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# The Experience of Occupational Therapists' Approaches and Interventions for School-Aged Children and Adolescents with Anxiety

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THE EXPERIENCE OF OCCUPATIONAL THERAPISTS' APPROACHES AND  
INTERVENTIONS FOR SCHOOL-AGED CHILDREN AND ADOLESCENTS  
WITH ANXIETY

by

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Advisor: Sarah Nielsen, Ph.D., OTR/L

An Independent Study

Submitted to the Occupational Therapy Department

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Master of Occupational Therapy

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This Independent Study, submitted by Meg O'Brien, MOTS and Emily Terhaar, MOTS in partial fulfillment of the requirement for the Degree of Master of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Signature of Faculty Advisor

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Meg O'Brien, MOTS  
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## ABSTRACT

In the realm of occupational therapy there is not a clear or cohesive evidence-based approach that OT's use to guide intervention planning with school-aged children or adolescent who have anxiety or anxiety secondary to another medical condition. Therefore, the purpose of this study was to gain an understanding of the experience of 6 pediatric occupational therapists in an outpatient setting in developing and implementing interventions for this population. Researchers utilized a phenomenological qualitative research method completing six interviews to understand the experience of the participants. Findings suggest that occupational therapists who participated in this study feel that they have skills and abilities to provide interventions to this population. Participants rely on an individualized eclectic therapeutic approach, but feel a standardized approach would assist in treating school-aged children and adolescents with anxiety, or anxiety secondary to another medical condition. Further research including observation and larger sample sizes should be done to more fully understand current practice and eventually facilitate the development of a standardized intervention protocol for this population.

**Key words:** anxiety, occupational therapy, pediatrics interventions

## **CHAPTER I**

### **INTRODUCTION**

The presence of anxiety in individuals manifests as excessive fear and behavioral disturbances that impacts the occupational performance and well-being of an individual (Bazyk & Arbesman, 2013). Anxiety is a well-known and common occurrence that can present itself in all stages of life. According to the Center for Disease Control and Prevention (CDC, 2013), between 2005 and 2011, 3% of children between the age of three and seventeen in the United States were diagnosed with anxiety disorder. Of additional importance, the CDC (2013) reported that in 2009, 13-20% of children in that age group experienced a mental disorder, in which anxiety traits may have also played a large part in additional diagnoses, but may not have been the primary diagnosis. Childhood anxiety can significantly disrupt a child's developmental stages and occupational performance. Children with anxiety may experience deficits in making friends, participating in activities, and in academic success (Christie, 2007). Anxiety can also lead to psychosocial factors such as low self-esteem, depression, or social withdrawal and isolation (Bazyk & Arbesman, 2013).

#### **Background and Nature of the Problem**

The field of psychology has developed a gold-standard approach to the treatment of anxiety in school-aged children and adolescents (Chalfant, Rapee & Carroll, 2007). However, according to current literature reviewed, there was neither a

clear nor a cohesive evidence-based approach that occupational therapists use to guide intervention planning with school-aged children or adolescents who have anxiety or anxiety secondary to another medical condition. Several approaches that occupational therapists have identified in occupational therapy literature for this population include a sensory processing approach, cognitive-behavioral therapy (CBT), yoga and mindful meditation (Lane et al., 2012; Pfeiffer et al., 2005; Engel-Yeger & Dunn, 2011; Ben-Sasson et al., 2007; Hofmann & Bitran, 2007). The sensory processing approach was the dominant method used in interventions. However, there was not specific research found on a direct approach to treat a school-aged child or adolescent with anxiety using a sensory processing approach. Research also shows that occupational therapists themselves feel underprepared to work with children and adolescents who present with emotional disturbances, which may include an anxiety diagnosis or anxiety secondary to another medical condition. Barnes, Beck, Vogel, Grice, and Murphy (2003) found that the occupational therapists that participated in their study felt that they were not able to provide effective treatment to children with anxiety in the school-system. The reason for the underutilization of services for these children was the perceived confusion and lack of knowledge of occupational therapists about their role in treatment, due to not receiving appropriate training in this realm (Nielsen & Hektner, 2014).

In addition, limited research has been found on the knowledge and perceptions of how occupational therapists address school-aged children and adolescents with anxiety. Research has also presented data that has shown that many occupational therapists feel ill-prepared to successfully provide interventions to children and

adolescents with emotional behavior disorders (Barnes et al., 2003; Nielsen & Hektner, 2014). Specifically, two main concerns that are present within the current literature include a) a lack of a cohesive treatment standard in the practice of occupational therapy, and b) occupational therapists' lack of confidence with how to treat school-aged children and adolescents with anxiety. Therefore, a focus on this topic is needed due to the high percentage of children who are diagnosed with anxiety or have anxiety secondary to another medical condition.

### **Purpose**

The purpose of this study is to gain an understanding of the experiences of occupational therapists in developing and implementing interventions when treating school-aged children and adolescents with anxiety. The study's purpose is to understand: a) the practical experience of occupational therapists working with school-aged children and adolescents with anxiety or anxiety secondary to another medical condition, and b) the knowledge occupational therapists use to develop approaches to treat school-aged children and adolescents with anxiety and anxiety secondary to another medical condition.

### **Theoretical Framework**

A qualitative research method was selected to complete this study as this method focuses on an exploratory and descriptive approach to understand a social or human problem (Creswell, 2007; Berg & Lune, 2012). In order to gain an understanding of the experiences of occupational therapists development and implementation of interventions when treating school-aged children and adolescents with anxiety, a qualitative phenomenological approach was chosen. Specifically,

Giorgi and Giorgi's (2008) method of phenomenology was selected for the purpose of this study.

### **Assumption**

It is assumed that occupational therapists working with school-aged children and adolescents who are diagnosed with anxiety or have anxiety secondary to another medical condition are utilizing a wide variety of intervention approaches. This assumption is based upon the literature review that a current standard of practice does not exist for treating school-aged children and adolescents with anxiety in occupational therapy practice.

### **Scope and Delimitation**

From a phenomenological approach, the researchers set aside all pre-judgments and biases to obtain a clear understanding of human experiences (Creswell, 2007). Data was collected through multiple in-depth interviews with participants. Interviews consisted of general questions with the intent of gathering occupational therapists' knowledge and experiences in working with school-aged children and adolescents with anxiety or anxiety secondary to another medical condition. A data analysis method was used to highlight significant meanings that capture the group's experience (Giorgi & Giorgi, 2008). Finally the researchers interpreted the data to provide an overall understanding of the phenomenon. This study took place over a six-month period, with interviews conducted in the midwestern region of the United States. A total of six occupational therapists were selected to participate in this study in order to provide rich detail of the methods and

treatment approaches they utilize with school-aged children and adolescents with anxiety or anxiety secondary to another medical condition.

### **Importance of the study**

This study aims to benefit pediatric occupational therapists by understanding intervention approaches utilized for school-aged children and adolescents with anxiety or anxiety secondary to another medical condition. A goal of this study is to provide information on the lack of evidence-based interventions and strategies used to treat school-aged children and adolescents with anxiety. This study also aims to identify already established and successful interventions by practicing occupational therapists when treating this population.

### **Definition of Terms**

The following definitions are important to understand for greater comprehension and appreciation of this study.

**Anxiety disorders-** “disorders that share features of excessive fear and anxiety and related behavioral disturbances” (APA, 2013, p.189).

**Anxiety-** “Anticipation of a future threat” (APA, 2013, p. 189).

**Anxiety disorder due to another medical condition** (“anxiety secondary to another medical condition”)- Term that is given to an individual if the anxiety and worry are based upon clinical judgment, laboratory findings, history, physical examination; to be a physiological effect of another particular medical condition (APA, 2013, p. 225).

**School-aged children and adolescents-** An age range between 5 and 18 year are included for the purpose of this study.

## CHAPTER II

### LITERATURE REVIEW

The purpose of this phenomenological study was to explore the experiences of occupational therapists who work with school-aged children and adolescents who have anxiety. Medical providers may refer children and adolescents to outpatient occupational therapy for a variety of reasons. While a child can be referred for anxiety, they are often referred for other medical conditions and difficulties that result in co-occurring anxiety. Anxiety provoking conditions can include physical disability, learning disability, sensory processing disorder (SPD), or a behavioral disorder (Lau, Chan, Li & Au, 2010). During the occupational therapy evaluation and assessment process, which focuses on the components of occupational and role performance, occupational therapists are finding potential causes or clues of anxiety, which further impede individuals' occupational performance (Rogers & Holm, 1991; Lau et al., 2010). The evaluation process includes identifying the need to address anxiety in children and adolescents; however, limited research has been found on the knowledge and perception of how occupational therapists address this population.

Furthermore, according to the current literature reviewed, there was not a clear or cohesive evidence-based protocol that occupational therapists use to guide intervention planning with school-aged children and adolescents who have anxiety conditions or symptoms. However, there is evidence-based literature on a variety of different approaches, theories and interventions that have been shown to improve the quality of life

in children and adolescents who have an anxiety disorder or anxiety secondary to another medical condition. A focus on this topic is needed due to the high percentage of children and adolescents who have an anxiety diagnosis or anxiety secondary to another medical condition. According to the Center for Disease Control and Prevention (CDC, 2013), between 2005 and 2011, 3% of children and adolescents between the age of three and seventeen in the United States were diagnosed with an anxiety disorder. It is also important to keep in mind that the CDC (2013) reported that in 2009, 13-20% of children and adolescents in that age group experienced a mental disorder, in which anxiety traits may have also played a large part in additional diagnoses, but may not have been the primary diagnosis. This is a significantly large population of children and adolescents who would benefit from skilled occupational therapy services and a cohesive evidence-based approach to treating anxiety.

### **Anxiety in Children and Adolescents**

Anxiety disorders in children are the most commonly diagnosed psychological disorders, and if left untreated, can have major implications on a child's development overtime (Lau et al., 2010). While some fear and anxiety can help push and assist children to overcome certain situations or achieve independence, excessive fear and anxiety can cause distress that tends to persist over time (Lau et al., 2010). Childhood anxiety can disrupt an individual's development through the many stages of life, as well as inhibit a child or adolescent's occupational performance. Anxiety disorders can often present as challenging behaviors in children and adolescents due to an inability to appropriately express fears or anxiety (White, Oswald, Ollendick & Scahill, 2009). The common characteristics of shyness, worrying and nervousness can affect developmental



milestones such as making friends, building self-esteem, family bonding, academic progress, and participation in community activities (Christie, 2007). When a child or adolescent experiences deficits in these areas due to anxiety they may present with symptoms such as avoiding places or situations, experiencing high states of arousal, becoming depressed, sleep disturbances, and/or the re-experience of negative events through flashbacks (Bazyk & Arbesman, 2013). These symptoms, when present, lead to negative performance factors in the developmental milestones listed above. According to Bazyk and Arbesman (2013), these specific performance factors include a tendency to isolate or withdraw from other individuals or activities, a tendency to exhibit difficulties completing tasks, or a general lack of enjoyment in participation of activities. If left untreated, childhood and adolescent anxiety can likely mean current problems will transfer into future adulthood problems as well. These problems could surface as suicidal thoughts or attempts, isolation, shyness, reduced quality of life, and social incompetence as well as further psychological complications (Lau et al., 2010).

It is critical to recognize and treat the signs and symptoms of childhood anxiety at an early stage to prevent or lessen the impact of these symptoms in later life. Anxiety can be diagnosed in individuals in many ways, such as attached to a comorbid health condition or under specific diagnostic criteria specified in the DSM-5® (APA, 2013). There are several anxiety disorders listed in the DSM-5® (APA, 2013) that are commonly mentioned throughout occupational therapy literature. These specific disorders include Social Anxiety Disorder, Separation Anxiety Disorder, Specific Phobia, and Anxiety due to another medical condition.

Social Anxiety Disorder (SAD) is a well-known and common disorder than can affect adolescents and even children during their transitions through new environments and situations such as school (Hofmann & Bitran, 2007). According to the DSM-5® (APA, 2013), SAD is the most common anxiety disorder in children and adolescents with an estimate of 7% when the disorder occurs for at least 12 months. The DSM-5® (APA, 2013) defines SAD as, “marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by other” (p. 202). SAD often can present in individuals as what is commonly referred to as “shyness”. However, if left untreated it can lead to substantial impairments in social and occupational functioning such as avoidance of social situations, limited participation in public speaking roles, or inadequate social skills indicated by body rigidity, poor eye contact, or an overly soft voice (APA, 2013).

Separation Anxiety Disorder, according to the DSM-5® (APA, 2013), is directly related to an attachment to a familiar environment or individual. The anxiety or fear experienced may exceed what is common for the developmental age group of the individual at that time. The common signs or performance factors affected by this disorder include clinging behavior, excessive fear of leaving a familiar person or place, the need to be chaperoned or supervised at all times and fear of other situations that could have perceived danger for the individual or close family members and friends. The 12-month prevalence in children is approximately 4% and 1.6% in adolescents. This disorder is the most common anxiety disorder in individuals under 12 years of age (APA, 2013).

Specific Phobia presents with an alarmingly high prevalence in adolescents at 16% and 5% in children (APA, 2013). A child or adolescent with Specific Phobia has

one or more unrealistic fears or anxieties in proportion to the actual danger or situation presented in the environment. This disorder can commonly develop following a specific traumatic event and can be expressed in an individual through behaviors such as crying, tantrums, freezing or clinging (APA, 2013).

Obsessive-Compulsive Disorder (OCD) is another complex condition that directly elicits anxiety in an individual. OCD is comprised of two parts; obsessions and compulsions. Obsessions are “recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress” (APA, 2013, p. 237). Although OCD is not considered a childhood/adolescent disorder, 25% of cases in individuals begin being diagnosed by 14 years of age (APA, 2013). Individuals diagnosed with OCD experience many social and occupational deficits. Deficits caused by this disorder can include social isolation, development difficulties and avoidance of environments, situations or activities (APA, 2013).

Anxiety secondary to another medical condition can be considered a “catch-all” term, as there are a wide variety of diagnoses that produce anxiety as a comorbid diagnosis. One possible comorbid diagnosis for children and adolescents that can produce anxiety is Developmental Coordination Disorder (DCD). DCD can negatively affect an individual’s self-esteem, lower their quality of life, and increase levels of anxiety (Tal-Saban, Ornoy & Parush, 2014; Skinner & Piek, 2001). Tal-Saban et al., (2014) reported that young adults with DCD are less satisfied with their quality of life and they continued to report diminished participation in activities of daily living. Skinner and Piek (2001) found that both children and adolescents had lower self-worth and higher

levels of anxiety, however adolescents had significantly higher levels of anxiety than their younger counterparts.

Anxiety symptoms, characteristics and behaviors have also been found to extend to other DSM-5® (APA, 2013) conditions such as Specific Learning Disorder (SLD). The term SLD is described when children or adolescents present with difficulties in learning and utilizing academic skills (Mammarella et al., 2014). Poor school or academic performance in children and adolescents creates a risk factor for the onset of psychological disturbance such as depression, social withdrawal and, most commonly, anxiety (Mammarella et al., 2014; Beauchemin, Hutchins & Patterson, 2008). Many research studies have identified an association between SLD and anxiety; in a specific study completed by Nelson and Harwood (2011), 70% of students with SLD were found to experience higher levels of anxiety symptoms than non-SLD students. In relation, anxiety rates have been found to be higher in adolescent boys with SLD (Mammarella et al., 2014). Anxiety associated with SLD can lead to poor academic progress, social isolation and a negative self-image (Mammarella et al., 2014; Beauchemin et al., 2008). Individuals diagnosed with autism spectrum disorder (ASD) are at significant risk to have a comorbidity diagnosis of anxiety (MacNeil, Lopes & Minnes, 2009; Lane, Reynolds & Dumencu, 2012). In a review completed by MacNeil et al., (2009) it was found that the current studies reviewed indicated that the prevalence of individuals who had a comorbid anxiety diagnosis with an ASD diagnosis were between 11% and 84%. It was also found that children with ASD who have specific fears and anxiety were more likely to exhibit maladaptive behaviors such as acting out when compared to children who did not have the ASD diagnosis.

## **Interventions**

Anxiety diagnoses and anxiety secondary to another medical condition are unique in that children and adolescents can be at a higher risk for developing specific conditions during normal developmental milestones and transitions in their young life. While research has noted the importance of identifying and treating these disorders at a young age to prevent further disablements, little research in occupational therapy has revealed a common or distinct model of practice or treatment method to utilize with school-aged children and adolescents with anxiety. Although a single model or treatment method has not been identified by occupational therapists, several treatment approaches are mentioned throughout multidisciplinary literature including cognitive-behavioral therapy (CBT) and sensory processing approach, as well as more contemporary interventions such as yoga, exercise and mindful meditation.

### **Mainstream Interventions**

CBT is a widely known frame of reference used to treat the signs, symptoms and behaviors of anxiety disorders or anxiety secondary to another medical condition. Several research studies have shown results that indicate that the use of CBT is successful in improving the symptoms of anxiety, preventing further development of anxiety symptoms and creating long lasting results for improved conditions (Chalfant, Rapee & Carroll, 2007; Goncalves & Byrne, 2012; Butler, Chapman, Forman & Beck, 2006). In addition to the current literature indicating that CBT is a positive tool to utilize with anxious individuals, several health care disciplines are familiar with the CBT theory and apply the theory during their practice of treatment with anxious individuals. Mental health professionals such as clinical psychologists and health care professionals such as

occupational therapists most often utilize CBT in the research studies reviewed on the treatment of anxiety. CBT is a treatment process that centers on examining relationships between feelings, thoughts and behaviors with the potential outcome of modifying thinking patterns to improve overall coping strategies (Duckworth & Freedman, 2012). In relation to individuals with anxiety, qualified professionals assist individuals in recognizing fears or beliefs through CBT to assist them in developing a more realistic response to their experience (Duckworth & Freedman, 2012).

The Coping Cat Program (Kendall, 2006) is a specific form of CBT treatment that can be used to treat school-aged children and adolescents with anxiety disorders (Lau et al., 2010). The Coping Cat Program (Kendall, 2006) was developed for the purpose of helping children and adolescents recognize and analyze anxious feelings, then develop strategies to cope with those anxiety-provoking feelings and situations. Lau et al., (2010) completed a quantitative research study to evaluate the overall effectiveness of CBT for treating children with anxiety using the Coping Cat Program (Kendall, 2006). The participants in the study completed a nine-week treatment program lead by psychologists that consisted of a treatment group and control group. The results of the study showed that participants in the treatment group self-reported, along with parental reports, a decrease in anxiety levels compared to the control group (Lau et al., 2010).

While the Coping Cat Program (Kendall, 2006) may seem like a likely choice for several disciplines to utilize when treating children or adolescents with anxiety, other providers suggest to consider several factors before selecting and creating a CBT treatment plan (Chalfant et al., 2007). From a psychological viewpoint, White et al., (2009) recommend gathering information on the child or adolescent from several close

contacts such as parents, teachers or other healthcare providers. Utilizing a data gathering approach to select or create a CBT treatment program has been shown to decrease anxiety and produce lasting effects that carry over into multiple settings for the individual including the home and school environment (Chalfant et al., 2007). CBT programs in the psychology field are so highly recognized that the American Psychological Association believes CBT to be considered a “probably efficacious” treatment for children and adolescents with anxiety disorders (Chalfant et al., 2007). A majority of CBT programs that have been evaluated include a treatment manual to maintain treatment integrity and make duplication of treatments possible (Chalfant et al., 2007).

While CBT is highly recognized as an effective tool in the psychology realm, the occupational therapy profession has limited information on the use of CBT when treating school-aged children and adolescents with anxiety and anxiety secondary to another medical condition. In a study completed by Christie (2007), an occupational therapist was identified as utilizing the CBT approach in conjunction with other disciplines to focus on the occupational roles and occupational functioning of an adolescent with anxiety. The occupational therapist in this study created a four-phase treatment approach that included rapport building, Gestalt, and finally a CBT method that included both the family and participant. While this study utilized a CBT approach, it did not follow a standard procedure or manual that psychologists follow to maintain the integrity of CBT (Christie, 2007).

CBT in relation to the use of a treatment method in multidisciplinary professions appears to be most significantly used in the psychological and mental health disciplines.

The literature on CBT indicated that physicians, parents or other health care professionals might not fully understand the impact that anxiety signs and symptoms have on a child or adolescent's development and occupational performance. While the impact of anxiety may not be fully understood, literature also shows that occupational therapists, unlike psychologists, may not be prepared or have a standard treatment process to be able to incorporate CBT into practice.

Occupational therapy has not identified its own model or frame of reference when working with children and adolescents with anxiety. The most common frame of reference cited when working with people who have anxiety either due to a diagnosable condition or conditions that also result in anxiety, is the sensory processing frame of reference. The ability to modulate sensory input can either inhibit or produce symptoms of anxiety (Lane et al., 2012; Pfeiffer, Kinnealey, Reed, & Herzberg, 2005; Engel-Yeger & Dunn, 2011; Ben-Sasson, Orsmond, Cermak, Carter & Fogg, 2007; Hofmann & Bitran, 2007). In a study done by Lane et al., (2012) it was found in children with ASD, there was a significant impact of sensory over-responsivity on the child's anxiety. Pfeiffer et al., (2005) aimed to gather studies that found correlations such as the one mentioned above and examines the relationship between affective disorders (such as anxiety) and dysfunction in sensory modulation in children who have been diagnosed with Asperger's. Pfeiffer et al., (2005) found similar results to Lane et al., (2012) that there was a positive correlation between sensory defensiveness and anxiety. Pfeiffer et al., (2005) also found a strong positive correlation with children and adolescents who had sensory hyposensitivity and symptoms of depression. Lastly, Pfeiffer et al., (2005) found a negative correlation between levels of depressive symptoms and anxiety and overall



adaptive behaviors. This last correlation's strength of the relationship was low. These two studies by Lane et al., (2012) and Pfeiffer et al., (2005) are similar in that both studies support the need to consider the way children and adolescents modulate their sensory input as it can effect adaptive or maladaptive behavior and/or produce feeling of anxiety or depression. These findings should especially be taken into consideration when working with children or adolescents with ASD, as this was the set population for the two studies.

When generalizing these ideas outside of the ASD population, Hofmann and Bitran (2007) found that adults with SAD could also exhibit symptoms of anxiety that may be influenced by SPD. Taking anxiety diagnosis or anxiety secondary to another medical condition out of focus, there is evidence that even in healthy adults who have state or trait anxiety, the ability to modulate sensory input influences the exacerbation of anxiety symptoms (Engel-Yeger & Dunn, 2011). Engel-Yeger and Dunn (2011) collected evidence that supported their hypothesis that there would be a significant relationship between anxiety and sensory processing more specifically in healthy individuals with low registration of sensory input and sensory hypersensitivity. Engel-Yeger and Dunn (2011) suggest, based on their findings, that occupational therapists who treat individuals with increased anxiety levels should refer to their Sensory Profile (Dunn, 1999) to develop tailored strategies to improve the individual's sensory needs.

Because SPD can be an elusive diagnosis outside of the occupational therapy realm, it can be easily overlooked or misdiagnosed as anxiety. These two diagnoses can have some overlap in the behavioral and physiological traits that they share especially when getting perspectives from two different professions, such as occupational therapy

and psychology. Ben-Sasson et al., (2007) discussed this issue in their review of literature and posed a study to examine the different perceptions between occupational therapists and psychologists in determining childhood behaviors as SPD versus anxiety disorders. It was found that occupational therapists show more confidence and certainty in identifying and treating SPD than anxiety disorders, and that both professions would differ in their judgment of what represents SPD versus anxiety disorder. The study done by Ben-Sasson et al., (2007) indicates a possible need to enhance education on anxiety disorders and symptoms for occupational therapists. This study indicates that occupational therapists are more comfortable with SPD and may be prone to develop intervention plans that focus on treating SPD issues rather than anxiety.

SPD can affect how a child adapts to their context, and how they exhibit appropriate or maladaptive behaviors. Through a review of articles on this topic, the inability to appropriately modulate sensory input can increase anxiety symptoms in all ages of individuals (Hofmann & Bitran, 2007; Engel-Yeger & Dunn, 2011; Ben-Sasson et al., 2007). With keeping in mind distinguishing anxiety symptoms from SPD symptoms, and if they coexist together or cause one or the other, this can be the groundwork for using sensory integrative or modulation techniques in therapy to improve anxiety symptoms. However, there is not a clear evidence-based intervention in the literature on how to use sensory integration to decrease anxiety in children and adolescents.

### **Contemporary Interventions**

As identified throughout psychology, occupational therapy and mental health literature, CBT and sensory processing interventions appear to be the most commonly

used forms of treatment for school-aged children and adolescents with anxiety. In addition to CBT and sensory processing interventions, other methods of treatment have also shown to be effective when improving the signs, symptoms and behaviors of anxiety. Yoga, exercise and mindful meditation are examples of programs and treatment methods that individuals and professionals have utilized to calm and regulate one's self. In more contemporary practices, these methods of treatment are being utilized to decrease the signs and symptoms of anxiety and more importantly, are being recognized in literature as potential treatment methods for several disciplines.

Yoga is a well-known practice that emphasizes attainment of self in mind and body to achieve control and well being through gentle stretching, meditation and breathe control (Kirkwood, Rampes, Tuffrey, Richardson & Pilkington, 2005). Research has shown that yoga improves stress levels and provides individuals with a general positive attitude towards their mental health and well-being (Koenig, Buckley-Reen & Garg, 2012). A wide variety of disciplines such as educators, health professionals and occupational therapists, are utilizing the practice of yoga to decrease maladaptive behaviors of individuals with autism, anxiety or both (Koenig et al., 2012; Chugh-Gupta, Baldassarre & Vrkljan, 2013). In occupational therapy, occupational therapists are incorporating yoga into treatment as a way to connect the mind-body relationship of clients to achieve engaged participation in meaningful occupations (Chugh-Gupta et al., 2013). The majority of literature shows that yoga, when used by health care professionals and occupational therapists in treatment may decrease anger, fatigue, anxiety and stress as well as provides preventative benefits for anxiety (Koenig et al., 2012; Chugh-Gupta et al., 2013). The practice of yoga in treating anxiety disorders is a

relatively new treatment method and therefore will require further evidence to understand the lasting and overall impact of the practice on school-aged children and adolescents with anxiety.

A second contemporary treatment approach to address anxiety disorders is exercise. Exercise in general, is known to have positive effects on individuals such as preventing or reducing stress, increasing physical health and overall well-being (Wijndaele et al., 2006). In relation to specific health conditions such as anxiety and depression, exercise has shown to improve responses to stress, provide a distraction from negative thoughts and enhance self-esteem (Merom et al., 2008). The majority of research on exercise as a treatment for anxiety has focused on the adult population and has used the treatment of exercise in conjunction with another treatment method such as CBT (Wijndaele et al., 2006; Merom et al., 2008). While exercise-enhanced programs appear to improve symptoms of anxiety in adult individuals, the knowledge of these programs effectiveness on children and adolescents is limited in all health care disciplines by a lack of research (Merom et al., 2008). Furthermore, it is unclear if the overall benefits of exercise-enhanced programs stem from the exercise portion, social support or conjunctive treatment (Wijndaele et al., 2006).

A modern CBT-based intervention that focuses on the child or adolescent meditating or being “mindful” has shown to be an effective treatment approach (Semple, Reid & Miller, 2005; Hofmann, Sawyer, Witt & Oh, 2010; Semple, Lee, Rosa & Miller, 2010). Teaching mindfulness in children is an emerging trend. Unlike CBT, where there is an emphasis in adapting or creating more positive thoughts, mindfulness trains to teach a more accepting relationship of one’s thoughts (Roemer & Orsillo, 2002). A pilot study

was conducted by Semple et al., (2005) on how feasible it was to extend the age groups from adults and children, seven to eight years of age, and found that children as young as seven reported significant benefits with this intervention. In a study conducted by Hofmann et al., (2010) the authors concluded that anxiety symptoms were effectively treated and also improved with mindfulness training, as the effect size for treating children with anxiety was .97. Semple et al., (2005) and Semple et al., (2010), used mindful interventions with children that brought attention to their bodies' perceptions and sensations. Children focused on an array of self-awareness sensory exercises, such as deep breathing, meditating, yoga poses, gustatory, olfactory, visual, auditory or tactile exercises (Semple et al., 2005; Semple et al., 2010). Both studies found a significant reduction in anxiety symptoms in individuals after treatment (Semple et al., 2005; Semple et al., 2010).

### **Conclusion**

The purpose of this literature review was to gather information on anxiety and anxiety secondary to another medical condition, as well as current treatment methods utilized to decrease symptoms of anxiety in school-aged children and adolescents. Currently, the CDC (2013) reports that 3% of children between the ages of three and seventeen have a diagnosis of anxiety and many others exhibit trait anxiety or anxiety as a comorbidity to another diagnosis. Psychology and occupational therapy literature supports that children and adolescents may have signs and symptoms of anxiety that go under treated or misdiagnosed.

Because of the vast array of anxiety symptoms and disorders in children and adolescents and a lack of a gold standard method for treatment in the field of

occupational therapy, occupational therapists have used a wide variety of approaches and interventions. Several multidisciplinary approaches that have been found effective to treat anxiety include CBT, yoga, exercise programs and mindful meditation. CBT was found to be the predominant intervention used by psychologist, as these other contemporary methods have been shown to work well with influences from the CBT framework. In the literature, occupational therapists have also been shown to utilize the methods listed above but more often focus on the ability of a child or adolescent to integrate or modulate sensory input from environmental stimuli that could be inflicting anxiety symptoms. Research has shown this approach also can improve anxiety in children and adolescents who have an anxiety diagnosis or anxiety secondary to another medical condition (Lane et al., 2012; Pfeiffer et al., 2005; Engel-Yeger & Dunn, 2011; Ben-Sasson et al., 2007; Hofmann & Bitran, 2007). However, like CBT, there is little guidance in how to use the sensory frames of reference to best treat a child or adolescent with an anxiety disorder.

Overall, the literature review has shown that there is not one solid intervention or approach to guide treatment when working with school-aged children and adolescents with anxiety. The literature has provided several useful approaches that appear to be effective, but fall short in providing specific protocols that guides interventions when working specifically with school-aged children and adolescents with anxiety, and no attached comorbidities. The literature review provides a base for the current study, as the study aims to generate discussion on specific approaches to what current practicing occupational therapists are using when working with this population.

### CHAPTER III

#### RESEARCH METHODOLOGY

A qualitative research method was selected to complete this study as this method focuses on an exploratory and descriptive approach to understand a social or human problem (Creswell, 2007; Berg & Lune, 2012). Qualitative research utilizes humans as sources of information to develop a holistic understanding and analysis of complex issues or emerging problems (Creswell, 2007). The purpose of qualitative research is to understand first-hand experiences from individuals within the context that the experience takes place (Creswell, 2007). Specifically, this study intends to highlight the experience of pediatric occupational therapists in developing and utilizing treatment approaches for school-aged children and adolescents with anxiety or anxiety secondary to another medical condition. Qualitative research is compatible with the practice of occupational therapy because it highlights the unique experiences of individuals, which is a core value of the occupational therapy profession (Hooper & Wood, 2014). The purpose of this core value is to understand and recognize the individual holistically through a deeper understanding of complex issues and emerging problems in individual experiences.

Qualitative research has five different methods of study that can be utilized to determine the focus of a study and gather information (Creswell, 2007). For the purpose of this study, the qualitative approach of phenomenology was selected. Phenomenology is the study of lived experiences of several individuals to explore and

understand the meaning of the experience to the individual (Creswell, 2007). Researchers study the experiences of individuals through interviews and observations. Phenomenology has often been used in health-related disciplines to understand all possible meanings and experiences (Finlay, 1999; Creswell, 2007). A qualitative phenomenological approach was compatible with this study as the purpose was to gain an understanding of the experiences of occupational therapists development and implementation of interventions when treating school-aged children and adolescents with anxiety.

#### **Data Collection/Locale of Study**

The process of the phenomenological approach first requires that the researchers identify and set aside all previous experiences and perceptions of the proposed topic (Creswell, 2007). Researchers set aside all pre-judgments and biases to obtain a clear understanding of human experiences. Second, data is collected through multiple in-depth interviews with participants. Interviews consist of general questions with the intent of gathering participants knowledge and experiences. Following data collection, a data analysis method is used to highlight significant meanings that capture the group's experience (Giorgi & Giorgi, 2008). Finally, the researchers interpret the data to provide an overall understanding of the phenomenon.

The researchers conducted six semi-structured interviews with participants. Interview questions focused on current approaches and interventions that occupational therapists have found successful when working with school-aged children and adolescents with anxiety, as well as the development of those approaches (see Appendix C).



Informed consent was sent to participants prior to arranging the interview ensuring that participants could review and determine if they wanted to participate in the study. This consent form was sent via email to participants within a week of the nomination of the individual. Before conducting the interview, researchers and participants reviewed the consent form and consent was given by verbal response before the start of the interview sessions (see Appendix B). Researchers used audio recording during interviews to collect data. Following completion of interviews, the researchers transcribed the audio digital recording of the interviews verbatim. To protect the privacy of the participants' interviews, names were not used in the transcribed data. The researchers assigned a pseudonym to each participant to maintain confidentiality. Only the researchers were knowledgeable to the assigned pseudonyms used, in order to connect data to that specific participant. Transcribed data was not stored with the demographic data obtained from the subject.

Transcription and analysis of the interviews took place in a private room in the Occupational Therapy Department at the University of North Dakota or in within the personal residence of the researchers. The transcriptions of the interviews were stored on researchers' personal computers under a password protected file. Once the interviews were transcribed, the audio recordings of the interviews were destroyed. Transcribed interviews were sent to participants for member checking review via email. Following analysis of the data and completion of the study, the transcribed reports were destroyed.

## Study Participants

Researchers used a non-randomized, purposive, and snowball sampling method to gather participants (Berg & Lune, 2012). It was important that the participants gathered for this study had prior experiences working with the pediatric and/or adolescent population in order to thoroughly explain their experience in developing and implementing interventions for individuals with anxiety.

Participants were recruited through the use of a flyer, via email (see Appendix A). Occupational therapists at pediatric outpatient facilities were the target of the flyer. The purpose of the study and specific inclusion criteria was indicated within the flyer. Inclusion criteria for the study included: a) practicing occupational therapist at an outpatient facility, b) at least five years of experience in pediatric practice, and c) currently working at a pediatric outpatient facility in the midwest region. Occupational therapists with less than five years of experience in outpatient pediatrics were excluded from this study. Occupational therapists who identified with the inclusion criteria and who were interested in the study were contacted by the researchers via telephone or email. Researchers initiated the snowball sampling method by identifying occupational therapists in the mid-west regions of North Dakota, Minnesota, South Dakota, Colorado, Wyoming, and Montana. The researchers gathered contact information from the fieldwork database at the University of North Dakota Occupational Therapy Department. Recruitment took place immediately after IRB was obtained.

Six participants were selected to complete this study in order to provide meaningful results. Interviews were completed via face-to-face session or via Skype.

The interviews were conducted at the facility of each participant or in an area of the participant's choice. Skype interviews were only completed if participants and student researchers could not meet in person due to time and/or financial reasons. Researchers arranged for all interviews to take place in a confidential location. The participants were involved in the study from the initial consent to data analysis, which took place in a six-month period. Specifically, interviews ranged from 24 to 53 minutes with additional time required for transcription review and member checking.

### **Role of Researchers**

In a phenomenological approach, the researcher is a key instrument for data collection (Creswell, 2007). As the key instrument, the researcher plays a central role in the collection, selection and interpretation of the data (Finlay, 2002). In order for researchers to maintain a clear perspective in this role, the phenomenological approach requires the use of reflexivity. Reflexivity is defined as self-awareness and a tool to maintain an objective viewpoint (Creswell, 2007; Finlay, 2002).

Student researchers had one semester of experience in qualitative research which included conduction of interviews, transcription, coding, and data analysis. The student researchers had been in the occupational therapy program at UND for two years, therefore, the occupational performance of the participants will be accurately assessed as the student researchers have had education and training in this. The student researchers had completed one twelve week internship in a pedaitric outpatient facility where children and adolescents with anxiety were treated. The students' advisor was an experienced therapist with a background and interest in working with children in the area of mental health. The advisor also had expertise in

phenomenological research. She provided guidance and supervision to the graduate occupational therapy students. Prior to, and throughout the entire interview and analysis process, the researchers utilized a reflexive journal to eliminate any prejudices or biases on the subject of the study.

### **Unit of Analysis**

The main unit of qualitative analysis was individual outpatient pediatric occupational therapist interviewees. Study participants were occupational therapists currently practicing in outpatient pediatric therapy facilities. With consent from participants, interviews were audio recorded and transcribed.

### **Data Analysis**

As described above, the researchers role is a key component in the data collection and analysis process. Prior to data collection and analysis the researchers took a phenomenological mindset by utilizing reflexivity to maintain a clear and objective viewpoint. Researchers utilized journaling throughout the study to set aside biases. In addition, researchers engaged in conversation with their advisor and each other to identify any biases or misconceptions. Researchers then used the phenomenological approach of Giorgi and Giorgi (2008) for data analysis. This method of data analysis was completed in four steps to accurately assess and interpret the data gathered through interviews (Giorgi & Giorgi, 2008). After the researchers and participants completed interviews, researchers transcribed the interviews verbatim. Participants reviewed the transcribed interview to ensure accuracy and to improve credibility.

Researchers then read through the entire transcription of each interview. The purpose of this step was to gather a holistic understanding of the participants' experiences in order to proceed with further steps of the analysis (Giorgi & Giorgi, 2008). Second, researchers created 'meaning units' to discover the ultimate meanings of the participants' interviews (Giorgi & Giorgi, 2008). Researchers visually displayed these 'meaning units' by placing a slash mark every time a transition in meaning was observed.

The third step of data analysis was for the researchers to generalize the transitions that were observed through the 'meaning units'. The purpose of this step was to generalize the information so that it was less situation-specific and described what took place in relation to the study's purpose (Giorgi & Giorgi, 2008). For the final step of the data analysis the researchers examined the relationship between data and method (Giorgi & Giorgi, 2008). This final step consisted of the researchers considering the key elements of step three to determine which of those elements described or explained the structures of the study. Multiple structures were used to combine elements that had significant purpose or meaning for the study.

Through the use of Giorgi and Giorgi (2008) phenomenological approach to data analysis, the researchers were able to understand the relationship between the experiences of the participants to identify the development and implementation of approaches and interventions occupational therapists used when treating school-aged children and adolescents with anxiety. Researchers easily identified support of findings through the use of a grid format set forth by Giorgi and Giorgi (2008). Through the use of this format researchers reviewed and agreed upon the

transformations and the ultimate meaning of the group's experience (Giorgi & Giorgi, 2008).

### **Credibility**

Credibility of a study is commonly measured through different means such as external validation, internal validation and reliability (Lincoln & Guba, 1985).

Lincoln and Guba (1985) suggest using five different techniques to establish credibility within a study. The five techniques are as follows; prolonged engagement and observation, triangulation, peer debriefing, referential adequacy, and member checking.

Prolonged engagement and observation was used in this study to build trust between the researchers and the participants as well as learning the culture of participants' work environment and educational background. In addition, this technique introduced researchers to any previous misconceptions by either the researchers or the participants. Triangulation was important for improving the credibility of the findings and interpretations. This study achieved triangulation by conducting six interviews with multiple pediatric outpatient occupational therapists. Researchers utilized peer debriefing throughout the study to keep thoughts transparent and free of any preconceived notions or biases. Researchers also utilized the data analysis approach of Giorgi and Giorgi (2008) that utilized a grid format approach. The grid format approach set forth by Giorgi and Giorgi (2008) allowed researchers to review and agree upon transformations of data and the overall meaning of the group's experience as well as provide transparency of the process (see Appendix E). Researchers, as well as their advisor, participated in peer debriefing multiple times

throughout the study. Researchers saved all transcribed data and audio recordings to check content and accuracy of the preliminary findings of the data analysis during and after the study. Member checking was done to verify transcriptions, as well as the interpretation of data to confirm that the findings hold true for each of the six participant's interviews. Five of six participants replied via email to confirm credibility and accuracy of the synthesis of the interview (see Appendix D).

### **Reliability**

Reliability was another essential feature in establishing credibility of the study. Researchers integrated reliability in the study by using quality audio recordings and verbatim transcriptions from these recordings. In addition, participants were provided with the opportunity to review full transcriptions for editing or further explanation. Three of six participants confirmed the reliability of transcription, via email, with one participant including additional content to improve reliability. Through these techniques and procedures the researchers ensured the production of a reliable study (Lincoln & Guba, 1985).

### **Participant Profiles**

The following six subject portraits are based on face-to-face and Skype interviews. The names of the participants have been replaced by participant (P) and a letter (A-F) corresponding to their interview to maintain the confidentiality of the interview content.

PA has practiced in occupational therapy for over 35 years. All of her years of practice have been working with the pediatric population. Her first 23 years were in early intervention in the home setting. She also spent one year working in three

counties for special education. The last 12 years she has been an occupational therapist at an outpatient facility. She currently sees clients between the ages of 18 months to 26 years old. Some of the common diagnoses seen are autism spectrum disorder, attention deficit hyperactivity disorder, motor apraxia, sensory processing disorder, pervasive developmental disorder, developmental delays, anxiety, oppositional defiant disorder, bipolar disorder, Erb's palsy and cerebral palsy. Treatment for this population spans from approximately two months to over one year of age. She treats her clients one to two times per week, and the sessions usually range from 30-60 minutes, with 45 minutes being the average. PA completed a pediatric level II fieldwork during her academic career in a rehabilitation setting that included inpatient, outpatient and school settings. PA has attained a Bachelor's degree in occupational therapy with a minor in psychology, and attends continuing education courses two to three times a year.

PB has practiced in occupational therapy for four and half years. All of her years of practice have been in a pediatric setting; however, two years were spent working in an early intervention program as well as running a summer group for children and adolescents. PB has worked with a wide range of ages including individuals from 2 to 14 years of age. In addition, PB has also worked with children and adolescents with a wide variety of diagnoses including cerebral palsy, autism spectrum disorder, anxiety, oppositional defiant disorder, conduct disorder, attention deficit hyperactive disorder and behavioral regulation disorders. She sees clients weekly on an individual basis with the majority of a client's therapy sessions lasting from six months to a year. In addition, PB also runs yearly summer groups that run



for two weeks at a time and in which many of her clients attend. She completed two level II pediatric fieldworks as part of her academic training. The first fieldwork experience took place in an early intervention setting and the second experience took place in an adolescent mental health setting. The highest academic degree that PB has achieved is a Masters in occupational therapy. She continues to attend continuing education courses frequently, on a yearly basis.

PC has practiced in occupational therapy for a total of 17 years. The last 10 of those years she has worked in an outpatient facility that sees all ages; however, their biggest cliental is the pediatric population. PC reported that the main diagnoses she treats are attention deficit hyperactive disorder, oppositional defiant disorder, autism spectrum disorder, Rhett's syndrome, cerebral palsy, Down's syndrome, depression, post traumatic stress disorder, and children who come in undiagnosed but have clear need for occupational therapy services. She typically treats her clients for a span of 6 to 12 months, one to two times a week for 45 minutes to one-hour sessions. PC completed a pediatric level II fieldwork during her academic career at rehabilitation setting in a hospital. PC's highest degree is a Bachelor's of occupational therapy and she regularly attends continuing education classes four to five times a year.

PD has practiced in occupational therapy for a total of 30 years. Seventeen of those years have been working with children. PD works in a rural setting; therefore, practices not only at an outpatient facility but also hospitals, and consults for schools and private practices. PD reported that the common diagnoses that she treats are oppositional defiant disorder, Tourette's syndrome, Down's syndrome, attention deficit hyperactive disorder, anxiety, autism spectrum disorder, developmental delays,

learning disorder, coordination issues, and idiosyncratic-sensory processing issues. PD reported that she does many consults/evaluations that last between one to two hours. She also treats individuals one to two times a week for a three to six month period and most treatment sessions last approximately one hour. She reported that she did not participate in a level II pediatric fieldwork. PD's highest academic degree is a Bachelor's of occupational therapy, and she attends continuing education about three times a year.

PE has practiced in occupational therapy for a total of eight years. All eight years she has worked in a pediatric outpatient setting. She currently describes herself as a full-time, senior, pediatric outpatient therapist. The facility that she works at treats individuals from birth to 21 years of age. Specifically, PE works with clients that range in age from 6 months to 21 years of age. She also works with a variety of diagnoses including autism spectrum disorder, sensory processing disorder, motor incoordination, muscle weakness and cerebral palsy. PE works with clients on a weekly basis with treatment sessions lasting approximately 30 minutes. She completed a level II pediatric fieldwork in a residential setting that included outpatient and home care, as part of her academic training. The highest academic degree that PE has achieved is a Master's in occupational therapy. She reports attending continuing education courses on a yearly basis.

PF has practiced in occupational therapy for a total of 30 years. She has worked in both an outpatient and inpatient pediatric setting. PF works with a wide range of ages from birth to 21 years. She also has worked with a diverse population of individuals who diagnoses including cerebral palsy, Down's syndrome, torticollis,

sensory processing disorder, muscular dystrophy, trauma injuries, burns, development delays, autism spectrum disorder, brachial plexus, and premature infants. She reports seeing clients in an outpatient setting one to two times a week and seeing patients in an inpatient setting daily. She completed a level II pediatric fieldwork as part of her academic training and completed this fieldwork experience at an outpatient hospital/school setting. The highest academic degree that PF has achieved is a Bachelor's of occupational therapy. She continues to attend continuing education courses on a yearly basis and focuses on attending courses that present topics such as NDT, infant massage, sensory modulation, feeding and alternative medicine.

## CHAPTER IV

### RESULTS

The purpose of this study was to gain an understanding of the experiences of occupational therapists in developing and implementing interventions when treating school-aged children and adolescents with anxiety. The study's purpose was to understand: a) the practical experience of occupational therapists working with school-aged children and adolescents with anxiety or anxiety secondary to another medical condition, and b) the knowledge occupational therapists use to develop approaches to treat school-aged children and adolescents with anxiety or anxiety secondary to another medical condition.

The findings of this study will be presented in three parts, as this is consistent with the data analysis procedures of Giorgi and Giorgi's (2008) phenomenology analysis. The first portion of the results will consist of the individual interview summaries of each participant. The second portion will consist of the general structure, which aims to capture the experience of the entire group. Lastly, the key constituents, which support the general structure, will be outlined and described with detailed portions of participants' interviews.

#### **Individuals' Interview Summaries**

PA.

PA stated that anxiety may not be the main reason that children are referred; it may be the physician referring for different reasons such as sensory or behavioral.

She also states that practitioners are starting to acknowledge sensory issues as being problematic and a reason for an occupational therapy referral. This acknowledgment may be due in part to occupational therapists' unique perspective on interventions for children and adolescents with mental health issues. PA stated that occupational therapists are in a unique position to help the patient and families sort out and focus in on the emotional, sensory or behavioral issues that are being displayed or internalized by the child or adolescent. They can help give parents some of the answers they have been searching for on why their child is acting in a specific matter, and if it is normal development or not.

PA identified a spectrum of the different maladaptive behaviors that she observes in children and adolescent who have anxiety. She has seen children come in immobilized, due to fear. These children resort to hiding, shutting down or clinging to their caregivers. She has also observed the other side of the spectrum when children cope with their anxiety in an external form of aggressive outbursts. She relates much of these traits to the children or adolescents inability to function in unpredictable environment and/or not being able to have control over their environments.

PA identified numerous intervention strategies that she utilizes when working with children and adolescents who have anxiety. One key approach that she implied that has been successful is using a multisensory approach, which can include deep pressure, therapeutic listening, Wilbarger brushing protocol, and visual and auditory input while in different planes. PA also identified other approaches that have worked as being coping skills, role-playing, the Alert program, visual schedules, and giving

the child choices so they have more control. PA stated that when working with adolescents, there is usually a different approach that she uses during the intervention. She stated that she uses much more scenario/cognitive-based interventions in which she goes through different situations with the adolescents, and collaborates with them on how to modify or adapt to specific situations. She also stated her concern for the amount of generalization that goes on between therapy and schools, but it is her duty to work with the individual from where they are at, mentally and developmentally. PA stated that she use her therapeutic skills to strategize how she delivers these interventions. She recognized that grading activities to fit the child's "just right challenge" was important. She also uses her skills to observe what behaviors or emotions are surfacing during different interactions with herself, the child's family, or with their environment. She expressed the uniqueness of each treatment plan, as each child is different in their capability to trust and adapt to changes in their environment.

PA repeatedly acknowledged the importance of creating an environment for the child that fostered a trusting relationship. She linked the child's need for control and intolerance to unpredictable change with the child's initial lack of trust both with her and the environment they were working in. It appears that PA has a global focus on initially building rapport with the child to gain their trust both using direct and indirect approaches.

PA identified the importance of communicating from the start of services. She recognized the importance of communicating her findings with the parents first immediately after the evaluation, then with the parent's consent, talking to the referring medical practitioner about her findings. She keeps in communication with

parents to make sure home programming is successful in the home and school setting. She also discussed the importance of clear communication and detailed rationales to insurance companies and to parents throughout the treatment duration to prove the efficacy of therapy. PA stated interprofessional communication also increases efficacy, as she can learn from other professionals and their strategies that have worked during their experiences with this population.

PA identified several barriers when trying to provide services. Those barriers included the parents not buying into the importance of therapy, insurance denying coverage, and the fact that where she practices is in a rural setting which makes the availability of treatment difficult. She also stated that she felt that many practitioners are feeling the need for more standards or guidance when working with children and adolescents with mental health issues such as anxiety. PA identified ways to work around each barrier she faces which included: fully communicating and engaging the parents in the treatment sessions so they understand the purpose of the intervention; documenting on deficits that insurance covers while using therapeutic use of self and sensory strategies indirectly; and lastly attempting to refer patients to other professions if one is available in their area.

#### **PB**

Familiarity with the traits, symptoms and signs of anxiety is an important recognition for therapists working with this population. Anxiety can present in many forms through an individual and therefore it can be essential to understand and implement a wide variety of approaches and interventions for treating this population. PB recognized the importance of this knowledge by identifying several interventions and approaches she incorporates when treating a child or adolescent with anxiety in

order to meet the individual's needs and provide the most useful tools for decreasing and controlling anxiety. Several interventions that PB reported incorporating into practice include sensory tools and deep breathing for calming, motor movements, the Alert program, social stories, self-identification as well as video modeling to allow the individual to recognize their successful use of the interventions. In addition to specific interventions, PB also recognized the importance of setting rules and boundaries during therapy sessions to decrease the risk of behaviors and family interference.

Several key components are needed to facilitate successful progression of treatment for school-aged children and adolescents with anxiety. One component that enables the initiation of therapy services is referrals from physicians and other health care professionals to occupational therapy. PB identified a need for growth and advocacy in educating health professionals on the signs, symptoms and limitations of anxiety for children and adolescents. In addition to the specific conditions of anxiety, PB expressed a need to educate health care professionals on the role of occupational therapists in working with this population and the interventions and treatments therapists can provide to support these individuals. Occupational therapists are in a position to promote and advocate for this need as PB clearly recognized her capability to identify the characteristics, behaviors and symptoms of anxiety in school-aged children and adolescents. PB was able to describe several traits and behaviors in individuals she has worked with that demonstrate the signs and symptoms of anxiety such as avoidance, fright, excesses movements, and clinging behavior to an authority



figure. In addition, PB stated that most of the clients she works with have anxiety as an underlying or secondary diagnosis rather than a primary diagnosis.

A second key component to facilitate successful treatment for individuals is to recognize and eliminate barriers to treatment. PB identified several barriers that can impact the progress of therapy for individuals with anxiety. The barriers that she has superficially faced when working with this population include a lack of parental compliance, not established client-therapist relationships, difficulty identifying patients' needs and triggers, behavioral issues and other performance factors that are impaired by anxiety. In order to overcome some of these barriers, PB stated that she incorporates a cognitive behavioral approach into treatment for individuals who have difficulty understanding or utilizing the tools provided to control anxiety or behaviors that are impacting progress. When using a cognitive-behavioral approach, PB highlighted the importance of making sure the population is cognitively ready and therefore most often utilizes a cognitive-behavioral approach for older children and adolescents. PB also identifies using a sensory approach to teach calming techniques or when addressing behaviors that stem from sensory processing difficulties.

A final component to facilitate progress in treatment is the confidence and ability to carry out a treatment session for what can be a difficult population. PB has used several resources to develop her approach and confidence in working with this population. These resources include a pediatric fieldwork experience, continuing education courses, past experiences with treating this population, academic coursework, and review of research from psychology and occupational therapy sources. Although PB highlighted the importance of having confidence and a

planned approach to address this population, she does not believe there is a common treatment method that is consistently used by occupational therapists across the board. Nor does PB believe in using one specific model, theory or approach when treating children and adolescents with anxiety due to the complexity and uniqueness of each individual.

## PC

PC identified professions such as psychiatry and psychology that are referring children and adolescents to occupational therapy who are presenting with anxiety traits, or presenting with other issues in which anxiety symptoms are due to that specific condition. She stated that in her experience, other professions realize the value in the unique approach occupational therapists have when working with kids with mental health issues, and can help both the children and the parents come up with answers.

PC identified some of the characteristics she sees in children and adolescents who present with anxiety traits. These traits include poor insight, poor self-awareness, and the inability to identify strengths that they have. In all ages, especially younger children, many present with behavior issues, which may be due to the fact that they do not understand or are not able to verbalize what their body and mind need.

PC stated that over the years, she has developed a structured protocol on how she sets up and delivers each individual's treatment plan. She pulls the information from the evaluation and the intake of assessments and identifies all the goals that should be focused on, and prioritizes those goals. If the insurance company gives a

set amount of sessions, then she uses that number to guide what needs to be covered, and in what amount of time. After the plan is created, she meets with the family for a summary meeting and lays out what her findings are, talks about the expectations of the child, family, and of therapy, and helps clarify any areas that parents are having trouble grasping. She uses evidence-based research to pull together a multi-level intervention approach that will maximize the effectiveness of therapy in the given amount of time that she has. She will use that plan as a guide for her treatment sessions so she covers all her bases. PC stated that through facility-based research, she has found the importance of acknowledging the child or adolescent as being an important human being throughout the entire intervention process.

PC reported that she focuses on treating what the child or adolescent needs, so it does not matter if anxiety is primary or secondary; the intervention strategies are unique to their needs. She discussed that she pulls from multiple programs, protocols, theories, and strategies to fit that specific child. She utilizes sensory approach with typically every child, but incorporates other strategies into her treatment plan as well. She uses specific protocols such as the Brain Gym, Incredible 5-point Scale, the Floortime model, and the How Does Your Engine Run program. Some of the cognitive pieces that she often focuses on are the child being able to develop self-awareness and identifying strengths that they have. She has utilizes peer groups, if able, for the children to learn from, teach one another, and develop that interaction piece. She brings up sensory approach many times, and discussed that she utilizes that theory with just about every child, but the reason behind the sensory aspect might be different. For example, sensory is used as a motivational piece, self-regulation

strategies, or as a way to get children's bodies in a good place for learning and communicating. PC identified similarities and differences when working with different age groups. She stated that for children, sensory is used much more structurally to get them in a good place for communication and for learning because it is often times more difficult for most children to vocalize what their needs are. Sensory is used for adolescents as well. However, usually the approach is not as structured, and is more of a strategy that they can use as a proactive self-regulation tool because they are more capable of identifying what they need. Children tend to have shorter attention spans, so there are more transitions into tasks that are shorter in duration. Adolescents come to therapy with more experiences and "baggage". Because of this, it is harder to break through their emotional or psychological barrier, and more time is spent processing because of that barrier. Lastly, PC stated that behavioral issues are seen across the entire age span, however, the behaviors in children are more of an issues because they are not able to fully express what they are feeling, and as a resort turn to acting out.

PC identified many strategies that she uses to build a therapeutic relationship with the children, and assist them in successful interventions. She discussed that she collaborates and compromises with children when developing the structure of therapy so that they are motivated and excited that they helped make choices in how the session was going to go. She stated that often times, she will try to schedule peers around the same time so they are able to interact and learn from each other with the support of their therapist guiding the learning. She makes sure that the sessions are not only fun, but also more importantly successful for every child and adolescent.

She discussed that it is extremely important to acknowledge that the children and adolescents are important human beings, and that she and the other therapists genuinely care about them, which helps the children internalize those feelings and be proud of their successes.

PC recognized the importance of thinking long term and functionally for the population she serves. Generalization starts right from the beginning by communicating to the parents the importance of the home programming, as the more that can be implemented in the home setting, the more successful the outcome will be. She stated that it is important for the child or adolescent to teach their parents or another peer on what they have learned and be able to summarize a therapy session, as that also increases the likelihood of generalization into their home or school environment. She creates the therapy session environment with the thought of their home context in mind. She tries to limit the amount of time the parents are in the session, as she noted that in "real life" the parents aren't always going to be there for that security piece. Having peer groups also helps increase the "real life" skills that children and adolescents need to successfully interact with others and form relationships. PC identified the importance of communication with the family throughout the entire intervention plan starting with the evaluation. She elaborated on the importance of making the caregivers understand why carry over is important, and how to implement the strategies learned in the clinic setting, into the home setting. She stressed that his or her feedback is valuable, that way there is an open communication dialogue, and everyone is on the same page, which will increase the likelihood of the success for the child.

PC identified two main barriers to effective treatment for children and adolescents with anxiety. The first barrier was insurance not covering a child, and the second is parents' struggling with implementing the home programming. In both situations, PC discussed that education and communication is an important factor in stating why the treatment is important. For families struggling on implementation, it is also important to find the barriers, and modify the program to be more attainable.

PC identified a few areas that she sees in need of attention. She stated that she has seen an improvement in increased collaboration between professions, however she would like to see more of an increase in this, and also an increase in community supports for children and adolescents. She uses the term "inter realm of supports" in that the child can be supported in whatever activities they want to pursue within the community. The other big area she would like to see improved upon is increased education and resources to family members, both immediate and extended family. She reported that she has seen families broken apart because there is so much blame and misinformation happening because family members such as parents, grandparents and/or siblings. Families do not have the understanding in how and why their child is exhibiting their emotions or behaviors in the manner that they are, and how to successfully approach helping that child.

#### **PD**

PD mainly gets referrals for children with anxiety from referring professional such as psychiatrists, psychologists and social workers. These professions refer to her for her expertise in working with children who have maladaptive behavior or sensory related problems.

PD identified many reasons why children and adolescents are presenting with anxiety. They can have situational anxiety when they have multiple deficits, and are being compared, or comparing themselves to other children who are normal in the developmental stage. What is difficult for them may be easy to others, and they sense that, and that idea is anxiety provoking. Children come in with anxiety as the result of a wide range of reasons anywhere from developmental deficits to trauma or abuse in their lifetime. Many times she observes that the maladaptive acts such as outward aggression can be due to the fact that their body is not able to regulate due to underlying sensory deficits. Therefore, many times children that have anxiety, and those behaviors, also have an underlying need for sensory input, or a break from an overstimulation environment.

PD identified one of her areas of expertise was being contracted to consult in a variety of setting during her career such as in the schools and the NICU. PD also gives advice to pediatric therapists in other settings after she evaluates a child and refers them to a setting that will set them up for services. She stated that she has acquired skills to feel competent and comfortable when working with the emotional/behavioral aspects, as it comes natural for her to discuss this realm with children and adolescents. Many times she addresses the psychosocial factors indirectly as she is working on a different area that is a deficit and she is talking with them about their emotional or psychosocial well-being. In her experience talking and being open with clients about the psychosocial piece of therapy resonate well with the clients. She observes that they appreciate it when someone genuinely cares about

how they are doing and to know that someone is there for them if and when they want to talk about anything that may be bothering them.

PD explained that after she evaluates the child, if they are not from the area she finds a therapist that is a good match in an area closer to their home. She does not have contracts with specific facilities; rather she looks for places such as private practices, hospitals, and many times schools, where the child is able to receive services. Part of her role is to help the facilities and therapists set up their environment and setting to maximize the use and benefits of what they have to offer the child. PA stated that occasionally, therapists require guidance from her to objectively observe the child. She discussed that often times, therapists look at the child's behavior as a reflection of who they are, and she is there in the forefront reminding them that many times children have an underlying sensory need, and the behavior is the result of that. Rules and boundaries can be set, but the sensory aspect has to be addressed. She has found that treating a child from this approach is more successful than treating the superficial behavior. She also welcomes therapists to come in and co-treat in a session with her so she can model how to treat from a sensory standpoint. She is passionate about advocating for the child as much as possible, so she makes sure to keep in contact with therapists if they need her guidance.

PD described that many times she approaches the psychosocial piece of therapy indirectly through treating clients through a sensory-based approach. This is usually a less "threatening" approach and children respond better and many times the psychosocial piece comes up indirectly during sensory interventions. When



implementing intervention strategies she gets creative and uses meaningful activities to work on the skills that need improvement. She grades activities so the children or adolescents can be successful at what they are doing. She also focuses on generalizing behaviors and regulation skills that are being learned in therapy to home environments to the best of her ability. However, she does note that she is aware of the potential for decreased carry over, as she sees the child in only one setting. Keeping this in mind, she talks to the parents to see how they are doing outside of the therapy context. PD explained that she takes into account of the set-up of the environment when treating different aged children and adolescents. She follows their lead, but also takes into consideration their maturity and developmental level. For some younger children, her room may be too over stimulating, and she may have to limit the distractions. For some adolescents, even if she put away much of the juvenile equipment, it still might not be the right treatment environment. She has the option of them treating them in the fitness center. She is accommodating for all ages that she sees, and adapts the environment to benefit their needs.

PD identified the importance of having a trusted and safe environment for the children and adolescents to come to for therapy. She stated that they are able to process and communicate easier in this environment, which in turn helps improve their self-regulation, self-esteem, and overall skill set with less anxiety or emotional distress. She recognizes the importance for acknowledging the child for who they really are, not what is just on paper, or what their behaviors may be communicating. These acknowledgments help the therapist gain trust and build rapport with the individual.

PD stated that she communicates with individuals, as well as, other health care professions that may work with her clients. She implements strategies that they have found successful in their experience into her practice so she can prepare herself as much as possible for potential emotional outbursts or issues that could occur. She also keeps in contact with those involved with the client so she can update them on progress and successes that she has with that child or adolescent.

PD identified obstacles she has to work around when trying to implement quality service. The first obstacle is making sure that she communicates, researches, and understands insurance policies so she increases her possibility for coverage. One of the biggest obstacles for her is the fact that she works in a rural setting so there are many issues that come with this population. First, she knows that many times, an evaluation session is the only feasible interaction she will have with a family. After the evaluation, she must try to find and set up treatment that will be a good fit and a feasible distance for the family to drive to. Many facilities are pressed for appropriate space for therapy as they are working out of a small facility, or don't have the space to designate one big room just for sensory-based intervention. She helps find ways around these barriers by keeping open communication going with the therapists she refers out to. She discusses with them how they can work with and accommodate the child using what they have or what their community provides. Another obstacle with a rural setting is that although she is more than willing to have therapists come in and observe sessions if they feel underprepared to treat a specific child, it may not be possible due to the distance between her and the referred therapist.

PD stated that a big improvement that she would like to see is increased communication between the school system and the caregivers of the child. Because she is an outpatient therapist that deals with both the caregivers, and the school systems, she sees the struggles from both sides, and she feels like sometimes she is caught in the middle. When there is blaming and miscommunication going on, it doesn't do any good for the child.

**PE.**

PE identified using several interventions in treating the child and adolescent population with anxiety. Components of the interventions PE incorporates into her treatment sessions include education, cognitive-behavioral, sensory and an overall hands-on approach to develop support and confidence in individuals with anxiety. The use of several interventions is essential to treating school-aged children and adolescents with anxiety due to the uniqueness and various need of each individual. PE, as a therapist, is able to recognize several signs, symptoms and behaviors associated with childhood and adolescent anxiety. PE identified anxious traits in individuals she works with as low self-esteem and disruptive behaviors. PE also indicated that sensory issues can increase anxiety or vice versa. As expressed above, PE expressed a difficulty in determining the development of anxiety in individuals and to determine a standard protocol for therapists to use for individuals. PE explained that each case is unique and may present itself in different ways and also be diagnosed in several ways.

Several barriers can impede the initiation and progression of the therapy process. PE identified several of these barriers as insurance limitations or an overall lack of confidence in therapists when working with the population due to the poor

emphasis academic programs place on understanding this population and developing treatment approaches. PE stated there is a lack of education and resources for therapists to utilize when treating children and adolescents with anxiety. PE recommended improvements with continuing education courses, evidence-based research, and academic course work. In addition, PE identified a strong need for consistency and standardization for treating children and adolescents with anxiety. PE identified a lack of current standards that would be beneficial in increasing the confidence and support for therapists and the profession of occupation therapy when treating this population.

Although several barriers can impact the performance of therapists as well as individuals with anxiety, PE recognized that several supports also exist. Supports that have aided in the development of PE's approach to treat school-aged children and adolescents with anxiety include hands on experience with individuals, personal insight, and facilities protocols. In addition, PE said she utilizes resources from past experiences and psychology literature.

Overall, PE qualifies her success and progress with individuals through the classification of positive or negative outcomes when treating anxiety. PE identified positive outcomes as decreasing behaviors and feelings of anxiety in individuals. PE identified negative outcomes as an individual who was not able to regulate their body at the end of a session or left a treatment with increased feelings of anxiety.

**PF**

Occupational therapists are recognizing anxiety in children and adolescents and an increasing need to treat this population to decrease the development of limitations in functional performance and occupations. PF is a pediatric occupational

therapist that has also recognized an increase in the anxious population, which she contributes to the external pressures of society and family to adopt a busy and fast paced schedule. PF identified these patterns in individuals as a need for occupational therapy treatment and interventions. PF has worked with several school-aged children and adolescents with anxiety and has identified anxiety in individuals as behaviors of rigidity in routines and habits, feelings of being over whelmed, feelings of the body being dysregulated, disruptive behaviors, and sensory components.

While common characteristics or traits can be identified in several individuals with anxiety, PF recognizes a difference when treating school-aged children versus adolescents with anxiety. PF said that adolescents make up a more complex population and are more greatly impacted by external and internal influences. Therefore, PF identified several interventions and approaches she utilizes for treatment with this population. PF reported using sensory approaches such as heavy work, vestibular activities and proprioception activities to modulate and prepare for treatment. PF also incorporated cognitive-behavioral approaches to help individuals identify triggers. In addition to specific intervention approaches, PF identified the use of education and technology to help parents and families become more knowledgeable on anxiety and their child's traits as well as a way to help reduce anxious behaviors. Finally, when creating interventions for individuals, PF will focus on the developmental milestones of an individual to help individuals self-modulate and respond appropriately through behaviors. PF believes she is not the only therapist to utilize these tools, however, acknowledges that how therapists use these tools to treat individuals may differ.

In addition to the use of well-known contemporary interventions and approaches, PF also incorporates and educates families on alternative treatment methods. PF contributes the development of her approach to her years of experience as an occupational therapist. PF highlights her professional experience, alternative medicine knowledge, supportive colleagues and continuing education courses as influential factors in the development of her approach. Although PF feels confident in the development of her approach and working with school-aged children and adolescents with anxiety, PF recognizes the need for growth and advocacy in treating this population. PF states that there is a lack of knowledge and a need for more in-depth continuing education courses on treatment approaches from children and adolescents with anxiety.

In addition to growth and a need for advocacy, barriers also exist in treating this population. PF states there are several barriers that can impact the progress or outcome of therapy and improving anxiety symptoms. Barriers can stem from the individual or the individual's family as well as the inability of medical professional to recognize anxiety in individuals. PF also recognizes external barriers as well, such as society and an individual's culture. PF states that the cultural structure of an individual or family can impact the effects or development of anxiety. PF says that if children are unable to develop in a "normal" way with room for fun and play, anxiety can become a major impact in their development and performance capacities.

### **General Structure**

Pediatric occupational therapists in this study believe they have the skills and tools to address mental health issues in children and adolescents. Therapists are able

to identify the traits and behaviors of anxiety as well as additional conditions and situations that cause anxiety in their clients. The evaluation process allows therapists to gather a holistic picture of the client to understand the unique needs of each individual. Therapists then utilize that information to create and plan the intervention process to achieve the “best fit” for the client. A wide variety of interventions are incorporated into treatments consisting of multi-sensory approaches and cognitive-behavioral tools. Although the selection and use of interventions is unique to the therapists, all participants reported that the essential feature of the intervention is to focus on the child in order to provide the strength and confidence to overcome their obstacles.

A majority of the participants reported that they believe they have the skills and abilities to treat children and adolescents with anxiety and that they feel more confident than most school-aged therapists because these individuals are placed on their caseload. A majority of participants felt that a lack of confidence of therapists within the field of occupational therapy is due to the lack of an evidence-based and standardized approach. A lack of confidence was reported and defined as limited experience, educational background, continuing education opportunities and literature sources. Therapists are able to obtain some support from disciplines like psychology, but lack support from other disciplines, such as, physicians. Participants reported a continuous need to advocate for the purpose of their profession as well as for the diagnoses of these individuals.

Though several barriers impact the performance of therapists when working with this population, participants maintained a positive attitude. Participants’ attitude

when working with this population is maintained through the use of a client-centered and systems-orientated approach. The client-centered and systems-orientated approach is sustained through the ability to provide education and increase communication with families and caregivers on the difficult behaviors and traits of anxiety in children and adolescents. Participants identified several needs to improve their process in working with this population, but were also able to identify several supports, successful outcomes and experiences that establish a continued desire to treat and advocate for this population.

### **Key Constituents**

Four key constituents were identified in the analysis of the participants' descriptions; these four constituents are supported in the general interpretation of pediatric out-patient occupational therapists' experience in working with school-aged children and adolescents with anxiety. Each constituent identified provides insight into the practical experience of occupational therapists as well as the therapists' development of approaches for treating this population. The experience of therapists and development of approach is acknowledged by the key constituents of a) therapists' use of soft and technical skills to develop interventions b) therapists' knowledge of anxiety, and c) therapists use of various methods to develop approaches. It should be kept in mind that these constituents are related to the difficulties and barriers reported by therapists. Therefore the fourth constituent is d) therapists experience multiple barriers in developing and executing interventions when working with this population. By describing each key constituent separately, then considering them together, it is possible to understand the overall experience and



needs of occupational therapists working with school-aged children and adolescents with anxiety.

### **Therapists' use of Soft and Technical Skills to Develop Interventions**

Each treatment plan is unique, as all participants reported that each client present with individualized needs, and interventions should fit the needs of the client. In order to “best fit” the individual, all participants reported incorporating different technical and soft skills when developing approaches to fit the diagnostic needs of the child or adolescent as well as provide the ultimate client-focused treatment. Although all participants reported a unique creation of interventions to fit the client the overall purpose of treatment is to empower the client, giving them the strength and confidence they need to succeed in life. PC vocalized the overall essence of therapy by stating the importance of acknowledging all children or adolescents as important human beings. She accomplishes this by showing them they are cared for and recognizing that they have a voice, which helps them become confident and proud of their successes.

In order to achieve the overall purpose of treatment, all participants reported the incorporation of a variety of technical and soft skills that consisted of different interventions and tools. All participants highlighted the use of technical skills within the sensory frames of reference and cognitive-behavioral frame of reference. PA, PB, PC, PD and PE all stated they used the sensory approach with almost all children or adolescents they worked with. PC and PE emphasized that the rationale for using the sensory approach with each individual is different from one another and therefore a multi-sensory approach is applied within treatment of this population. PB and PD

reported using a sensory approach to help calm an individual's behaviors and to regulate the body. Whereas, PC and PE emphasized the use of the sensory approach to motivate and regulate the individual and prepare them for further learning and treatment interventions.

A multi-sensory approach was the overarching selection of participants in their approach to interventions. The cognitive-behavioral frame of reference was also applied in a less consistent manner. Participants utilized the cognitive-behavioral frame of reference in a variety of ways and for a variety of purposes to treat individuals. PA and PF identified using this approach for recognizing anxiety-provoking triggers in different scenarios and situations. Once triggers are identified, the therapist collaboratively develops strategies with the child or adolescent on how to cope and overcome the triggers. PC reported using a cognitive-behavioral approach to allow the individual to become more self-aware of their anxiety and needs in order to promote confidence and strength in occupations. PB, PD and PE identified using the cognitive-behavioral approach in conjunction with a sensory processing approach; however, did not expand on the purpose of the cognitive-behavioral approach in their treatment. All participants varied in their use and purpose of the cognitive-behavioral approach, but all were consistent in the increased focus of using this approach with adolescents.

The frames of references built the base for participants' approaches to interventions. Participants built off the frames of references by incorporating their soft skills, which some referred to as their therapeutic use of self, to mold the interventions to fit the client's needs. PA specifically discussed the soft skill of her

therapeutic use of self to strategize how she will deliver interventions to best meet the client's needs. The major soft skill that all participants emphasized was building rapport with the client to foster trust. PF explained a way to foster trust was by allowing the individual during treatment to "stop and take time to smell the roses again and let kids be kids". PF again, as well as, PA, PB and PC reported that they built rapport by allowing clients the ability to control the direction of therapy. PA and PC discussed that they let the client have control by collaborating on the structure of the therapy session. PD identified the importance of having a trusted and safe environment for the children and adolescents to come to for therapy. She stated that they are able to process and communicate easier in this environment, which in turn helps improve their self-regulation, self-esteem, and overall skill set with less anxiety or emotional distress.

When rapport is developed, participants described using a systems-orientated approach with various tools to meet the individualized needs of the children or adolescents. PA, PC and PD all stated that they incorporate the skills to grade activities and arrange environments to fit the needs of the client. PA and PD specifically discussed grading activities to "just the right fit" so the child and adolescent can be successful in therapy. PC and PD discussed the importance of improving the environment by limiting distractions and creating a developmentally appropriate space for the individual to work through. PC specifically creates an environment with several transitions for the child to improve engagement and attention. Another aspect that participants considered in achieving the "best fit" intervention is the educational and communication component. PA, PC and PF

discussed the importance of educating and communicating with the families and caregivers on the process and expectations of therapy. PC and PF stated that they would specifically meet with families and caregivers to explain the behaviors of the individual, and therapy tools to reduce anxious behaviors outside of therapy. PC also stated that she communicates directly with the child or adolescent to make sure motivation is being maintained and treatments are focusing on what the child or adolescent's interests are. A final soft skill that all participants discussed is the need for interventions to be generalized across multiple settings and environments. All participants communicated with the client, caregivers and inter-professional teams on easier transitions from therapy to the home and greater carry over of strategies and tools learned in therapy.

#### **Therapists' Knowledge of Anxiety**

According to participants, it is essential that occupational therapists have a good understanding of anxiety and the presentation of anxiety within an individual in order to develop an individualized intervention approach that meets the child or adolescent's needs. PA and PD stated that therapists are in a unique position because they are able to help clients as well as families understand that the emotional, sensory, or behavioral issues of the individual may be anxiety based. All participants were able to define anxiety characteristics as hiding, clinging to caregivers, being immobilized by fear, aggressive behaviors, excessive movements, poor self-esteem, and rigidity in routines. PA, PB and PE expressed that it is difficult to determine the development of anxiety in an individual because of the unique characteristics, behaviors and needs that each child or adolescents presents with. PB and PC

highlighted that anxiety can present as a primary or a secondary underlying diagnosis; however, regardless of the presentation, anxiety needs to be addressed first in order to improve other areas.

All participants described the importance of recognizing anxiety in individuals early on in the therapy process. PA and PB acknowledged that they are often the first to identify the traits of anxiety as individuals are commonly referred to occupational therapy without a diagnosis of anxiety. PA and PB stated that children and adolescents most often present with anxiety as an underlying condition secondary to another medical condition. PA stated that physicians are more readily recognizing sensory issues in children and adolescents; therefore, are referring children and adolescents to occupational therapy for sensory issues. PA was the only participant who identified physicians as referring providers; other participants noted a lack of referrals from this profession. PC and PD stated that most of the child or adolescent anxiety referrals for occupational therapy are from psychology, psychiatrists or social workers. PC and PD described that they believe these disciplines have a thorough understanding of the occupational therapy profession and occupational therapists' ability to help this population.

In addition to a difference in presentation of anxiety, all participants also recognized that anxiety could develop from external or internal situations or from their environments. PA and PB described how unpredictable environments in which the individuals resides in or transitions to could cause or increase anxiety. PB and PD specifically stated that individuals who develop anxiety or anxiety-related symptoms might come from an abusive environment or have a history of abusive relationships.

PD and PF also highlighted the impact of environments on individual's anxiety stating that children or adolescents are often involved in environments that are fast paced and unregulated. PF specifically stated, "I think that we are in a very fast paced society and you know our children don't get to play as much and don't get to be kids. We are rushing and we are calling dinner going through a McDonald's drive thru so they can get to various activities". PF also mentioned that the pressure families and caregivers put on individuals to succeed and be involved in activities could produce anxiety. While PF highlighted the impact of families, PC and PD, recognized that adolescent anxiety can stem from the pressures of peer socialization and competition. PC and PD described that adolescents often increase or develop anxiety from the "baggage" they have obtained from a lack of self-confidence and comparison with peers. Whereas, adolescents may have conscious awareness of poor self-confidence and self-esteem, PB, PC and PD described that an individual's anxiety can stem from an unconscious poor awareness of their body and mind. It is these external and internal environments and situations that a majority of participants described as increased causes of anxiety in children and adolescents.

### **Therapists use Various Methods to Develop Approaches**

Even as all the participants had a good grasp on how anxiety symptoms present themselves in children and adolescents, how they developed their approach of treatment and the reasons behind the development of interventions with this population varied among the participants. The unified belief of all the participants was the utilization of their professional experience in working with this population. Professional experience was the main resource in how they chose to develop their

approach and select the interventions that would fit the needs of the child or adolescent. Other resources that the participants listed included pediatric level two fieldworks, their academic coursework, personal experiences, their facility's protocol, continuing education courses, communication with other occupational therapists and other disciplines, and reviewing literature from occupational therapy and psychology professions. However, participants stated that many of these resources were accompanied by limitations that inhibited participants from feeling like they had a well-rounded pool of resources to pull from to aid in their development of intervention planning with children and adolescents with anxiety. PF stated that she felt that many of the continuing education classes she attends might not be valid or beneficial, as she can't always apply what she learns. PF specifically said, "I have to say, sometimes I don't get a lot out of them (continuing education courses). I think it kind of needs work, anxiety is a big issue and if everyone is trying to develop a workshop, I am not sure that I have gotten great tools".

The insufficient amount of resources that the participants identified causes the lack of a standardized approach when working with this population. All participants indicated that they pulled from their experiences and resources; and developed a multi-intervention, multi-theoretical approach for intervention. PB, PE and PF stated they have found through experience and review of literature that occupational therapy, as a profession, does not provide consistent or a standardized treatment method to help them develop an approach when working with children and adolescents with anxiety. Rather, PB has found that she pulls from many continuing

education courses and tools that focus on a broader population to develop her interventions for children and adolescents with anxiety.

Throughout all participant interviews, there was an apparent need for further development in the field of occupational therapy for anxiety in children and adolescents. PC, PD and PF identified a need for increased communication and advocacy of this population between communities, schools, professions, and family support systems. PC and PD stated that breaking down the communication barriers, and increasing these support systems would help the individual increase their success and quality of life. PF also identified a global need for the growth and advocacy in treatment of this population. She stated that there is a lack of knowledge and a need for more in-depth continuing education courses on treatment approaches for children and adolescents with anxiety.

### **Therapists Experience Multiple Barriers in Developing and Executing Interventions**

Participants in this study vocalized several barriers that impact their development and implementation of interventions for children and adolescents with anxiety. PA, PC, PD and PE all indicated that insurance was a barrier in providing quality care to this population. PD expressed that in order to achieve better coverage for individuals; therapists need to understand insurance policies. PA further explained that she uses specific wording in her documentation to work around potential insurance denials for an anxiety diagnosis. PA, who reported that she commonly uses a sensory approach to treat anxiety, stated that she documents on the



underlying areas that anxiety impacts and that she knows will be covered like activities of daily living delays and social challenges.

Although all the participants in the study reported feeling confident in their abilities to develop and carry out intervention approaches when working with children and adolescents with anxiety, several participants felt that a majority of therapists do not share their confidence. PB and PE stated that children and adolescents with anxiety are often put on their caseload, because they are known as therapists who have experience working with this population. There was a general consensus among PB, PD and PE that other therapists within their profession lack the confidence and support to implement successful interventions with this population. PB stated, "I have not been around a whole lot of other therapists that would work with the kiddos who have anxiety or behavioral components. In most of the facilities I have worked at, those children have been put on my caseload because no one else has a sense that they really know what to do. So then I would work with them". PA and PE highlight that therapists' poor confidence might stem from a lack of a standardized approach or guide to work with this population. PE specifically felt that the development of a standardized intervention approach would increase the overall confidence and support for all therapists working with the anxious population.

PA, PB, PC and PF identified a lack of support from parents as being a barrier to the effectiveness of treatment. The reasons for a lack of support from parents included a lack of compliance with the rules and boundaries of therapy sessions and a lack of home program follow-through which decreases the success of generalization. PA discussed that another barrier with parents is the fact that some parents don't buy

into the importance of therapy or don't understand the reasons for therapy, even with her attempts to rationalize the importance to them.

Participants described that a variety of components in the profession and healthcare system do not provide them with the adequate support needed to treat this population. PB, PC, PD and PF stated that they feel a lack of support from other health care disciplines in the understanding, care and treatment of individuals with anxiety. PB and PF reported that they see a need for education and advocacy with physicians in understanding the signs and symptoms of anxiety. PF specifically stated that physicians she receives referrals from do not often recognize anxiety in children and adolescents. PB and PF also reported that another barrier in receiving referrals for services is that many physicians do not understand the role of occupational therapists in working with this population and the services occupational therapists are able to provide. PA, PD and PF identified that providing care in a rural setting can also be a major barrier to providing an individual with the appropriate services needed. Finally, PC and PD identified that there is a lack of collaboration between health care disciplines in order to provide a greater range of community support for these individuals.

PE and PF discussed that there is a lack of occupational therapy literature and continuing education courses they have found effective in treating this population. PE reported, "the best thing would be to get some more people to get research out there and do evidence based research so that there is a foundation that can be utilize to communicate with the political world, the insurance world and to the benefit of OT and society". Because of the lack of effective research and continuing education

courses, participants described an inability to be able to form a standardize approach for children and adolescents with anxiety.

## CHAPTER V

### SUMMARY, CONCLUSION & RECOMENDATIONS

The overall purpose of this study was to gain an understanding of the experiences of occupational therapists in developing and implementing interventions when treating school-aged children and adolescents with anxiety. Through the use of a phenomenological approach, researchers were able to gain knowledge from six pediatric occupational therapists' regarding: a) the practical experience of occupational therapists working with school-aged children and adolescents with anxiety or anxiety secondary to another medical condition, and b) the knowledge occupational therapists use to develop approaches to treat school-aged children and adolescents with anxiety or anxiety secondary to another medical condition.

Prior to the interview of participants, the researchers found from a review of literature, that occupational therapists working with school-aged children and adolescents who are diagnosed with anxiety or have anxiety secondary to another medical condition were utilizing a wide variety of intervention approaches. Following the analysis of participants' interviews, researchers found that participants felt they had the confidence and possessed the skills needed to work with children and adolescents with anxiety. However, participants noted many barriers that they faced in developing and executing interventions. It was also found that participants felt that in order to meet the unique needs of the individuals they work with; they needed to incorporate several intervention approaches into therapy. The general experience of

the therapists is supported by the following key constituents: a) therapists' use of soft and technical skills to develop interventions b) therapists' knowledge of anxiety c) therapists use various methods to develop approaches and d) therapists experience multiple barriers in developing and executing interventions.

Through analysis of each individual's unique experience, four key constituents were formed to understand the common experience of the group. The first constituent, *therapists' use of soft and technical skills to develop interventions*, was supported by participants' report of using frames of references to guide interventions along with a therapeutic use of self to individualize interventions to fit the needs of each client. The second constituent, *therapists' knowledge of anxiety*, was supported by participants' ability to identify anxiety behaviors and characteristics as well as the deficits individuals with anxiety may face. The third constituent, *therapists use various methods to develop interventions*, was highlighted by the different resources therapists use to develop their skills as well as professional experiences. Finally, the fourth constituent, *therapists experience multiple barriers in implementing and executing interventions*, was formed by therapists' report of a lack of support in several areas including caregivers, insurance, health professions and additional training tools.

### **Discussion**

Consistent with the literature, participants' demonstrated use of hard skills based upon the sensory frames of reference and the cognitive-behavioral frame of reference. Literature reviewed revealed similar findings to this study (Chalfant et al., 2007; Christie, 2007; Lane et al., 2012; Engel-Yeger & Dunn, 2011) in regard to

utilization of hard skills, as occupational therapists may pull components from cognitive-behavioral theory to develop interventions. Participants' reported use of cognitive-behavioral theory to help the individual recognize and analyze their anxious feelings and develop strategies to cope with those feelings. But as Christie (2007) found, occupational therapists did not follow a standard procedure or manual, such as a psychologist would to guide interventions when working with this population. Cognitive-behavioral literature was not as robust in the occupational therapy realm as in the psychology realm, so it is not surprising that the participants did not report the use of the cognitive-behavioral theory to the extent that they talked about the use of the sensory frames of reference in developing interventions.

Similar to what participants reported, the literature concluded that the sensory frames of reference are used most often by occupational therapists with this population (Engel-Yeger & Dunn, 2011). Participants in this study stated that many of the clients they see come in with anxiety and also had underlying sensory integration or sensory processing issues. When participants brought up a sensory approach, many of them started discussing how they used their sensory knowledge as the main approach to treat the client's underlying sensory needs, rather than continuing with anxiety as the main focus. This was a similar finding in the literature review in that Ben-Sasson et al. (2007) identified that there is a significant difference in the perception between occupational therapists and psychologists in determining childhood behaviors as anxiety versus Sensory Processing Disorder (SPD). What Ben-Sasson et al. (2007) found was that occupational therapists had more confidence and certainty in identifying and treating SPD than anxiety disorders. This appears to

be similar in the current study, as many participants inferred that their clients had underlying sensory problems, which they believed may have caused many of the anxiety-related behaviors observed in children and adolescents. Participants gave the impression that the maladaptive behaviors that they see in children and adolescents with anxiety are often due to an underlying need for sensory input. It is important to note that the literature supported the finding that sensory modulation and anxiety may coexist (Lane et al., 2012; Pfeiffer et al., 2005; Engel-Yeger & Dunn, 2011).

Therefore participants' techniques of developing and implementing sensory-based interventions are not misguided. With that said, there is not a clear evidence-based protocol in the literature on how to use sensory-based interventions to decrease anxiety in children and adolescents. Engel-Yeger and Dunn's (2011) study also recommend that if occupational therapists are treating anxiety through a sensory approach, they should be referring to the child or adolescent's Sensory Profile (Dunn, 1999) to develop personalized strategies to improve the individual's sensory needs. The use of a sensory assessment was not conveyed during participants' interviews. Consistent with the literature (Engel-Yeger & Dunn, 2011), it is unclear if the participants used assessments such as the Sensory Profile (Dunn, 1999) to base interventions on or if they solely relied on their experience and observation of the individual.

Sensory frames of reference, cognitive-behavioral frame of reference and client-centeredness were the similar approaches between the literature review and participants' interviews that required hard skill. The occupational therapy and psychology literature discussed positive effects of using technical skills within

contemporary interventions such as exercise and yoga to help decrease anxiety in children and adolescents (Koenig et al., 2012; Chugh-Gupta et al., 2013).

Mindfulness is a cognitive-based approach that has also been deemed successful in the literature to combat anxiety (Semple et al., 2005; Hofmann et al., 2010; Semple et al., 2010), however participants did not mention as an approach they have used or found successful.

In contrast to the hard skills of contemporary interventions found in the literature, participants all stated that they used soft skills to individualize interventions. These soft skills were referred by some participants as therapeutic use of self (Taylor, 2008). The major soft skill all therapists emphasized was building rapport with the individual to foster trust by giving the individual choices and allowing the individual the ability to control the direction of therapy. Participants also identified the importance of having a trusted and safe environment for the children and adolescents to come to for therapy.

Participants also used therapeutic use of self to create more individualized interventions. Participants discussed that they have found success in using soft skills, such as a client-centered and a systems-oriented approach to involve the client and all individuals caring for that client in developing the intervention plan. Nielsen and Hektner (2014) also found the same philosophical practice grounded in our profession's roots in their study of school-based therapists working with children with emotional disturbance. The participants in the current study noted the importance of educating and communicating with caregivers, community members, and other health care providers on strategies to help the individual be more successful. The education



and communication from participants focused on the individual's needs, to help them and others involved with the individual come up with strategies to be successful not only in the clinic, but also generalized into the community, school, and family environments.

Lau, Chan, Li and Au (2010) discussed that while some individuals are referred for anxiety, they are often referred to occupational therapy for conditions and difficulties that result in co-occurring anxiety. Participants indicated this fact as well, and reported that they were referred individuals with more prominent diagnoses of sensory processing disorder, developmental coordination disorder, learning disability, physical disability, or behavioral disorders. The literature also incorporated these disorders as the prominent primary diagnoses listed in common referrals for occupational therapy services (Lau et al., 2010). Participants' identification of anxiety characteristics was also congruent with the literature. Christie (2007) and Bazyk and Arbesman (2013) described anxiety symptoms as shyness, nervousness, worrying, and isolating. Participants not only stated that they observed these characteristics, but also discussed that many times anxiety characteristics can present as challenging behaviors. White et al., (2009) found this to be true in their study along with the participants of this current study, that these challenging behaviors were due to an inability to appropriately express their fears or anxiety.

Much of the literature discussed anxiety in terms of a secondary condition, but failed to directly address anxiety as a primary condition (Rogers & Holm, 1991; Lau et al., 2010; White et al., 2009). Therefore, the literature often failed to report how occupational therapy interventions fit within the primary diagnosis of anxiety.

Participants often reported that communication with all involved with the individual, including caregivers and other healthcare professionals, was crucial. Many times participants found themselves rationalizing, advocating and clarifying services in order for others to recognize the characteristics the children and adolescent displays when they are experiencing anxiety. Participants' stated that parents and other health care professionals occasionally did not understand the "big picture" and how occupational therapy could help the child or adolescent with a somewhat elusive diagnosis. Although participants reported knowledge of anxiety characteristics, the literature and participant reports conveyed, that occupational therapists do not have a specific intervention approach that is specifically developed to treat anxiety (Christie, 2007; Chalfant et al., 2007; Engel-Yeger & Dunn, 2011). Rather, participants' addressed all needs of the individual, which may or may not have included anxiety symptoms.

After interviewing the participants, it was found that not one of them had a similar method to develop an approach for interventions. However, all participants emphasized that they consider the individual's underlying needs, which they reasoned as to why it is difficult to develop a "one size fits all" approach. After completing the literature review, it was found that psychologists are successfully implementing cognitive-behavioral therapy to help these individuals (Chalfant et al., 2007). This approach, within the psychology realm, is considered a "gold standard" of treatment (Chalfant et al., 2007). Occupational therapy does not have a "gold standard" approach. In fact, when specifically referring to an anxiety diagnosis, there is not much evidence on successful approaches in the occupational therapy literature.

Rather, participants all had similar statements, in which they utilized their professional experiences when working with this population as the main resource in how they chose to develop their approach and select the interventions that would fit the needs of the individual. Nielsen and Hektner (2014) had similar findings with the current study on the importance of using professional experience to develop interventions. Other resources participants listed, such as academic coursework, personal experience, continuing education and knowledge gained from fieldworks were also noted within Nielsen and Hektner's (2014) study as being beneficial to developing interventions with this population. Resources that were not discussed within the literature included inter-facility protocols, communication with colleagues and other health care professionals, and reviewing literature from occupational therapy and psychology professions.

Even as participants described the resources that they used to develop their interventions, a key finding in this study was that participants faced many barriers when developing approaches to work with this population. Vast arrays of barriers were also indicated in the literature when working with children and adolescents with emotional behaviors (Barnes et al., 2003; Case-Smith & Archer, 2008; Nielsen & Hektner, 2014). Similar barriers included a lack of continuing education on interventions for this population, parental support, academic preparedness and administrative barriers. In addition, participants within the current study discussed the barrier of a lack of literature to assist them in planning evidence-based interventions. A final interesting finding, in which to compare the literature to the current study, is the perceived confidence level of therapists. Many therapists within

the literature reported an overall lack of knowledge and confidence when working with this population (Barnes et al., 2003; Case-Smith & Archer, 2008). While in the current study participants gave the impression that although they faced many barriers, they were confident in their skills and abilities to work with children and adolescents with anxiety. Participants' felt that other therapists they knew lacked the confidence or skills to treat this population. Comparing therapists in the literature to the current study's therapists, two questions should be considered. First, if therapists' feel they have the appropriate tools and resources to understand and provide evidence-based interventions, why was it commonly reported that there was an overall lack of resources and tools available to assist therapists in developing and implementing a standardized treatment with this population? Second, if participants' feel they understand anxiety, how it impacts occupational performance, and the individual's quality of life, why do they appear to largely fall back on a sensory approach? It is reported by participants that they often focus more on the sensory aspect of the individual's dysfunctions. Participants expressed confidence in understanding how sensory modulation and dysregulation can negatively affect a person's engagement and participation in their life roles. However, there is not enough research or literature to prove that the sensory frames of reference should be the standard or main approach when working with this population. Participants do not solely use a sensory approach as the participants reported that they pull from the cognitive- behavioral approach as well. However, this was not as confidently talked about and many times it was used as an adjunct or after a sensory intervention occurred.

## **Conclusion/Recommendations**

This study aimed to benefit pediatric occupational therapists by understanding intervention approaches utilized for school-aged children and adolescents with anxiety or anxiety secondary to another medical condition. This study also aimed to identify additional resource on common methods of interventions already used and found successful by occupational therapists when treating this population.

This study found that pediatric occupational therapists are incorporating several approaches in the development of interventions for school-aged children and adolescents with anxiety. The overarching intervention approach used by therapists extended from the sensory frames of reference. In addition to the sensory frames of reference, a cognitive-behavioral approach was also incorporated but in a less consistent manner. Although therapists reported successful outcomes with a varied of approaches, participants' felt that there is lack of confidence in therapists within the field of occupational therapy due to the lack of an evidence-based and standardized approach. In addition, therapists described an inability to be able to form or develop a standardized approach due, at least in part, to a lack of effective research and continuing education courses that address anxiety in school-aged children and adolescents.

In order to further therapists' confidence in working with this population and the successful outcomes of interventions, researchers recommend that further studies should be done to continue the exploration of the current findings. Researchers recommend that there is a need within the realm of pediatric occupational therapy to develop a protocol for therapists to use when working with school-aged children and

adolescents with anxiety. For current practicing therapists, it is recommended that they need continuing education of higher quality that focuses directly on anxiety in school-aged children and adolescents and successful interventions that directly focus on treating anxiety in individuals. In addition, academic programs should consider additional evidence-based materials to include in pediatric course work to improve training and confidence levels of entry-level therapists when working with this population.

Further studies that involve observing therapists and incorporate a larger sample size will aid in the development of a protocol and continuing education courses for therapists to utilize as resources. Through the development of a protocol that targets school-aged children and adolescents with anxiety, it is assumed that the confidence of pediatric occupational therapists will increase and a more consistent approach will be applied to intervention use with this population.

### **Limitations**

Several limitations in this study should be put into consideration for future studies. The phenomenological process utilized for this study sought to explore and understand the experience of pediatric occupational therapists through the use of interviews. Researchers were not able to observe participants; therefore, researchers were unable to compare the experiences expressed in interviews with practical application. Observing therapists as well as interviewing them would strengthen further studies by triangulating data. A third limitation to this study was that all participants picked for this study had numerous years of experience in working with children or adolescents with anxiety. Therefore, the experiences of the participants

may not compare to the typical pediatric occupational therapist who might not have the extensive experience with anxious individuals. A total of six participants from the midwestern region of the United States partook in this study. Increasing the number of participants, expanding the geographical region and including therapists with varying years of experience could enhance the exploratory findings of this study.

## APPENDICES



Appendix A  
Recruitment Flyer

**Recipient's email:**

**Senders' email:** [meg.obrien@my.und.edu](mailto:meg.obrien@my.und.edu); [emily.terhaar@my.und.edu](mailto:emily.terhaar@my.und.edu)

**Subject:** Qualified Occupational Therapists needed for Qualitative Study

Hello,

Our names are Meg O'Brien and Emily Terhaar and we are two-second year occupational therapy students from the University of North Dakota. Thank you for taking the time to read this email. We are in the process of completing our Independent Study for graduation. We have contacted you because of your affiliation with the Occupational Therapy Program within our University and also because you work with the pediatric/adolescents at an outpatient therapy facility.

We are conducting a qualitative phenomenological research study to examine the experience of outpatient occupational therapists who work with school-aged children and adolescent individuals that have anxiety. To complete this study we will conduct a semi-structured interview with the selected therapists. The focus of the interviews will be to gain an understanding of how therapists select and implement interventions to use with this population. The interview will take approximately 60 minutes to complete. In addition to an interview, you will be asked to review the transcribed interview and member check, which will take an additional 30 minutes for each task. Researchers will provide you with the transcribed interview data and the member checking data via email.

You have been selected to participate in this study due to your affiliation with the Occupational Therapy Program at the University and pediatric practice. If you are willing to participate in our study or would like further information, we ask that you reply to this email within 2 weeks. In addition, if you have any recommendations of occupational therapists that you believe would be a good fit for this study please forward on this email or our contact information to that individual.

Thank you for your time and consideration,  
We look forward to hearing back from you!

Meg O'Brien, MOTS and Emily Terhaar, MOTS  
Sarah Nielsen, Advisor, PhD., OTR/L

[meg.obrien@my.und.edu](mailto:meg.obrien@my.und.edu)  
(952)215-4615  
[emily.terhaar@my.und.edu](mailto:emily.terhaar@my.und.edu)  
(320)493-4657

[sarah.k.nielsen@med.und.edu](mailto:sarah.k.nielsen@med.und.edu)  
(701)777-2208

Appendix B  
Consent Form

**THE UNIVERSITY OF NORTH DAKOTA  
CONSENT TO PARTICIPATE IN RESEARCH**

**TITLE:** The Experiences of Occupational Therapists' Approaches and Interventions for School-Aged Children and Adolescents with Anxiety

**PROJECT DIRECTOR:** Meg O'Brien and Emily Terhaar, *Advisor Sarah Nielsen, PhD, OTR/L*

**PHONE #** (701) 777-2208

**DEPARTMENT:** Occupational Therapy Department

**STATEMENT OF RESEARCH**

A person who is to participate in the research must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This document provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate. If you have questions at any time, please ask.

**WHAT IS THE PURPOSE OF THIS STUDY?**

You are invited to be in a research study about the experience of pediatric outpatient occupational therapist working with school-aged children and adolescents with anxiety because of your affiliation with the University of North Dakota Occupational Therapy Program and because you work with the pediatric and adolescent population at an outpatient occupational therapy facility.

The purpose of this research study is to understand your experiences in working with school-aged children and adolescents with anxiety. Data will be gathered through a phenomenological interview method. The interviews will focus on how intervention approaches are developed, current interventions utilized during treatment, and therapists' view of success when treating individuals with anxiety. We anticipate the findings to be a better understanding of the methods and approaches occupational therapists use to approach clients with anxiety. We also hope to better understand educational experiences and future educational needs of occupational therapists working with clients who have anxiety.

### **HOW MANY PEOPLE WILL PARTICIPATE?**

Approximately 6 people will take part in this study. The interview portion of this study will be conducted at a location selected by the participant or via Skype in the states of Minnesota, North Dakota, Colorado, South Dakota, Montana and Wyoming.

### **HOW LONG WILL I BE IN THIS STUDY?**

Your participation in the study will occur over approximately 6 months (June-December 2014). You will need to participate in one interview at a location of your choice, further participation will occur via email for transcription review and member checking. The interview will take about 60 minutes to complete, transcription review and member checking will take an additional 30 minutes for each review.

### **WHAT WILL HAPPEN DURING THIS STUDY?**

The researchers will conduct six semi-structured interviews with participants. Interview questions will focus on current approaches and interventions that therapists have found successful when working with adolescents with anxiety as well as the development of those approaches. Researchers will use audio recording during interviews to collect data. Following interviews, the researchers will transcribe the audio digital record of the interview verbatim. To protect the privacy of the participants interviews, names will not be used in the transcribed data. Transcribed data will not be stored with the demographic data obtained from the participant. The researcher will assign a pseudonym to each participant to maintain confidentiality. Only the researchers will be knowledgeable to the assigned pseudonyms use in order connect data to that specific participant. Transcription and coding of the interviews will take place in a private room in the Occupational Therapy Department at the University of North Dakota or within the residence of the researchers. The transcriptions of the interviews will be stored on researchers personal computer under a password protected file. Once the interviews are transcribed the interview audio recording will be destroyed. Transcribed interviews will be sent to participants for member checking review. Following coding of the data and completion of the study, the transcribed interviews will be destroyed, however data analysis will be kept for use in the final report.

### **WHAT ARE THE RISKS OF THE STUDY?**

The anticipated risks for participation in this study are minimal. Participants could feel uncomfortable sharing about their practice experiences. However, the participant is made aware that at any point, should they feel uncomfortable, they can end the interview.

### **WHAT ARE THE BENEFITS OF THIS STUDY?**

A potential benefit of this study is that you and other occupational therapist will benefit from understanding additional methods and approaches to use when approaching clients with anxiety.

### **WILL IT COST ME ANYTHING TO BE IN THIS STUDY?**

You will not have any costs for being in this research study.

### **WILL I BE PAID FOR PARTICIPATING?**

You will not be paid for being in this research study.

### **WHO IS FUNDING THE STUDY?**

The University of North Dakota and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

### **CONFIDENTIALITY**

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Your study record may be reviewed by Government agencies, the UND Research Development and Compliance office, and the University of North Dakota Institutional Review Board.

Any information that is obtained in this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of assigning a pseudonym to each participant to maintain confidentiality. Also to protect the privacy of your interview, names will not be used in the transcribed data. Only the researchers will be knowledgeable to the assigned pseudonyms used in order connect data to specific participants. Transcription and coding of the interviews will take place in a private room in the Occupational Therapy Department at the University of North Dakota or in within the residence of the researchers. The transcriptions of the interviews will be stored on researchers' personal computer under a password-protected file. Once the interviews are transcribed the interview audio recording will be destroyed. If the researchers write a report or article about this study, we will describe the study results in a summarized manner so that you cannot be identified.

Researchers will use audio recording during interviews to collect data. Following interviews, the researchers will transcribe the audio digital record of the interview verbatim. Only researchers and the advisor will have access to the audio recordings through a password-protected computer. You will be provided with the transcribed data

via email after initial interview to review accuracy. Audio recordings will be deleted following transcription.

### **IS THIS STUDY VOLUNTARY?**

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your current or future relations with the University of North Dakota.

### **CONTACTS AND QUESTIONS?**

The researchers conducting this study are Meg O'Brien and Emily Terhaar. You may ask any questions you have now. If you have questions, concerns, or complaints at any point about this research please contact Meg O'Brien at (952)215-4615 or Emily Terhaar at (320)493-4657. Further questions, concerns, or complaints can also be directed at the students' adviser, Sarah Nielsen at (701)777-2208.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279.

- You may also call this number about any problems, complaints, or concerns you have about this research study.
- You may also call this number if you cannot reach research staff, or you wish to talk with someone who is independent of the research team.

General information about being a research subject can be found by clicking "Information for Research Participants" on the web site:  
<http://und.edu/research/resources/human-subjects/research-participants.c>

## Appendix C Interview Questions

### **Introduction:**

“First, I want to thank you for participating in this researcher project. The purpose of today is to gain knowledge on your experience working with school-aged children and adolescents as an occupational therapist. I have several questions that I would like you to answer. This interview will take approximately an hour to complete. I would like to take the time to go over the consent form to answer any questions you may have. Do you have any questions about the consent form? Can you please verbally state that you consent to participation in this study.”

“Before we begin the interview, I would just like you to know that at any point during the interview you have any questions or concerns feel free to vocalize your questions or stop the interview at any point.”

### **Demographic Questions:**

“The first set of questions is designed to get to know you and your history as an occupational therapist. This will not be recorded on digital audio recorder.”

1. Number of year as a practicing/licensed therapist?
2. How many years have you specifically worked as a pediatric therapist in an out-patient facility?
3. Describe your current work in the out-patient practice setting?
  - a. Ages of clients
  - b. Common diagnoses seen or work with
  - c. Average amount of duration and frequency you see a client
4. During your academic training did you complete a pediatric fieldwork? And if so, in what setting?
5. What is your highest academic degree?
6. How frequently do you attend continuing education courses?

“Thank you for answering those questions, I will now move on to questions that specifically focus on the purpose of this study. Again, at any time if you have any questions or concerns please vocalize those questions or stop the interview. I will now begin recording the next portion of the interview.”

### **Practical Experience:**

1. Tell me about the experiences you have had in working with school-aged children and adolescents who have anxiety as either a primary diagnosis or a secondary diagnosis?
  - a. Can you describe a session with a child or adolescent with anxiety?
    - i. What was it like?
    - ii. How do you feel about this experience?
    - iii. Did you face any barriers when treating this population?
    - iv. How did you deal with the challenges?
  - b. Can you describe a good/difficult session with a child or adolescent with anxiety?

- i. What was it like?
- ii. How do you feel about this experience?
- iii. Did you face any barriers when treating this population?
- iv. How did you deal with the challenges?
- c. In what ways, if any, are working with children versus adolescents with anxiety similar?
  - i. In what ways, if any are, they different?

**Knowledge Experiences:**

- 2. Tell me about your experience in developing approaches to treat school-aged children and adolescents with anxiety?
  - a. Tell me about your academic experience
  - b. Tell me about your past practice experiences
  - c. Tell me about your continuing education experiences
- 3. Can you provide specific examples that have influenced the development of your approach?
  - a. What were these like
  - b. How were they beneficial
- 4. What current theories/models/approaches has impacted your development of interventions?
  - a. In your experience what could be improved
  - b. In your experience what do you feel has worked

**Closure:**

“I would like to thank you once again for your participation and contributions in this study. I will be in contact with you via email within 6-8 weeks to review the transcribed version of this interview. At that point I will ask you to look over the transcribed interview and make any changes or provide further insight on the data collected. Once your interview is analyzed I will email you the analysis for your review. I also want to let you know that your identity will remain confidential throughout this study. Thank you for helping me learn more about your experience as an occupational therapist.”

## Appendix D Corresponding Emails

RE: Qualitative study participant: Transcribed interview

X DELETE ← REPLY ←← REPLY ALL → FORWARD ...



Mon 10/6/2014 4:42 PM  
IS Email

Mark as unread

To: O'Brien, Meg;

Looks pretty good. Good luck on your study. I can't wait to see your results!

From: O'Brien, Meg [mailto:meg.obrien@my.und.edu]

Sent: Monday, September 29, 2014 8:45 PM

To:

Subject: Qualitative study participant: Transcribed interview

Hi

Thank you again for your participation in the interview portion of our study. As mentioned at the end of the interview, I have transcribed the interview and have attached it to this email for your review. I would like to point out that my portion of the interview is **bolded**, with the answer you provided following below the bolded portions.

If you have the time please feel free to review the transcribed data and make any changes or provide any further insight. You are welcome to send back any changes or additions through email. If I do not hear back from you within 2 weeks I will assume that you feel everything looks ok and I will continue on with the analysis portion of the study.

Thank you again for your time and participation in this study!

Meg O'Brien



Can you black out her demographics too??

X DELETE ← REPLY ←← REPLY ALL → FORWARD ...



Terhaar, Emily

Mon 11/24/2014 7:12 PM  
Inbox

Mark as unread

To: O'Brien, Meg;

Action Items

+ Get more apps

---

From: [REDACTED]  
Sent: Wednesday, October 8, 2014 6:32 AM  
To: Terhaar, Emily  
Subject: RE: Transcription :) & response to questions

Hi Emily!

I responded to your questions below and I reviewed the transcript and offered a few changes. The changes in the transcription were saved in a paper copy. I will bring it to the OT Dept. If you have a student folder, I will place it there. If that doesn't work, please give me a call at [REDACTED] and we can arrange a drop-off.

From: Terhaar, Emily [mailto:emily.terhaar@ny.und.edu]  
Sent: Thursday, October 02, 2014 9:16 AM  
To: [REDACTED]  
Subject: Transcription :)

Hello again!

I have finished transcribing our session. If you would like to look it over, and let me know if you have any questions or would like to add anything that would be great! I realize its kind of long.

Also, I did get a hold of [REDACTED] Thank you so much for recommending her, she was very insightful.

Last thing,

Because you were our first interviewee, I messed up part of the process. That first part that I didn't record, I was suppose write down, just couldn't put it on the recorder for confidentiality reasons. I remembered some of what you said, but I want to make sure I got it right. So if you could just email me back a one to two word answer for the following questions I would be grateful!

1. Number of year as a practicing/licensed therapist?
2. How many years have you specifically worked as a pediatric therapist in an out-patient facility?
3. Describe your current work your practice setting....
  - a. Ages of clients
  - b. Common diagnoses seen or work with
  - c. Average amount of duration and frequency you see a client
4. During your academic training did you complete a pediatric fieldwork? And if so, in what setting?
5. What is your highest academic degree?
6. How frequently do you attend continuing education courses?

Sorry about the length of the email. Thank you so much again for participating!  
Emily

**From:** [REDACTED]  
**Sent:** Monday, November 3, 2014 12:26 PM  
**To:** Terhaar, Emily  
**Subject:** Re: Synthesis of Interview

Looks awesome! Thanks for all your awesome work with this!



On Nov 3, 2014, at 1:02 PM, "Terhaar, Emily" <[emily.terhaar@my.und.edu](mailto:emily.terhaar@my.und.edu)> wrote:

Good Afternoon!

Here is the synthesis summary of our interview together. It would be wonderful if you could look it over, just to make sure I got the essence of our time together correct! :) It is short, so should not take much time looking over. Let me know what your thoughts are, and if you agree or disagree with anything by next Tuesday (11th) as my partner and I will then combine all of interviews for the results part of the study.

Again, thank you for being part of the experience with us. I had a great time learning about all the experiences so far!

Emily Terhaar

University of North Dakota  
320-493-4657

Sent: Tuesday, November 4, 2014 8:37 AM  
To: Terhaar, Emily  
Subject: Re: Synthesis of interview

Emily,

I get the sense when I read this, that I am choosing to use a sensory approach to anxiety as a choice because it is easier to address anxiety indirectly and more comfortable for the patient.

Children are referred to me, when it is felt that sensory processing disturbances are the Root Cause of their anxiety so I am specifically involved to treat the sensory issue, which in turn improves their anxiety. All of the benefits you describe are correct. You also present the obstacles accurately.

Best wishes on your project.



---

From: Terhaar, Emily <emily.terhaar@my.und.edu>  
Sent: Monday, November 03, 2014 1:03 PM  
To: [Redacted]  
Subject: synthesis of interview

Good Afternoon!

Here is the synthesis summary of our interview together. It would be wonderful if you could look it over, just to make sure I got the essence of our time together correct! :) It is short, so should not take much time looking over. Let me know what you thoughts are, and if you agree or disagree with anything, by next Tuesday (11th) as my partner and I will then combine all of interviews for the results part of the study.

Again, thank you for being part of the experience with us. I had a great time learning about all the experiences so far!

Emily Terhaar

**From:** [REDACTED]  
**Sent:** Monday, November 10, 2014 12:52 PM  
**To:** Terhaar, Emily  
**Subject:** RE: Synthesis of interview

Emily- It looks good!  
You did a very nice job with this. I realize it is very time consuming work.

---

**From:** Terhaar, Emily [mailto:emily.terhaar@my.und.edu]  
**Sent:** Monday, November 03, 2014 1:01 PM  
**To:** [REDACTED]  
**Subject:** Synthesis of interview

Good Afternoon!

Here is the synthesis summary of our interview together. It would be wonderful if you could look it over, just to make sure I got the essence of our time together correct! :) It is short, so should not take much time looking over. Let me know what your thoughts are, and if you agree or disagree with anything by next Tuesday (11th) as my partner and I will then combine all of interviews for the results part of the study.

Again, thank you for being part of the experience with us. I had a great time learning about all the experiences so far!

Emily Terhaar

University of North Dakota  
320-493-4657

Re: Qualitative Study Participant: Synthesis of interview

X DELETE ← REPLY << REPLY ALL → FORWARD ...



Tue 11/4/2014 5:22 PM  
IS Email

Mark as unread

To: O'Brien, Meg;

I was only able to quickly scan through, but overall looks good. Thank you for all the time you have taken, I believe that it will be a great benefit to awareness within the realm of Occupational Therapy.

- > ??
- >
- >
- > Attached to this email is the last member checking portion of the
- > qualitative research project. I have read over our interview, transcribed,
- > analyzed and have synthesized the overall meaning of the interview.
- > Attached to this email is a 2-page synthesis of the overall meaning of our
- > interview. If you have the time please feel free to read over the
- > synthesis and provide any feedback, concerns, or changes. If I do not hear
- > about from you in 1 week, I will assume that you feel everything looks ok
- > and I will continue on with the results portion of our study.
- >
- > Again thank you for your willingness to participate in this study and for
- > the contributions you have made!
- >
- > Meg O'Brien?
- >
- >
- >

Occupational Therapist

RE: Qualitative Study Participant: Synthesis of Interview

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[Redacted]

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Nov 11/10/2014 2:37 PM  
IS Email

To: O'Brien, Meg;

Looks good! Nice work [Redacted]

From: O'Brien, Meg [mailto:meg.obrien@my.und.edu]  
Sent: Monday, November 03, 2014 9:37 AM  
To: [Redacted]  
Subject: Qualitative Study Participant: Synthesis of Interview

Hi P [Redacted]

Attached to this email is the last member checking portion of the qualitative research project. I have read over our interview, transcribed, analyzed and have synthesized the overall meaning of the interview. Attached to this email is a 2-page synthesis of the overall meaning of our interview. If you have the time please feel free to read over the synthesis and provide any feedback, concerns, or changes. If I do not hear about from you in 1 week, I will assume that you feel everything looks ok and I will continue on with the results portion of our study.

Again thank you for your willingness to participate in this study and for the contributions you have made!

Meg O'brien

Appendix E  
Analysis of Interview

Meaning Units	Transformations	Synthesis
<p><i>I2: Tell me about the experiences you had working with school aged children and adolescents as either a primary or secondary diagnosis.</i></p> <p>1. PA: Well yeah um, most of the individuals I have worked with, as I mentioned, anxiety may not have even been part of the referral to services. The practitioner may have cited possible sensory processing, and that's good that we can say "ok, even the practitioners are looking for signs of sensory," but the most common is behavioral concerns, that the practitioners from parents and observant the child there is problems with behavior whether it is in school or family. And it's probably visible in the clinic setting.</p>	<p>1. PA states that anxiety may not be the main reason the children are referred, it may be the physician referring for different reasons such as sensory or behavioral. She also states that practitioners are starting to acknowledge sensory issues as being problematic and a reason for an OT referral.</p>	<p>1: (Reason for referrals) PA states that anxiety may not be the main reason the children are referred, it may be the physician referring for different reasons such as sensory or behavioral. She also states that practitioners are starting to acknowledge sensory issues as being problematic and a reason for an OT referral.</p>
<p>2. PA: U know it is usually the question, is it behavior or is it sensory, or is it emotional. U know ,it's like, help us try and figure it out, and so I feel like OTs have a unique situation in that we're some of those people who have the opportunity to try to sift that out for the parents and to get that broad picture and help them figure it out, it's kind of like detective work</p>	<p>2. PA states that OT's may be the first ones, due to our unique observations of children, to discuss and narrow down the problems that parents are observing, and figure out if it's stemming from emotional, behavioral or sensory issues.</p>	<p>2+3 (OT's unique perspective) PA states that occupational therapists are in a unique position to help the patient and families sort out and focus in on the emotional, sensory or behavioral issues that are being displayed or internalized by the child or adolescent. They can help give parents some of the answers they have been searching for on why their child is acting in a specific matter, and if it is normal development or not.</p>
<p><i>I2: Do u think that when you like find out that that they have a lot of anxious traits, do you talk to the doctor or the parents, or how do you go about that, when it's not the primary diagnosis that they come in with?</i></p> <p>3. PA: Um it would come up with the parents as part of the evaluation review. So, it would probably come up in the interview process, um, of doing the</p>	<p>3. PA states that because OT's are many times the first to help the parent's figure out that the child or adolescent may have anxiety or anxiety traits, which could be the reason for the child's "quirky" behavior or emotions. When OT's go through the evaluation, often times parent's for the first time, finally have some type of vocabulary to use for their child, and can put their</p>	

<p>evaluation, and then what I usually do is go through the evaluation as soon as it is completed, and do it without the child present, um if parents think they might not want to hear it, I might do a version with them separately and put it in their language. So I usually go through the evaluation with parents, and after I give them my impression, I usually ask, "does this sound like your child", and almost, I can't say 100%, but 99% of the time, they almost...it's like they don't realize like "o my gosh!" It's like it puts what they see into a new light. 'Cause like I said, we are some of the first professionals that try to figure it out with them, I mean they've spent the child's lifetime trying to figure out what's going on. Is the child angry, is the child, um uh, worried, is the child overwhelmed, are they jealous...u know they're trying to figure out what is it, that is making the child do what they do. They might not even look at the emotional aspect; they might just look at "quirks". They might just think, oh yeah he's just a little different, but they don't really see it the way we see it, so I usually share it [the anxiety traits] at this point.</p>	<p>observations into words. Because OT's can take subjective and objective measures, they can help parents understand what their child is going through.</p>	
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