problem solving interventions (a form of a behavioral intervention). The participant made gains in audible vocalizations.
Powell, 1995	Qualitative	Six year old female with persistent SM at school	Rating scales, checklists, classroom observations, interviews with family, parents, and teachers	The four-stage behavior treatment plan was effective in treating the participant. The behavior treatment incorporated the SM child's parents, family and teachers. At the end of the treatment she was

				speaking in a manner consistent with her peers.
Reuther, Davis III, Moree, & Matson, 2011	Quantitative	Eight year old Caucasian male referred by psychiatrist for treatment of SM	Parent interviews and questionnaires, teacher questionnaires, participant questionnaire, Peabody Picture Vocabulary Test III, direct observation at clinic	A diagnosis of SM as well as social phobia was supported. It was reported that there was a family history of anxiety. The evidence-based treatment approach using *Modular Cognitive-Behavioral Therapy for Childhood Anxiety Disorders* was effective in treating this participant.
Steinhausen & Juzi, 1996	Quantitative	100 children with SM broke into 3 subgroups: **Switzerland sample,** 19 children with mean age of 10.29 years; **Zurich sample,** 59 children with mean age of 7.8 years; **Sample B,** 22 children with mean age of 8.7	Comprehensive item sheet (basic documentation), specific item sheet dealing with SM and Child Behavior Checklist (SHG sample only)	SM was more prevalent in girls than in boys. Articulation disorders and expressive language disorders were common among children with SM. Generally speaking traumatic events were not related to the onset of SM. Shyness and anxiety were common personality traits with oppositional and aggressive behaviors being less common.
Vecchio & Kearney, 2009	Quantitative	Nine children aged 4-9; 7 females and 2 males with mean age 6.6 that met diagnosis for primary SM	Daily rating scales completed by child, parent, teacher; Child Behavior Checklist completed by parent; teacher report form; Anxiety Disorders Interview Schedule for DSM-IV completed by clinician	Social phobia was the most common co-morbid diagnosis in children with SM. There was greater success with the child focused practice than with the parent focused practice, although both treatment plans resulted in improvement.

3.2.1 Research design

Fourteen of the 19 research studies (74%) included in this meta-synthesis used a quantitative research design (Black & Uhde, 1995; Carbone et al., 2010; Chavira et al., 2007; Cohan et al., 2008; Dummit, et al., 1997; Gazelle et al., 2009; Kristensen, 2000; Krohn et al., 1992; Nowakowski et al., 2009; Nowakowski et al., 2011; O'Reilly et al., 2008; Reuther et al., 2011; Steinhausen & Juzi, 1996; Vecchio & Kearney, 2009). Five of the research studies (26%) used a qualitative research design (Facon et al.,2008; Omdal & Galloway, 2007; Omdal, 2007; Omdal, 2008; Powell, 1995).

3.2.2 Participants and data sources

Eighteen of the 19 studies (94.7%) included in this meta-synthesis analyzed data collected from children, ages 3-17, with selective mutism (Black & Uhde, 1995; Carbone et al., 2010; Chavira et al., 2007; Cohan et al., 2008; Dummit, et al., 1997; Facon et al., 2008; Gazelle et al., 2009; Kristensen, 2000; Krohn et al., 1992; Nowakowski et al., 2009; Nowakowski et al., 2011; Omdal & Galloway, 2007. Omdal, 2008; O'Reilly et al., 2008; Powell, 1995; Reuther et al., 2011; Steinhausen & Juzi, 1996; Vecchio & Kearney, 2009). One of the 19 studies (5.3%) included in this meta-synthesis analyzed data collected from adults that had selective mutism during their childhood (Omdal, 2007). Some of the studies collected data from parents, teachers, and other professionals (e.g., primary care givers, therapists, etc.).

The majority of the studies incorporated in this meta-synthesis used rating scales, interviews, questionnaires, rating scales and checklists to collect data from the participants. Eleven studies (57.8%) conducted interviews (Black & Uhde, 1995; Chavira et al., 2007; Cohan et al., 2008; Dummit et al., 1997; Gazelle et al., 2009; Kristensen, 2000; Omdal, 2007; Omdal, 2008; Powell, 1995; Reuther et al., 2011; Vecchio & Kearney, 2009). Nine studies (47.3%) used

questionnaires (Carbone et al., 2010; Chavira et al., 2007; Cohan, 2008; Dummitt et al., 1997; Kristensen, 2000; Nowakowski et al., 2009; Nowakowski et al., 2011; Reuther et al., 2011; Steinhausen & Juzi, 1996). Four studies (21.1%) used rating scales (Dummitt et al., 1997; Facon et al., 2008; Powell, 1995; Vecchio & Kearney, 2009). Three studies (15.7%) used checklists (Black & Uhde, 1995; Powell, 1995; Vecchio & Kearney, 2009). Many of the studies used a combination of the above mentioned forms of data collection, as well as observations, therapy sessions, video observations, inventories, record reviews, and conversations.

3.2.3. Findings of the studies

The findings of the 19 studies included in the meta-synthesis can be summarized as follows:

1. There was a high rate of children that had a diagnosis of selective mutism who also exhibited symptoms of other social phobias, anxiety disorders, and communication disorders. The other social phobias and anxiety disorders may continue even after selective mutism is treated.

2. There was not enough data in the studies to support gender prevalence rates among children with selective mutism, even though the majority of the studies had more female participants than males.

3. There was not enough data in the studies to support any psychological trauma or physical trauma that was directly related to the onset of selective mutism. It is common for therapists and teachers to assume that there was a traumatic even that lead to the onset of selective mutism, even when nothing is mentioned.

4. Family history of anxiety is common in parents of children with selective mutism. Several studies had sibling participants that had a selective mutism diagnosis.

5. There is success in treating selective mutism with several different types of behavioral therapies. There appeared to be more success when parents and teachers were cooperating with the therapist.

3.3. Emergent themes

Six themes emerged during my analysis of the 30 articles I included in this review of literature. These emergent themes include: (a) long term effects of selective mutism; (b) causes of selective mutism; (c) treatment strategies; (d) co-morbid characteristics; (e) biological factors; and (f) key factors for educators to consider. These six emergent themes and their associated formulated meaning are defined in Table 3.

Table 3

Theme Clusters	Formulated Meanings
Long Term Effects of Selective Mutism	• A high number of children with selective mutism will begin to talk at school within a year with basic interventions in place. • Children with selective mutism who do not start showing signs of improvement by speaking in social situations before the age of 10 probably will not ever speak in social situations. • Research indicates that social anxieties escalate over time, so it is important to provide interventions/treatments early in childhood. • There is a high rate of selective mutism going into remission into adulthood when some type of treatment has been introduced. • There is a high likelihood that mutism would continue indefinitely if treatment for the targeted behaviors was not introduced. • The results of one study indicated that the participants began speaking more when they moved to a new school. They also confirmed that they continue to struggle with their mutism. This is consistent with other research that indicates children who were diagnosed with selective mutism may experience elevated levels of distress when speaking in social situations into adulthood.
Causes of Selective Mutism	• Selective mutism appears to be a disorder that occurs slowly and gradual instead of a sudden onset. This explains why most people cannot pinpoint an exact time when selective mutism began. • The majority of referrals for selective mutism occur when children are between the ages of three to six. This is when children are entering school and are under a greater amount of anxiety to engage in verbal conversations with teachers and peers. • Children who have a sudden onset of selective mutism after a traumatic event are not given the official diagnosis of selective mutism. They fall under the category of "traumatic mutism", because they have not shown other co-morbid characteristics that are typically present in children with selective mutism. • Selective mutism is a very complex disorder. There are many factors to consider when diagnosing a child with selective mutism; it is not a cut and dry disorder. • Early theories on the causes of selective mutism focus on the child being subject to emotional trauma, physical trauma or a living in a hostile home environment. • Teachers or clinical therapists assume that the selectively mute child has been exposed to some type of emotional or physical trauma. However there is not conclusive evidence to support this theory.

Treatment Strategies	• Research indicates that any type of treatment is better than no treatment at all in making improvements in children with selective mutism. • There is limited research on whether pharmaceuticals help children overcome selective mutism. Medications that release serotonin to the brain have proven to help anybody with an anxiety disorder, but their effects on selective mutism are unclear because selective mutism is a complex disorder. • Shaping is a form of treatment that expects the child to increase the volume of speech and increase their length of spoken words. • Speech therapy should not be considered a stand alone treatment for children with selective mutism. Typically children with selective mutism do not have articulation problems but they do may require treatment for language. • "Raven's Controlled Projection for Children" proved to be an effective way to communicate with children with selective mutism that knew how to write. The objective of this treatment strategy is to gain information from the subject's responses that could help determined further interventions or treatments for the subject. • The treatments that consistently had a high rate of success were intervention techniques that involved both parents and teachers. Parent involvement is important because typically the parents are the only person the child will verbally communicate with. Additionally parents can offer suggestions for reinforcers to help motivate the child to talk. The teacher's involvement is important because typically this is the common environment that the child refuses to verbally speak. • Conjoint Behavioral Consultation (CBC) focuses on the home and school environments working together. Parents and teachers are provided training to help implement the various intervention strategies that will allow the child to speak in social situations that they do not already actively participate in. • Direct questioning should not be used when treating children with selective mutism. Direct questioning is intrusive and could be counterproductive by causing more anxiety in the child.
Co-morbid Characteristics	• There was a very high rate of social disorders (i.e., separation anxiety, excessive shyness and social withdrawal) found in children with selective mutism. • Separation anxiety from their mother was a common characteristic of children with selective mutism. The mothers of children with selective mutism also rated themselves high in the area of experiencing separation anxiety from their child. • Children with selective mutism often have lower social functioning abilities. It has been found that some children with selective mutism do function well socially in situations where no verbal skills are necessary. They appear to be happy and enjoy the non-verbal interaction with their peers.

	• Language and communication disorders are a common theme in children with selective mutism. • Depression and/or aggression were not common characteristics of children with selective mutism. Selective mutism and social anxiety was found to be secondary to a mood disorder. • Delays in motor skills are not a common characteristic in children with selective mutism. • There was a very low rate of children with selective mutism that experienced developmental delays in academics, therefore; it is not likely that selective mutism causes developmental delays or cognitive delays.
Biological Factors	• High rates of anxiety were present in the parents of children with selective mutism. • Due to the high rates of social anxiety, social phobia and separation anxiety that were found in the parents of children with selective mutism, it is a possibility that genetics can play a role in selective mutism. • Parents of children with selective mutism often rated themselves high in the areas of social anxiety and excessive shyness. • Some of the studies conducted included siblings and twins that were diagnosed with selective mutism. However the majority of studies did not interview siblings or discuss patterns of selective mutism in siblings.
Key Points for Educators to Consider	• Teachers often view selective mutism as defiance. • Teachers can find themselves engaging in a "battle of wills" with the child trying to get them to talk. This type of engagement could increase the characteristic of the stubbornness in the child and create a lose-lose situation. • Teachers need to consider that students with selective mutism could be engaging in mutism as a way to reduce their anxiety and are not being oppositional or defiant. • The number of cases of children with selective mutism can be decreased by increasing awareness and teachers and parents working together on interventions. • Some children with selective mutism will engage and often even enjoy participating in social situations that do not require verbal communication. • Modifications to verbal assignments should be offered to children with selective mutism when possible. Allowing the child to tape record or video record an oral reading fluency assessment is one way to decrease their anxiety. • When a selectively mute person decides to speak it is important for educators to remain calm, almost as if the verbalization is typical for this person. An over joyous reaction that brings attention to the person could prohibit them from speaking in the future.

4. Discussion

4.1. Long term effects of selective mutism

Early interventions for selective mutism are critical for helping children to overcome this disorder. Without some type of intervention being implemented it is likely that the selective mutism will intensify as the child gets older. If no progress is made by the age of ten there is a high likelihood that the selective mutism will last indefinitely. Since selective mutism is considered a type of social anxiety it can reappear at anytime at varying degrees of intensity.

Educators should act quickly if they suspect a student has selective mutism. The earlier interventions are in place the better chance for verbal responses occurring in the school setting. Discussing the behaviors observed in the school setting with the parents, speech and language pathologist, and a school psychologist is a good starting place to brainstorm early intervention strategies to incorporate in the student's day.

4.2. Causes of selective mutism

Selective mutism occurs slowly over time usually between the ages of three and six years. This is also the time that most children are starting school so the selective mutism becomes more exacerbated due to the verbal communications and social interactions that are required. The vast majority of children with selective mutism have not been subject to any physical or emotional trauma, which is a contradiction to early research. Children that have a sudden onset of mutism proceeding a traumatic event are consider to have "traumatic mutism" but do not receive a diagnosis of selective mutism.

Educators should not assume that a traumatic event has occurred in the child life to spark the mutism. This assumption is a source of contention with parents and can lead to a breakdown in the relationship between home and school. Instead of trying to find a specific event or cause

of the disorder, it is more beneficial to look for treatment strategies that will help the student overcome the disorder.

4.3. Treatment strategies

The research is very clear that any type of intervention is beneficial to helping children with selective mutism overcome their anxiety. Parents and educators working together and communicating are helpful to understanding what will motivate the child to talk. Often the child will only talk in the home setting so parents can provide information to educators as to what might help motivate the child to speak in the school setting. Most children with selective mutism do not have articulation problems. However, the social communication piece is problematic so the child could benefit from receiving speech and language services to help them learn how to speak in social situations. Speech therapy should not be used without other types of interventions in place. Additionally direct questioning should not be used when conversing with selective mutes as this may increase their anxiety level.

There was one study completed regarding the use of pharmaceutical to treat selective mutism. The outcome of the study is not conclusive. Most participants in the study had other social anxieties. Any type of serotonin to the brain will help decrease social anxiety; whether it will specifically help selective mutism is unclear.

Communication between home and school is going to be huge contributing factor to successfully helping a child overcome their mutism. Educators should slowly place more expectations on the student to speak as they see the child is having less anxiety in specific situations. Rehearsing a question and answer is a good starting place. If a student is aware of what question is going to be asked and what the correct response is the anxiety may decrease enough to get a verbal response. The questions should not be a personal preference questions

(i.e. "What is your favorite color? or "What is your favorite food?) instead they should be more concrete questions with rehearsed answers. Students should be given a timeframe of when the question will be asked so the student is not surprised.

4.4. Co-morbid characteristics

Selective mutism is a very complex disorder. Most people that have received a diagnosis of selective mutism have extremely high rates of other social anxieties (i.e. separation anxiety, excessive shyness and social withdrawal). Selective mute children appear to have low social skills particularly in the area of social communication. Some selective mute children and adults will engage and interact appropriately in social situations where verbal communication is not expected. There is no evidence of delays in motors skills, developmental delays or aggressive behaviors found as a common co-morbid characteristic. There were very low numbers of participants that had any of the above listed characteristics, so it is unlikely that selective mutism causes delays in other areas.

Educators should not presume that selective mute students are incapable of learning at the same pace as verbal students. Additionally educators should provide ample opportunities where the child can interact with peers and adults in nonverbal situations. Assignments should be modified so the student can provide answers in written format or tape record their responses in a setting that reduces their anxiety and promotes verbal responses.

4.5. Biological factors

A high number of parents of children with selective mutism have some type of social anxiety themselves. The most common social anxieties they rated themselves as having were separation anxiety and excessive shyness. This evidence is crucial when dissecting the causes of

selective mutism because it shows a connection between selective mutism being genetic disorder or a learned disorder.

When communicating with parents of selectively mute students, it is important to remember that the parents themselves have a high rate of social anxiety. Mothers tend to have had separation anxiety when they were young and are probably experiencing levels of separation anxiety from their child. Similarly one or both parents tend to have excessive shyness and will need to be handled with a gentle approach. Direct abrasive questioning may cause an increase in anxiety in the parents and could make future communication difficult. Educators should keep in mind that because one or both parents have social anxieties, the student's selective mutism could be a behavior they have learned from their parents.

4.6. Key points for educators to consider

When working with children with selective mutism, educators should not engage in a "battle of wills" with the child. This type of interaction will not have the desired effect for either the educator or the child. If this type of interaction does occur, this is when the child appears to be defiant and stubborn. Educators should view the selective mutism as a coping mechanism for their social anxiety and the child should be offered alternative ways of communication.

When the selectively mute child does decide to verbally communicate for the first time it is important for educators to not over react and give an exuberant amount of praise. Too much praise and attention could cause a relapse in the mutism.

5. Conclusion

Selective mutism is an extremely complex disorder. Examining the existing literature on this topic has provided me with many different perspectives of people with the disorder as well as interventions to implement while working with selective mutes and their families.

Educators are faced with a great dilemma when working with a student with selective mutism. Educators have to find the perfect balance of placing expectations on the student to speak in the classroom but not place so much demand that the student's anxiety escalates. Additionally curricular accommodations and modification need to be made so the student has opportunities to participate in all the daily activities in a nonverbal fashion. Establishing a nonverbal form of communication between educator and student is important so that the educator can meet the basic needs of the student and begin building a trusting relationship that puts little verbal demand on the student.

Once the student becomes comfortable with the nonverbal communication method the educator should start to expect the student to give verbal responses. One word answers to rehearsed questions is the next natural progression to overcoming the disorder. Educators practice the question and answer session with the student in a one-on-one setting. Parents should also be included by having the student practice answering the question at home. As the student becomes successful with this method, educators should begin increasing the number of words the student is required to speak.

Communication between home and school is a key element in creating success in the classroom. Parents are often the only people to hear the selective mute talk so they can provide great insight on what may motivate the child to carryover the verbal speaking into other settings outside the home. Parents themselves often have a high rate of social anxiety or extreme shyness so educators need to keep that in mind while talking with parents about their child.

Educators and other school personnel often spend a lot of time trying to find the root or cause of the selective mutism. Assumptions are made that some sort of physical or emotional trauma has occurred that has caused the child to become selectively mute. There is very little

data to support this assumption. There is a higher likelihood that genetic factors of social anxiety and excessive shyness from one or both parents is the basis of this disorder in the child. Educators should not place excessive amounts of time on trying to locate the cause; instead they should investigate early interventions and strategies that will help the child overcome their fear of speaking in the school setting. The earlier interventions are provided the higher the rate of long term success for the student.

An unknown author wrote "If you don't understand my silence, how will you understand my words?" Understanding **why** a child is a selective mute is an important step in helping the student overcoming the disorder. As a special education teacher I will provide selectively mute students with many different opportunities to express themselves and strive to help them understand their disorder. I will create a learning atmosphere that not only eases their social anxiety but encourages them to interact with their peers and continually challenge them to become speaking members of society.

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