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Oppositional and Anxiety Behavior Profiles in a Clinical Sample of Youth with Selective Mutism

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OPPOSITIONAL AND ANXIETY BEHAVIOR PROFILES IN A CLINICAL SAMPLE OF YOUTH WITH SELECTIVE MUTISM

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ABSTRACT

Oppositional and Anxiety Behavior Profiles in a Clinical Sample of Youth with Selective Mutism

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Children with selective mutism often present as a very heterogeneous population, with both anxious (APA, 2000; 2013; Kristensen 2000; Manassis et al., 2007; Steinhausen & Juzi, 1996; Yeganeh et al., 2003) and oppositional symptoms (APA, 2013; Andersson & Thomsen, 1998; Kolvin & Fundudis, 1981; Krohn, Weckstein, & Wright, 1992). This study sought to identify anxiety and oppositional behavior profiles in a clinical sample of children with selective mutism. Also, this study sought to determine both discriminant and concurrent validity for these profiles and examine their association with family expressiveness, conflict and control. Participants (n=57) included youth receiving treatment at the UNLV Child School Refusal and Anxiety Disorders Clinic for selective mutism. Hypothesis 1 was that anxious and oppositional behavior profiles would be identified in a clinical sample of children with selective mutism. Results from Hypothesis 1 served as the basis for the remaining hypotheses. Hypothesis 1 was supported. Hypothesis 2 was that children with selective mutism with an anxious profile would display social problems and symptoms of social anxiety disorder. In addition, these children were expected to show little connection to aggressive behaviors and symptoms of oppositional defiant disorder. Concurrent validity for Factor 1 was supported. However, discriminant validity was only partially supported. Hypothesis 3

was that children with selective mutism with an oppositional profile would display aggressive behavior and symptoms of oppositional defiant disorder. In addition, these children were expected to show little connection to social problems and symptoms of social anxiety disorder. Hypothesis 3 was only partially supported, demonstrating concurrent but not discriminant validity. Hypothesis 4 examined the association between anxious and oppositional profiles and conflict, expressiveness and control subscales on the Family Environment Scale. Hypothesis 4 was only partially supported, with an association between an oppositional profile and conflict. Clinical implications, future directions and limitations were discussed.

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CHAPTER 1

INTRODUCTION

The essential feature of selective mutism is a consistent failure to speak in specific social situations, most commonly school, despite speaking in other situations (American Psychiatric Association, 2013). The disturbance interferes with a person's social, communication, and educational or occupational achievement. Selective mutism is classified in the Diagnostic and Statistical Manual of Mental Disorders (fifth edition) as an anxiety disorder (APA, 2013).

Children with selective mutism are often described in clinical settings as anxious, submissive, dependent, shy, timid, reticent, depressed, inhibited, fearful, withdrawn, and compulsive (APA, 2000; 2013; Hesselman, 1983; Kopp & Gilberg, 1997; Kristensen, 1997; Lesser-Katz ,1986; Steinhausen & Juzi, 1996; Yeganeh, Beidel, Turner, Pina, & Silverman, 2003). Children with selective mutism often have co-occurring anxiety disorders such as generalized anxiety, separation anxiety, and social anxiety (Blum et al., 1998; Vecchio & Kearney, 2005). In particular, up to 100% of children with selective mutism meet criteria for social phobia (Vecchio & Kearney, 2005).

Children with selective mutism have also been depicted as aggressive, stubborn, disobedient, controlling, negative, manipulative, suspicious, sulky, oppositional, and demanding (APA, 2013; Andersson & Thomsen, 1998; Brown & Lloyd, 1975; Hesselman, 1983; Kolvin & Fundudis, 1981; Kratochwill, 1981; Pustrom & Speers, 1964; Wergeland, 1979). Oppositional behavior may occur at home and at school.

A debate exists among professionals as to how selective mutism should be conceptualized (Black & Uhde, 1992). A growing consensus supports selective mutism

as an anxiety-related condition (APA, 2013; Anstendig, 1999; Black & Uhde, 1995; Schwartz & Shipon-Blum, 2005; Sharp, Sherman, & Gross, 2007; Vecchio & Kearney, 2005). However, this classification may limit mental health professionals who encounter oppositional behaviors in children with selective mutism.

The study examined whether anxiety and oppositional behavior profiles were present in a clinical sample of children with selective mutism. Previous research examining behavior profiles is somewhat limited. Cohan and colleagues (2008) derived subtypes of children with selective mutism based on total scores of behavioral measures. These researchers, however, did not include information on the individual behaviors displayed by each subtype. Ford and colleagues (1998) specified behaviors commonly displayed by children with selective mutism according to the Child Behavior Checklist (CBCL) but did not include information on potential behavior profiles in the sample. Previous researchers have provided information on behaviors displayed by children with selective mutism. Researchers, however, have not investigated whether these specific behaviors are associated with anxiety or oppositional behavior profiles.

The study investigated anxiety and oppositional behavior profiles in children with selective mutism using the Child Behavior Checklist (CBCL) (Achenbach, 1991; Achenbach & Rescorla, 2001). The CBCL has previously been used to obtain severity ratings of anxiety and oppositional behavior in children with selective mutism (Kristensen, 2000; Kristensen, 2001; Yeganeh et al., 2003). Specific anxiety and oppositional behaviors, however, are often not reported. The study derived the most commonly endorsed behaviors, which were grouped into anxiety or oppositional factors.

The study examined whether children with selective mutism with an anxious profile, demonstrated social problems and symptoms consistent with social anxiety disorder. Children with selective mutism reportedly have elevated CBCL social problems scale scores (Steinhausen & Juzi, 1996). Selective mutism and social anxiety disorder also co-occur (Vecchio & Kearney, 2005). The study also examined whether children with selective mutism with an oppositional profile, demonstrate aggressive behavior and behavior consistent with oppositional defiant disorder. Oppositional defiant disorder and selective mutism reportedly co-occur (Steinhausen & Juzi, 1996).

The study also examined the families of children with selective mutism. Families of children of selective mutism have been characterized as controlling (APA, 2013; Edison et al., 2011; Mills & Rubin, 1998), conflictual (Anstendig, 1999; Goll, 1979; Von Misch, 1952; Weber, 1950; Wright, 1968), and less expressive (Rosenberg & Lindblad, 1978). However, no studies have compared families of children with selective mutism identified as primarily anxious or oppositional. The study derived anxious and oppositional groups of children with selective mutism and examined whether their families differed with respect to control, conflict, and expressiveness.

The selective mutism literature is further limited by studies that have utilized children with selective mutism who have not been formally diagnosed. Researchers have commonly utilized research databases that involve indirect assessment of children (Cohan et al., 2008; Ford et al., 1998; Yeganeh, Beidel, & Turner, 2006). That is, the children are often not observed and interviewed in person. Behavioral observations and an in-person structured diagnostic interview can better provide extensive information and help determine a diagnosis. The current study involved children seen at an outpatient

treatment clinic and formally diagnosed with selective mutism using clinically validated and state-of-the-art measures.

The study examined 1 main hypothesis and 3 supporting hypotheses that were dependent on the first hypothesis. Anxiety and oppositional behaviors were initially derived from individual items on the Child Behavior Checklist (CBCL) (Achenbach, 1991; Achenbach & Rescorla, 2001). Family environment characteristics were determined by subscale scores on the Family Environment Scale (FES) (Moos & Moos, 1986). Endorsed disorder-based items were derived from the Anxiety Disorders Interview Schedule for DSM-IV-Parent Version (ADIS-P), in particular the oppositional defiant disorder and social anxiety disorder sections (Silverman & Albano, 1996).

Hypothesis 1 was that anxious and oppositional behavior profiles would be identified in a clinical sample of children with selective mutism. Results from Hypothesis 1 served as the basis for the remaining hypotheses. Hypothesis 2 was that children with selective mutism with an anxious profile would also display social problems and symptoms of social anxiety disorder. In addition, these children were expected to show little connection to aggressive behaviors and symptoms of oppositional defiant disorder. Hypothesis 3 was that children with selective mutism with an oppositional profile would display aggressive behavior and symptoms of oppositional defiant disorder. In addition, these children were expected to show little connection to social problems and symptoms of social anxiety disorder. Hypotheses 2 and 3 thus address the concurrent and discriminant validity of the identified anxious and oppositional behavior profiles. Hypothesis 4 was that children with selective mutism with an anxious profile would have families characterized by higher control, lower

expressiveness, and lower conflict than children with selective mutism with an oppositional profile.

An overview of key findings in the selective mutism literature is in Chapter 2. Definitions of selective mutism, prevalence, age of onset, and gender ratio are reviewed. Current research is summarized regarding contexts, characteristics, comorbid disorders and problems, prognosis, etiological theories, and current conceptualizations and subtypes of children with selective mutism. The literature review will conclude with an overview of empirically-supported assessments and treatments for children with selective mutism. Procedures and measures are then outlined in the method section.

CHAPTER 2

LITERATURE REVIEW

Selective mutism is a controversial mental disorder that has recently received greater attention from researchers and clinicians (Wong, 2010). Selective mutism is classified in the Diagnostic and Statistical Manual of Mental Disorders (fifth edition) as an anxiety disorder (APA, 2013). The essential feature of selective mutism is a consistent failure to speak in specific social situations, most commonly school, despite speaking in other situations (APA, 2013). The disturbance interferes with a person's social, communication, educational, or occupational functioning. The duration of the mutism must be at least one month. Failure to speak cannot be due to lack of knowledge of, or comfort with, the language spoken in a given social situation. For example, immigrant children who are entering a new country, and who are learning a second language, may be hesitant to speak the new language (Krysanski, 2003; Toppelberg, Tabors, Coggins, Lum, & Burger, 2005).

Selective mutism is not diagnosed if the disturbance can be better accounted for by a communication disorder such as child-onset fluency disorder (APA, 2013). Children with a communication disorder may avoid speaking because they fear consequences for mispronouncing words (Krysanski, 2003). Selective mutism is not diagnosed if it occurs exclusively during the course of autism spectrum disorder, schizophrenia, or another psychotic disorder. Differential diagnoses may include social anxiety disorder, communication disorders, intellectual disability, autism spectrum disorder, schizophrenia or another psychotic disorder, mood disorders, and hearing impairment (APA, 2013;

Wong, 2010). The following section provides a broad historical overview of selective mutism.

Historical Overview

Historical Terminology

Historical accounts of children withholding speech in select situations can be traced to the late 19th century. Adolf Kussmaul proposed the term 'aphasia voluntaria in 1877.' This term described children who would not speak in certain situations, even though they had the capacity to do so (Krysanski, 2003). Kussmaul emphasized that the individual chose not to speak (Dow, Sonies, Scheib, Moss, & Leonard, 1995). After Kussmaul, 14 European authors wrote about selective speech from 1883-1933 (Hesselman, 1983). Moritz Tramer used the term 'elective mutism' in 1934 to mean that a child could use language effectively and that the disturbance is in communication and not speech (Tramer, 1934; Wergeland, 1979). Tramer, like Kussmaul, emphasized the voluntary nature of mutism (Krysanski, 2003).

Mutism has been defined as a lack of articulate speech (Kanner, 1975). Mute behaviors have been described by various terms (Hesselman, 1983). Historical terms used to describe children with a similar symptomatology include speech avoidance, speech inhibition, speech phobia, thymogenic mutism, and traumatic mutism (Hayden, 1980; Lerea & Ward, 1965; Mora, Devault, & Schopler, 1962; Treuper, 1897; Waternik & Vedder, 1936). Mutism has also been described as a symptom of psychosis. The terms hysterical aphonia, childhood aphasia, and developmental aphasia describe failure to develop language or extreme difficulty using language because of psychosis (Schroeder, Gordon, & Hawk, 1983). Mutism has also been viewed as a symptom of

childhood schizophrenia (Bryson, 1994). However, Tramer (1934) distinguished the mutism in 'aphasia voluntaria' from language retardation and schizophrenic mutism.

Previous Classifications

The International Classification of Diseases (ninth edition) (ICD-9; World Health Organization, 1979) was the first classification system to include a diagnostic category for elective mutism. Elective mutism was classified as a "disturbance of emotions specific to childhood and adolescence." This classification included emotional disorders characteristic of childhood in which the main symptoms involved social withdrawal, sensitivity, and shyness.

Elective mutism did not appear in the Diagnostic and Statistical Manual of Mental Disorders until 1980 (DSM-III). Elective mutism appeared with "disorders usually first evidenced in infancy, childhood or adolescence." The defining feature was a continuous refusal to speak in all situations, including school, despite having capabilities to speak and an understanding of the language (APA, 1980). The DSM-III-R changed the primary diagnostic feature of elective mutism by requiring persistent refusal to speak in most, but not all, situations (APA, 1987). The child's behavior was viewed as elective, and emphasized the child's choice not to speak in certain situations (Dow et al., 1995).

Elective mutism currently remains the diagnostic label in the International Classification of Diseases (tenth edition) (ICD-10) under "disorders of social functioning with onset specific to childhood and adolescence." Unlike the DSM-5, the ICD-10 does not mention severe impairment in social and school functioning (APA, 2013). Elective mutism is characterized by selectivity in speaking, such that the child demonstrates language competence in some situations but fails to speak in other (definable) situations.

Furthermore, the disorder is usually associated with features such as social anxiety, withdrawal, sensitivity, or resistance (World Health Organization, 1992).

The DSM-IV changed elective mutism to selective mutism and the main diagnostic criterion from "persistent refusal" to talk to "persistent failure" to speak (APA, 1994). The decision to change elective to selective was consistent with research that mutism resulted from anxious and not defiant or stubborn behavior (Dow et al., 1995). These changes implied that the child is failing to speak, rather than intentionally choosing not to speak (Wong, 2010). This includes the possibility that children are not speaking because they are reacting anxiously to their environment (Krysanski, 2003). The DSM-5 retained the diagnostic criteria specified in DSM-IV-TR but has classified selective mutism as an anxiety disorder (APA, 2013). However, children with selective mutism may also present with non-anxiety related symptoms and characteristics.

Epidemiology

Prevalence

Selective mutism reportedly occurs in less than 1% of individuals in mental health settings (APA, 2013; Elizur & Perednik, 2003). Researchers examining school-based samples report prevalence rates from 0.71-1.9% using DSM-IV-TR diagnostic criteria (Bergman, Piacentini, & McCracken, 2002; Elizur & Perednik, 2003, Kumpulainan, Rasanen, Raaska, & Somppo, 1998). Bufferd and colleagues (2011) reported a prevalence rate at 1.5% in a preschool sample, as indicated by parent report. However, previous studies reveal lower prevalence rates of 0.03-0.2% (Krysanski, 2003; Sharp et al., 2007). Researchers conducting community-based studies typically report a higher prevalence rate, as do studies using less stringent criteria than the DSM-IV-TR.

Researchers sampling youth aged 4-6 years may yield higher results because this is when selective mutism is likely most obvious (Sharkey & McNicholas, 2008). The wide prevalence range reflects inconsistent diagnoses, infrequent use of standardized assessment measures, and differential use of classification systems (Viana, Beidel, & Rabian, 2009). Researchers include samples of children from different settings such as clinics and schools and include children from various ages and countries (APA, 2013; Bergman et al., 2002; Carbone et al., 2010; Kumpulainen, 2002; Sharp et al., 2007; Viana et al., 2009).

Prevalence in Immigrant Children

Children from an immigrant background and who are learning a second language may be 3 times more likely to have selective mutism than native children (Toppelberg et al., 2005). Bradley and Sloman (1975) reported that 23 of 26 children with selective mutism came from an immigrant background. Prevalence rates of selective mutism in immigrant children may range from 2.2-28% (Elizur & Perednik, 2003; Steinhausen & Juzi, 1996). Immigrant children who refuse to speak the new language may appear to warrant a selective mutism diagnosis (Bradley & Sloman, 1975). However, diagnosis should only occur when the refusal to speak occurs beyond comprehensively learning the new language (APA, 2013). Prevalence rates among immigrant children are difficult to determine.

Age of Onset

The age of onset for selective mutism may be 2.7-6.0 years (Black & Uhde, 1995; Cunningham, McHolm, Boyle, & Patel, 2004; Garcia, Freeman, Francis, Miller, & Leonard, 2004; Kristensen, 2000; Sharp et al., 2007; Steinhausen & Juzi, 1996).

Adolescent cases of selective mutism are rare (APA, 2013; Wilkins, 1985). Restricted and selective speech will not be typically noticed until the child enters school and is expected to speak with individuals outside of the family (APA, 2013; Sharp et al., 2007). Diagnosis most commonly occurs at age 5-8 years (Sharp et al., 2007). A lag between onset and diagnosis may occur even though symptoms appear at an early age. Children may not be referred to specialist services until school begins and when mutism affects classroom performance and social relationships.

Time of Referral

Children with selective mutism are likely to be unnoticed by teachers because their behavior is not disruptive (Viana et al., 2009). They are unlikely to be aggressive or unruly and therefore are often not referred for mental health services (Sharp et al., 2007). Children with internalizing disorders are frequently under-recognized and undertreated compared to those with an externalizing disorder (Chavira, Stein, Bailey, & Stein, 2004; Wren, Scholle, Heo, & Comer, 2003). The disorder may go undiagnosed for a lengthy period because the mutism does not occur in the home or the child is considered simply shy (Andersson & Thomsen, 1998; Baldwin & Cline, 1991; Ford, Sladeczek, Carlson, & Kratochwill, 1998; Schwartz, Freedy, & Sheridan, 2006). In addition, children with selective mutism may not be referred for treatment because they often lack co-existing mental and physical defects (Krysanski, 2003; Nash, Thorpe, Andrews, & Davis, 1979).

Gender

Selective mutism reportedly occurs more often in girls than boys, with a female to male ratio of up to 2:1 (Hayden, 1980; Wergeland, 1979; Wilkins, 1985). Steinhausen and Juzi (1996) reported a female to male ratio of 1.2-1. Others have found female to

male ratios of 1.3:1 and 1.5 to 1 (Karakaya et al., 2008; Kumpulainen et al., 1998). Those clinically referred for treatment were more likely to be female (Cunningham et al., 2004; Dummit et al., 1997; Kristensen, 2000). Community and school based samples reveal a more even gender ratio (Bergman et al., 2002; Elizur & Perednick, 2003). The DSM-5 reported that selective mutism does not vary much by gender (APA, 2013). Wong (2010) noted that gender differences are potentially accounted for by the rare nature of the disorder and the small sample sizes used in studies.

Characteristics of Children with Selective Mutism

Speech Settings

The school environment is the most common location in which mutism occurs (Black & Uhde, 1995; Dummit et al., 1997; Steinhausen & Juzi, 1996). Children with selective mutism usually do not speak to their teacher (Black & Uhde, 1995; Kumpulainen et al., 1998). The mutism is more likely to occur in the classroom than on the playground (Kumpulainen et al., 1998). Some children with selective mutism speak to no peers at school, whereas some speak with select friends. The child may speak freely with parents at home and be less symptomatic than at school (Edison et al., 2011; Schill, Kratochwill, & Gardner, 1996). Mutism is likely to occur if individuals other than family are in the child's home (Wong, 2010). If mutism does occur at home among immediate family members, then the child most commonly withholds speech around the father (Steinhausen & Juzi, 1996).

Compensatory Behaviors

Children with selective mutism may rely on alternative forms of communication to function in the community or at school. Children with selective mutism may try to

communicate by gesturing, nodding, pushing, pulling, pointing, writing, or grunting (APA, 2013; Moldan, 2005; Omdal, 2007; 2008; Omdal & Galloway, 2007; Sharp et al., 2007; Shriver, Segool, & Gortmarker, 2011; Viana et al., 2009). Some children with selective mutism use monosyllabic utterances to communicate (Krysanski, 2003). Children with selective mutism may effectively communicate only with nonverbal cues, such as pointing and writing (Schill et al., 1996). Omdal and Galloway (2008) reported that some children used body language, facial expressions, and gestures to communicate. Parents of children with selective mutism reported feeling as though they had spoken to them because their nonverbal communication was clear and interpretable. Krolian (1988) reported, however, that some children with selective mutism offer little facial expressions or body movements and may avoid eye contact. Selective mutism may be a compensatory strategy to lessen anxiety in social situations (APA, 2013).

Comorbid Internalizing Behaviors and Disorders

Children with selective mutism are often described in clinical settings as anxious, submissive, dependent, shy, timid, reticent, depressed, inhibited, fearful, withdrawn, and compulsive. Children with selective mutism often appear to freeze when they are spoken to, blush, avoid eye contact, cling to parents, and resist separation (APA, 2000; 2013; Hesselman, 1983; Kopp & Gilberg, 1997; Kristensen, 1997; Lesser-Katz, 1986; Steinhausen & Juzi, 1996; Yeganeh et al., 2003). These children are often portrayed as slow to warm up or behaviorally inhibited in infancy and early years (Black & Uhde, 1995; Dummit et al., 1997; Ford et al., 1998). Reluctance to speak has been found to be a sensitive index of behavioral inhibition (Kagan, Reznick, & Snidman, 1987). Children

with selective mutism are often viewed as behaviorally inhibited and less social than non-anxious children (Kristensen & Torgersen, 2002).

Anxiety has been identified as a hallmark of the disorder (Vecchio & Kearney, 2005). Children with selective mutism often demonstrate avoidance behaviors such as remaining mute and hiding behind a parent when faced with feared situations. Kolvin and Fundudis (1981) reported that one-quarter of their sample was shy and submissive at home, and another quarter was very sensitive and easily distressed in social situations and at home.

Selective mutism often occurs with internalizing disorders. A strong correlation between mutism severity and anxiety disorders may exist, such as general anxiety, separation anxiety and social anxiety (Blum et al., 1998; Vecchio & Kearney, 2005). Children with selective mutism meet criteria for other anxiety disorders in 61-100% of cases (Black & Uhde, 1992; Kristensen 2000; Manassis, Tannock, Garland, Minde, McInnes, & Clark, 2007; Vecchio & Kearney, 2005). Children with selective mutism meet criteria for separation anxiety disorder in 17-32% of cases (Cunningham et al., 2004; Dow et al., 1995; Kristensen, 2000). Kristensen (2000) reported that 31.5% of children with selective mutism had comorbid separation anxiety. Children with selective mutism also meet criteria for specific phobia in 13-50% of cases (Black & Uhde, 1992; Kristensen, 2000; Manassis, Fung, Tannock, Sloman, Fiksenbaum, & McInnes, 2003). Generalized anxiety disorder has also been reported to co-occur with selective mutism (Vecchio & Kearney, 2007).

Other comorbid disorders may include obsessive-compulsive disorder (OCD) and depression. Children with selective mutism meet criteria for OCD in 9.3% of cases

(Kristensen, 2000). Obsessive-compulsive symptoms have also been reported in previous research (Hayden, 1980; Wergeland, 1979). Andersson and Thomsen (1998) reported 3 children with selective mutism with strong obsessive-compulsive traits. Kopp and Gillberg (1997) reported that one-third of children with selective mutism in their sample had depression. Kaplan and Escoli (1973) reported on 2 teenage girls with selective mutism that displayed depression and made suicide attempts during therapy.

Researchers have reported a large percentage of children with selective mutism meeting criteria for social phobia or avoidant disorder (Black & Uhde, 1995; Dummit et al., 1997; Vecchio & Kearney, 2005). Children with selective mutism often express fears of social embarrassment and judgment as well as physical symptoms of social anxiety (Standart & Le Couteur, 2003; Vecchio & Kearney, 2005; Yeganeh et al., 2003). Vecchio and Kearney (2005) reported that all children with selective mutism in their sample received a comorbid diagnosis of social anxiety disorder, and 53% received an additional anxiety diagnosis. Another researcher reported comorbid social anxiety and selective mutism in 67.9% of cases (Kristensen, 2000). The following section provides a broad overview of the conceptualization of selective mutism as an anxiety disorder.

Selective Mutism as an Anxiety Disorder

A long-standing debate exists among professionals as to how selective mutism should be conceptualized (Black & Uhde, 1992). A growing consensus supports selective mutism as an anxiety-related condition (APA, 2013; Anstendig, 1999; Black & Uhde, 1995; Schwartz & Shipon-Blum, 2005; Sharp et al., 2007; Vecchio & Kearney, 2005). The DSM-5 recently categorized selective mutism as an anxiety disorder (APA, 2013). Shared genetic factors have been proposed between selective mutism and social

anxiety disorder (APA, 2013). Symptoms linking social anxiety and selective mutism are commonly reported. Symptoms often include avoiding social situations, expecting humiliation, experiencing high distress in social situations, and a fear of speaking to strangers and being judged (Westernberg, 1998).

Selective mutism may be conceptualized as a developmentally specific, severe, young child variant of social anxiety disorder (Anstendig, 1999; Bögels et al., 2010; Cunningham et al., 2006; Dow et al., 1995; Kristensen, 2000; Melfsen et al., 2006; Stein, Chavira, & Jang, 2001). A slow to warm up temperament, behavioral inhibition, and a tendency to withdraw in novel situations is also observed in both disorders (Ford et al., 1998). The two disorders may be viewed as stages in a behaviorally inhibited temperament (Bergman et al., 2002; Ford et al., 1998).

The age of onset for selective mutism and social anxiety disorder differ. Selective mutism typically manifests at age 3-6 years, but social phobia does not manifest until age 11-13 years (Melfsen et al., 2006). The age of onset for selective mutism is related to shyness, a weaker form of social phobia. Shyness typically manifests around age 4 years (Melfsen et al., 2006). Black and Uhde (1992) reported that not speaking may be a developmentally appropriate variant of social phobia. Situations such as attending school may not be avoided, and remaining mute may be an adaptive response to extreme anxiety (Beidel & Turner, 1998). In this view, selective mutism may be seen as a severe manifestation of social anxiety (Anstendig, 1999; Black & Uhde, 1995; Dummit et al., 1997; Ford et al., 1998; Kristensen, 2000; Kristensen, 2002; Yeganeh et al., 2003). Children with selective mutism may remain quiet as an extreme form of social avoidance (Bögels et al., 2010). Further research should examine whether children with selective

mutism demonstrate specific anxiety-related symptoms.

Specific Phobia of Expressive Speech

Selective mutism may also be conceptualized as a specific phobia of expressive speech (Omdal & Galloway, 2008). The disorder may be viewed as a fear of verbally communicating and a determination to avoid speaking. Omdal and Galloway (2008) conducted an exploratory post-hoc study with 6 adults who recovered from selective mutism in childhood and adolescence. Researchers also observed children with selective mutism and interviewed their parents. Of the recovered adults, only 2 reported feeling social anxiety during childhood. None of the children with a current diagnosis of selective mutism appeared socially anxious in interactions at home or school. These children reportedly communicated effectively using body language, facial expressions, and gestures. Two children were described by parents as highly social and eager to meet new people. The lack of evidence of social phobia does not support the view that selective mutism is a symptom of social phobia. These studies suggest that selective mutism may develop as a specific phobia at an early age. The following section presents research examining anxiety among children with selective mutism and with those with social anxiety disorder.

Anxiety Severity in Social Anxiety and Selective Mutism

Children with selective mutism may report less anxiety than those with social anxiety disorder. Manassis and colleagues (2003) found that, when parents reported their child's anxiety, those with selective mutism had lower anxiety than those with social anxiety disorder. Children with selective mutism may actually enjoy social situations, school, and actively engage in nonverbal communication across contexts with many

different individuals (APA, 2013). Melfsen and colleagues (2006) used the German version of the Social Phobia and Anxiety Inventory for Children (SPAIK; Melfsen, Florin, & Warnke, 2001) to investigate social anxiety symptoms across mental disorders. Children with selective mutism scored lower on the SPAIK than those with social phobia. Children with selective mutism should have scores comparable to those with social phobia to support the classification of selective mutism as an extreme manifestation of social phobia (Melfsen, Walitza, & Warnke, 2006). Children with selective mutism may have developed a successful avoidance strategy to cope with anxiety. Children with selective mutism selectively speak in socially anxious situations, and therefore do not appear to be anxious (Yeganeh et al., 2003).

Only two studies have compared children with social phobia and selective mutism to children with social phobia alone (Manassis et al., 2003; Yeganeh et al., 2003). These studies indicated that children with both disorders did not report higher social anxiety than children with social phobia alone. Yeganeh and colleagues (2003) reported moderate levels of social anxiety in individuals with co-morbid selective mutism and social anxiety. Clinician and observer ratings for children with selective mutism revealed higher social distress, but individual self-report did not support this. Children who display mutism may not be "frozen with fear." Extreme social distress may not fully describe the child's mutism (Yeganeh et al., 2003). Selective mutism as a severe form of social phobia may neglect the full characteristics of selective mutism (Yeganeh et al., 2003). Future research should explore whether children with selective mutism demonstrate both anxiety-related and non-anxiety related symptoms.

Opposition and Defiance

Oppositional and defiant characteristics co-occur with selective mutism. Children with selective mutism have been depicted as aggressive, stubborn, disobedient, controlling, negative, manipulative, suspicious, sulky, oppositional, and demanding (APA, 2013; Andersson & Thomsen, 1998; Brown & Lloyd, 1975; Hesselman, 1983; Kolvin & Fundudis, 1981; Kratochwill, 1981; Krohn, Weckstein, & Wright, 1992; Pustrom & Speers, 1964; Wergeland, 1979). Defiance and opposition reportedly occur at home and school.

Kolvin and Fundudis (1981) reported a streak of negativism and poor malleability at school and home in some children with selective mutism. Children demonstrated sulky behavior with strangers and aggressive behavior at home. These children were described as having a "will of iron" and reportedly manipulated their environment to get their way (Rosenberg & Lindblad, 1978; Wright, 1968). Children with selective mutism may also be defiant at school. Cunningham and colleagues (2006) reported that teachers indicated more defiant symptoms in children with selective mutism than did parents. This may suggest that oppositional behavior exists mainly in classrooms where speaking is less likely to occur.

Omdal and Galloway (2007) reported that children interviewed using a computer administered questionnaire wrote about themes such as school refusal, testing authority, and lying. Black and Uhde (1992) reported that 6-10% of children with selective mutism had oppositional and defiant behavior. Steinhausen and Juzi (1996) reported that 20% of children with selective mutism had symptoms of oppositional defiance or aggressive behavior. These rates are higher than the general population (Lahey, Miller, Gordon, &

Riley, 1999). Kurth and Schweigert (1972) also reported aggressive behavior. The following section provides research examining the proposed conceptualization of selective mutism as a symptom of oppositional defiant disorder.

Mutism and Oppositional Defiant Disorder

Selective mutism may be conceptualized as a symptom of oppositional defiant disorder (Bögels et al., 2010). Selective mutism and defiance have been found to occur around age 3 years, during a normal defiance stage (Wergeland, 1979). Krohn and colleagues (1992) reported 90% of their sample as controlling, negative, or oppositional in nonverbal and verbal situations. Black and Uhde (1992) reported passive-aggressive, stubborn, and obstinate behavior.

Ford and colleagues (1998) sampled children with past and current selective mutism. Parents of children with selective mutism reported strong-willed behavior, toileting problems, avoidant behaviors, and oppositional behaviors on the Child Behavior Checklist (CBCL; Achenbach, 1991; Achenbach & Rescorla, 2001). Oppositional behaviors included refusing to talk, being sullen, stubborn or irritable, arguing, being disobedient in school, whining, engaging in temper tantrums and having a hot temper (Ford et al., 1998). Kristensen (2001) found that parent-reported behavioral problems were twice more frequent among children with selective mutism than normal control children. The majority of obtained scores were well below borderline or clinical behavior problems.

Yeganeh and colleagues (2003) examined oppositional behavior in children with selective mutism and comorbid social anxiety. Elevations were found on the Child Behavior Checklist's delinquency scale in children with both disorders according to

parent report. Children with selective mutism typically demonstrate avoidance behaviors. Parents may misinterpret these behaviors as controlling or oppositional instead of an expression of severe social anxiety (Kristensen, 2000; Yeganeh et al., 2003).

Oppositional behaviors have been proposed as a result of social anxiety. However, oppositional, delinquent, or aggressive behaviors do not typically occur in children with social phobia (Beidel & Turner, 1998) or selective mutism (Black & Uhde, 1995; Dummit et al., 1997). Children with selective mutism may have oppositional behaviors, such as refusing to speak or participate in activities, but not necessarily meet criteria for a comorbid externalizing disorder. Oppositional behaviors have been reported by others (Black & Uhde, 1995; Ford et al., 1998; Steinhausen & Juzi, 1996), but findings suggest that the DSM-IV-TR criteria may not address specific behaviors that are reported by parents. The presence/absence of oppositional defiant disorder may be inadequate as behaviors may lack clinical severity and not warrant a diagnosis (Yeganeh et al., 2003).

Oppositional behavior is not always reported in children with selective mutism. Associations of externalizing behaviors and selective mutism are much less common than with internalizing behaviors (Andersson & Thomsen, 1998; Dummit et al., 1997; Kristensen, 2001). Vecchio and Kearney (2005) reported no significant differences in teacher and parent externalizing symptoms ratings among children with selective mutism, anxiety disorders, and control children. Cunningham and colleagues (2006) compared children with "generalized" selective mutism (does not speak outside the home), "specific" selective mutism (speaks to peers/parents outside of home but not teacher), and normal control children. No significant differences of parent reported oppositional

behaviors were found among these three groups (Cunningham et al., 2006). However, behaviors may not be seen as oppositional by parents. Findings may be due to parental bias. Parental bias may occur with reinforcement, such as smiling or speaking for the child (Yeganeh et al., 2006). Additional research is needed to investigate whether oppositional behavior in children with selective mutism is driven by underlying anxiety (Cohan et al., 2008). Further research should examine the extent of oppositional-related symptoms displayed by children with selective mutism. The following section proposes selective mutism as a disorder maintained by motivation.

Selective Mutism as a Motivational Disorder

Selective mutism may be further conceptualized as a disorder maintained by motivation. Omdal and Galloway (2008) reported that all adults with childhood selective mutism described themselves as determined not to speak. Two individuals believed speaking would cause others to 'win' and their identity to be lost. The older the child, the more important remaining mute was for the child's image. These children were hesitant to speak because this would change their identity. The determination to remain mute would get stronger under pressure. Adults described avoiding situations where they would be pressured to speak, such as communicating with strangers. Adults reported that not speaking interfered with normal routines. Adults found it difficult, if not impossible, to begin talking in certain situations. Wergeland (1979) reported repressed aggression, strong will, and determination not to speak. He reported that when children with selective mutism transferred schools, they no longer had to meet the expectation of "the one who doesn't speak."

Speech and Language Disorders

Language disorders/delays in children with selective mutism may be comorbid in 20-68% of cases (Carmondy, 2000; Kolvin & Fundudis, 1981; Kristensen, 2000; Kurth & Schweigert, 1972; Rosler, 1981; Steinhausen & Juzi, 1996; Wilkins, 1985; Wright, 1968). Language skills in children with selective mutism are generally normal but there may be an associated communication disorder (APA, 2013). Kristensen (2000) reported that 50% of youth with selective mutism and 12% of a control group had a communication disorder, including phonological disorder (43%), mixed receptive-expressive language disorder (17%), and expressive language disorder (12%). Similarly, articulation problems and developmental speech delays have been found in about 50% of clinically referred samples of children with selective mutism compared to 27% of controls (Andersson & Thomsen, 1998). Kolvin and Wright (1981) reported that children with selective mutism spoke significantly later than control children. Children with selective mutism may avoid speaking because they fear they will be teased for mispronouncing words (Krysanski, 2003; Rutter, 1977). Benasich and colleagues (1993) found that a language disorder predicts social withdrawal in girls.

Children with selective mutism have been found to differ from socially anxious children with respect to impairments in communication. Manassis and colleagues (2003) found that, compared to children with social phobia, children with selective mutism demonstrated greater impairment regarding discrimination of speech sounds and receptive vocabulary skills. Many (43%) children with selective mutism scored in the clinical range on at least one speech and language measure. None of the children with social phobia scored in the clinical range. McInnes and colleagues (2004) reported that

children with selective mutism may have mild expressive language deficits. Children with selective mutism construct narratives that are shorter, linguistically simpler, and less detailed when recalling a story to their parents. Manassis and colleagues (2007) found that children with selective mutism showed deficits on measures of receptive vocabulary, receptive grammar, visual memory, and phonemic awareness. Cohan and colleagues (2008) reported a group of children with selective mutism and social anxiety with comorbid speech and language delays. This group scored worse on expressive and receptive communication measures than groups without a communication delay. Findings are consistent with research showing that some children with language disorders have difficulty processing auditory information (Tallal, Miller, & Fitch, 1993).

Elimination Disorders

Elimination disorders may co-occur with selective mutism. Children with selective mutism may have comorbid enuresis in 16.7-42% of cases (Arie et al., 2007; Black & Uhde, 1995; Kolvin & Fundudis, 1981; Kristensen, 2000). Similarly, 7-17% of children with selective mutism may have comorbid encopresis (Black & Uhde, 1995; Kolvin & Fundudis, 1981; Kristensen, 2000).

Developmental Disorders/Delays

Kristensen (1997) reported that 29 of 198 studies on selective mutism reported a co-occurring developmental disorder/delay. Comorbid developmental disorder/delays have been reported in 68.5% of cases (Kristensen, 2002). Children with selective mutism may hide their developmental delay by not speaking (Kristensen, 2000). Kristensen (2000) reported a comorbidity rate of selective mutism and Asperger's disorder in 7.4%

of cases. Selective mutism has been proposed as a milder variant of autism spectrum disorders (Kopp & Gillberg, 1997).

Motor Disorders/Delays

Motor disorders/delays reportedly co-occur with selective mutism in 17-65% of cases (Kristensen, 2000; Kurth & Schweigert, 1972; Rosler, 1981; Steinhausen & Juzi, 1996). Developmental coordination disorder has been reported to co-occur in 17% of cases (Kristensen, 2000). Studies of abnormal motor performance in children may demonstrate a relationship between abnormal motor performance and social timidity and shyness (Losse, Henderson, Elliman, Hall, Knight, & Jongmans, 1991; Shaffer et al., 1985).

Educational Delays

Selective mutism can interfere with a child's educational achievement and may prevent future occupational achievement (Giddan & Milling, 1999; Tancer & Klein, 1991). Educators often find it difficult to assess a child's current level of academic progress (APA, 2013; Johnson & Wintgens, 2001; Omdal, 2008). Children with selective mutism often do not complete verbal academic tasks or standardized tests (Cunningham, McHolm, & Boyle, 2006; Kumpulainen et al., 1998). Children with selective mutism may receive special services outside of the classroom. Bergman and colleagues (2002) reported that 58% of children with selective mutism were receiving or were referred for special services. They may become candidates for grade retention and special class placement as well (Hayden, 1980).

Social Adjustment

Mute behaviors may cause long-term problems with peer interaction and social functioning (Sharkey & McNicholas, 2008). Children may experience few friends and be rejected by peers. Children with selective mutism demonstrate lower social competence compared to typically developing children (Cunningham et al., 2004; 2006). These children often have limited opportunities for social interactions, and this may delay development of appropriate language skills (Giddan, Ross, Sechler, & Becker, 1997). Lack of speech often restricts involvement with other students, and teasing by peers is common (APA, 2000; Giddan et al., 1997). Steinhausen and Juzi (1996) reported that children with selective mutism score significantly higher than population norms on the CBCL social problems scale (Achenbach, 1991; Achenbach & Rescorla, 2001). Selective mutism may place children at risk for long-term problems with respect to social adjustment and relationships (Kolvin & Fundudis, 1981).

Family Characteristics

Familial Psychopathology

Familial psychopathology may be an important correlate and outcome predictor among children with selective mutism (Black & Uhde, 1995; Kolvin & Fundudis, 1981; Kristensen & Torgersen, 2002). Internalizing disorders in parents have received the most attention. The heritability of anxiety ranges from 25-50%, and parents of children with anxiety are likely to be anxious (Czajkowski, Roysamb, Reichborn-Kjennerud, & Tambs, 2010; Hettema, Neale, & Kendler, 2001). Parents of children with selective mutism are often depressed, avoidant, and shy (Kristensen & Torgersen, 2002; Hayden, 1980), and may have a history of social phobia and childhood selective mutism (Brown & Lloyd,

1975; Pustrom & Speers, 1964; Salfield, 1950). Social inhibition in parents may serve as a model for social reticence in children (APA, 2013). Kolvin and Fundudis (1981) reported that 21% of fathers and 17% of mothers of children with selective mutism had depression. Chemical dependency has also been reported among parents of children with selective mutism in 19-63% of cases (Hayden, 1980).

Anxiety disorders are reported among relatives of children with selective mutism (Black & Uhde, 1995; Cohan et al., 2006; Kristensen & Torgersen, 2002). Relatives may be shy, inhibited, and taciturn in their personality (Funke et al., 1978; Steinhausen, & Adamek, 1997). Black and Uhde (1995) examined families of children with selective mutism, and reported that 70% had first-degree relatives with social phobia. Selective mutism was found in 37% of families, with 22% reporting a parent with previous selective mutism.

Selective mutism may occur among siblings. Brown and Lloyd (1975) reported that twice as many children had at least one mute sibling compared to the matched control group. The incidence of selective mutism among siblings may be due to genetics or modeling, or the child may be vying for attention given to the mute sibling (Wright et al., 1985). Selective mutism may be more prevalent among monozygotic twins. The siblings may reinforce each other's lack of speech and this may lead to a more chronic presentation (Segal, 1999). Ford and colleagues (1998) revealed 14 twins with selective mutism or similar behaviors.

Gray and colleagues (2002) examined two twin pairs with selective mutism. The first pair demonstrated severe social anxiety as early as age 2-3 years and had notable articulation difficulties and minimal eye contact. Family history was significant for

social anxiety and obsessive-compulsive behaviors. The second twin pair was slow to learn in school. These children gave minimal responses when the examiner looked away. These children eventually asked questions that revealed a basic lack of knowledge regarding age-appropriate functioning and common childhood activities. Both sets of twins demonstrated situation specific anxiety, extreme passivity, lack of responsiveness, and a chronic course of selective mutism over several years.

Family Dynamics

Children with selective mutism may have unhealthy and enmeshed parental relationships (Kolvin & Fundudis, 1981; Meyers, 1984; Steinhausen & Adamek, 1997; Subak et al., 1982). Goll (1979) identified 10 families with a child with selective mutism and discussed each member's role. These roles were the 'elective mutist,' 'the mutist model or models,' the 'symbiotic partner,' and 'the leader of the 'ghetto' family. The 'ghetto' family has very little confidence in society. The elective mutist is the identified patient of the familial system. The mutist model is a family member whom the elective mutist imitates by using silence as a weapon. The mutism model is often someone who was formerly mute. The symbiotic partner is often the mother and she forms a coalition with the elective mutist. This relationship is related to the unsatisfying relationship between the parents (Browne, Wilson, & Laybourne, 1963). The mother and child feel they cannot survive without the other and have great difficulty with separation (Pustrom & Speers, 1964; Wergeland, 1979; Wilkins, 1985; Wright et al., 1985). Their relationship may make it difficult for the child to develop independence and comfort speaking to others (Wassing, 1973). The elective mutist is seen as a victim of the interaction between the ghetto family and society (Goll, 1979).

Marital tension and discord may be related to selective mutism (Wilkins, 1985; Wright, 1968). Hayden (1980) reported that 68-79% of parents of children with selective mutism had persistent marital trouble and displayed incomplete and infrequent communication. Parents often remain unhappily married despite marital tensions. The child's mute behaviors may serve as a way to divert attention from the parent's intense relationship (Rosenberg & Lindblad, 1978). The parent's unsatisfactory relationship and inability to communicate are essential factors in the neurotic mother-child relationship. Mothers may compensate for their unhappy relationship with a close tie to their children (Goll, 1979). Parents may isolate themselves and be wary of the outside world. Andersson and Thomsen (1998) reported that 37% of parents had mistrust in the social system, specifically towards their communities' schools, hospitals, and social workers.

Children with selective mutism may have a closed off, shy, reticent, socially isolated, disharmonious, and broken family (Black & Uhde, 1995; Brown & Lloyd, 1975; Elizur & Perednik, 2003; Hayden, 1980; Kristensen & Torgersen, 2008; Schvarztman, Hornshtein, Klein, Yechezkel, Ziv, & Herman, 1990; Steinhausen & Adamek, 1997; Wergeland, 1979). Parents may display monosyllabic speech, shyness, and reservation. Families typically display very little verbal stimulation. Rosenberg and Lindblad (1978) reported on the home environments of children with selective mutism. Affection among family members was usually absent and the environment was not conducive to the expression of feelings. Wright (1968) reported a negative home environment. The child had a controlling, ambivalent, and dependent relationship with the mother. Mothers have been described as overprotective and overinvolved. Fathers have been described as detached (Wright et al., 1985). Hesselman (1983) reported fathers as negative, passive,

indifferent, and cold. Fathers tend to dominate with corporal punishment and their children tend to be afraid and not speak to him. The father's absence from the home has been proposed to explain the mother's overprotective and clinging behavior (Wergeland, 1979). Further research should examine conflict and the expressiveness among families of children with selective mutism.

Parental Control

Parental control may contribute to a child's mutism (APA, 2013). Parental control has been defined as excessive regulation of a child's activities and routines, an autocratic decision-making style, and overprotection or instruction about how the child should think or feel in a given situation (Wood et al., 2003). Parental control may be influenced by a child's age and the parent's perception of a child's anxiety. Parents' perception of their child's wariness at age 2 years was found to predict little encouragement of independence at age 4 years (Rubin, Nelson, Hastings, & Asendorpf, 1999). Past experiences of the child seem to guide current parenting styles (Rubin & Burgess, 2002). However, maternal control may change as a child ages. Mothers reportedly display less control with older than with younger children (Mills & Rubin, 1998).

Parental anxiety may contribute to parental control. Childhood anxiety may be promoted (Manassis & Bradley, 1994) and predicted (McClure, Brennan, Hammen, & Le Brocque, 2001) with an overcontrolling and anxious parenting style. Wood and colleagues (2003) reported that anxious children tend to have parents, primarily mothers, who are more controlling than parents of non-anxious children. Anxious mothers tend to grant less autonomy, criticize and catastrophize more, and display less warmth and

positivity than non-anxious mothers. Findings are supported regardless of the child's anxiety level (Siqueland et al., 1996; Whaley et al., 1999).

Edison and colleagues (2011) examined whether parents of children with selective mutism demonstrated greater control than anxious and non-anxious children. These researchers also examined whether parental anxiety and individual child characteristics predicted parental control. Edison and colleagues examined a free play and a structured, verbally demanding situation to examine how varying contexts affect parent-child interactions. Previous research has utilized similar contexts (Dennis, 2006). Higher rates of controlling and anxious parental behavior and high criticism during structured tasks have previously been reported (Ginsburg, Grover, Cord, & Ialongo, 2006).

Edison and colleagues (2011) found that parents granted more autonomy in free play contexts. However, a significant difference was found regarding parental autonomy among children with selective mutism, anxiety, or no anxiety. Greater child anxiety was associated with less autonomy and greater control. Parental control was associated with less child-initiated speaking, greater observed child anxiety, lower child age, and greater observed parent anxiety.

Explanations have been offered for why parents of children with selective mutism demonstrate greater control. Speaking in public is considered an expected, everyday occurrence. However, children with selective mutism are unable to conform to this expectation. A child expressing fear in social situations may evoke concern, sympathy, and frustration in parents (Rubin & Burgess, 2002). Parents may take control of the situation to protect themselves from feeling embarrassed and their child from feeling anxious or scared (Edison et al., 2011; Rubin, Cheah, & Fox, 2001). A child's overt

anxiety may elicit parental controlling behaviors that can exacerbate the child's avoidance (Rapee & Spence, 2004). Bell and Harper (1977) proposed that parents may be directive to increase their child's speech. Further research should examine expressions of control in families of children with selective mutism.

Joint-Attention Processes

Research is sparse regarding parent-child interactions involving children with selective mutism compared to typically developing children. Nowakowski and colleagues (2011) examined joint-attention processes among parent-child dyads with children with selective mutism. Joint attention occurs when both individuals are focused on the same object, activity, or event and are aware of each other's focus (Bakeman & Adamson, 1984). Joint-attention processes play a role in the development of skills such as emotion regulation, taking turns, expressive and receptive language, and problem solving (Charman et al., 2000; McEvoy, Rogers, & Pennington, 1993; Mundy & Willoughby, 1996; Sheinkopf, Mundy, Claussen, & Willoughby, 2004). The joint attention process takes into account the bi-directional nature of parent-child interactions (Kuczynski, 2003).

Nowakowski and colleagues (2011) found fewer parent initiated established joint attention episodes with children with selective mutism. Children with selective mutism may be less responsive to their parents' acts of communication during structured tasks. When children withdraw from their parents during stressful situations, vital opportunities for discussion about how to reduce anticipatory negative thinking are lost. Children are not able to regulate their emotions, cope, or be exposed to problem-solving. Children with selective mutism instead learn to withdraw and avoid potentially threatening

situations. This leads to continued maintenance of distress. This finding highlights the potential usefulness of exposure therapy with coping mechanisms (Stone, Kratochwill, Sladezczek, & Serlin, 2002).

Cultural Dynamics

Cultural dynamics may influence selective mutism symptoms. Vecchio and Kearney (2007) reported that Hispanic families tend to show familial dynamics characterized by self-reliance and cohesion. Family members were highly engaged with one another and very supportive. These dynamics may add to the challenge of addressing mute behaviors. Family members of a Hispanic female with selective mutism inadvertently reinforced withdrawal, spoke for the child, and did not seek treatment at the start of symptoms. The following section presents the prognostic outcomes of children with selective mutism.

Prognosis

Children with selective mutism have various outcomes. Many children show decreased symptoms over several months and others present with a more chronic course (Kolvin & Fundudis, 1981; Omdal & Galloway, 2008). Few longitudinal studies support a definitive course (Cohan, Price, & Stein, 2006; Remschmidt, Poller, Herpertz-Dahlmann, Hennighausen, & Gutenbrunner, 2001; Steinhausen, Wachter, Laimböck, & Metzke, 2006). Most longitudinal studies have methodological shortcomings, lack standardized assessments, and contain small sample sizes with little control, however (Steinhausen et al., 2006).

Selective mutism is generally viewed as a persistent disorder with a poor outcome (Kolvin & Fundudis, 1981; Remschmidt et al., 2001; Steinhausen et al., 2006).

Predictors of poor outcome may include parents that have difficulty cooperating with treatment, a mental disorder, (Funke, Schlange, & Ulrich, 1978; Kolvin & Fundudis, 1981; Lowenstein, 1979; Sluckin, Foreman, & Herbert, 1991), or lower intelligence (Kurth & Schweigert, 1972; Wright, 1968). Poor outcome may also include mute behavior in the family (Remschmidt et al., 2001; Steinhausen et al., 2006).

Adults diagnosed with selective mutism as children often continue to experience residual effects. Adults may demonstrate poorer speaking behaviors, residual social phobia, and other anxiety disorders (APA, 2013; Steinhausen & Juzi, 1996). They may show deficits in social communication that result in social withdrawal and economic impairments, including higher unemployment rates (Remschmidt et al., 2001).

Complete remission has been reported to be 39-100% in the Anglo-Saxon, German, and Scandinavian literature (Kurth & Schweigert, 1972; Remschmidt et al., 2001; Rosler, 1981; Wergeland, 1979). Researchers conducting a 12-year longitudinal study found that 39% remitted while the remaining struggled with communication and emotional difficulties (Remschmidt et al., 2001). Formerly mute individuals described themselves as less independent, less academically motivated, and less confident and mature than a reference group (Remschmidt et al., 2001). Steinhausen and colleagues (2006) reported that 18% had slight improvement in mutism symptoms, whereas the rest were markedly or completely improved. Researchers found a complete remission rate of 58%. However, psychopathology was found in 57.6% of cases at follow-up, with phobic disorder in 42.4% of cases.

Variable outcome rates may be due to differences in definition, sample sizes, and length of follow-up. Remission rates are considered more accurate if the follow-up study

occurs 10 years or longer after treatment. This may be because the duration of the disorder is at least 5 years (Poller, 1989). Variation in outcome rates may also relate to treatment difficulty and length as well as lack of consistent follow-up and maintenance of results (Kratochwill, Brody, & Piersel, 1979; Kratochwill, 1981). The development of selective mutism may be complex and treatment should thus target multiple factors and symptoms. The following section provides a broad overview of etiological theories of selective mutism.

Etiological Theories

Psychodynamic Pathway

A psychodynamic pathway emphasizes unresolved conflict and may assume a child has an oral or anal fixation. A child may be hiding a family's trusted secret, have displaced anger toward a family member, or regress to a nonverbal stage of development (Giddan & Milling, 1999; Hesselman, 1983; Lesser-Katz, 1986; Looff, 1971). A child's mutism may be a way to cope with internal anxiety and anger, and silence may be a way to punish parents (Krysanski, 2003). This pathway has little empirical support (Krysanski, 2003; Wong, 2010). Psychodynamic conceptualizations for this population have decreased in influence as behavioral and anxiety-related theories have been emphasized (Krysanski, 2003).

Learning and Behavioral Pathway

Children with selective mutism may remain mute to reduce fear and anxiety, avoid stressful situations, and gain privileges and attention from caretakers (Cohan et al., 2006; Hesselman, 1983; Labbe & Williamson, 1984). A child's failure to speak is viewed as a learned strategy in response to anxiety-provoking social situations (Dow et

al., 1995; Leonard & Dow, 1993; Porjes, 1992; Reed, 1963). Mute behaviors are often maintained by negative reinforcement and reduced anxiety (Bögels et al., 2010; Schill, Kratochwill, & Gardner, 1996). A child's mutism is thus seen as an adaptive response rather than pathological (Krysanski, 2003; Powell & Dalley, 1995).

Exposure to a traumatic experience has also been proposed as a causal factor in selective mutism (Dow et al., 1995). The cessation of speech with the outside world may exist as a coping mechanism to the traumatic event (Wong, 2010). New environments such as the start of school may be extremely anxiety-provoking and traumatic for some children. Anxiety may be triggered when a child is left alone with strangers for the first time (Giliberti-Tincolini, 1964). Other possible traumatic experiences that may trigger mute behavior include birth of a sibling, parental divorce, death of a family member, dog bite, a life-threatening experience, hospitalization or surgery in the child's early years, or frequent moves (Adams, 1970; Carr & Afnan, 1989; Dow et al., 1995; Hesselman, 1983; Krohn et al., 1992; Wright, Miller, Cook, & Littman, 1985). Selective mutism has also been found to occur after a child has been sexually or physically maltreated (Adams & Glasner, 1954; Hayden, 1980). Andersson and Thomsen (1998) reported that one-third of their sample had a traumatic event during the crucial years of speech development. A child may involuntarily dissociate and begin withholding speech and restricting their affect. Jacobsen (1995) reported on 15-year-old boy with selectively mute behaviors and dissociative identity disorder. He did not speak because he feared becoming visible and revealing murders he witnessed while assuming different identities. This is an unusual case because he developed the disorder much later than the typical age of onset, and he remained selectively mute for several years.

Family System Pathway

Family systems therapists view mutism as a symptom of faulty, conflictual relationships (Anstendig, 1999; Goll, 1979; Von Misch, 1952; Weber, 1950; Wright, 1968). Subak, West, and Carlin (1982) reported that selective mutism may result from neurotic relationships with a child's parents, most notably the mother. Parents may desire to control their child but feel dependent and ambivalent about their relationship (Krysanski, 2003). The family of a child with selective mutism may have intense attachments, marital disharmony, and be overly dominant, overprotective, and strict (Remschmidt et al., 2001). The child develops relationships with others that are extremely interdependent and becomes fearful of the outside world. The child may begin withholding speech (Meyers, 1984; Yeganeh et al., 2006). Selective mutism has been shown to be related to parent-child enmeshment and overdependence in the family (Atoynatan, 1986; Carr & Afnan, 1989; Hadley, 1994; Hayden, 1980; Lesser-Katz, 1986; Meyers, 1984; Subak et al., 1982; Yeganeh et al., 2006). The parent-child dyad often has great difficulty separating (Pustrom & Speers, 1964; Wergeland, 1979; Wilkins, 1985; Wright et al., 1985). Their relationship may make it difficult for a child to develop independence and comfort with speech outside of the home (Wassing, 1973).

Biological Pathway

Neurobiological factors may also impact selective mutism. Simons and colleagues (1997) described a girl with selective mutism and chromosome 18 abnormality. Hagerman and colleagues (1999) reported on an individual with selective mutism and Fragile X syndrome. The neurobiology of children with selective mutism also affects withdrawal and inhibition behaviors. Children with selective mutism might

demonstrate a diffused generalized profile of neuropsychological deficits (Gray, Jordan, Ziegler, & Livingston, 2002). This theory relies on research regarding the behavioral inhibition system. Children with selective mutism, significant anxiety, inhibition, and a withdrawn temperament might have an overactive inhibition system (Gray, 1982; 1987). The behavioral inhibition system is based in the septo-hippocampal system and has extensive connections to the prefrontal cortex as well as numerous neuroadrenergic and serotonergic pathways. Davidson (1993) proposed that the brain's left and right anterior cortical systems are specialized for withdrawal and approach behaviors. A disruption in this system might inhibit approach behaviors and increase withdrawal behaviors in a child with selective mutism.

Physiological inhibition is also reported in the vagal responses of children with selective mutism. Heilman and colleagues (2012) examined the vagal response of children with selective mutism in social situations and during physical exercise. They reported that children with selective mutism demonstrated difficulty shifting behavioral states and had a "sluggish" vagal break compared to typically developing children. This was expressed during a physical exercise task as a reduced withdrawal of cardiac vagal tone and a dampened increase in heart rate. Children with selective mutism were physiologically inhibited when asked to respond to others. They had great difficulty shifting between states requiring social engagement and mobilization.

Reduced Auditory Processing

Deficient auditory processing in children with selective mutism may impair the ability to process incoming auditory signals (Arie et al., 2007; Bar-Haim et al., 2004). The middle ear acoustic reflex masks an individual's voice and allows external sounds to

be processed (Borg, Counter & Rosler, 1984; Borg & Zakrisson, 1973; 1975). Children with selective mutism with abnormal auditory efferent activity are impaired when asked to process auditory input during vocalization (Arie et al., 2007). Bar-Haim and colleagues (2004) suggested that deficient auditory processing may explain speech selectivity in some children with selective mutism. Speech may be avoided because speaking while processing incoming stimuli proves too difficult.

Developmental Psychopathology

Selective mutism may be understood in the context of multiple theoretical perspectives (Steinhausen & Juzi, 1996). The disorder may develop out of various environmental and genetic factors (Cohan et al., 2006). A developmental psychopathology framework aims to combine multiple theoretical perspectives, such as from biological/genetic, psychodynamic, behavioral, ecological, and family systems perspectives. This framework emphasizes multiple contexts that interact with the potentially anxious predispositions in a child with selective mutism (Viana et al., 2009). A child with selective mutism may have a more chronic presentation over time, with shyness manifesting as a preschooler and chronic social anxiety manifesting as an adult. This model emphasizes multiple causes and perspectives that combine to create different clinical presentations. This model also emphasizes avoidance patterns in the family. A developmental psychopathology approach conceptualizes selective mutism as an avoidance behavior instead of a disorder (Wong, 2010). This framework may aid in the identification and treatment of children who may be at risk for developing the disorder (Cohan et al., 2006). A developmental approach emphasizes the multidisciplinary nature

of the disorder (Wong, 2010). The following section presents subtyping literature on children with selective mutism.

Subtyping

Children with selective mutism may present with various clinical profiles (Cohan et al., 2008). A taxonomy that includes clinical subtypes or specifiers of selective mutism may be beneficial. A taxonomy will allow for enhanced communication between researchers and clinicians, and permit individuals with selective mutism to be given the most appropriate treatment (DiStefano & Kamphaus, 2006; Meyers, McDermott, Webb, & Hagan, 2006; Robins & Guze, 1970). No system currently classifies selective mutism based on subtypes (Cohan et al., 2008).

The pathology of selective mutism is not well understood, and well-controlled studies with large sample sizes are sparse (Kristensen, 2000). Professionals may better understand the causal and maintaining variables of the disorder by examining subtypes. Treatments could also be developed based on each subtype (Hayden, 1980). The disorder is sometimes categorized according to internalizing and externalizing factors. Speech is withheld because of extreme anxiety according to an internalizing categorization. Speech is withheld to manipulate the environment according to an externalizing categorization (Hayden, 1980; Lesser-Katz, 1986).

Mutism has also been divided into biological and psychological subtypes (Kolvin & Fundudis, 1981). Biological mutism may be associated with profound deafness, akinetic mutism, infantile autism, or a serious mental handicap. Psychological mutism has two subtypes. The first subtype is traumatic mutism characterized by a sudden onset following physical or psychological shock. The second subtype is hysterical mutism

when a sudden loss of speech occurs in all settings. Hysterical mutism usually occurs after a traumatic experience, but is temporary and not preceded by inhibited behavior (Sharkey & McNicholas, 2008).

Hayden (1980) suggested 4 types of mutism: symbiotic, speech phobic, reactive, and passive aggressive. Symbiotic mutism refers to a symbiotic relationship with a caretaker and a submissive but manipulative relationship with others. Symbiotic mutism is reported as most common and typically displayed with the mother. The mother may be verbal, dominant, and jealous of a child's outside relationships. The child is negative, controlling, and mute to manipulate the environment. Speech phobic mutism occurs when the child fears his voice. The child may use ritualistic behaviors such as rocking and finger flapping to protect himself and others from the effect of his voice. Instances of withholding family secrets and injuries to the mouth preceding mutism have occurred with this type. Reactive mutism occurs from withdrawal and depression that results from trauma. Children with this subtype display symptoms of depression and lack facial expressions and appropriate affect. These children demonstrate behaviors such as finger flapping and rocking. Passive aggressive mutism occurs with a defiant refusal to speak. Antisocial behavior and hostile silence is used as a weapon. These children also lack facial expressions and control their affect. The environment is controlled by remaining mute.

Developmental delays, oppositional characteristics, and social anxiety are also reported in the selective mutism literature. Cohan and colleagues (2008) examined these characteristics using parent measures to develop a taxonomy of selective mutism. These researchers used latent profile analysis (Bartholomew, 1987) to identify classes of

children with selective mutism with a similar variable combination related to linguistic maturity, social anxiety, and behavior problems. Their goal was to refine the classification of selective mutism based on empirically derived clinical profiles.

Results from the analysis supported a 3-class solution. The first class was an anxious-mildly oppositional group that composed 44.6% of the sample. Clinically significant social anxiety scores and borderline clinical scores for behavior problems and syntax were found for this group. The second class was an anxious-communication delayed group that composed 43.1% of the sample. Clinically significant scores for social anxiety and syntax, with borderline scores for speech were found for this group. The third class an exclusively anxious group that composed 12.3% of the sample. The co-occurrence of selective mutism and social anxiety is expected given previous literature suggesting their commonalities. However, this study found the exclusively-anxious group least represented. This finding suggests that clinically significant anxiety is likely present in children with selective mutism but that other factors may also play a role.

Significant differences were noted in symptom severity. The anxious-communication delayed group scored higher on the CBCL externalizing problem scale than the exclusively anxious group. The anxious-mildly oppositional group showed better expressive language abilities than the anxious-communication delayed group. Similarly, the anxious-mildly oppositional group and the exclusively anxious group showed better receptive language abilities than the anxious-communication delayed group. Clinically significant deficits in expressive communication have previously been reported in children with selective mutism (Kristensen, 2000; McInnes et al., 2004;

Steinhausen & Juzi, 1996). Developmental language delays were not severe enough to warrant diagnoses for expressive or receptive language disorders.

The anxious-mildly oppositional group showed subclinical levels of behavior problems. This finding is supported by previous research (Black, & Uhde, 1995; Dummit et al., 1997; Steinhausen & Juzi, 1996; Yeganeh et al., 2006). Oppositional behaviors occurred in conjunction with social anxiety (Kristensen, 2001; Standart & Le Couteur, 2003). Cohan and colleagues (2008) reported that behavioral problems endorsed by parents were mainly found in the home. These behaviors were not consistent with the aggression and rule-breaking typically found in oppositional defiant disorder. When children are forced to speak and consequently refuse, parents may interpret the mutism as controlling or stubborn behavior. These results contradict previous research portraying children with selective mutism as defiant across all contexts (Krohn et al., 1992). Oppositional behavior may only be present when these children are in situations of heightened anxiety and are forced to speak.

Previous research has highlighted the heterogeneity of selective mutism. However, few studies have provided the individual behaviors and symptoms of children with selective mutism (Ford et al., 1998). Children with selective mutism have been described as anxious, oppositional, and characterized by potential speech delays (Cohan et al., 2008). Although this information may provide a general treatment direction, an in-depth examination of the differences among children with selective mutism is needed. Cohan and colleagues (2008) developed subtypes based on various clinical presentations but did not provide information on individual behaviors. The current study examined the

most common behaviors and symptoms endorsed by parents in a clinical sample of children with selective mutism.

Assessment

Clinical Assessment

The diagnostic assessment of selective mutism should be comprehensive, involve various settings and sources, and include a functional analysis to determine maintaining behaviors (Dow et al., 1995; Schill et al., 1996). Multiple informants' reports on the nature of a child's emotional and behavioral problems are sparse (Kristensen, 2001). A multidimensional assessment may involve a child's parents and teachers as well as health professionals such as a psychologist, speech and language pathologist, audiologist, and psychiatrist (Krysanski, 2003).

Children with selective mutism likely will not speak with a clinician during an assessment. A clinician should understand the extent of a child's impairment (Dow et al 1995; Yeganeh et al., 2003). The Clinician's Global Assessment Scale (CGAS) may be useful for understanding a child's current impairment level (Shaffer et al., 1983). Scores range from 0 (worst functioning) to 100 (superior functioning). Omdal and Galloway (2007) utilized the Raven's Controlled Projection for Children (RCPC; Raven, 1951). The RCPC is a computer-based writing measure that enables expression without having to speak. Direct questioning about sensitive matters may be intrusive and inappropriate with children who have trouble speaking. A non-intrusive measure allows a child to decide the pace and questions they are comfortable answering. Information about a child's relationship perceptions with children, parents, and other adults (such as visitors, teachers) may be obtained.

Children with selective mutism may communicate nonverbally and demonstrate prosocial communication behaviors such as giggling, nodding, and smiling (Viana et al., 2009). A clinician should directly observe a child's social interaction, means of communication, ability to establish and maintain friendships, participation in social activities, and level of inhibition (Wong, 2010). A clinician may also assess a child's temperament and ability to warm up to unfamiliar people (Viana et al., 2009; Wong, 2010).

A child's social fears should also be assessed as part of a comprehensive clinical assessment. Pertinent measures include the Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993) and the Spence Children's Anxiety Scale (SCAS; Spence, 1997). A daily rating of anxiety scale may also be completed by a child, where 0 indicates no anxiety and 10 indicates extreme anxiety. A daily rating of behavior can be used to monitor speaking patterns (Child Daily Rating of Behaviors; Kearney, 2010). Children may record the number of words they mouthed, whispered, or spoke in public settings. Children can also record how audible their spoken words were, where 0 indicates not at all and 10 is completely audible. Both the daily rating of anxiety scale and the daily rating of behavior scale may be completed by a child's parents.

Hearing, Speech, and Language Assessment

An assessment can also include a hearing examination. A child's mutism may be due to a delay in using language because of hearing difficulties (Wong, 2010). Premorbid speech and language difficulties may also be present (Steinhausen & Juzi, 1996). A clinician may refer a child to a speech and language therapist (Toppelberg et al., 2005). Manassis and colleagues (2007) identified potential deficits in phonetic

awareness, receptive language, and grammar ability in children with selective mutism. Language and speech fluency difficulties may impede learning to speak. A child may be tested with audiotapes for pitch, rhythm, inflection, fluency, and complexity of speech. The Peabody Picture Vocabulary Test, Third Edition (PPVT-III), can be used to assess a child's receptive language ability (Dunn & Dunn 1997; Viana et al., 2009). Parents may also audiotape a child speaking to assess phonetics, length of utterances, tone, rhythm, and quality of response (Cleator & Hand, 2001; Dow et al., 1995). Potential speech problems that contribute to the mutism may be identified.

School Assessment

School psychologists are in a unique position to assess, consult with peers, and intervene directly with children with selective mutism (Carlson, Mitchell, & Segool, 2008). A school psychologist should determine the child's level of cognitive and adaptive functioning (Sharkey & McNicholas, 2008). The cognitive profiles of children with selective mutism reportedly range from intellectually disabled to normal (Klin &Volkmar, 1993; Kolvin & Fundudis, 1981; Kristensen, 2000; Krohn et al., 1992). A child's current cognitive functioning may give insight into potential educational deficits that require accommodations. An academic assessment could incorporate a child's grades, teacher, parent, and peer reports, and a standardized test of cognitive ability such as the Wechsler Intelligence Scale for Children (WISC-IV; Wechsler, 2004) or the Wechsler Preschool and Primary Scale of Intelligence (WPPSI-IV; Wechsler, 2012).

Teachers may also use daily ratings of anxiety and behavior to record their student's actions. The Teacher Report Form is a widely used measure to assess emotional and behavioral problems (TRF; Achenbach, 1991; Achenbach & Rescorla,

2001). The TRF has items specific to selective mutism behaviors such as refusal to speak, anxiety, shyness and timidity, dependency, secrecy, and speech problems.

A measure specific to speech behaviors is the Teacher Version of the Speech Situations Questionnaire (SSQ-Teacher; Cunningham, et al., 2004; 2006). Teachers rate the extent to which a child speaks across settings such as a hallway, classroom, and playground, and to whom a child speaks. Teachers rate a child's speech behavior on a scale ranging from 0 (never speaks) to 2 (always speaks) (Nowakowski et al., 2009). Teachers may also describe a child's nonverbal behaviors and communication attempts. Teachers can indicate to whom a child speaks with comfortably. Teachers may also be knowledgeable about varying contexts in which a child is comfortable speaking (Viana et al., 2009).

A teacher's attitude regarding a child's mute behaviors may be assessed through interview. Omdal and Galloway (2008) reported that teachers often showed acceptance of a child's behavior, did not believe in their ability to help change the mutism, and felt they received no guidance. Teachers may reinforce a child's mutism by making no attempts to encourage interactions with others. A clinician should work with teachers on ways to encourage speaking attempts.

Parent Report

Parents are often a main information source regarding the progression of their child's mutism (Viana et al., 2009). A child's complete medical history including developmental milestones, prenatal and perinatal history, and neurological, speech, and language difficulties may be reviewed. A thorough developmental history is necessary to rule out mutism caused by autism, aphasia, or intellectual disability (Viana et al., 2009).

A clinician may use the Anxiety Disorders Interview Schedule for DSM-IV--Child and Parent Versions (ADIS-C/P). The ADIS-C/P is a semi-structured interview to assess disorder severity (Silverman & Albano, 1996). Additionally, Dummit and colleagues (1997) utilized the Social Behavior Scale (Watson & Friend, 1969) for parent ratings of anxiety and avoidance of social situations in children with selective mutism. However, these researchers added questions about speech behavior because there was no scale available at the time to quantify speech across different social settings (Dummit et al., 1997).

The Speech Situations Questionnaire-Parent Version (SSQ-Parent; Cunningham, et al., 2004; Cunningham et al., 2006) may also be used to assess selective mutism severity. This questionnaire assesses the extent to which a child speaks in multiple settings and the range of people to which a child speaks. Parents answer items on a scale from 0 (never talks) to 2 (speaks in a normal voice) (Nowakowski et al**.,** 2009). The Selective Mutism Questionnaire (SMQ; Bergman, Keller, Piacentini, & Bergman, 2008) was developed to measure the frequency of non-speaking behavior across situations where speech is expected. The questionnaire assesses severity of speech inhibition across various situations. The questionnaire includes 17 statements that describe situations in which speech is expected. Statements are rated on a 4-point Likert scale. Higher scores represent greater selective mutism severity.

A measure specific to preschool aged children is the Preschool Age Psychiatric Assessment (PAPA; Egger & Angold, 2004). The PAPA is a diagnostic interview to assess parent-reported psychiatric disorders in children aged 2-5 years. The PAPA

covers a comprehensive set of symptoms from the DSM-IV-TR and their effects on a child's relationships with parents, siblings, and peers.

Children with selective mutism may present with various symptoms. Assessment should help identify the range of these symptoms and determine how selective mutism is portrayed across internalizing and externalizing symptoms. Appropriate treatment can then be prescribed based on individual presentations. The following section provides a broad overview of the treatment strategies for children with selective mutism.

Treatment

Therapeutic Interventions

Selective mutism is often difficult and time consuming to treat. Treatment resistance (Kolvin & Fundudis, 1981; Sluckin et al., 1991) and secondary gains may maintain the mutism (Labbe & Williamson, 1984). Children with selective mutism are often reinforced for their mutism and nonverbal forms of communication. Treatment must address verbal and nonverbal negative reinforcement that sustains a child's behavior (Wong, 2010; Kumpulainen, 2002). Selective mutism is harder to treat with more enduring, reinforced symptoms (Krysanski, 2003). Optimal intervention may be long-term, multi-modal, and multifaceted (Hechtman, 1993).

Cohan, Chavira, and Stein (2006) highlighted previous treatment study drawbacks. First, standardized assessment techniques are lacking. Second, many intervention studies have been based on record review or no control was utilized. The majority of literature consists of small case studies or single case reports (Sharkley & McNicholas, 2008). Third, if standardized measures were used, the measure had little psychometric integrity. Lastly, little information regarding the usefulness of treatments

for children with selective mutism is available. Treatments for selective mutism include psychodynamic, behavioral, and family therapy (Wong, 2010).

Psychodynamic Treatments

Psychodynamic treatments were first used to treat children with selective mutism (Anstendig, 1999). This approach involves gathering a child's history and exposing underlying intrapsychic conflicts (Krysanski, 2003). Landgarten (1975) utilized art therapy with a 7-year-old girl with selective mutism. She expressed herself by painting, drawing, and making collages. Treatment involved symbolic interpretations, playing characters, and social contact training. Psychodynamic treatments are often long-term. Additional patience is necessary to treat a child who does not speak (Schepank, 1960). Therapists require tolerance and must recognize that results may be slow (Hesselman, 1983). Treatment is lengthy and it is difficult to know whether the treatment itself was effective or if the client recovered on their own (Krysanski, 2003). Psychodynamic treatments may be beneficial as part of a multimodal approach (Barlow, Strother, & Landreth, 1986; Krysanski, 2003; Wright et al., 1985).

Behavioral Treatments

Researchers often use behavioral strategies to reduce anxiety, boost verbalizations, and reduce oppositional or inappropriate means to seek attention (Cohan et al., 2006). Behavioral approaches emphasize systematic desensitization, shaping or prompting, verbal praise, positive reinforcement, stimulus fading, contingency management, unveiling a desired reward, such as a mystery motivator, self-modeling, video feed-forward, and response initiation (Blum et al. 1998; Cohan et al., 2006; Kehle,

Madaus, Baratta, & Bray, 1998; Krysanski, 2003). The aim of behavioral therapies is to reward verbal behavior and remove reinforcement for mute behavior (Krysanski, 2003).

Systematic desensitization, or graduated exposure therapy, involves learning to cope and overcome increasingly anxiety-provoking situations (Hung, Spencer, & Dronamraju, 2012). The child is initially exposed to the least anxiety-provoking situation and then gradually to situations that evoke greater anxiety. This technique is usually paired with progressive muscle relaxation and guided imagery (Compton et al., 2004). This technique helps mitigate the fear response around speaking situations (Cohan et al., 2006). Systematic desensitization may begin with a situation that produces very little anxiety for a child with selective mutism. A child may be asked to mouth a word in front of a peer. The child may then be gradually exposed to situations that require greater speech demands that are increasingly anxiety-provoking. A long-term treatment goal for a child with selective mutism may be to speak comfortably with the teacher and peers in the classroom. Hung and colleagues (2012) implemented systematic desensitization as part of a behavioral treatment for a girl with selective mutism. Her frequency of speech was the same as other students at 2-month follow-up.

Shaping involves reinforcing successive approximations toward a specific behavioral goal (Shriver et al., 2011). A child is encouraged to communicate nonverbally, make certain sounds, whisper, and begin speaking a word or sentence. The term "vocalization ladder" has been used to portray this procedure (McHolm, Cunningham, & Vanier, 2005; Oon, 2010). Shaping focuses on reinforcing attempts at communication with specific, attainable goals. Shaping was included in a multimodal or behavioral treatment plan in 9 of 23 studies from 1990-2005 on psychosocial

interventions for selective mutism (Cohan et al., 2006). Eight of these 9 studies revealed increased speech. Another important component of increasing speech in children with selective mutism is verbal praise and positive reinforcement for approximations of a target speech behavior (Calhoun & Koenig, 1973).

Stimulus fading involves gradual speaking to an increasing number of people in various places. Children with selective mutism may be first exposed to an environment with someone to whom they feel comfortable speaking. For example, a child may be encouraged to speak only to a parent in the classroom. This allows the child to become comfortable speaking in the school environment. Classmates and the child's teacher are then gradually introduced to generalize the child's speech (Hung et al., 2012). This approach is used to increase speaking in specific contexts (Kehle et al., 1998; Kopp & Gillberg, 1997). Stimulus fading procedures have successfully been combined with shaping and contingency management to treat selective mutism (Masten, Stacks, Caldwell-Colbert, & Jackson, 1996; Watson & Kramer, 1992).

Contingency management involves a consequence system. Rewards are given for speaking in public places and disincentives are utilized for failing to speak when expected. Vecchio and Kearney (2009) utilized contingency management as one portion of their study. They found that most children treated with contingency management increased their audible speech. Contingency management is often more effective when a child's teachers and peers are involved. However, teachers and peers may have difficulty integrating a consequence system into their routine (Krysanski, 2003).

A mystery motivator may be used to increase classroom speech. A mystery motivator is a hidden reward designed to increase the anticipation and value of a

reinforcer (Rhode, Jensen, & Reavis, 1993). A mystery motivator may take the form of an envelope with the child's name on it and a question mark. Inside the envelope is a desired reward for the child. The class is told that the child will receive the mystery motivator when he speaks in a tone that the class can hear and understand (Kehle et al., 1998). The inclusion of a mystery motivator as part of a comprehensive behavioral treatment plan helps improve speech in children with selective mutism (Kehle et al., 1998; 2006).

Self-modeling has also been described as a successful treatment (Holmbeck & Lavigne, 1992; Kee, Fung, & Ang, 2001; Kehle, Owen, & Cressy, 1990). This strategy involves making videotapes and audiotapes that show one engaging in appropriate speech behaviors. These tapes are played repeatedly throughout treatment. A child will ideally become accustomed to hearing their own voice and begin to model their own speaking. Self-modeling has been combined with stimulus fading and reinforcement techniques (Blum et al., 1998; Bray, Kehle, Lawless & Theodore, 2003; Kehle et al., 1998). Similarly, video feed-forward involves creating videotapes of a child speaking fluently that are edited with situations in which the child does not speak. The new edited version of the tape is presented to the child as a method of exposure. The videotapes show fluent speech in situations in which the child is mute or anxious (Blum et al., 1998).

Response initiation is also used to encourage speech in a limited period. This technique involves one-on-one time with the therapist and a child. The child and therapist spend the day together and the child is not permitted to leave until a minimum of one word is spoken. Rapport is built quickly through empathy and nonverbal play. The therapist provides support, encouragement, and clearly states the expectation to

speak one or more words. The child receives a reward upon speaking and can then go home. Children have been reported to speak within the first 2 hours, and rarely more than 4 hours is required (Krohn et al., 1992). New treatment goals are then set. New treatment goals may involve speaking with a child's teacher or in settings in which mutism occurs (Giddan et al., 1997).

Family Therapy

Research into family therapy is sparse and may reflect reluctance among isolated or socially anxious families to seek services (Sharkey & McNicholas, 2008). Family therapists employ an intervention to treat underlying pathology (Anstendig, 1999). Family therapists identify familial interactions that may be exacerbating the mutism (Krysanski, 2003). The family likely plays a role in the development and maintenance of the symptoms (Black & Uhde, 1995; Kehle et al., 1998; Kumpulainen, 2002; Vecchio & Kearney, 2007; Yeganeh et al., 2006). Family therapy can also allow the family to serve as an understanding support system.

Group Therapy

Group therapy is rare for selective mutism but can be effective. Wright and colleagues (1985) used an intensive short-term intervention over 6 weeks to treat 3 preschoolers. Barlow and colleagues (1986) incorporated siblings in group play therapy as part of a multimodal treatment. Siblings may allow for familiarity, comfort, and modeling of appropriate speaking behaviors. Sharkey and colleagues (2008) implemented group therapy for children with selective mutism and their parents. Children at post-treatment had increased confidence speaking in school, the clinic, and in their community. Their parents reported a decrease in their own anxiety.

School Programming

Treatment should include a comprehensive evaluation of a child's symptoms and educational abilities. Interventions should focus on adapting the school environment and therapeutic demands to a child's level of functioning (Kristensen, 2000). Dummit and colleagues (1997) reported that most children were placed in a regular classroom. However, 12% did not receive the speech and language services they required. Another 10% were inappropriately conceptualized as having a speech and language disorder instead of significant anxiety.

Individualized school treatment ideally involves teacher, therapist, and parent cooperation (Porjes, 1992). A child's teacher and guidance counselor should be educated about how selective mutism is maintained and identify and help prevent negative reinforcement in the classroom (Kumpulainen, 2002). Important considerations include not forcing a child to speak, keeping the child in a regular classroom, putting less emphasis on verbal performance, encouraging friendships, and using behavioral strategies such as desensitization and relaxation techniques (Krysanski, 2003). A child should be encouraged to speak to comfortable peers. However, peers should be discouraged from speaking for the child (Parker, Olsen, & Throckmorton, 1960).

Pharmacological Treatment

Research is scarce regarding pharmacological treatments for selective mutism. Medication use resembles those efficacious for social anxiety disorder (Bergman et al., 2002; Black & Uhde, 1994; Carlson et al., 1994; Wong, 2010). Carlson and colleagues (2008) reported that antidepressants were the most prescribed medication for youth with selective mutism. Selective serotonin reuptake inhibitors (SSRIs) have been used

extensively. SSRIs include drugs such as fluoxetine, fluvoxamine, citalopram, paroxetine, and sertraline. SSRIs enhance the treatment of selective mutism because they work directly on the inhibiting behavior (Carlson et al., 1999; Dunn & Dunn, 1997). Evidence of a serotonin imbalance exists in individuals with social anxiety and selective mutism (Harvey & Milne, 1998; Sheehan, Raj, Trehan, & Knapp, 1993). Medication usage may help reduce the biological and physiological impact of the perceived threat (Carlson et al., 2008).

Fluoxetine may be effective for selective mutism. Fluoxetine was reportedly effective for a 12-year-old female when psychotherapy, behavioral therapy, and desipramine failed (Black & Uhde, 1992). A month-long fluoxetine treatment resulted in speech to peers and a teacher. Motavalli (1995) described a 12-year-old female with long-term selective mutism who showed symptom improvement within 2 weeks of fluoxetine treatment. Harvey and Milne (1998) described an 8-year-old female who failed to benefit from 8 months of psychosocial treatments. She began speaking with others after 2 weeks of fluoxetine treatment. She was seen as assertive and talkative within 2 months of fluoxetine treatment (6-mg/day).

Fluoxetine was also used to treat two 6-year-old females with selective mutism and another co-morbid disorder. Rupp (1999) reported on fluoxetine use for a female with Tourette's syndrome and selective mutism. Nonverbal communication improved within 2 months and spontaneous speech occurred within 3 months. Behavioral problems remained a concern and additional medication was necessary. Silveira, Jainer, and Bates (2004) used fluoxetine for a female with a pervasive developmental disorder and

selective mutism. She had notable improvements in social behavior after 8 weeks of 20-mg/day of fluoxetine. She was speaking and socializing in school at 1-year follow-up.

Two single-case design studies utilized sertraline for selective mutism. Carlson and colleagues (1999) reported speaking gains with sertraline in children with selective mutism. Three children no longer met diagnostic criteria for selective mutism at 20-week follow-up. Eke (2001) reported on sertraline as an adjunct treatment with behavioral therapy. Three of four children demonstrated less anxiety and mutism.

Other SSRIs have shown treatment efficacy. Lafferty and Constantino (1998) reported on fluvoxamine for a 6-year-old female with selective mutism and oppositional and obsessive-compulsive traits. Increased speech and fewer obsessive-compulsive symptoms occurred after less than 3 weeks of treatment. Lehman (2002) used paroxetine for an 8-year-old female with social anxiety and selective mutism. She showed symptom improvement after less than 3 weeks. Thomsen, Rasmussen, and Anderson (1999) used citalopram for a 17-year-old girl with selective mutism, social phobia, abnormal eating, and obsessive-compulsive traits. Improvements in speech occurred with an increase in medication.

Monoamine oxidase inhibitors (MAOIs) may be a second-line treatment if SSRIs are ineffective. Phenelzine, a nonselective monamine inhibitor, has been utilized for selective mutism because of its success for social phobia (Golwyn & Weinstock, 1990; Golwyn & Sevile, 1999). Golwyn and Sevile (1999) reported on the efficacy of 24-60 weeks of phenelzine for 4 children with selective mutism aged 5-7 years. Golwyn and Weinstock (1990) described a 7-year-old female with selective mutism and shyness treated with phenelzine. She demonstrated improvements after 6 weeks. MAOIs may

have serious drug and food interactions and should only be used for children who do not respond to behavior therapy or SSRI/fluoxetine therapy (Golwyn & Sevile, 1999). Medication should be started on a low dosage and titrated according to treatment response and the emergence of side effects. Proper administration is important for a child's safety (Kumpulainen, 2002).

Carlson and colleagues (2008) reported that 81% of published pharmacological treatment studies of selective mutism were case studies and that 48% were conducted with concurrent psychosocial treatments. The efficacy of treatment based on pharmacology alone is difficult to determine. No large scale pharmacotherapy trials have been performed (Wong, 2010). However, SSRIs are most commonly recommended. Caution must be used when attributing improvement in mutism symptoms to pharmacological treatments alone. Further research on medication efficacy for selective mutism is necessary.

Purpose of Present Study

Extant research studies of selective mutism have several drawbacks and limitations. Previous researchers have identified children with selective mutism with anxious (APA, 2000; 2013; Kristensen 2000; Manassis et al., 2007; Steinhausen & Juzi, 1996; Yeganeh et al., 2003) and oppositional behaviors (APA, 2013; Andersson & Thomsen, 1998; Kolvin & Fundudis, 1981; Krohn, Weckstein, & Wright, 1992). However, previous research examining specific behaviors in profiles of children with selective mutism is somewhat limited. Cohan and colleagues (2008) developed subtypes of children with selective mutism based on total scores of behavioral measures. Cohan and colleagues, however, did not include information on the specific behaviors displayed

by each subtype. Additionally, Ford and colleagues (1998) specified behaviors commonly displayed by children with selective mutism according to the CBCL but did not include information on potential behavior profiles in their sample. Previous researchers have provided information on behaviors displayed by children with selective mutism. Researchers, however, have not investigated whether these specific behaviors are associated with anxiety or oppositional behavior profiles.

This study examined anxiety and oppositional behavior profiles in children with selective mutism using the Child Behavior Checklist (CBCL) (Achenbach, 1991; Achenbach & Rescorla, 2001). The CBCL has previously been used to obtain severity ratings of anxiety and opposition in children with selective mutism (Kristensen, 2000; Kristensen, 2001; Yeganeh et al., 2003). However, individual anxiety and oppositional behaviors displayed by children with selective mutism are often not reported. This study examined the most frequently endorsed behaviors, which were grouped into anxious or oppositional factors.

This study examined whether children with selective mutism with an anxious profile, demonstrated social problems and symptoms consistent with social anxiety disorder. Substantial comorbidity occurs between social anxiety disorder and selective mutism (Black & Uhde, 1995; Dummit et al., 1997; Kristensen, 2000; Vecchio & Kearney, 2005). Children with selective mutism have also been reported to score significantly higher than population norms on the CBCL's social problems scale (Steinhausen & Juzi, 1996). This study examined this CBCL scale and the social anxiety disorder section on the Anxiety Disorders Interview Schedule for DSM-IV–Parent Version (ADIS-P).

This study also examined whether children with selective mutism with an oppositional profile, demonstrated behaviors consistent with aggression and symptoms consistent with oppositional defiant disorder. Children with selective mutism may demonstrate behaviors such as rule-breaking, disobedience, and temper tantrums (Ford et al., 1998; Krohn et al., 1992). This study examined the CBCL's aggressive behavior scale and the oppositional defiant disorder section on the Anxiety Disorders Interview Schedule for DSM-IV–Parent Version (ADIS-P).

This study examined the family environments of children with selective mutism. Previous researchers have reported families of children of selective mutism as controlling (APA, 2013; Edison et al., 2011; Mills & Rubin, 1998; Siqueland et al., 1996; Whaley et al., 1999; Wood et al., 2003), conflictual (Anstendig, 1999; Goll, 1979; Von Misch, 1952; Weber, 1950; Wright, 1968), and less expressive (Rosenberg & Lindblad, 1978). However, none have compared families of children with selective mutism identified as anxious versus oppositional. This study derived anxious and oppositional groups of children with selective mutism and examined whether their families differ on control, conflict, and expressiveness.

The study is important to the field because findings could aid in the assessment and treatment of selective mutism. Selective mutism is currently classified as an anxiety disorder (APA, 2013). However, this classification may limit mental health professionals who encounter oppositional behaviors in children with selective mutism. The findings provide evidence of specific behavior profiles of children with selective mutism. Some children with selective mutism display a range of both oppositional and anxious

behaviors. Findings provide evidence that may be helpful for prescribing treatment based on practices such as anxiety or contingency management.

Hypotheses

Hypothesis 1 was that anxious and oppositional behavior profiles would be identified in a clinical sample of children with selective mutism. As mentioned, children with selective mutism have frequently been described as anxious (APA, 2000; 2013; Manassis et al., 2007; Yeganeh et al., 2003) or oppositional (Andersson & Thomsen, 1998; Krohn, Weckstein, & Wright, 1992). Profiles were identified initially via exploratory factor analysis using highly endorsed items from the Child Behavior Checklist (CBCL) and then confirmed via confirmatory factor analysis. Results from Hypothesis 1 served as the basis for the remaining hypotheses.

Hypothesis 2 was that Factor 1 (anxious behaviors) scores would be associated with several key variables and not associated with other key variables. Hypothesis 2a was that Factor 1 would be associated with the CBCL social problems scale scores as well as endorsed symptoms on the social anxiety disorder diagnostic section of the Anxiety Disorders Interview Schedule for DSM-IV-- Parent Version (ADIS-P). As mentioned, selective mutism has been found to be comorbid with these variables (Steinhausen & Juzi, 1996; Vecchio & Kearney, 2005). Hypothesis 2b was that Factor 1 scores would not be associated with the CBCL aggressive problem scale scores or endorsed symptoms on the oppositional defiant disorder diagnostic section of the ADIS-P.

Hypothesis 3 was that Factor 2 (oppositional behaviors) would be associated with several key variables and not associated with other key variables. Hypothesis 3a was that

Factor 2 scores would be associated with the CBCL aggressive behavior scale scores as well as endorsed symptoms on the oppositional defiant disorder diagnostic section of the ADIS-P. As mentioned, oppositional defiant disorder and selective mutism sometimes co-occur (Steinhausen & Juzi, 1996). Hypothesis 3b was that Factor 2 scores would not be associated with the CBCL social problems scale scores or endorsed symptoms on the social anxiety diagnostic section of the ADIS-P. Hypotheses 2 and 3 thus address the concurrent and discriminant validity of the factors identified from Hypothesis 1.

Hypothesis 4 was that Factor 1 (anxious behaviors) and Factor 2 (oppositional behaviors) scores would be associated with key familial variables in opposite ways. Specifically, hypothesis 4a was that Factor 1 scores would be associated with high control, low expressiveness, and low conflict according to the Family Environment Scale (FES). Parents of children with selective mutism may take control of anxiety-provoking situations to protect their child from negative emotions (Edison et al., 2011; Rubin et al., 2001). Additionally, some children with selective mutism reportedly come from families that do not encourage emotional expression (Rosenberg & Lindblad, 1978). Hypothesis 4b was that Factor 2 (oppositional behaviors) scores would be associated with low control, high expressiveness, and high conflict according to the FES. Mutism is sometimes viewed as a symptom of conflictual familial relationships (Anstendig, 1999; Goll, 1979; Von Misch, 1952; Weber, 1950; Wright, 1968).

CHAPTER 3

METHODOLOGY

Participants

Participants (n=57) included youth with selective mutism aged 3-11 years assessed at the UNLV Child School Refusal and Anxiety Disorders Clinic. Children treated for selective mutism were 11.88% of total number of children seen in the Clinic from inception. Prevalence rates will be higher than in the general population due to the Clinic's specialization for treating selective mutism.

Participants were 40.4% male (n= 23) and 59.6% female (n=34). Participants were European American (45.6%), Hispanic (21.1%), multiracial/biracial (12.3%), Asian (10.5%), other or unreported (8.8) and African American (1.8%). Annual family income was 0- $20,000 (1.7%), $21,000- $40,000 (22.4%), $41,000- $60,000 (22.4%), $61,000- $80,000 (8.6%), $81,000- $100,000 (6.9%), $100,000 or more (17.2), or not reported (20.7%). Parents in these families were married (62.1%), divorced (17.2%), separated (3.4%), or did not report their marital status (17.2%). Families were composed of 1 additional child (38.6%), 2 additional children (26.3%), 3 additional children (8.7%) or 4 or more additional children (3.5%).

Measures

Demographic Form. Parents completed a demographic form to assess for child's age and grade, child's gender, child's ethnicity, educational information for mother and father, family income, age and gender of child's siblings, and current marital status of the child's parents. The demographic form is in Appendix A.

Child Behavior Checklist (CBCL; Achenbach, & Rescorla, 2001). The CBCL is a 118-item rating scale to measure internalizing and externalizing problems in children and

adolescents aged 6-18 years. The measure is also available in a form for children as young as age 4 years. Both measures were used. Parents/guardians rated their child's behavior on a 3-point Likert-type scale from "0" (not true) to "2" (very true or often true). The CBCL contains several narrow-band scales: anxious/depressed, withdrawn/ depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior. The CBCL also yields overall scores for Total Problems, Internalizing problems, Externalizing problems, and DSM-oriented scales.

The CBCL was standardized across 1,753 children who were representative with respect to geographic location, ethnicity, and SES. Norms were calculated separately for gender and for youth aged 6-11 and 12-18 years. Internal consistency reliability was reported for Total Problems (0.97), Internalizing (0.90), and Externalizing (0.94); narrow-band scales range from 0.78-0.94. Test-retest reliabilities were satisfactory (0.82 - 0.92) for the narrow-band scales as well as Total Problems (0.94), Internalizing (0.91), and Externalizing (0.92). Content, construct, and criterion-related validity of the measure have also been found to be satisfactory (Achenbach & Rescorla, 2001; Sattler & Hoge, 2006). The convergence between Disorder-Oriented Scales on the CBCL and the ADIS-C has been found to be moderately predictive (Ferdinand, 2008). The CBCL is in Appendix B.

Anxiety Disorders Interview Schedule for DSM-IV--Parent and Child Versions (ADIS-C/P; Silverman and Albano, 1996). The ADIS-C/P is a semi-structured diagnostic interview that assesses symptom severity, frequency, and duration of anxiety disorders in children. Only the parent version was used in this study (ADIS-P). The

parent version includes a parent-rated impairment level on a 9-point Likert-type scale (0-8), with a score of 4 or greater indicating a clinically significant problem. The ADIS-C/P has shown excellent interrater reliability (0.65-1.0) and good test-retest reliability (0.42-1.0; Silverman & Albano, 1996). The measure has shown good construct validity and follows DSM-IV guidelines for the major childhood disorders (Langley, Bergman, & Piacentini, 2002; Tracey, Chorpita, Douban, & Barlow, 1997). Furthermore, Grills and Ollendick (2003) examined the diagnostic agreement between parents and a clinical consensus process. Parent and clinical-consensus agreement was reportedly good for all disorders in the ADIS-C/P. The social anxiety and oppositional defiant disorder sections of the ADIS-P were used in the study and are in Appendices C and D.

Family Environment Scale (FES; Moos & Moos, 2009). The FES is a 90-item true-false measure of personal growth, interpersonal relationships, and organizational structure within families. The FES has 10 subscales: achievement, active-recreational orientation, cohesion, conflict, control, expressiveness, independence, intellectual-cultural orientation, moral-religious emphasis, and organization. The conflict, control and expressiveness FES subscales were used in the study. Out of the current sample, only 10 parents completed the FES. The FES is in Appendix E.

Table 1 provides a description of each subscale:

Table 1.

Family Environment Subscale Descriptions

Relationship Dimensions		
	Cohesion	The degree of commitment, help, and support family members provide for one another
	Expressiveness	The extent to which family members are encouraged to express their feelings directly
	Conflict	The amount of openly expressed anger and conflict among family members
Personal Growth Dimensions		
	Independence	The extent to which family members are assertive, are self-sufficient, and make their own decisions
	Achievement Orientation	How much activities (such as school and work) are cast into an achievement-oriented or competitive framework
	Intellectual-Cultural Orientation	The level of interest in political, intellectual, and cultural activities
	Active-Recreational Orientation	The amount of participation in social and recreational activities
	Moral-Religious Emphasis	The emphasis on ethical and religious issues and values
System Maintenance Dimensions		
	Organization	The degree of importance of clear organization and structure in planning family activities and responsibilities
	Control	How much set rules and procedure are used to run family lives

The FES has 3 different forms: the real form (Form R) measures the current family environment, the ideal form (Form I) measures the ideal family environment, and the expectations form (Form E) measures expectations about the family environment. Form R was used in the study. Internal consistency is adequate for each subscale with Cronbach's alpha ranging from 0.61-0.78. Additionally, 2- and 4- month test-retest reliabilities for each subscale ranged from 0.70-0.91 (Moos, 1990).

Procedure

Participants were derived from the UNLV Child School Refusal and Anxiety Disorders Clinic. Data from past clients and their families as well as from new families entering treatment in 2013-2014 were included. Youth presenting to the Clinic are self-referred or referred by school staff or counselors from Las Vegas and surrounding communities. The Clinic is a specialized setting to address school refusal behavior and anxiety disorders. Therapists at the Clinic are clinical psychology doctoral students.

Youth and their families were screened and initial assessments were conducted by the therapist. An initial assessment includes parent and youth structured interviews, youth self-report measures, parent behavioral measures, and behavioral observations. The study utilized the demographic form, CBCL, ADIS-P, Child Behavior Checklist, and FES. Parent consent and youth assent was also secured.

Data Analyses

An initial descriptive analysis identified CBCL items with a mean of 0.50 or higher. This analysis yielded 20 items. However, items 65 (refuses to talk) and 79 (speech problem) were excluded in further analyses. These behaviors are a key aspect of

nearly all children with selective mutism and thus were not expected to differ across behavior profiles. Eighteen CBCL items were thus retained.

These 18 CBCL items were then subjected to an exploratory factor analysis (EFA) with varimax rotation via SPSS to determine potential factors involving anxious and oppositional behaviors. Factors were considered if they had an eigenvalue exceeding 1 (Kaiser, 1960) and contained 4+ items (Maccallum, 1990; Raubenheimer, 2004). Confirmatory factor analysis (CFA) via EQS was then used to confirm these factors utilizing 3 goodness-of-fit indices: comparative fit index (CFI), Bollen incremental fit index (IFI), and standardized root mean square residual (SRMR). Acceptable goodness-of-fit in this study was defined as CFI and IFI values of .90+ and SRMR values of <.10 (Kline, 2005). Hypothesis 1 was therefore examined via descriptive analysis, EFA, and CFA. Hypothesis 1 served as the basis for the remaining hypotheses.

The remaining hypotheses were examined via regression analyses. Hypothesis 2 was that Factor 1 (anxious behaviors) scores would be associated with several key variables and not associated with other key variables. First, factor 1 scores served as a predictor for CBCL social problem scores and ADIS-P social anxiety symptoms. Second, factor 1 scores served as a predictor for CBCL aggressive behavior scores and ADIS-P oppositional defiant disorder symptoms.

Hypothesis 3 was that Factor 2 (oppositional behaviors) would be associated with several key variables and not associated with other key variables. First, factor 2 scores served as a predictor for CBCL aggressive behavior scores and ADIS-P oppositional defiant disorder symptoms. Second, factor 2 scores served as a predictor for CBCL social problem scores and ADIS-P social anxiety symptoms. Hypothesis 4 was that

Factor 1 (anxious behaviors) and Factor 2 (oppositional behaviors) scores would be associated with key familial variables. Factor 1 and Factor 2 scores thus served as predictors for FES control, expressiveness and conflict subscale scores.

CHAPTER 4

RESULTS

General Comparisons

CBCL aggressive behavior subscale scores ($F(3, 47) = 0.77$, $p > .05$) and social problems scores ($F(3, 47) = 1.74$, $p > .05$) did not differ across major ethnic groups (European American, Hispanic, multiracial/biracial, and Asian). ADIS-P social anxiety disorder symptoms ($F(3,47) = 1.31$, $p > .05$) and oppositional defiant disorder symptoms ($F(3,47) = 2.13$, $p > .05$) also did not differ across major ethnic groups. The remaining ethnic groups (other or unreported and African American) were excluded from comparative analyses because they represented only 10.6% of the sample.

CBCL aggressive behavior subscale scores ($t(55) = 1.37$, $p > .05$) and social problems subscale scores ($t(55) = 0.06$, $p > .05$) did not differ across gender. ADIS-P social anxiety disorder symptoms ($t(55) = 0.96$, $p > .05$) and oppositional defiant disorder symptoms ($t(55) = 0.48$, $p > .05$) also did not differ across gender.

The FES was included in the intake for only 10 families seeking treatment for selective mutism. The FES was not a standard part of Clinic assessment. The decision to include the FES for these 10 families was at therapist discretion and was due to research interest. Families with FES data did not differ between those without with respect to age of their child ($t(52) = 0.44$, $p > .05$), child's gender ($t(55) = -0.02$, $p > .05$), child's ethnicity ($t(53) = 0.32$, $p > .05$) and parent's marital status ($t(46) = -0.54$, $p > .05$).

Hypothesis 1

Descriptive Analysis

The first hypothesis was that anxious (Factor 1) and oppositional (Factor 2) behavior profiles would be identified. CBCL items with a mean score of 0.50+ are in Table 2.

Table 2.

CBCL Items with a Mean Score of 0.50+

Item	Mean score
3. Argues a lot	0.71
4. Fails to finish things he/she starts	0.50
11. Clings to adults or too dependent	0.88
19. Demands a lot of attention	0.60
24. Doesn't eat well	0.52
29. Fears certain animals, situations, or places other than school	0.84
32. Feels he/she has to be perfect	0.63
42. Would rather be alone than with others	0.70
45. Nervous, high strung or tense	0.87
50. Too fearful or anxious	0.88
71. Self-conscious or easily embarrassed	1.11
75. Too shy or timid	1.73
86. Stubborn, sullen or irritable	0.71
87. Sudden changes in mood or feelings	0.54
95. Temper tantrums or hot temper	0.59
109. Whining	0.64
111. Withdrawn, doesn't get involved with others	1.05
112. Worries	0.63

Exploratory Factor Analysis

Items in Table 2 were then analyzed via exploratory factor analysis (EFA), which revealed 5 factors (Table 3). Factor 1 had 6 items and an eigenvalue of 4.63, which accounted for 25.74% of the variance. Factor 2 had 5 items and an eigenvalue of 2.04, which accounted for 11.31% of the variance. Factor 3 had 3 items and an eigenvalue of 1.56, which accounted for 8.69% of the variance. Factor 4 had 3 items and an eigenvalue

of 1.36, which accounted for 7.57% of the variance. Factor 5 had 1 item and an eigenvalue of 1.26, which accounted for 7.02% of the variance.

Factor 1 and Factor 2 were thus included for further analyses. Factor 1 included 6 items: 24 (doesn't eat well), 42 (would rather be alone than with others), 45 (nervous), 50 (fearful), 87 (sudden changes in mood or feelings) and 111 (withdrawn, doesn't get involved with others). This factor was labeled as an anxiety factor. Factor 2 included 5 items: 3 (argues a lot), 19 (demands a lot of attention), 86 (stubborn, sullen or irritable), 95 (temper tantrums or hot temper) and 109 (whining). This factor was labeled as an oppositional factor.

Table 3.

Exploratory Factor Analysis

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Would rather be alone than with others	**.74**	-.02	-.05	.34	.22
Withdrawn, doesn't get involved with others	**.73**	.02	.18	.00	.00
Nervous, high strung or tense	**.64**	.17	.11	-.02	.07
Doesn't eat well	**.54**	.06	-.18	.02	-.24
Sudden changes in mood or feelings	**.51**	.33	.06	.10	.38
Too fearful or anxious	**.51**	.14	.37	.06	.09
Argues a lot	.25	**.80**	-.01	.03	-.11
Temper tantrums or hot temper	.04	**.74**	.05	-.13	.34
Whining	-.14	**.74**	.18	.09	-.04
Stubborn, sullen or irritable	.13	**.70**	.33	.02	.17
Demands a lot of attention	.25	**.59**	-.20	.21	.04
Self-conscious or easily embarrassed	-.02	.02	**.72**	.07	.04
Worries	.11	.27	**.71**	.10	.28
Too shy or timid	.41	-.10	**.54**	-.41	-.13
Fails to finish things he/she starts	.01	-.03	-.07	**.76**	.20
Fears certain animals, situations, or places other than school	.27	.17	.38	**.66**	-.13
Clings to adults or too dependent	.29	.40	.35	**.46**	-.37
Feels he/she has to be perfect	.10	.13	.16	.13	**.82**

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) confirmed these 2 factors (Factor 1 and Factor 2) (CFI=1.00, IFI=1.00, SRMR=0.08). This model (Figure 1) was thus used for the remaining hypotheses.

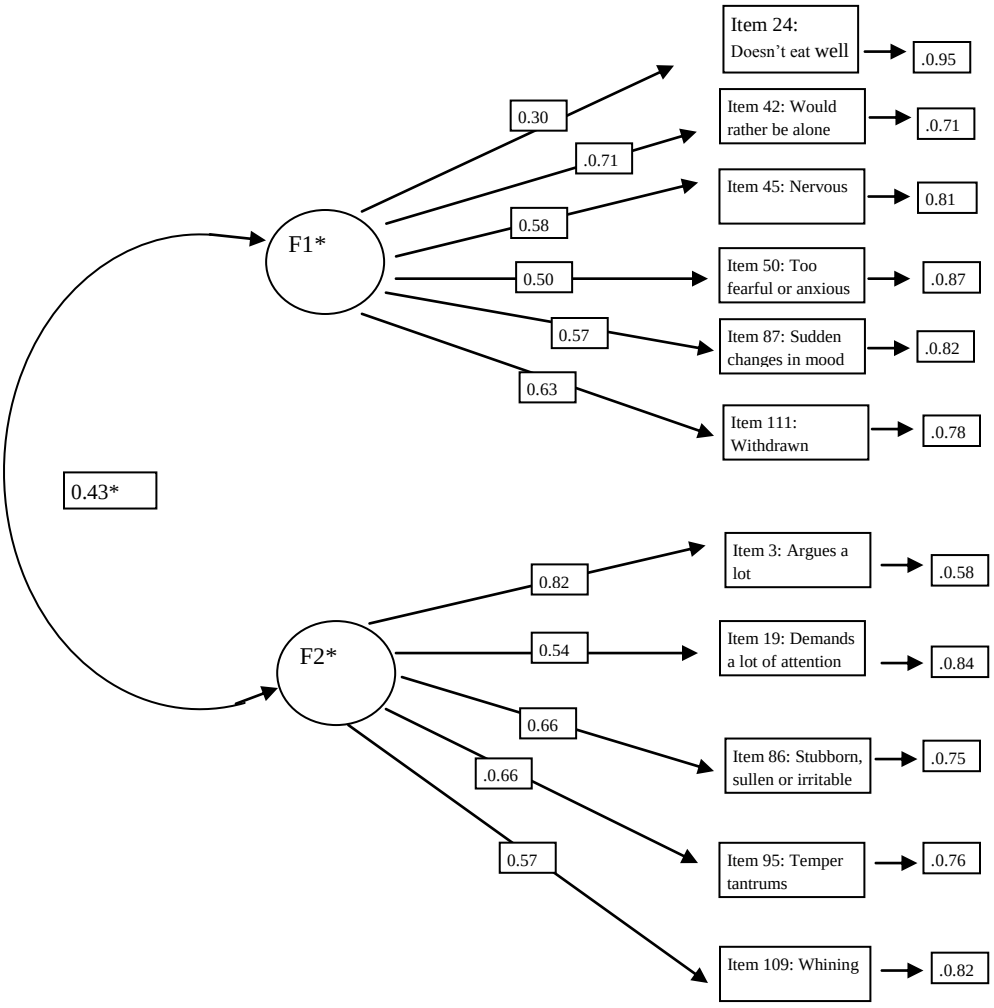

Figure 1. Confirmatory Factor Analysis for Factor 1 (Anxious Behaviors) and Factor 2 (Oppositional Behaviors).

Hypothesis 2

Factor 1 (anxious) scores explained 24.30% of the variance in CBCL social problems scale scores ($F(1,55) = 17.65$, $p < .001$) and 6.50% of the variance in ADIS-P social anxiety disorder symptoms ($F(1,55) = 3.83$, $p < .05$). As hypothesized (2a), Factor 1 scores were a significant and positive predictor of social problems scores (β =0.49, t = 4.20, $p < .001$) and social anxiety disorder symptoms ($\beta = 0.26$, t = 1.96, $p < .05$). Hypothesis 2a was supported (see Table 4 for all regressions).

Factor 1 scores explained 28.90% of the variance in CBCL aggressive behavior scale scores ($F(1,55) = 22.31$, $p < .001$) and 1.90% of the variance in ADIS-P oppositional defiant disorder symptoms ($F(1,55) = 1.08$, $p > .05$). Factor 1 (2b) scores were a significant and positive predictor of CBCL aggressive behavior scores ($\beta = 0.54$, t = 4.72, $p < .001$). Factor 1 scores did not predict oppositional defiant disorder symptoms ($\beta = 0.14$, t = 1.04, $p > .05$). Hypothesis 2b was partially supported.

Hypothesis 3

Factor 2 (oppositional) scores explained 50.00% of the variance in CBCL aggressive behavior scale scores ($F(1,55) = 55.08$, $p < .001$) and 10.10% of the variance in ADIS-P oppositional defiant disorder symptoms ($F(1,55) = 6.19$, $p < .05$). As hypothesized (3a), Factor 2 scores were a significant and positive predictor of aggressive behaviors (β =0.71, t = 7.42, $p < .001$) and oppositional defiant disorder symptoms (β = 0.32, t = 2.49, $p < .05$). Hypothesis 3a was supported.

Factor 2 scores explained 11.30% of the variance in CBCL social problems scale scores ($F(1,55) = 6.98$, $p < .01$) and 7.10% of the variance in ADIS-P social anxiety disorder symptoms ($F(1,55) = 4.21$, $p < .05$). Factor 2 (3b) scores were a significant

predictor of social problems (β = 0.34, t = 2.64, p < .01) and social anxiety disorder symptoms (β = -0.27, t = -2.05, p < .05). Hypothesis 3b was not supported.

Hypothesis 4

Factor 1 (anxious) scores explained 6.40% of the variance in FES control (F(1,8) = 0.55, p > .05), 7.30% of the variance in FES expressiveness (F(1,55) = 0.63, p > .05) and 0.60% of the variance in FES conflict subscale scores (F(1,55) =0 .05, p > .05). Factor 1 scores were not a significant predictor of FES control (β = 0.25, t = 0.74, p > .05), expressiveness (β = -0.27, t = -0.79, p > .05), or conflict scores (β = 0.08, t =0.21, p > .05). Hypothesis 4a was not supported.

Factor 2 (oppositional) scores explained 2.00% of the variance in FES control (F(1,8) = 0.17, p >.05), 7.10% of the variance in FES expressiveness (F(1,55) = 0.62, p >.05) and 52.20% of the variance in FES conflict subscale scores (F(1,55) = 8.74, p < .05). Factor 2 scores were not a significant predictor of FES control (β = 0.14, t = 0.41, p > .05) or expressiveness scores (β = 0.27, t = 0.78, p >.05). Factor 2 was a significant and positive predictor of FES conflict scores (β = 0.72, t = 2.96, p < .05). Hypothesis 4b was partially supported.

Table 4.

Multiple Regressions with Factor 1 and 2 Scores as Predictors

Factor 1						
Dependent Variable	F	R2	B	SE B	β	*t*
Social Problems	17.65***	0.24	1.28	0.31	0.49	4.20***
Social Anxiety Disorder	3.83*	0.07	0.41	0.21	0.26	1.96*
Aggressive Behaviors	22.31***	0.29	1.15	0.24	0.54	4.72***
Oppositional Defiant Disorder	1.08	0.02	0.60	0.60	0.14	1.04
FES Control	0.55	0.06	0.93	1.25	0.25	0.74
FES Conflict	0.05	0.01	0.32	1.52	0.08	0.21
FES Expressiveness	0.63	0.07	-0.88	1.12	-0.27	-0.79
Factor 2						
Dependent Variable	F	R2	B	SE B	β	*t*
Social Problems	6.98**	0.11	1.01	0.38	0.34	2.64**
Social Anxiety Disorder	4.21*	0.07	-0.49	0.24	-0.27	-2.05*
Aggressive Behaviors	55.08***	0.50	1.75	0.24	0.71	7.42***
Oppositional Defiant Disorder	6.19*	0.10	0.15	0.06	0.32	2.49*
FES Control	0.17	0.02	0.45	1.11	0.14	0.41
FES Conflict	8.74*	0.52	2.68	0.91	0.72	2.96*
FES Expressiveness	0.62	0.07	0.76	0.96	0.27	0.78

* $p < .05$, ** $p < .01$, *** $p < .001$

Chapter 5

DISCUSSION

The current study derived anxious (Factor 1) and oppositional (Factor 2) behavior profiles in a clinical sample of 57 children with selective mutism. Anxious behavior profile (Factor 1) scores were expected to be associated with social problems and social anxiety disorder symptoms but not aggressive behaviors or oppositional defiant disorder symptoms. However, Factor 1 scores were associated with social problems and social anxiety disorder symptoms as well as aggressive behaviors. Oppositional behavior profile (Factor 2) scores were expected to be associated with aggressive behaviors and oppositional defiant disorder symptoms but not social problems or social anxiety disorder symptoms. However, Factor 2 scores were associated with aggressive behaviors and oppositional defiant disorder symptoms as well as social problems and social anxiety disorder symptoms. Factor 1 and 2 scores were expected to be associated with family control, expressiveness, and conflict in specific ways. However, the only notable association was found between Factor 2 scores and conflict. An in-depth explanation of these findings and related clinical implications are discussed. Limitations of the current study and recommendations for future research are outlined as well.

Factor 1 (Anxious Profile)

An anxious profile was associated with social problems. Elevated CBCL social problem scores have been previously found in this population (Steinhausen & Juzi, 1996). An anxious profile was also associated with symptoms of social anxiety disorder. Symptoms linking social anxiety and selective mutism are frequently reported (APA, 2013; Anstendig, 1999; Sharp et al., 2007; Vecchio & Kearney, 2005) and these disorders

often co-occur. The current study, therefore, provides support for the theory that selective mutism is a child variant of social anxiety disorder (Bögels et al., 2010; Cunningham et al., 2006; Dow et al., 1995; Kristensen, 2000; Stein et al., 2001).

An anxious profile was associated with aggressive behavior, which was contrary to the proposed finding. However, items frequently endorsed were not directly associated with physically aggressive behavior. The most commonly endorsed items on the aggressive behavior scale included "argues a lot," "demands a lot of attention," "stubborn, sullen or irritable," and "temper tantrums or hot temper." These results support Cohan and colleagues' (2008) findings of elevated behavior problems in children with selective mutism with comorbid anxiety. An anxious profile also was not associated with oppositional defiant disorder. Children with selective mutism may have elevated behavior problems that are not severe enough to be symptoms of oppositional defiant disorder. The following section discusses the individual items found in the anxious profile.

Factor 1 Items

Children with an anxious profile were withdrawn and preferred to be alone. Children with selective mutism are often reported as behaviorally inhibited and demonstrate difficulties engaging socially (Asendorf, 1993; Crozier, 1999; Kristensen & Torgersen, 2002). When children with behavioral inhibition are faced with anxiety-inducing situations, they may become quiet and withdraw (Kagan, Reznick, & Snidman, 1987). Mutism may be a specific form of withdrawal, as it removes the child from verbal interaction (Ford et al., 1998). A child may prefer being alone because it is too anxiety-provoking to be around other children and be asked to speak. Peers may be less likely to

approach an anxious child with selective mutism because the child may seem disinterested in play, additionally.

Children with an anxious profile were reported as nervous and fearful. These children may be perceived as nervous and fearful because they sometimes freeze and look away when others speak to them (APA, 2000; 2013; Hesselman, 1983; Lesser-Katz, 1986; Steinhausen & Juzi, 1996; Yeganeh et al., 2003). The current study did not examine the child's specific fears. However, fear of social situations is commonly reported (Dummit et al., 1997; Standart & Le Couteur, 2003; Vecchio & Kearney, 2005; Yeganeh et al., 2006). An association between an anxious profile and social anxiety disorder was found in the current study, additionally. Children with an anxious profile were not found to display high rates of defiance or oppositional behaviors. Therefore, parents of a child who scored high on Factor 1 were more likely to interpret their child's mute behavior as a display of nervousness and fear, instead of defiance.

Children with elevated Factor 1 scores demonstrated sudden changes in mood. Children with selective mutism are commonly reported as having difficulty adapting to new, stressful situations (Ford et al., 1998; Kagan, Reznick, Clarke, Snidman & Garcia-Coll et al., 1984). Subsequently, negative emotions may occur, such as sadness or fear when faced with a new situation (Chess & Thomas, 1989; Ford et al., 1998). Children who display mood swings may be attempting to escape from anxiety-provoking social situations that are new and demand speech. Depression with accompanying mood swings may also co-occur with selective mutism (Giddan &Milling, 1997).

Children with elevated Factor 1 scores reportedly did not eat well. No known studies have examined whether children with selective mutism demonstrate abnormal

eating habits. However, social anxiety disorder is commonly associated with embarrassment while eating in front of others (Barlow, 1988; Beidel & Turner, 2007). Selective mutism and social anxiety disorder commonly co-occur (APA, 2013; Anstendig, 1999; Sharp et al., 2007; Vecchio & Kearney, 2005). Therefore, children with selective mutism may be scared to eat in front of others, and therefore, not eat well.

Parental endorsement of the item "doesn't eat well," requires further questioning. This symptom may present as an unwillingness to eat or a general preference for certain foods. Problematic eating behaviors are reported as a common concern for parents with young children. Particularly, avoiding unfamiliar foods and eating a small variety of foods are frequent complaints (Ekstein, Laniado, & Glick, 2010). The prevalence of picky eating among young children ranges from 10.00 to 35.00% (Reau, Senturia, Lebailly, & Christoffel, 1996; Wright, Parkinson, Shipton, & Drewett 2007). Therefore, problematic eating may be considered normal behavior for children and not considered a unique characteristic of selective mutism.

This symptom may be due to feelings of nausea when presented with food, additionally. Problematic eating behaviors may occur when the child feels anxious, such as while at school or other public places. Dysregulation of norepinephrine and serotonin found in anxiety disorders has been linked to appetite changes (Ressler & Nemeroff, 2000). The child may able to engage in healthier eating habits once their anxiety is reduced. Children with selective mutism may also engage in abnormal eating habits as a way to gain attention from a parent.

Factor 2 (Oppositional Profile)

An oppositional profile was associated with aggressive behaviors. A child may display verbally aggressive behaviors such as arguing and whining in attempt to escape from uncomfortable situations (Scott & Beidel, 2011). An oppositional profile was associated with symptoms of oppositional defiant disorder. All children in the current study with an oppositional profile showed anxiety symptoms. This finding further demonstrates that oppositional behaviors may be in response to anxiety. Mutism may be a deliberate behavior that lessens emotional arousal. Thus, the lack of speech reflects an avoidance strategy that allows the child to regulate their arousal and escape from an anxiety-provoking situation (Kagan, 2009; Scott & Beidel, 2011; Yeganeh et al., 2003). A child may willfully withhold speech because they have learned this is an effective, but maladaptive strategy for decreasing their anxiety.

An oppositional profile was associated with social problems. CBCL items such as "doesn't get along with other kids" and "not liked by other kids" were found among some children with an oppositional profile. Social problems may occur for a child who displays temper tantrums, argues, whines, is stubborn and demands attention. An oppositional profile was also associated with social anxiety disorder, which was contrary to expectation. A child may respond to an anxiety-provoking situation by withdrawing, becoming avoidant, and refusing to speak (Yeganeh et al., 2003). Mutism may be used as a purposeful strategy for reducing one's anxiety (Scott & Beidel, 2011). The current study supports the notion that symptoms of defiance and opposition are associated with anxiety (Bögels et al., 2010; Kristensen, 2000). The following section discusses the individual items found in the oppositional profile.

Factor 2 Items

Children with an oppositional profile may be perceived as demanding attention for various reasons. Children may be mute to divert attention from their parent's negative, and sometimes abusive, marital relationship (Rosenberg & Lindblad, 1978). However, the current study did not examine the relationship between marital conflict and mutism. Children with selective mutism often do not speak in school, so they may be eager to get home and demand attention from a parent, additionally.

Children with an oppositional profile may be perceived by their parents as being stubborn because the child remains mute when asked to speak. The child may appear to be refusing to speak because they likely speak comfortably at home (Cleave, 2009). A child with selective mutism may be trying to control their anxiety by remaining mute (Dummit et al., 1997; Ford et al., 1998; Hadley, 1994). A child's parents may underestimate their child's anxiety because they are focused on the lack of speech (Moldan, 2005). Children with an oppositional profile were reported to whine and have temper tantrums. These behaviors may be an attempt to escape from an anxiety-provoking situation, similarly seen in children with an anxious profile (Dummit et al., 1997; Ford et al., 1998; Halle, 1985). Extreme emotionality may result in irritability and oppositional behaviors for some children with heightened anxiety, additionally (Scott & Beidel, 2011).

Children with an oppositional profile reportedly argued a lot. However, findings are difficult to interpret because there are no data as to the reason for arguing. Children with selective mutism may display oppositional behaviors to assert control on their environment. A child may delay certain actions, such as getting dressed or ready for bed,

for example (Cohan et al., 2008). The child does not want to engage in a certain activity and therefore, postpones the action to control their environment. Similarly, a child may argue about being asked to speak in social situations (Cunningham et al., 2006), or about a task not involving speech. Children with selective mutism may argue in attempt to control their environment and avoid an anxiety-provoking situation. Further research should examine whether children with selective mutism argue in response to tasks that do not involve demands for speech and social interaction (Cohan et al., 2008).

Family Variables

The current study found no relationship between an anxious profile and family control, expressiveness, or conflict. An oppositional profile was not associated with family control or expressiveness but was with family conflict. Items on the FES conflict subscale represent outward expression of anger. Children with an oppositional profile may witness expressions of anger in their home and then display similar behavior.

The FES was completed by only 10 families in the current study. The sample size, therefore, may have been insufficient to find significant associations between the remaining subscales and each profile. FES items may not depict how expressiveness and control are demonstrated in families of children with selective mutism. For example, items on the control subscale speak to control in the home and not in public. Parents may demonstrate control by speaking for their mute child in social situations to avoid embarrassment and protect their child (Edison et al., 2011; Rubin et al., 2001; Rubin & Burgess, 2002). However, the FES control subscale only speaks to rule-following, structure, and decision making in the home.

Items on the expressiveness subscale reflect comfort in expressing emotions in the home. However, no items on this subscale represent expression outside the home. Children with selective mutism often do not talk to individuals outside of the home but do comfortably express themselves to family members (Edison et al., 2011; Schill, Kratochwill, & Gardner, 1996). Therefore, the FES may not be an appropriate measure to assess the expression of feelings outside of the home.

Clinical Implications

The current study has potential relevance for assessment and treatment for children with selective mutism. This study addressed Cohan and colleagues' (2008) concern that measures used to assess children with selective mutism often are not standardized. Items most frequently endorsed on the CBCL in the current study may be included as part of an in-depth assessment.

The first step, therefore, would involve determining a child's behavior profile by utilizing the CBCL. A child with a high score on Factor 1 (anxious profile) would benefit from further assessment to determine the extent of anxiety. Measures such as the Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993) and the Spence Children's Anxiety Scale (SCAS; Spence, 1997) could be utilized. Elevations on these scales would support the notion that children with an anxious profile present with both general and social anxiety. Measures such as the Teacher Report Form (TRF) may corroborate the behavior profile endorsed by the child's parent.

A child with a high score on Factor 2 (oppositional profile) would benefit from further assessment to determine if anxiety is contributing to oppositional behavior. First, the SASC-R and SCAS could be used to assess for both social anxiety and generalized

anxiety. However, children with an oppositional profile may display temper tantrums, whine and argue when confronted with anxiety-provoking situations. Therefore, anxiety and oppositional behaviors should be assessed. The Conners 3rd edition—Parent Version (Conners 3-P) may be utilized to assess for aggression and oppositional defiant disorder symptoms (Conners, 2008). The TRF and Conners 3rd edition--Teacher Version (Conners, 2008) would provide a more comprehensive picture of the child's behavior outside the home.

Clinicians addressing a child with selective mutism should implement treatment based on the child's behavior profile and individual symptoms. Cognitive behavioral interventions have been the main treatment approach for this population. However, interventions based on the child's presenting problems are most successful for treating children with selective mutism (Cohan et al., 2006).

Cognitive behavioral techniques may benefit children with a largely anxious profile. The aim of behavioral therapies is to reward verbal behavior while gradually exposing the child to greater anxiety-provoking situations (Krysanski, 2003). These behavioral techniques would be most useful in situations where the child restricts speech because of anxiety. Treatment may include an exposure-based hierarchy paired with progressive muscle relaxation and guided imagery (Cohan et al., 2006; Compton et al., 2004).

Examples of initial tasks for children following an exposure-based hierarchy include the child speaking to the parent in the therapy room first without the therapist present and then with the therapist, playing games that involve short verbal responses, and asking the child's parent to record the child's voice to play back for the therapist

(Bergman et al., 2013). Exposures should be paired with progressive muscle relaxation, focused breathing and prompting the child to visualize enjoyable images. A reward system is beneficial, where the child is praised and encouraged to speak in increasingly anxiety-provoking situations. Other examples of exposure activities include asking the child to speak in community settings such as shopping centers and eventually the child's school (Vecchio & Kearney, 2009). Examples of school-based exposures include having the child speak in non-classroom areas such as the playground, mouthing words to the teacher and other peers, and eventually whispering and producing one or two word statements to peers and the teacher. The child's fear, withdrawal, nervousness, and mood changes may eventually be lessened following exposures.

Children with a high score on Factor 2 (oppositional profile) likely restrict speech initially because of anxiety. However, anxiety is reduced and mutism is maintained when speech demands are taken away due to the lack of speech. Children with an oppositional profile likely maintain their mutism because there is no consequence for failing to speak. Therefore, children with an oppositional profile may not respond as well to anxiety-reduction techniques (Bergman & Keller, 2007). Treatment may focus on reducing frequently endorsed symptoms found in this profile. Children with an oppositional profile may argue, demand attention, act stubborn, display temper tantrums, and whine when asked to speak.

A positive treatment outcome may occur if intervention focuses on parent training via contingency management. Contingency management involves a consequence system. Rewards are given for speaking in public places and disincentives are utilized for failing to speak when expected (Krysanski, 2003). Parents are taught to ignore attempts to

communicate nonverbally and respond positively to the child when they attempt to speak. Punishment may involve a loss of privileges such toys, television time, or early bed time (Vecchio & Kearney, 2009). Punishments and rewards should be pre-established to help the child be motivated to comply with the speech task. Routines should be established so that the child has a lot of opportunities to speak in public.

A contingency management system may also be implemented in school. Coordination is encouraged between the child's teacher and parent. The teacher is asked to provide opportunities for the child to speak in class and then report back to the child's parents on the exposure outcome. A contingency management system in the classroom should involve exposures that are progressively more anxiety-provoking. The current study demonstrated that children with an oppositional profile displayed anxiety-related symptoms. Therefore, the goal when working with children with an oppositional profile is to reduce their anxiety and employ a consequence system to encourage speech.

Study Limitations

Findings from the current study should be considered with caution due to several limitations. First, the sample consisted of only 57 youth treated for selective mutism. This sample is relatively small compared to other studies (Cohan et al., 2008; Ford et al., 1998). However, the current study included children formally diagnosed with selective mutism using clinically validated and state-of-the-art measures. Some studies reporting larger samples have utilized research databases that involve indirect assessment of children (Cohan et al., 2008; Ford et al., 1998; Yeganeh et al., 2006).

Second, the current study included children with selective mutism in a clinical setting. These children may have had a more severe presentation that led to seeking

treatment than those in the general population. Therefore, findings may have limited generalization to children with selective mutism in the general population.

Third, the CBCL was used to obtain common symptoms. Parents may underestimate their child's symptoms because the mutism may occur primarily in the classroom. Cohan and colleagues (2008) reported that parents may indicate less anxiety and more oppositional behaviors than teachers. However, parents may misinterpret their child's withdrawal and refusal to speak as oppositional. Teachers also may report higher social anxiety than parents (Levin-Decantini et al., 2013). The potential extension of these profiles into the classroom could be possible with parent and teacher report.

Fourth, the child's self-report could help validate behavior profiles. However, child data were not utilized because children often would not speak to the examiner and were young and limited in their ability to read.

Fifth, the FES was only available for 10 individuals. Results should be considered with caution and warrant replication with a larger sample. The FES was the only measure used to assess family environment in children with selective mutism. This may have led to a biased, ungeneralizable view of family functioning that may not extend outside the home. Only the child's parents completed a measure of family functioning. The child's view of the family in a measure comparable to the FES would have been of benefit.

Suggestions for Future Research

Research examining the validity of behavior profiles of children with selective mutism is in the early stages. Future researchers should examine whether behavior profiles differ between home and school environment. Future research would benefit

from considering the perspective of the child's teacher. For example, the Teacher Report Form could be utilized to determine whether behavior profiles from the CBCL are also found via the TRF. Conners 3rd edition--Parent and Teacher Versions could be utilized to assess for similar behaviors at school and home (Conners, 2008).

Child report of their symptoms may also help clinicians better understand whether anxiety is contributing to the mutism. Previous researchers have questioned whether children with selective mutism are mute in social situations because they are too scared to speak or whether the social situation itself causes anxiety (Anstendig, 1999; Dummit et al., 1997; Ford et al., 1998; Kristensen, 2002; Yeganeh et al., 2003). Future research is needed on whether children with selective mutism experience high anxiety in social situations that do not demand speech. These situations may include writing on the chalkboard, using public restrooms, eating in front of others, taking tests, and having one's picture taken. Future researchers could utilize behavioral observations, and measures that assess anxiety and can be completed nonverbally such as the Anxiety Disorders Interview Schedule-Child Version (ADIS-C; Silverman & Albano, 1996), the Social Anxiety Scale for Children-Revised (SASC-R; La Greca & Stone, 1993) and the Spence Children's Anxiety Scale (SCAS; Spence, 1997).

Family environment was only captured by one measure. The FES does not directly assess for marital dissatisfaction previously reported by parents (Wilkins, 1985; Wright, 1968). Future researchers may want to address the potential contribution of marital dissatisfaction to mutism severity. Information on marital satisfaction may be obtained via interview and could utilize the Marital Satisfaction Inventory-Revised (MSI-R) (Snyder, 1997). The FES was completed solely by the parents, additionally. Future

researchers should examine family environment from the perspective of both the parent and the child. Parenting style has been associated with selective mutism. Future researchers may utilize the Revised Child Report of Parental Behavior Inventory (CRPBI-30) to measure the child's perceptions of their caretaker's parenting behavior (Schludermann & Schludermann, 1988). Future researchers should seek to better understand how parental behavior contributes to selective mutism.

APPENDIX A
Information Sheet

This sheet is to be filled out by one or both parents/guardians. The information you provide will be coded numerically and will in no way be associated with you or your child. Please feel free to skip an item if you don't feel comfortable answering it; however it is hoped that you will respond honestly to all items.

1. Child's name: _____
2. Child's Birth Date: _____
3. Child's Gender: (circle one) M F
4. Child's Ethnicity: (circle one)

   Asian African-American European-American Hispanic
   Multi/Biracial Native American Other _____
5. Mother's/Guardian's Name: _____ Age: _____
6. Father's/Guardian's Name: _____ Age: _____
7. Did mother/guardian graduate from high school? Yes No

   How many years, if any, did mother/guardian attend school after high school? ____
8. Did father/guardian graduate from high school? Yes No

   How many years, if any, did father/guardian attend school after high school? _____
9. Mother's/Guardian's Occupation: _____
10. Father's/Guardian's Occupation: _____
11. Number of hours mother/guardian works outside the home per week? _____
12. Number of hours father/guardian works outside the home per week? _____
13. Age (in years of all siblings:

    Age: _____Gender: M F Age: ____ Gender: M F Age: _____ Gender: M F
    Age: ___ Gender: M F Age: _____Gender: M F Age: _____ Gender: M F
14. Marital status of parents/guardians currently? (circle one)

    Married Never Married Separated Divorced

15. Marital status of parents/guardians 1 year ago? (circle one)

Married Never Married Separated Divorced

16. How stable is your marriage now? (circle one)

Very Stable Somewhat Stable Not Stable

17. How stable was your marriage 1 year ago? (circle one)

Very Stable Somewhat Stable Not Stable

18. If parents/guardians are separated or divorced, circle one of the following:

Joint custody Mother has custody Father has custody

19. If parents do not have joint custody, how many **hours per month** does the non-custodial parent spend with the child? _____

20. Is one of both of the custodial parents remarried? (circle one) Yes No

If yes, circle one of the following:
Both are remarried Only mother is remarried Only father is remarried

21. Is your child adopted? Yes No

22. Has child's mother ever been to therapy for any mental condition? Yes No

Dates attended:_____ What reason: _____

23. Has child's father ever been to therapy for any mental condition? Yes No

Dates attended:_____ What reason: _____

24. Has the child ever been to therapy for any behavioral problem or mental condition? Yes No

Dates attended:_____ What reason: _____

25. Has/have child's sibling(s) ever been to therapy for any mental condition? Yes No

Dates attended:_____ What reason: _____

26. Has the child ever taken medication for any mental condition?

Dates taken:_____ What medication: _____

27. Is there a history of school refusal in your family? Yes No Relation:_____

28. Is there a history of shyness in your family? Yes No Relation:_____

29. Is there a history of anxiety in your family? Yes No Relation:_____

30. Is there a history of selective mutism in your family? Yes No Relation:_____

31. Does your family participate in religion on a regular basis? Yes No

32. Is your child also religious? Yes No

33. What is your family's average annual income? _____

In the future, the researcher may want to make brief contact with you again as a follow-up. Of course, your cooperation would, again, be entirely voluntary. Please provide the following contact information if it is all right that someone contact you later.

Name and Mailing Address:
_____
_____

Telephone number:
Home: _____
Work: _____

APPENDIX B

Child Behavior Checklist

Below is a list of items that describe children and youths. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true or your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0	1	2	1. Acts too young for his/her age
0	1	2	2. Drinks alcohol without parents' approval (describe):
			_____
0	1	2	3. Argues a lot
0	1	2	4. Fails to finish things he/she starts
0	1	2	5. There is very little he/she enjoys
0	1	2	6. Bowel movements outside toilet
0	1	2	7. Bragging, boasting
0	1	2	8. Can't concentrate, can't pay attention for long
0	1	2	9. Can't get his/her mind off certain thoughts; obsessions (describe):
			_____
0	1	2	10. Can't sit still, restless or hyperactive
0	1	2	11. Clings to adults or too dependent
0	1	2	12. Complains of loneliness
0	1	2	13. Confused or seems to be in a fog
0	1	2	14. Cries a lot
0	1	2	15. Cruel to animals
0	1	2	16. Cruelty, bullying or meanness to others
0	1	2	17. Daydreams or gets lost in his/her thoughts
0	1	2	18. Deliberately harms self or attempts suicide
0	1	2	19. Demands a lot of attention
0	1	2	20. Destroys his/her own things
0	1	2	21. Destroys things belonging to his/her family or others
0	1	2	22. Disobedient at home
0	1	2	23. Disobedient at school
0	1	2	24. Doesn't eat well
0	1	2	25. Doesn't get along with other kids
0	1	2	26. Doesn't seem to feel guilty after misbehaving
0	1	2	27. Easily jealous
0	1	2	28. Breaks rules at home, school, or elsewhere
0	1	2	29. Fears certain animals, situations, or places other than school (describe):
			_____
0	1	2	30. Fears going to school
0	1	2	31. Fears he/she might think or do something bad

0 1 2 32. Feels he/she has to be perfect
0 1 2 33. Feels or complains that no one loves him/her
0 1 2 34. Feels others are out to get him/her
0 1 2 35. Feels worthless or inferior
0 1 2 36. Gets hurt a lot, accident-prone
0 1 2 37. Gets in many fights
0 1 2 38. Gets teased a lot
0 1 2 39. Hangs around with others who get in trouble
0 1 2 40. Hears sound or voices that aren't there (describe):

_____

0 1 2 41. Impulsive or acts without thinking
0 1 2 42. Would rather be alone than with others
0 1 2 43. Lying or cheating
0 1 2 44. Bites fingernails
0 1 2 45. Nervous, high strung or tense
0 1 2 46. Nervous movements or twitching (describe):

_____

0 1 2 47. Nightmares
0 1 2 48. Not liked by other kids
0 1 2 49. Constipated, doesn't move bowels
0 1 2 50. Too fearful or anxious
0 1 2 51. Feels dizzy or lightheaded
0 1 2 52. Feels too guilty
0 1 2 53. Overeating
0 1 2 54. Overtired without good reason
0 1 2 55. Overweight
0 1 2 56. Physical problems **without known medical cause:**
0 1 2 a. Aches or pains (**not** stomach or headaches)
0 1 2 b. Headaches
0 1 2 c. Nausea, feels sick
0 1 2 d. Problems with eyes (**not** if corrected by glasses)
(describe):

_____

0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe):

_____

0 1 2 57. Physically attacks people
0 1 2 58. Picks nose, skin, or other parts of body (describe):

_____

0 1 2 59. Plays with own sex parts in public
0 1 2 60. Plays with own sex parts too much
0 1 2 61. Poor school work

0 1 2 62. Poorly coordinated or clumsy
0 1 2 63. Prefers being with older kids
0 1 2 64. Prefers being with younger kids
0 1 2 65. Refuses to talk
0 1 2 66. Repeats certain acts over and over; compulsions
(describe):

_____

0 1 2 67. Runs away from home
0 1 2 68. Screams a lot
0 1 2 69. Secretive, keeps things to self
0 1 2 70. Sees things that aren't there (describe):

_____

0 1 2 71. Self-conscious or easily embarrassed
0 1 2 72. Sets fires
0 1 2 73. Sexual problems (describe):

_____

0 1 2 74. Showing off or clowning
0 1 2 75. Too shy or timid
0 1 2 76. Sleeps less than most kids
0 1 2 77. Sleeps more than most kids during day and/or night
(describe):

_____

0 1 2 78. Inattentive or easily distracted
0 1 2 79. Speech problem (describe):

_____

0 1 2 80. Stares blankely
0 1 2 81. Steals at home
0 1 2 82. Steals outside the home
0 1 2 83. Stores up too many things he/she doesn't need
(describe):

_____

0 1 2 84. Strange behavior (describe):

_____

0 1 2 85. Strange ideas (describe):

_____

0 1 2 86. Stubborn, sullen or irritable
0 1 2 87. Sudden changes in mood or feelings
0 1 2 88. Sulks a lot
0 1 2 89. Suspicious
0 1 2 90. Swearing or obscene language
0 1 2 91. Talks about killing self
0 1 2 92. Talks or walks in sleep (describe):

_____

0	1	2	93. Talks too much
0	1	2	94. Teases a lot
0	1	2	95. Temper tantrums or hot temper
0	1	2	96. Thinks about sex too much
0	1	2	97. Threatens people
0	1	2	98. Thumb-sucking
0	1	2	99. Smokes, chews, or sniffs tobacco
0	1	2	100. Trouble sleeping (describe):

_____

0	1	2	101. Truancy, skips school
0	1	2	102. Underactive, slow moving, or lacks energy
0	1	2	103. Unhappy, sad, or depressed
0	1	2	104. Unusually loud
0	1	2	105. Uses drugs for nonmedical purposes (**don't** include alcohol or tobacco) (describe):

_____

0	1	2	106. Vandalism
0	1	2	107. Wets self during the day
0	1	2	108. Wets the bed
0	1	2	109. Whining
0	1	2	110. Wishes to be of opposite sex
0	1	2	111. Withdrawn, doesn't get involved with others
0	1	2	112. Worries
0	1	2	113. Please write in any problems your child has that were not listed above:
0	1	2	_____
0	1	2	_____
0	1	2	_____

Appendix C

Anxiety Disorders Interview Schedule for DSM-IV Parent Version social anxiety disorder section

Social Phobia (Social Anxiety Disorder)

Initial Inquiry

Some kids (teenagers) feel very scared and uncomfortable in situations with other people, so scared and uncomfortable that they want to stay away from these places. Some kids (teenagers) might also cry, have a temper tantrum, or get angry when they have to be around other people. They are much more afraid of social situations than other kids their age.

1a. When your child is in certain social situations with other people in school, in restaurants, at parties, or when meeting new people, has (he or she) told you, or have you noticed that (he or she) is afraid that people might think something (he or she) does is stupid or dumb or that they might laugh at (him or her)? Yes No Other

If "Yes," Can you tell me about that? _____

1b. When (he or she) is in these situations with other people, do you know whether (child's name) worries that (he or she) might do something that will be embarrassing?

If "Yes," Can you tell me about that? _____

If yes to Question 1a or 1b, place a mark in the diamond. (Mark the criterion)

Fear (Yes or No)

2a. Some children (teenagers) get very nervous in situations involving other people. I am doing to describe some situations (see list following Question 2c) and ask you how you think (child's name) feels in each situation. First, just tell me "Yes" or "No" if your child has fear of the situation.

Are there any other times when being around people makes your child nervous or scared?

Yes No Other

If "Yes," Could you tell me about that? _____-

_____

Fear Ratings (0-8)

2b. For each situation to which the parent responded "Yes" find out how much fear exists using the Feelings Thermometer. Explain the scale again to the parent, if necessary.

Now using the Feelings Thermometer, how fearful is your child of (specific situation)?

Avoidance/Distress (Yes or No)

2c. For each situation with a fear rating of 4 (Some) or greater, inquire about avoidance.

Does your child try to avoid this situation?

Situation	Fear		Fear Rating	Avoidance/ Distress	
	Yes	No		Yes	No
Answering questions in class					
Oral reports or reading aloud					
Asking the teacher a question or asking for help					
Taking tests					
Writing on the chalkboard					
Working or playing with a group					
Gym class					
Walking in the hallways or standing at (his or her) locker					
Starting or joining in on a conversation					
Using school or public bathrooms					
Eating in front of others (e.g., home, school cafeteria, restaurants					
Meetings, such as girl or boy scouts, or team meetings					
Answering or talking on the telephone					
Musical or athletic performances					
Inviting a friend to get together					
Speaking to adults (e.g., store clerk, waiters, principal					
Speaking to new or unfamiliar people (strangers)					

Attending dances, parties or activity nights					
Having a picture taken (e.g., for the yearbook)					
Dating					
Being asked to do something that (he or she) doesn't really want to do but which (he or she) can't say no. For example, if someone wants to borrow (his or her) homework or favorite toy, is it hard for (him or her) to say no?					
Having someone do something to (him or he) that (he or she) does not like but can't tell them to stop. For example, if someone is teasing (him or her), is it really hard for (him or her) to say stop?					

Now I want to find out more details about some of the things that bother your child. When you tell me that (insert specifics of child's fear, e.g. "your child doesn't like to start a conversation"):

3. Does it make a difference if the people are friends or strangers? Yes No Other

If "Yes," Which is easier? Friends Strangers

4. Does it make a difference if the group is boys, girls, or boys and girls? Yes No Other

If "Yes," Which is easier? Boys Girls Boys and Girls Together

5. Does the age of people matter? Yes No Other

If "Yes," Which is easier, older or younger or same age?

Older Younger Same Age

6. Does the size of the group make a difference? Yes No Other

If "Yes," Which is easier?

Big Small Medium

7. Does your child almost always get scared or nervous in these situations? Yes No Other

8. When your child is in these types of situations, such as (list several situations identified by the parent, does (he or she) ever cry, get upset or angry, or freeze up as if (he or she) can't talk? Yes No Other

If "Yes." Tell me about that. _____

_____

Interference

Now, I want to find out how much your feel this problem interferes with your child's life. That is, how much has it interfered with your child's friendships, caused problems at school or at home, and stopped your child from doing these things (he or she) would like to do? If you could rate the degree of inference from 0 to 8, where 0 is Not at all, 4 is Some, and 8 is Very, very much, what would you say?

Parent Rating:

Appendix D

Anxiety Disorders Interview Schedule for DSM-IV Parent Version oppositional defiant disorder section

Oppositional Defiant Disorder

Initial Inquiry

For the next series of questions, only respond "Yes" if you mean "a lot more than would be appropriate for (his or her) age."

Does (child's name) always seem angry, often lose (his or her) temper, always argue, frequently try to annoy other people, and often refuse outright to do what (he or she) is told or asked to do? Yes No Other

1. Does your child usually get upset and lose (his or her) temper, if, for example, things do not go (his or her way)? Yes No Other
2. Does (he or she) often argue with adults? Yes No Other
3. Does (child's name) often refuse to do what (he or she) is told or often purposely break rules? Yes No Other
4. Does (he or she) often do things to annoy other people, such as grab something of theirs? Yes No Other
5. Does (child's name) usually blame others for (his or her mistakes? Yes No Other
6. Is (he or she) usually 'touchy' or easily annoyed by others? Yes No Other
7. Does (child's name) often seem as though (he or she) is angry at and resentful of other people? Yes No Other
8. If someone does something to (child's name) that (he or she) does not like, does (he or she) often take revenge, and, if so, is it with a spiteful or mean attitude? Yes No Other
9. Have these behaviors led to problems for your child at home, in school, or in (his or her friendships? Yes No Other

10. You told me that (child's name (list items the parent reported as "Yes" to Questions 1-9).

Has (he or she) been behaving this way for as long as six months? Yes No Other

Interference

Now, I want to find out how much this problem interferes with your child's life. That is, how much has it interfered with your child's friendships, caused problems at school or at home, and stopped your child from doing things (he or she) would like to do? If you could rate the degree of interference from 0 to 8, where 0 is Not at all, 4 is Some, and 8 is Very, very much, what would you say?

Parent Rating:

Appendix E
Family Environment Scale

There are 90 statements. They are statements about families. You are to decide which of these statements are true of your family and which are false. If you think the statement is True or mostly True of your family, make an X in the box labeled true. If you think the statement is False or mostly False of your family, make an X in the box labeled false.

You may feel that some of the statements are true for some family members and false for others. Mark True if the statement is true for most members. Mark False if the statement is false for most family members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly. Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.

1. Family members really help and support one another True False
2. Family members often keep their feelings to themselves. True False
3. We fight a lot in our family. True False
4. We don't do things on our own very often in our family. True False
5. We feel it is important to be best at whatever you do. True False
6. We often talk about political and social problems. True False
7. We spend most weekends and evenings at home. True False
8. Family members attend church, synagogue, or Sunday school fairly often. True False
9. Activities in our family are pretty carefully planned. True False
10. Family members are rarely ordered around. True False
11. We often seem to be killing time at home. True False
12. We say anything we want to around home. True False
13. Family members rarely become openly angry. True False

14. In our family, we are strongly encouraged to be independent. True False

15. Getting ahead in life is very important in our family. True False

16. We rarely go to lectures, plays or concerts. True False

17. Friends often come over for dinner or to visit. True False

18. We don't say prayers in our family. True False

19. We are generally very neat and orderly. True False

20. There are very few rules to follow in our family. True False

21. We put a lot of energy into what we do at home. True False

22. It's hard to "blow off steam" at home without upsetting somebody. True False

23. Family members sometimes get so angry they throw things. True False

24. We think things out for ourselves in our family. True False

25. How much money a person makes is not very important to us. True False

26. Learning about new and different things is very important in our family.

True False

27. Nobody in our family is active in sports, Little League, bowling, etc.

True False

28. We often talk about the religious meaning of Christmas, Passover, or other holidays. True False

29. It's often hard to find things when you need them in our household. True False

30. There is one family member who makes most of the decisions. True False

31. There is a feeling of togetherness in our family. True False

32. We tell each other about our personal problems. True False

33. Family members hardly ever lose their tempers. True False

34. We come and go as we want to in our family. True False

35. We believe in competition and “may the best man win.” True False

36. We are not that interested in cultural activities. True False

37. We often go to movies, sports events, camping, etc. True False

38. We don’t believe in heaven or hell. True False

39. Being on time is very important in our family. True False

40. There are set ways of doing things at home. True False

41. We rarely volunteer when something has to be done. True False

42. If we feel like doing something on the spur of the moment we often just pick up and go. True False

43. Family members often criticize each other. True False

44. There is very little privacy in our family. True False

45. We always strive to do things just a little better the next time. True False

46. We rarely have intellectual discussions. True False

47. Everyone in our family has a hobby or two. True False

48. Family members have strict ideas about what is right and wrong. True False

49. People change their minds often in our family. True False

50. There is a strong emphasis on following rules in our family. True False

51. Family members really back each other up. True False

52. Someone usually gets upset if you complain in our family. True False

53. Family members sometimes hit each other. True False

54. Family members almost always rely on themselves when a problem comes up. True False

55. Family members rarely worry about job promotions, school grades, etc. True False

56. Someone in our family plays a musical instrument. True False

57. Family members are not very involved in recreational activities outside work and school. True False

58. We believe there are some things you just have to take on faith. True False

59. Family members make sure their rooms are neat. True False

60. Everyone has an equal say in family decisions. True False

61. There is very little group spirit in our family. True False

62. Money and paying bills is openly talked about in our family. True False

63. If there's a disagreement in our family, we try hard to smooth things over and keep the peace. True False

64. Family members strongly encourage each other to stand up for their rights. True False

65. In our family, we don't try that hard to succeed. True False

66. Family members often go to the library. True False

67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school). True False

68. In our family each person has different ideas about what is right and wrong. True False

69. Each person's duties are clearly defined in our family. True False

70. We can do whatever we want in our family. True False

71. We really get along well with each other. True False

72. We are usually careful about what we say to each other. True False

73. Family members often try to one-up or out-do each other. True False

74. It's hard to be yourself without hurting someone's feelings in our household.

True False

75. “Work before play” is the rule in our family. True False

76. Watching T.V. is more important than reading in our family. True False

77. Family members go out a lot. True False

78. The (Bible, Torah, Koran, etc.) is a very important book in our home.

True False

79. Money is not handled very carefully in our family. True False

80. Rules are pretty inflexible in our household. True False

81. There is plenty of time and attention for everyone in our family. True False

82. There are a lot of spontaneous discussions in our family. True False

83. In our family, we believe you don’t ever get anywhere by raising your voice.

True False

84. We are not really encouraged to speak up for ourselves in our family.

True False

85. Family members are often compared with others as to how well they are doing at work or school. True False

86. Family members really like music, art and literature. True False

87. Our main form of entertainment is watching T.V. or listening to the radio.

True False

88. Family members believe that if you sin you will be punished. True False

89. Dishes are usually done immediately after eating. True False

90. You can’t get away with much in our family. True False

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