

CentraCare Health

DigitalCommons@CentraCare Health

---

Articles

Posters and Scholarly Works

---

2021

## Familial Factors in the Development of Social Anxiety Disorder

Christine M. Olson  
*CentraCare Health*

Follow this and additional works at: <https://digitalcommons.centracare.com/articles>



Part of the [Psychiatric and Mental Health Nursing Commons](#)

---

### Recommended Citation

Olson, Christine M., "Familial Factors in the Development of Social Anxiety Disorder" (2021). *Articles*. 119.  
<https://digitalcommons.centracare.com/articles/119>

This Article is brought to you for free and open access by the Posters and Scholarly Works at DigitalCommons@CentraCare Health. It has been accepted for inclusion in Articles by an authorized administrator of DigitalCommons@CentraCare Health. For more information, please contact [schlepers@centracare.com](mailto:schlepers@centracare.com).

# Familial Factors in the Development of Social Anxiety Disorder

Christine M. Olson, DNP, APRN, FNP-BC

## ABSTRACT

The purpose of the current article is to explore familial factors that influence the development of social anxiety disorder (SAD) in children and adolescents, including parenting, sibling relationships, and family environment. A multitude of inter-related genetic and familial factors have been found to cause and maintain SAD in children and adolescents. There are many challenges in diagnosing and treating the disorder. Knowledge and awareness of familial factors provide insight on targeted treatments that prevent or ameliorate SAD. [*Journal of Psychosocial Nursing and Mental Health Services*, 59(7), 23-34.]

The influence of nature and nurture on human behavior has been researched for decades. After completion of the Human Genome Project in 2003, one would think that the mystery behind genetic predisposition was solved. What was discovered

is that genomes are complicated and developmental and health factors are influenced by multiple genes as well as environmental and lifestyle factors (National Human Genome Research Institute, 2019). Although many medical conditions have been shown to have

a genetic predisposition, there are still unanswered questions about the influence of environment on the ultimate development of illness.

Social anxiety disorder (SAD) is one example of a disorder in which there is a complex relationship between genetics and environment. Behind only specific phobias, SAD is the most common anxiety disorder in the United States, with approximately 13% of the population developing the disorder during their lifetime (Kessler et al., 2012). Among adolescents, the lifetime prevalence of SAD is 8.6% (Burstein et al., 2011; Kessler et al., 2012). Worldwide, lifetime prevalence of SAD is 4% (Stein et al., 2017).

SAD is a marked, intense fear of social interactions with other people (American Psychiatric Association [APA], 2013). The onset of SAD is typically during childhood or adolescence (National Institute for Health and Care Excellence [NICE], 2013). A multitude of interrelated variables, such as genetic vulnerability, temperament, parental factors, and environmental influences contribute to the etiology and maintenance of SAD (Spence & Rapee, 2016). For individuals who struggle with SAD, symptoms can interfere with all areas of life, including relationships, occupations, and educational endeavors. The current article will explore familial fac-

---

*Dr. Olson is Family Nurse Practitioner, CentraCare, St. Cloud, Minnesota.*

*Disclosure: The author has disclosed no potential conflicts of interest, financial or otherwise.*

*Acknowledgment: The author acknowledges the help provided by Susan Schleper, Health Science Librarian at CentraCare, for finding research articles.*

© 2021 Olson; licensee SLACK Incorporated. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International (<https://creativecommons.org/licenses/by/4.0>). This license allows users to copy and distribute, to remix, transform, and build upon the article, for any purpose, even commercially, provided the author is attributed and is not represented as endorsing the use made of the work.

Address correspondence to Christine M. Olson, DNP, APRN, FNP-BC, P.O. Box 0643, Alexandria, MN 56308; email: [chrolson@arvig.net](mailto:chrolson@arvig.net).

Received: June 30, 2020

Accepted: October 8, 2020

doi:10.3928/02793695-20210219-01

tors that can influence the development of SAD in children and adolescents. Knowledge of familial factors provides insight on targeted treatments that prevent or minimize severity of the disorder.

## DEFINITION OF SOCIAL ANXIETY DISORDER

SAD is extreme fear and anxiety in social situations leading to significant levels of distress (APA, 2013). Social situations may include carrying on a conversation with another person, public speaking, or eating a meal. A person with SAD fears acting in a way that will offend someone, humiliation from exposing anxiety symptoms in public, and scrutiny and negative evaluation from others (APA, 2013). The marked level of distress experienced by someone with SAD is often out of proportion to the actual situation (APA, 2013). Avoidance or anxious anticipation of the feared situation is common (NICE, 2013). In young children, social anxiety symptoms may include severe and prolonged crying episodes, becoming physically immobilized, shrinking away from others, excessive clinging, or being unable to speak in social situations (APA, 2013).

## GENETIC PREDISPOSITION

The etiology of SAD is often described in the literature in such terms as *puzzle*, *delicate interplay*, and *complex interaction*. There are multiple pathways to the development of SAD, however, the presence of several risk factors does not automatically lead to SAD (Spence & Rapee, 2016). One strongly implicated pathway is genetic transmission (Scaini et al., 2014). A positive association has been found between development of SAD in children who have parents with SAD (Halldorsson et al., 2018; Isomura et al., 2015; Telman et al., 2018). Unfortunately, heritability rates vary greatly among studies, ranging from 13% to 76% (Moreno et al., 2016). Researchers have postulated that individual differences in the development of SAD stem from a multidimensional relationship between genetic factors and environ-

mental factors, such as parenting, peer relationships, illness, early life trauma, and cumulative stress (Chubar et al., 2020; Scaini et al., 2014; Schiele & Domschke, 2018; Shimada-Sugimoto et al., 2015). Yet even gene-environment models contradict or inaccurately predict those who will go on to develop SAD (Ziegler et al., 2015).

More recently, epigenetics has been identified as the potential “missing link” in the heritability of anxiety disorders (Schiele & Domschke, 2018, p. 4). *Epigenetics* is a mechanism in which cell molecules modify gene expression, without changing the inherited DNA code, to promote or inhibit symptoms or diseases, such as cancer, depression, addiction, and anxiety (Schuebel et al., 2016). Environmental stressors, such as child abuse, maternal separation, or early trauma, may influence genetic expression of anxiety when occurring at critical developmental stages of life, including infancy or adolescence (Bartlett et al., 2017). Subsequently, a child or adolescent may not only inherit genetic tendencies for SAD but also have critical periods of vulnerability to individual epigenetic stressors (Schiele & Domschke, 2018). Two genetically transmitted behavioral traits implicated in the development of SAD are behavioral inhibition and anxiety sensitivity (Chronis-Tuscano et al., 2018; Graham & Weems, 2015; Muris et al., 2011; Papachristou et al., 2018; Spence & Rapee, 2016).

### Behavioral Inhibition

*Behavioral inhibition*, first coined by Kagan et al. (1984), is described as a cautious and fearful reaction exhibited by some individuals to uncertain situations. Children with behavioral inhibition have demonstrated behaviors such as being more cautious when exposed to novel experiences, physical signs of fear, clinging to a parent, inhibited conversation, and reticence (Kagan et al., 1984; Ollendick & Benoit, 2012). Muris et al. (2016) found a correlation between behavioral inhibition, social anxiety, and

selective mutism (i.e., when children fail to speak in specific public situations, yet are comfortable speaking at home). Longitudinal studies in children have demonstrated that high behavioral inhibition was significantly associated with an increase in social anxiety symptoms (Garcia-Lopez et al., 2020; Muris et al., 2011). Behavioral inhibition can be identified in infants and toddlers and remains relatively persistent over time (Fox et al., 2005; Garcia-Lopez et al., 2020).

### Anxiety Sensitivity

*Anxiety sensitivity* is the fear of anxiety-related physical sensations (McNally, 2002). Alkozei et al. (2014) discovered that children with SAD had higher levels of anxiety sensitivity and were more likely to view scenarios with unclear social threats and ambiguous endings as anxiety provoking. Children and adolescents with SAD believed that physical anxiety symptoms would be observed by others, leading to humiliation, mental incapacitation, illness, or increased anxiety levels (Alkozei et al., 2014; Papachristou et al., 2018). Not only do individuals with anxiety sensitivity overestimate the meaning of physical anxiety symptoms, but they also generate escalating mental scenarios in which they feel unable to cope (Riskind et al., 2013).

## FAMILY FACTORS

Family is an essential component in the learning, growth, and development of children. In addition, the family is an important source of recreation and social interaction, especially in early childhood years. There is a substantial body of evidence regarding the influence of parenting and the family in the etiology of SAD.

### Parenting Factors

Parenting factors of insecure parent-child attachment; negative parenting styles, such as overcontrol or criticism; and modeling social anxiety have been implicated in the development of SAD

in children. Beyond negative parenting styles, a further challenge for researchers is uncertainty about whether children with SAD wrongly perceive parental rejection due to their SAD or if parents adapt approaches in response to having a child with SAD (Asbrand et al., 2017; Levine et al., 2015; Van Zalk & Van Zalk, 2015).

*Parent-Child Attachment.* When a child feels a trusting and secure parental bond, they are more likely to become independent, trust other people, and overcome difficult childhood situations (Centre of Excellence for Early Childhood Development, 2012). On the other hand, when a child has insecure parental attachment, lower levels of social competence occur in areas of social skills, peer interactions, and social status (Fransson et al., 2016; Groh et al., 2014). Ambivalent-insecure attachment occurs when a child is uncertain about parental availability, whether due to parental inability or unwillingness (Cassidy & Berlin, 1994; Kerns & Brumariu, 2014). Through daily experiences, an insecurely attached child learns that they cannot rely on the caregiver to be available or responsive (Kerns & Brumariu, 2014; Ollendick & Benoit, 2012). Behaviors associated with insecure attachment may include widely vacillating displays of negative emotion, frustration with contact, clinging, and preoccupation with the parent (Cassidy & Berlin, 1994). Higher rates of insecure attachment have been discovered in infants of mothers with social phobia (Kraft et al., 2017). Lewis-Morrarty et al. (2015) conducted a longitudinal study following infants to adolescence and found that high levels of behavioral inhibition and insecure attachment significantly predicted social anxiety in adolescents.

Separation of the mother, father, or both parents during childhood due to illness or marital discord can contribute to social anxiety (Bishop et al., 2014). Children who are used to daily messages that the parent is unavailable or untrustworthy “develop a maladaptive

approach to future interpersonal situations or relationships based on the expectation that their needs will not be met by others” (Ollendick & Benoit, 2012, p. 84).

*Negative Parenting Styles.* Several negative parenting styles have been implicated in the development of SAD, including overcontrol, rejection, and criticism (Akün, 2017; Knappe et al., 2012; Lewis-Morrarty et al., 2012; Rudolph & Zimmer-Gembeck, 2014; Xu et al., 2017). Harsh parenting by either parent, including physical punishment and verbal aggression, such as excessive criticizing or humiliation, has correlated with insecure attachment and risk for social anxiety (Wang et al., 2019). Moreover, Wang et al. (2019) noted that harsh parenting in one parent was likely to elicit attachment insecurity in another parent possibly due to expectations that the other parent will endorse the same disciplinary tactics. Knappe et al. (2012) found a pattern of maternal overprotection, paternal rejection, and lower emotional warmth specific to children with social phobia. Maternal overcontrol has been predictive of higher social anxiety symptoms and lifetime rates of SAD during adolescence (Bynion et al., 2017; Lewis-Morrarty et al., 2012). Gómez-Ortiz et al. (2019) noted that in either parent, psychological control was the variable that had the most significant relationship with adolescent social anxiety. Other negative parenting practices (e.g., lack of affection, poor communication, limited granting of autonomy, lack of humor) contribute to social anxiety in adolescents by stimulating perceptions of low self-esteem and encouraging ineffective emotional regulation strategies (Gómez-Ortiz et al., 2019).

As early as infancy, negative parenting styles may influence the development of social anxiety. Lawrence et al. (2020) followed mothers with SAD, general anxiety disorder (GAD), or non-anxious controls and their infants with stable behavioral inhibition from 4 months to 58 months. Children were exposed to stressful social and non-social

tasks at ages 10 months and 58 months. Lack of maternal encouragement and maternal intrusiveness was noted in mothers with SAD and predicted the development of anxiety and SAD in their children. The same was not true for mothers with GAD or the control group.

Parents with SAD may unknowingly perpetuate social anxiety. Crosby Budinger et al. (2013) evaluated interactions between anxious parents with and without SAD and their children without an anxiety diagnosis. Children and their parents were given speech and drawing tasks to complete together. Parents with SAD demonstrated significantly less warmth, doubts of child competency, and more criticism. Both groups were similar in levels of overcontrol and granting of autonomy (Crosby Budinger et al., 2013). In a study of migrant families in China, Xu et al. (2017) noted that both parents contribute to social anxiety in different ways. The authors noted that maternal overprotection can increase social anxiety in adolescents, whereas social anxiety can be reduced by paternal emotional warmth.

Mak et al. (2018) examined the association between family relationships, social anxiety, and the effect on youth friendships. Paternal rejection, as opposed to maternal rejection or family climate, was predictive of youth social anxiety and subsequent loneliness. Furthermore, maternal rejection, paternal rejection, and poor family climate all contributed to loneliness and decreased friendship quality.

*Abuse.* It goes without saying that children who are exposed to abuse experience a wide array of mental health problems. Of the major types of child abuse studied recently, emotional abuse was a significant predictor in the development of social anxiety (Bishop et al., 2014; Fernandes & Osório, 2015; Kuo et al., 2011; Michail & Birchwood, 2014; Nanda et al., 2016; Shahar et al., 2015). *Emotional abuse* has been defined as being shouted or yelled at, direct shaming, put down or ridiculed, or made to

feel like one did not count (Bishop et al., 2014; Shahar et al., 2015). In studies where physical abuse or sexual abuse factored into the development of social anxiety, depression was a significant comorbid condition (Brühl et al., 2019; Michail & Birchwood, 2014).

Nanda et al. (2016) speculated that emotional abuse fits into an etiological framework of SAD because it not only affects a child's attachment to parents and contributes to feelings of being unloved, but also makes them fearful of interacting with others. Moreover, children may develop a schema in which self-esteem and personal value is dependent on the opinion of others.

*Positive Parenting and Social Support.* In contrast to negative parenting styles, higher levels of parental social support and acceptance have been associated with lower levels of social anxiety (Akün, 2017; León-Moreno et al., 2020; Levine et al., 2015; Xu et al., 2017). In a large study of 2,194 adolescents, Van Zalk and Van Zalk (2015) revealed that adolescents who perceived a close connection with mothers and fathers had lower levels of social anxiety. Examples of parent connectedness included encouragement to pursue dreams and being present when needed. Similarly, Graham and Weems (2015) noted that parents with high anxiety sensitivity could decrease anxiety sensitivity in their children by encouraging open communication, involving them in personal activities, and reinforcing good behaviors. Oppenheimer et al. (2016) postulated that positive parenting behaviors buffer negative peer events during the transition from middle childhood to adolescence.

In a longitudinal observation study of 94 families with young children, Majdandzic et al. (2014) discovered that certain paternal behaviors can decrease behavioral inhibition in children and prevent development of SAD. When fathers challenged their 4-year-old children with playful teasing to push limits, encouraged them to move out of their comfort zones, and used unconventional

ways to play with toys, a decrease in behavioral inhibition was noted that remained persistent 6 months later. The same was not true for mothers' challenging behaviors, however, as increased behavioral inhibition was noted and persisted in later measurements. Majdandzic et al. (2014) surmised that maternal challenging behaviors fell outside of expected caring and supporting roles of mothers.

Su et al. (2016) examined the effect of positive parenting practices on adolescent social anxiety. When parents gave explicit instructions about how to handle challenging peer situations and facilitated peer social opportunities, adolescents reported lower levels of social anxiety. Parents who designed a wide variety of peer social interactions provided more opportunities to practice social skills, gain confidence, and make friends (Su et al., 2016).

Although it would seem obvious that warmth and expressiveness from a parent would diminish social anxiety in the child, researchers have found that guarding children from fear-provoking, ambiguous situations may inhibit the development of social skills and increase fear (Kiel & Buss, 2014; Ollendick & Benoit, 2012; Su et al., 2016). Although there are no perfect equations for parenting a child with risk factors for social anxiety, evidence has suggested that a balance must be struck between showing warmth and showing excessive concern.

*Modeling.* Children learn social skills, such as how to greet new people, through parent modeling. When faced with socially ambiguous situations, anxious parents may model anxiety and extend personal interpretive biases into their children's environment (Remmerswaal et al., 2016). Bögels et al. (2011) conducted a study in which children with varying levels of anxiety observed their parents' reactions to ambiguous social situations. Mothers and fathers acted either confident or anxious. Low socially anxious children were influenced more by the mothers' anxious behaviors compared to the fathers' behaviors. High

socially anxious children gave more weight to anxious and confident behaviors of the father.

According to Aktar et al. (2014), the end of infancy is an impressionable time for learning anxiety from parents who have SAD. In their study of 117 toddlers of parents with SAD and other anxiety disorders, the authors found that toddlers of parents with SAD showed more fear and avoidance when faced with novel situations, such as introduction to strangers or new toys. Infants with high behavioral inhibition learn from the anxious signals of mothers and fathers via social referencing (Aktar et al., 2014). Social referencing cues might include nonverbal communication, such as facial distress or body posture; verbal expressions of anxiety; interfering with stranger-child interactions; or controlling attempts to explore uncertain surroundings (Aktar et al., 2014).

Verbal transmission of fear and threat from parents to children has been implicated in development of social anxiety. Negative parental verbal threats have been shown to lead to cognitive bias in ambiguous situations, hypervigilance to threats, and avoidance behaviors (Murray et al., 2014; Remmerswaal et al., 2016). In an experimental study of non-anxious children, mothers were able to influence their children's negative information search bias to novel stimuli and fear levels simply by offering negative versus positive statements about the scenarios (Remmerswaal et al., 2016).

Beginning school is another period in which fear is transmitted from mother to child. Using a picture book as a mechanism to discuss starting school, Murray et al. (2014) found that mothers with SAD were less encouraging in their narratives, discussed potential threats more often, and were more likely to ignore their children's expressed worry. Subsequently, children of mothers with SAD were evaluated using doll-play and noted to be more likely to interpret socially ambiguous scenarios as being negative and had higher levels of internalizing

symptoms such as anxious-depression, withdrawal, or somatization (Murray et al., 2014). Similarly, Pass et al. (2017) discovered that mothers who were worried about their anxious children starting school used negative information transfer in the form of threat verbalizations, anxiety-related words, and overall negativity in school descriptions. Pass et al. (2012) evaluated 4-year-old children who were beginning school through doll-play. The researchers discovered that children of socially anxious mothers showed highly anxious, negative doll-play responses to ambiguous scenarios related to beginning school.

Finally, social anxiety may be transmitted from parents to children in other ways. Castelli et al. (2015) discovered a strong association between maternal SAD and the development of cognitive and language skills in their children. Infants and young children of mothers with SAD may lack novel social interactions that promote acquisition of executive function skills, language vocabulary, cognitive functions, and emotional regulation (Castelli et al., 2015).

Unfortunately, studies related to parenting and the development of social anxiety are likely to be overly simplistic. Study limitations exist, including false social environments that may promote or hinder anxiety in predisposed parents or children, lack of clear definitions of what constitutes warmth or overcontrol, reliance of self-report of parents and children, cross-sectional studies capturing only a moment in time, retrospective memory recall after the fact, and the multitude of mediating individual, cultural, and socioenvironmental variables that influence study results. Furthermore, although an abundance of literature exists highlighting the influence of parenting on children at risk for SAD, many studies measure social anxiety symptoms in nonclinical samples or are not specific to SAD.

*Adaptation of Parenting Secondary to SAD in Children.* Although there is considerable research outlining the impact of parenting on SAD in children, a

question exists of whether parents adapt parenting practices based on social anxiety in the child (Asbrand et al., 2017; Van Zalk et al., 2018). If a child has a fear, a natural response from the parent would be to acknowledge the fear and protect the vulnerable child from harm. Overprotection, though well meaning, might inhibit a child's exposure to challenging and novel social situations. Kiel and Buss (2014) found that toddlers with high levels of fearful behavioral inhibition elicited maternal protective behaviors subsequently leading to social withdrawal in kindergarten. Asbrand et al. (2017) conducted an observational study of mothers and their children with and without SAD. Children ages 9 to 13 were asked to complete difficult puzzles in a 10-minute time frame; mothers were allowed but not encouraged to assist. Mothers of children with SAD showed more involvement in the activity, touched the puzzle pieces more often, and helped without being asked. In children without SAD, maternal involvement occurred in the context of the children asking for more help. Neither group demonstrated negativity during interactions. Asbrand et al. (2017) speculated that mothers of children with SAD may limit their ability to learn autonomy and self-efficacy. Similarly, Morris and Oosterhoff (2016) noted that mothers' unsolicited physical takeover of an origami task was associated with higher reported social anxiety in their children.

### **Sibling Relationships**

Siblings play an important role in socialization, understanding emotions, and developing empathy (Howe & Recchia, 2014; Jambon et al., 2019). During infancy, children spend more time with siblings than with parents and friends (Serra Poirier et al., 2016). Although there are few studies related to sibling relationships and development of SAD, several studies have demonstrated a relationship between siblings and mental health. Serra Poirier et al. (2016) found that adolescents who had a same-sex

twin with high levels of anxiety symptoms were more likely to have increased anxiety themselves 1 year later. Anxiety was contagious among twin same-sex siblings in situations where the relationship was perceived as highly negative as well as highly positive. Keeton et al. (2015) noted a protective role among siblings who had a parent with a clinical anxiety disorder. In settings where children had low sibling companionship or high conflict, children of anxious parents reported more psychological symptoms (Keeton et al., 2015). Furthermore, strong sibling relationships characterized by warmth and closeness buffered the negative effects of interparental conflict and subsequent emotional insecurity (Davies et al., 2019).

Recent research has highlighted the detrimental impact sibling bullying has on development of depression, anxiety, social stress, and self-harm (Bowes et al., 2014; Coyle et al., 2017; Liu et al., 2020). Furthermore, the amount and types of sibling bullying (e.g., physical, verbal, relational) had a dose dependent effect on the amount of mental distress experienced (Liu et al., 2020). Bullying has been an underrecognized problem across all settings, particularly as youth do not report bullying to adults (Coyle et al., 2017). Alternatively, high social support from siblings has been shown to be a protective factor against bullying from peers in school (Coyle et al., 2017).

### **Family Environment**

A discussion of family factors influencing the development of SAD would not be complete without exploring the family environment. Stressful life events in childhood with a strong social component, such as interpersonal conflict within the family, can contribute to the development of social anxiety symptoms (Levine et al., 2015; Weymouth & Buehler, 2018; Wong & Rapee, 2016). Furthermore, interparental conflict has been shown to increase threat perceptions and social anxiety symptoms, potentially influencing interpersonal

relationships with peers (Weymouth et al., 2019). Other family-related stressful events found to influence the development of SAD included witnessing violence, family mental illness, serious injury or illness of parent, parental divorce, moving to a different school, and separation from one or both parents (Bishop et al., 2014; Grills-Taquechel et al., 2010; Wu et al., 2016). Draisey et al. (2020) noted that a mother taking a new job was a significant factor associated with SAD in children. Individuals who experience multiple stressful life events or a direct, severe single event are particularly predisposed to SAD (Wong & Rapee, 2016).

A complicated relationship has been uncovered between peer victimization and family cohesion in adolescents with SAD. Specifically, adolescents who lack a cohesive family environment or who experience poor parental relationships may be more prone to compliant behaviors with peers, leading to victimization, rejection, and increased social anxiety (Kapoor et al., 2020; León-Moreno et al., 2020; Su et al., 2016; Weymouth & Buehler, 2018). Peer-related trauma or victimization is believed to be an exceedingly influential factor in the etiology of SAD (Norton & Abbott, 2017; Pontillo et al., 2019; Wong & Rapee, 2016). Unfortunately, adolescents with SAD have cognitive distortions that may interfere with family cohesiveness or misinterpret well-meaning parent behaviors (Levine et al., 2015; Rapp et al., 2017; Van Zalk & Van Zalk, 2015).

Alternatively, certain environmental factors seem to be protective. Emotional closeness and frequent contact with family, including immediate family members, grandparents, and other relatives, has been protective against SAD (Levine et al., 2015). Support and acceptance of peers has been shown to lower social anxiety (Cavanaugh & Buehler, 2016; Grills-Taquechel et al., 2010; Levine et al., 2015; Van Zalk & Van Zalk, 2015). Proactive approaches to preserve friendships may be helpful to decrease social anxiety if parents

anticipate a move, divorce, or major life event. The support of teachers has been proposed as another mechanism to prevent social anxiety symptoms. Lower teacher support in adolescence has been associated with social anxiety and greater compliance to peers (Weymouth & Buehler, 2018). Finally, cumulative emotional support given across multiple contexts of family, peers, and school has been proposed as a mechanism to decrease loneliness and social anxiety in children and adolescents (Cavanaugh & Buehler, 2016).

### **CLINICAL IMPLICATIONS IN TREATING SOCIAL ANXIETY DISORDER**

Many interrelated factors, including genetics, family, and environment, potentially lead to SAD in children and adolescents. Left untreated, SAD causes pervasive problems with academic performance, romantic and personal relationships, victimization, loneliness, future college endeavors, and professional goals (de Lijster et al., 2018). Unfortunately, challenges exist for mental health practitioners in diagnosing and treating the disorder.

SAD is often underrecognized, with long delays between onset of symptoms and initiation of treatment (Nagata et al., 2015; Zarger & Rich, 2016). Zarger and Rich (2016) found that only 13% of adolescents with SAD had ever disclosed their social fears to a professional. There are several reasons postulated for the poor detection rates of SAD in children and adolescents. First, the nature of SAD is to fear negative evaluation and avoid social encounters. As such, individuals with SAD usually hide or refrain from seeking help (Neufeld et al., 2020). Second, there is a high comorbidity with other mental health disorders, including depression, GAD, agoraphobia, panic disorder, and specific phobia (Adams et al., 2016; Chapdelaine et al., 2018; Creswell et al., 2014; Garcia-Lopez et al., 2016; Halldorsson et al., 2019). SAD shares some of the same characteristics of personal failure be-

liefs, social communication difficulties, fears, worry, intolerance of uncertainty, somatic complaints, and internalized distress (Counsell et al., 2017; Crome & Baillie, 2015; Halls et al., 2015; Hearn et al., 2017; Mobach et al., 2020; Pearcey et al., 2018; Sackl-Pammer et al., 2018). Subsequently, subtle symptoms of SAD may be difficult to detect when a youth presents with more disabling symptoms of depression or panic disorder. One hallmark feature that distinguishes SAD from other disorders is dysfunctional social beliefs (Mobach et al., 2020). A child or adolescent with SAD expects negative evaluation or rejection from others and subsequently becomes hyper-vigilant to threats in the social environment (Weymouth et al., 2019). Additional features specific to SAD include rumination after a social encounter, fear of visually displaying anxiety symptoms, and avoiding feared social situations (APA, 2013; Halldorsson et al., 2019; Kodal et al., 2017; Norton & Abbott, 2016; Weymouth et al., 2019). Third, many individuals with SAD believe that symptoms are a part of their personality, attributable to shyness, or not severe enough to warrant treatment (Hyett & McEvoy, 2018; Nagata et al., 2015; Zarger & Rich, 2016). Fourth, although children with anxiety disorders rely on parents to recognize problems and seek help, parents may not find the behaviors to be a difficulty or perceive the need for professional support (Reardon, Harvey, et al., 2018). Finally, the presentation of SAD encompasses a wide range of symptoms, internalized fears, and levels of severity leading to diagnostic errors (Crome & Baillie, 2015; Hyett & McEvoy, 2018).

Several cues can aid mental health practitioners and teachers in early identification of SAD. Children and adolescents with a primary diagnosis of SAD have endorsed a greater severity and number of somatic complaints, including stomach pain, fatigue, sudden heart complaints, and dizziness (Sackl-Pammer et al., 2018). Furthermore, school refusal behaviors and

dropout have correlated with social anxiety (González et al., 2019; Ranta et al., 2016; Waite & Creswell, 2014). Peer victimization, substance use, academic delays, and fewer or lower quality friendships are other cues to identifying SAD in children or adolescents (APA, 2013; Early et al., 2017; Mekuria et al., 2017; Pickard et al., 2018; Ranta et al., 2016). Unfortunately, designations by school counselors or teachers are not consistently accurate (Ecklund & Dowdy, 2013; Sweeney et al., 2015). Several brief screening tools have been helpful in identifying social anxiety in low resource mental health settings and schools (Beale et al., 2018; Garcia-Lopez et al., 2015; O'Connor & Fitzgerald, 2020; Reardon, Spence, et al., 2018; Sweeney et al., 2015). Due to the high likelihood of comorbidity, researchers recommend screening for SAD when a child or adolescent presents with another mental health disorder, such as depression or GAD (Adams et al., 2016; Garcia-Lopez et al., 2016). Universal screening in schools or pediatrician offices has been suggested (Ecklund & Dowdy, 2013; Zarger & Rich, 2016). Focusing on children and adolescents in families experiencing significant stressors, such as interparental conflict, parental mental illness, or serious illness, may be another option. Finally, benefits have been noted with multi-informant approaches, keeping in mind that parent reports should be prioritized for children and adolescent self-reports contribute essential data about their own peer-related impairments (Beale et al., 2018; Reardon, Spence, et al., 2018).

A multitude of options exist for treating SAD in children and adolescents. The gold standard is individual treatment with cognitive-behavioral therapy (CBT) incorporating social skills training, modification of cognitive biases, exposure to situations, and education (Asbrand et al., 2020; NICE, 2013; Nordh et al., 2017; Scaini et al., 2016; Spence et al., 2017). Treatment techniques are recommended that encourage the individual to discover how social anxiety is main-

tained and target cognitive distortions (Leigh & Clark, 2018; Lisk et al., 2018; Neufeld et al., 2020). Unfortunately, individuals with SAD treated with CBT have demonstrated poorer outcomes and lower likelihood of remission than other anxiety disorders (Hudson, Rapee, et al., 2015; Kodal et al., 2018; Leigh & Clark, 2018; Lundkvist-Houndoumadi & Thastum, 2017). Possible reasons cited include parental psychopathology, difficulties establishing a therapeutic relationship with the practitioner, longer time to SAD diagnosis leading to more resistant behaviors, generic manualized CBT programs, and comorbid mood disorders (Adams et al., 2016; Hudson, Keers, et al., 2015; Hudson, Rapee, et al., 2015; Kodal et al., 2018). Parental involvement in treatment is essential, as problematic parenting behaviors, psychopathology, and stress may perpetuate the child's social anxiety (Garcia-Lopez et al., 2014; Leigh & Clark, 2016; Manassis et al., 2014; Schleider et al., 2015; Weijers et al., 2018; Yang et al., 2019). Involving the parents is particularly essential when working with young children (NICE, 2013). Parent treatment approaches should encompass education on how to manage personal anxiety and negative cognitive biases as well as how to facilitate exposures to anxious situations, model healthy coping, reward brave behavior, and assist in preventing relapse (Chronis-Tuscano et al., 2018; Leigh & Clark, 2016, 2018; Manassis et al., 2014). Advantages may exist for parent-only treatments (Luke et al., 2017; NICE, 2013; Reuland & Teachman, 2014). In situations where CBT is ineffective, other options should be considered, such as family psychoeducation, modeling by practitioner, assertiveness training group therapy, relaxation, and possibly CBT plus medication (Higa-McMillan et al., 2016; NICE, 2013). Although significant strides have been made in the literature regarding SAD in children and adolescents, future research is still needed to identify best practices for preventing, diagnosing, and treating the disorder.

## CONCLUSION

Family represents the most important social group from infancy to early adolescence. For children with a genetic vulnerability for SAD, it is essential to recognize familial factors that contribute to the development of SAD. SAD is a pervasive disorder that impacts all aspects of life including personal and professional relationships. Knowledge of familial factors helps in recognition and treatment for children and adolescents thereby preventing or minimizing the disorder.

## REFERENCES

- Adams, G. C., Balbuena, L., Meng, X., & Asmundson, G. J. (2016). When social anxiety and depression go together: A population study of comorbidity and associated consequences. *Journal of Affective Disorders*, 206, 48–54. <https://doi.org/10.1016/j.jad.2016.07.031> PMID:27466742
- Aktar, E., Majdandžić, M., de Vente, W., & Bögels, S. M. (2014). Parental social anxiety disorder prospectively predicts toddlers' fear/avoidance in a social referencing paradigm. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 55(1), 77–87. <https://doi.org/10.1111/jcpp.12121> PMID:23909453
- Akün, E. (2017). Relations among adults' remembrances of parental acceptance-rejection in childhood, self-reported psychological adjustment, and adult psychopathology. *Comprehensive Psychiatry*, 77, 27–37. <https://doi.org/10.1016/j.comppsy.2017.05.002> PMID:28551411
- Alkozei, A., Cooper, P. J., & Creswell, C. (2014). Emotional reasoning and anxiety sensitivity: Associations with social anxiety disorder in childhood. *Journal of Affective Disorders*, 152–154, 219–228. <https://doi.org/10.1016/j.jad.2013.09.014> PMID:24120086
- American Psychiatric Association. (2013). Social anxiety disorder. In *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596.dsm05>
- Asbrand, J., Heinrichs, N., Schmidtdorf, S., Nitschke, K., & Tuschen-Caffier, B. (2020). Experience versus report: Where are changes seen after exposure-based cognitive-behavioral therapy? A randomized controlled group treatment of childhood social anxiety disorder. *Child Psychiatry and Human Development*, 51(3), 427–441. <https://doi.org/10.1007/s10578-019-00954-w> PMID:31960175
- Asbrand, J., Hudson, J., Schmitz, J., & Tuschen-Caffier, B. (2017). Maternal parenting and



- child behavior: An observational study of childhood social anxiety disorder. *Cognitive Therapy and Research*, 41, 562–575. <https://doi.org/10.1007/s10608-016-9828-3>
- Bartlett, A., Singh, R., & Hunter, R. (2017). Anxiety and epigenetics. In R. Delgado-Morales (Ed.), *Neuroepigenomics in aging and disease: Advances in experimental medicine and biology* (pp. 145–166). Springer. [https://doi.org/10.1007/978-3-319-53889-1\\_8](https://doi.org/10.1007/978-3-319-53889-1_8)
- Beale, A., Keeley, L., Okuno, H., Szollos, S., Rausch, E., Makol, B., Augenstein, T., Lipton, M., Racz, S., & De Los Reyes, A. (2018). Efficient screening for impairments in peer functioning among mid-to-late adolescents receiving clinical assessments for social anxiety. *Child and Youth Care Forum*, 47, 613–631. <https://doi.org/10.1007/s10566-018-9458-x>
- Bishop, M., Rosenstein, D., Bakelaar, S., & Seedat, S. (2014). An analysis of early developmental trauma in social anxiety disorder and posttraumatic stress disorder. *Annals of General Psychiatry*, 13(16), 16. <https://doi.org/10.1186/1744-859X-13-16> PMID:24920955
- Bögels, S., Stevens, J., & Majdandžić, M. (2011). Parenting and social anxiety: Fathers' versus mothers' influence on their children's anxiety in ambiguous social situations. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 52(5), 599–606. <https://doi.org/10.1111/j.1469-7610.2010.02345.x> PMID:21155774
- Bowes, L., Wolke, D., Joinson, C., Lereya, S. T., & Lewis, G. (2014). Sibling bullying and risk of depression, anxiety, and self-harm: A prospective cohort study. *Pediatrics*, 134, e1032–e1039. <https://doi.org/10.1542/peds.2014-0832> PMID:25201801
- Brühl, A., Kley, H., Grocholewski, A., Neuner, F., & Heinrichs, N. (2019). Child maltreatment, peer victimization, and social anxiety in adulthood: A cross-sectional study in a treatment-seeking sample. *BMC Psychiatry*, 19, 418. <https://doi.org/10.1186/s12888-019-2400-4> PMID:31882002
- Burstein, M., He, J. P., Kattan, G., Albano, A. M., Avenevoli, S., & Merikangas, K. R. (2011). Social phobia and subtypes in the national comorbidity survey-adolescent supplement: Prevalence, correlates, and comorbidity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 50(9), 870–880. <https://doi.org/10.1016/j.jaac.2011.06.005> PMID:21871369
- Bynion, T. M., Blumenthal, H., Bilsky, S. A., Cloutier, R. M., & Leen-Feldner, E. W. (2017). Dimensions of parenting among mothers and fathers in relation to social anxiety among female adolescents. *Journal of Adolescence*, 60, 11–15. <https://doi.org/10.1016/j.adolescence.2017.07.004> PMID:28738315
- Cassidy, J., & Berlin, L. J. (1994). The insecure/ambivalent pattern of attachment: Theory and research. *Child Development*, 65(4), 971–991. <https://doi.org/10.2307/1131298> PMID:7956474
- Castelli, R. D., Quevedo, L. Á., Coelho, F. M., Lopez, M. A., da Silva, R. A., Böhm, D. M., Souza, L. D., de Matos, M. B., Pinheiro, K. A., & Pinheiro, R. T. (2015). Cognitive and language performance in children is associated with maternal social anxiety disorder: A study of young mothers in southern Brazil. *Early Human Development*, 91, 707–711. <https://doi.org/10.1016/j.earlhumdev.2015.10.002> PMID:26544906
- Cavanaugh, A., & Buehler, C. (2016). Adolescent loneliness and social anxiety: The role of multiple sources of support. *Journal of Social and Personal Relationships*, 33(2), 149–170. <https://doi.org/10.1177/0265407514567837>
- Centre of Excellence for Early Childhood Development. (2012). *Eyes on parent-child attachment: A bond of trust*. <http://www.child-encyclopedia.com/pages/PDF/AttachmentANGmcp.pdf>
- Chapdelaine, A., Carrier, J. D., Fournier, L., Duhoux, A., & Roberge, P. (2018). Treatment adequacy for social anxiety disorder in primary care patients. *PLoS One*, 13(11), e0206357. <https://doi.org/10.1371/journal.pone.0206357> PMID:30395608
- Chronis-Tuscano, A., Danko, C. M., Rubin, K. H., Coplan, R. J., & Novick, D. R. (2018). Future directions for research on early intervention for young children at risk for social anxiety. *Journal of Clinical Child and Adolescent Psychology*, 47(4), 655–667. <https://doi.org/10.1080/15374416.2018.1426006> PMID:29405747
- Chubar, V., Van Leeuwen, K., Bijttebier, P., Van Assche, E., Bosmans, G., Van den Noortgate, W., van Winkel, R., Goossens, L., & Claes, S. (2020). Gene-environment interaction: New insights into perceived parenting and social anxiety among adolescents. *European Psychiatry*, 63(1), e64. <https://doi.org/10.1192/j.eurpsy.2020.62> PMID:32507125
- Counsell, A., Furtado, M., Iorio, C., Anand, L., Canzonieri, A., Fine, A., Fotinos, K., Epstein, I., & Katzman, M. A. (2017). Intolerance of uncertainty, social anxiety, and generalized anxiety: Differences by diagnosis and symptoms. *Psychiatry Research*, 252, 63–69. <https://doi.org/10.1016/j.psychres.2017.02.046> PMID:28254577
- Coyle, S., Demaray, M., Malecki, C., Tennant, J., & Klossing, J. (2017). The associations among sibling and peer-bullying social support and internalizing behaviors. *Child and Youth Care Forum*, 46, 895–922. <https://doi.org/10.1007/s10566-017-9412-3>
- Creswell, C., Murray, L., & Cooper, P. (2014). Interpretation and expectation in childhood anxiety disorders: Age effects and social specificity. *Journal of Abnormal Child Psychology*, 42, 453–465. <https://doi.org/10.1007/s10802-013-9795-z> PMID:24293002
- Crome, E., & Baillie, A. (2015). Social anxiety disorder diagnostic criteria perform equally across age, comorbid diagnosis, and performance/interaction subtypes. *Anxiety, Stress, and Coping*, 28(2), 179–191. <https://doi.org/10.1080/10615806.2014.930445> PMID:24888217
- Crosby Budinger, M., Drazdowski, T. K., & Ginsburg, G. S. (2013). Anxiety-promoting parenting behaviors: A comparison of anxious parents with and without social anxiety disorder. *Child Psychiatry and Human Development*, 44, 412–418. <https://doi.org/10.1007/s10578-012-0335-9> PMID:23053617
- Davies, P., Parry, L., Bascoe, S., Martin, M., & Cummings, E. (2019). Children's vulnerability to interparental conflict: The protective role of sibling relationship quality. *Child Development*, 90(6), 2118–2134. <https://doi.org/10.1111/cdev.13078> PMID:29916198
- de Lijster, J., Dieleman, G., Utens, E., Dierckx, B., Wierenga, M., Verhulst, F., & Legerste, J. (2018). Social and academic functioning in adolescents with anxiety disorders: A systematic review. *Journal of Affective Disorders*, 230, 108–117. <https://doi.org/10.1016/j.jad.2018.01.008>
- Draisey, J., Halldorsson, B., Cooper, P., & Creswell, C. (2020). Associations between family factors, childhood adversity, negative life events and child anxiety disorders: An exploratory study of diagnostic specificity. *Behavioural and Cognitive Psychotherapy*, 48, 253–267. <https://doi.org/10.1017/S1352465819000717> PMID:31727188
- Early, M. C., Biggs, B. K., Makanui, K. P., Legerski, J. P., Van Allen, J., Elledge, A. R., & Whiteside, S. P. (2017). Specificity of peer difficulties to social anxiety in early adolescence: Categorical and dimensional analyses with clinical and community samples. *Anxiety, Stress, and Coping*, 30(6), 647–660. <https://doi.org/10.1080/10615806.2017.1348296> PMID:28689447
- Ecklund, K., & Dowdy, E. (2013). Screening for behavioral and emotional risk versus traditional school identification methods. *School Mental Health*, 6, 40–49. <https://doi.org/10.1007/s12310-013-9109-1>
- Fernandes, V., & Osório, F. L. (2015). Are there associations between early emotional trauma and anxiety disorders? Evidence from a systematic literature review and meta-analysis. *European Psychiatry*, 30, 756–764. <https://doi.org/10.1016/j.eurpsy.2015.06.004> PMID:26163920
- Fox, N. A., Henderson, H. A., Marshall, P. J., Nichols, K. E., & Ghera, M. M. (2005). Behavioral inhibition: Linking biology and behavior within a developmental framework. *Annual Review of Psychology*, 56, 235–262. <https://doi.org/10.1146/annurev.>

- psych.55.090902.141532
- Fransson, M., Granqvist, P., Marciszko, C., Hagekull, B., & Bohlin, G. (2016). Is middle childhood attachment related to social functioning in young adulthood? *Scandinavian Journal of Psychology*, *57*, 108–116. <https://doi.org/10.1111/sjop.12276> PMID:26946453
- García-Lopez, L. J., Bonilla, N., & Muela-Martínez, J. A. (2016). Considering comorbidity in adolescents with social anxiety disorder. *Psychiatry Investigation*, *13*(5), 574–576. <https://doi.org/10.4306/pi.2016.13.5.574> PMID:27757138
- García-Lopez, L. J., Díaz-Castela, M. M., Muela-Martínez, J. A., & Espinosa-Fernández, L. (2014). Can parent training for parents with high levels of expressed emotion have a positive effect on their child's social anxiety improvement? *Journal of Anxiety Disorders*, *28*, 812–822. <https://doi.org/10.1016/j.janxdis.2014.09.001> PMID:25265549
- García-Lopez, L. J., Espinosa-Fernández, L., & Muela-Martínez, J. A. (2020). Behavioral inhibition in childhood as a risk factor for development of social anxiety disorder: A longitudinal study. *International Journal of Environmental Research and Public Health*, *17*, E3941. <https://doi.org/10.3390/ijerph17113941> PMID:32498359
- García-Lopez, L. J., Sáez-Castillo, A. J., Beidel, D., & La Greca, A. M. (2015). Brief measures to screen for social anxiety in adolescents. *Journal of Developmental and Behavioral Pediatrics*, *36*, 562–568. <https://doi.org/10.1097/DBP.0000000000000213> PMID:26349070
- Gómez-Ortiz, O., Romera, E. M., Jiménez-Castillejo, R., Ortega-Ruiz, R., & García-López, L. J. (2019). Parenting practices and adolescent social anxiety: A direct or indirect relationship? *International Journal of Clinical and Health Psychology*, *19*, 124–133. <https://doi.org/10.1016/j.ijchp.2019.04.001> PMID:31193117
- González, C., Díaz-Herrero, Á., Sanmartín, R., Vicent, M., Pérez-Sánchez, A. M., & García-Fernández, J. M. (2019). Identifying risk profiles of school refusal behavior: Differences in social anxiety and family functioning among Spanish adolescents. *International Journal of Environmental Research and Public Health*, *16*, 3731. <https://doi.org/10.3390/ijerph16193731> PMID:31623358
- Graham, R. A., & Weems, C. F. (2015). Identifying moderators of the link between parent and child anxiety sensitivity: The roles of gender, positive parenting, and corporal punishment. *Journal of Abnormal Child Psychology*, *43*, 885–893. <https://doi.org/10.1007/s10802-014-9945-y> PMID:25301177
- Grills-Tauchel, A. E., Norton, P., & Ollendick, T. H. (2010). A longitudinal examination of factors predicting anxiety during the transition to middle school. *Anxiety, Stress, and Coping*, *23*(5), 493–513. <https://doi.org/10.1080/10615800903494127> PMID:20711893
- Groh, A. M., Fearon, R. P., Bakermans-Kranenburg, M. J., van Ijzendoorn, M. H., Steele, R. D., & Roisman, G. I. (2014). The significance of attachment security for children's social competence with peers: A meta-analytic study. *Attachment & Human Development*, *16*(2), 103–136. <https://doi.org/10.1080/14616734.2014.883636> PMID:24547936
- Halldorsson, B., Castelijn, S., & Creswell, C. (2019). Are children with social anxiety disorder more likely than children with other anxiety disorders to anticipate poor social performance and reflect negatively on their performance? *Journal of Affective Disorders*, *245*, 561–568. <https://doi.org/10.1016/j.jad.2018.11.021> PMID:30445381
- Halldorsson, B., Draisey, J., Cooper, P., & Creswell, C. (2018). Symptoms of social anxiety, depression, and stress in parents of children with social anxiety disorder. *British Journal of Clinical Psychology*, *57*, 148–162. <https://doi.org/10.1111/bjc.12170> PMID:29336041
- Halls, G., Cooper, P. J., & Creswell, C. (2015). Social communication deficits: Specific associations with social anxiety disorder. *Journal of Affective Disorders*, *172*, 38–42. <https://doi.org/10.1016/j.jad.2014.09.040> PMID:25451393
- Hearn, C. S., Donovan, C. L., Spence, S. H., March, S., & Holmes, M. C. (2017). What's the worry with social anxiety? Comparing cognitive processes in children with generalized anxiety disorder and social anxiety disorder. *Child Psychiatry and Human Development*, *48*, 786–795. <https://doi.org/10.1007/s10578-016-0703-y> PMID:27917455
- Higa-McMillan, C. K., Francis, S. E., Rith-Najarian, L., & Chorpita, B. F. (2016). Evidence base update: 50 years of research on treatment for child and adolescent anxiety. *Journal of Clinical Child and Adolescent Psychology*, *45*(2), 91–113. <https://doi.org/10.1080/15374416.2015.1046177> PMID:26087438
- Howe, N., & Recchia, H. (2014). Sibling relations and their impact on children's development. In *Encyclopedia of early childhood development*. <http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/829/sibling-relations-and-their-impact-on-childrens-development.pdf>
- Hudson, J. L., Keers, R., Roberts, S., Coleman, J. R., Breen, G., Arendt, K., Bögels, S., Cooper, P., Creswell, C., Hartman, C., Heiervang, E. R., Hötzel, K., In-Albon, T., Lavallee, K., Lyneham, H. J., Marin, C. E., McKinnon, A., Meiser-Stedman, R., Morris, T., . . . Eley, T. C. (2015). Clinical predictors of response to cognitive-behavioral therapy in pediatric anxiety disorders: The Genes for Treatment (GxT) Study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *54*(6), 454–463. <https://doi.org/10.1016/j.jaac.2015.03.018> PMID:26004660
- Hudson, J. L., Rapee, R. M., Lyneham, H. J., McLellan, L. F., Wuthrich, V. M., & Schniering, C. A. (2015). Comparing outcomes for children with different anxiety disorders following cognitive behavioural therapy. *Behaviour Research and Therapy*, *72*, 30–37. <https://doi.org/10.1016/j.brat.2015.06.007> PMID:26164621
- Hyett, M. P., & McEvoy, P. M. (2018). Social anxiety disorder: Looking back and moving forward. *Psychological Medicine*, *48*, 1937–1944. <https://doi.org/10.1017/S0033291717003816>
- Isomura, K., Boman, M., Rück, C., Serlachius, E., Larsson, H., Lichtenstein, P., & Mataix-Cols, D. (2015). Population-based, multi-generational family clustering study of social anxiety disorder and avoidant personality disorder. *Psychological Medicine*, *45*(8), 1581–1589. <https://doi.org/10.1017/S0033291714002116> PMID:25215596
- Jambon, M., Madigan, S., Plamondon, A., Daniel, E., & Jenkins, J. M. (2019). The development of empathic concern in siblings: A reciprocal influence model. *Child Development*, *90*(5), 1598–1613. <https://doi.org/10.1111/cdev.13015> PMID:29460381
- Kagan, J., Reznick, J., Clarke, C., Snidman, N., & Garcia-Coll, C. (1984). Behavioral inhibition to the unfamiliar. *Child Development*, *55*(6), 2212–2225. <https://doi.org/10.2307/1129793>
- Kapoor, I., Sharma, S., & Khosla, M. (2020). Social anxiety disorder among adolescents in relation to peer pressure and family environment. *Bioscience Biotechnology Research Communications*, *13*(2), 923–929. <https://doi.org/10.21786/bbrbc/13.2/80>
- Keeton, C. P., Teetsel, R. N., Dull, N. M., & Ginsburg, G. S. (2015). Parent psychopathology and children's psychological health: Moderation by sibling relationship dimensions. *Journal of Abnormal Child Psychology*, *43*(7), 1333–1342. <https://doi.org/10.1007/s10802-015-0013-z> PMID:25896728
- Kerns, K. A., & Brumariu, L. E. (2014). Is insecure parent-child attachment a risk factor for development of anxiety in childhood or adolescence? *Child Development Perspectives*, *8*(1), 12–17. <https://doi.org/10.1111/cdep.12054> PMID:24660023
- Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H.-U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International Journal of Methods in Psychiatric Research*, *21*(3), 169–184. <https://doi.org/10.1002/mpr.1359> PMID:22865617
- Kiel, E. J., & Buss, K. A. (2014). Dysregulated fear in toddlerhood predicts kindergarten social withdrawal through protective parenting. *Infant and Child Development*, *23*,

- 304–313. <https://doi.org/10.1002/icd.1855> PMID:25242893
- Knappe, S., Beesdo-Baum, K., Fehm, L., Lieb, R., & Wittchen, H. U. (2012). Characterizing the association between parenting and adolescent social phobia. *Journal of Anxiety Disorders*, 26, 608–616. <https://doi.org/10.1016/j.janxdis.2012.02.014> PMID:22445318
- Kodal, A., Bjelland, I., Gjestad, R., Wergeland, G. J., Havik, O. E., Heiervang, E. R., & Fjermestad, K. (2017). Subtyping social anxiety in youth. *Journal of Anxiety Disorders*, 49, 40–47. <https://doi.org/10.1016/j.janxdis.2017.03.009> PMID:28388458
- Kodal, A., Fjermestad, K. W., Bjelland, I., Gjestad, R., Öst, L. G., Bjaastad, J. F., Haugland, B. S. M., Havik, O. E., Heiervang, E. R., & Wergeland, G. J. H. (2018). Predictors of long-term outcome of CBT for youth with anxiety disorders treated in community clinics. *Journal of Anxiety Disorders*, 59, 53–63. <https://doi.org/10.1016/j.janxdis.2018.08.008> PMID:30273789
- Kraft, A., Knappe, S., Petrowski, K., Petzoldt, J., & Martini, J. (2017). Differences in mother-child bonding in women with and without social phobia. *Journal of Child and Adolescent Psychiatry and Psychotherapy*, 45, 49–57. <https://doi.org/10.1024/1422-4917/a000454> PMID:27428793
- Kuo, J. R., Goldin, P. R., Werner, K., Heimberg, R. G., & Gross, J. J. (2011). Childhood trauma and current psychological functioning in adults with social anxiety disorder. *Journal of Anxiety Disorders*, 25(4), 467–473. <https://doi.org/10.1016/j.janxdis.2010.11.011> PMID:21183310
- Lawrence, P. J., Creswell, C., Cooper, P. J., & Murray, L. (2020). The role of maternal anxiety disorder subtype, parenting and infant stable temperamental inhibition in child anxiety: A prospective longitudinal study. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 61(7), 779–788. <https://doi.org/10.1111/jcpp.13187> PMID:31916250
- Leigh, E., & Clark, D. M. (2016). Cognitive therapy for social anxiety disorder in adolescents: A developmental case series. *Behavioural and Cognitive Psychotherapy*, 44, 1–17. <https://doi.org/10.1017/S1352465815000715> PMID:26640031
- Leigh, E., & Clark, D. M. (2018). Understanding social anxiety disorder in adolescents and improving treatment outcomes: Applying the cognitive model of Clark and Wells (1995). *Clinical Child and Family Psychology Review*, 21, 388–414. <https://doi.org/10.1007/s10567-018-0258-5> PMID:29654442
- León-Moreno, C., Callejas-Jeronimo, J., Suarez-Relinque, C., Musitu-Ferrer, D., & Musitu-Ochoa, G. (2020). Parental socialization, social anxiety, and school victimization: A mediation model. *Sustainability*, 12(7), 1–12. <https://doi.org/10.3390/su12072681>
- Levine, D. S., Taylor, R. J., Nguyen, A. W., Chatters, L. M., & Himle, J. A. (2015). Family and friendship informal support networks and social anxiety disorder among African Americans and Black Caribbeans. *Social Psychiatry and Psychiatric Epidemiology*, 50, 1121–1133. <https://doi.org/10.1007/s00127-015-1023-4> PMID:25694021
- Lewis-Morrarty, E., Degnan, K. A., Chronis-Tuscano, A., Pine, D. S., Henderson, H. A., & Fox, N. A. (2015). Infant attachment security and early childhood behavioral inhibition interact to predict adolescent social anxiety symptoms. *Child Development*, 86(2), 598–613. <https://doi.org/10.1111/cdev.12336> PMID:25522059
- Lewis-Morrarty, E., Degnan, K. A., Chronis-Tuscano, A., Rubin, K. H., Cheah, C. S., Pine, D. S., Henderson, H. A., & Fox, N. A. (2012). Maternal over-control moderates the association between early childhood behavioral inhibition and adolescent social anxiety symptoms. *Journal of Abnormal Child Psychology*, 40, 1363–1373. <https://doi.org/10.1007/s10802-012-9663-2> PMID:22821448
- Lisk, S. C., Pile, V., Haller, S. P. W., Kumari, V., & Lau, J. Y. F. (2018). Multisession cognitive bias modification targeting multiple biases in adolescents with elevated social anxiety. *Cognitive Therapy and Research*, 42, 581–597. <https://doi.org/10.1007/s10608-018-9912-y> PMID:30237649
- Liu, X., Peng, C., Yu, Y., Yang, M., Qing, Z., Qiu, X., & Yang, X. (2020). Association between sub-types of sibling bullying and mental health distress among Chinese children and adolescents. *Frontiers in Psychiatry*, 11(368), 368. <https://doi.org/10.3389/fpsy.2020.00368> PMID:32477177
- Luke, F., Chan, C., Au, A., & Lai, S. (2017). Adaptive parenting for alleviating young children's shyness: A randomized controlled trial of an early intervention program. *Infant and Child Development*, 26, e2030. <https://doi.org/10.1002/icd.2030>
- Lundkvist-Houndoumadi, I., & Thastum, M. (2017). Anxious children and adolescents non-responding to CBT: Clinical predictors and families' experiences of therapy. *Clinical Psychology & Psychotherapy*, 24, 82–93. <https://doi.org/10.1002/cpp.1982> PMID:26514088
- Majdandzic, M., Möller, E. L., de Vente, W., Bögels, S. M., & van den Boom, D. C. (2014). Fathers' challenging parenting behavior prevents social anxiety development in their 4-year-old children: A longitudinal observational study. *Journal of Abnormal Child Psychology*, 42, 301–310. <https://doi.org/10.1007/s10802-013-9774-4> PMID:23812638
- Mak, H. W., Fosco, G. M., & Feinberg, M. E. (2018). The role of family for youth friendships: Examining a social anxiety mechanism. *Journal of Youth and Adolescence*, 47(2), 306–320. <https://doi.org/10.1007/s10964-017-0738-9> PMID:28866796
- Manassis, K., Lee, T. C., Bennett, K., Zhao, X. Y., Mendlowitz, S., Duda, S., Saini, M., Wilansky, P., Baer, S., Barrett, P., Bodden, D., Cobham, V. E., Dadds, M. R., Flannery-Schroeder, E., Ginsburg, G., Heyne, D., Hudson, J. L., Kendall, P. C., Liber, J., . . . Wood, J. J. (2014). Types of parental involvement in CBT with anxious youth: A preliminary meta-analysis. *Journal of Consulting and Clinical Psychology*, 82(6), 1163–1172. <https://doi.org/10.1037/a0036969> PMID:24841867
- McNally, R. J. (2002). Anxiety sensitivity and panic disorder. *Biological Psychiatry*, 52, 938–946. [https://doi.org/10.1016/S0006-3223\(02\)01475-0](https://doi.org/10.1016/S0006-3223(02)01475-0) PMID:12437935
- Mekuria, K., Mulat, H., Derajew, H., Mekonen, T., Fekadu, W., Belete, A., Yimer, S., Legas, G., Menberu, M., Getnet, A., & Kibret, S. (2017). High magnitude of social anxiety disorder in adolescents. *Hindawi Psychiatry Journal*, 2017, 5643136. <https://doi.org/10.1155/2017/5643136> PMID:28299314
- Michail, M., & Birchwood, M. (2014). Social anxiety in first-episode psychosis: The role of childhood trauma and adult attachment. *Journal of Affective Disorders*, 163, 102–109. <https://doi.org/10.1016/j.jad.2014.03.033> PMID:24836094
- Mobach, L., Klein, A. M., Schniering, C. A., & Hudson, J. L. (2020). Specificity of dysfunctional beliefs in children with social anxiety disorder: Effects of comorbidity. *Journal of Clinical Child and Adolescent Psychology*. Advance online publication. <https://doi.org/10.1080/15374416.2019.1697930> PMID:31951760
- Moreno, A., Osorio, F., Martin-Santos, R., & Crippa, J. (2016). Heritability of social anxiety disorder: A systematic review of methodological designs. *Archives of Clinical Psychiatry*, 43(4), 83–92. <https://doi.org/10.1590/0101-60830000000090>
- Morris, T., & Oosterhoff, B. (2016). Observed mother and father rejection and control: Association with child social anxiety, general anxiety, and depression. *Journal of Child and Family Studies*, 25(9), 2904–2914. <https://doi.org/10.1007/s10826-016-0448-z>
- Muris, P., Hendriks, E., & Bot, S. (2016). Children of few words: Relations among selective mutism, behavioral inhibition, and (social) anxiety symptoms in 3- to 6-year olds. *Child Psychiatry and Human Development*, 47, 94–101. <https://doi.org/10.1007/s10578-015-0547-x> PMID:25842046
- Muris, P., van Brakel, A. M., Arntz, A., & Schouten, E. (2011). Behavioral inhibition as a risk factor for the development of childhood anxiety disorders: A longitudinal study. *Journal of Child and Family Studies*, 20, 157–170. <https://doi.org/10.1007/s10826-010-9365-8> PMID:21475710

- Murray, L., Pella, J. E., De Pascalis, L., Arteche, A., Pass, L., Percy, R., Creswell, C., & Cooper, P. J. (2014). Socially anxious mothers' narratives to their children and their relation to child representations and adjustment. *Development and Psychopathology*, 26(4 Pt 2), 1531–1546. <https://doi.org/10.1017/S0954579414001187> PMID:25422977
- Nagata, T., Suzuki, F., & Teo, A. R. (2015). Generalized social anxiety disorder: A still-neglected anxiety disorder 3 decades since Liebowitz's review. *Psychiatry and Clinical Neurosciences*, 69, 724–740. <https://doi.org/10.1111/pcn.12327> PMID:26121185
- Nanda, M., Reichert, E., Jones, U., & Flannery-Schroeder, E. (2016). Childhood maltreatment and symptoms of social anxiety: Exploring the role of emotional abuse, neglect, and cumulative trauma. *Journal of Child & Adolescent Trauma*, 9, 201–207. <https://doi.org/10.1007/s40653-015-0070-z>
- National Human Genome Research Institute. (2019). *Introduction to genomics: What's a genome?* <https://www.genome.gov/About-Genomics/Introduction-to-Genomics>
- National Institute for Health and Care Excellence. (2013). *Social anxiety disorder: The NICE guideline on recognition, assessment and treatment* (National Clinical Guideline No. 159). [https://www.ncbi.nlm.nih.gov/books/NBK266258/pdf/Bookshelf\\_NBK266258.pdf](https://www.ncbi.nlm.nih.gov/books/NBK266258/pdf/Bookshelf_NBK266258.pdf)
- Neufeld, C. B., Palma, P. C., Caetano, K. A. S., Brust-Renck, P. G., Curtiss, J., & Hofmann, S. G. (2020). A randomized clinical trial of group and individual cognitive-behavioral therapy approaches for social anxiety disorder. *International Journal of Clinical and Health Psychology*, 20, 29–37. <https://doi.org/10.1016/j.ijchp.2019.11.004> PMID:32021616
- Nordh, M., Vigerland, S., Öst, L. G., Ljótsson, B., Mataix-Cols, D., Serlachius, E., & Högström, J. (2017). Therapist-guided internet-delivered cognitive-behavioural therapy supplemented with group exposure sessions for adolescents with social anxiety disorder: A feasibility trial. *BMJ Open*, 7, e018345. <https://doi.org/10.1136/bmjopen-2017-018345> PMID:29247101
- Norton, A., & Abbott, M. (2016). Self-focused cognition in social anxiety: A review of the theoretical and empirical literature. *Behaviour Change*, 33(1), 44–64. <https://doi.org/10.1017/bec.2016.2>
- Norton, A. R., & Abbott, M. J. (2017). Bridging the gap between aetiological and maintaining factors in social anxiety disorder: The impact of socially traumatic experiences on beliefs, imagery, and symptomatology. *Clinical Psychology & Psychotherapy*, 24, 747–765. <https://doi.org/10.1002/cpp.2044> PMID:27726255
- O'Connor, C., & Fitzgerald, A. (2020). A psychometric evaluation of the social anxiety scale for adolescents in an educational setting. *Journal of Psychoeducational Assessment*, 38(4), 519–528. <https://doi.org/10.1177/0734282918816843>
- Ollendick, T. H., & Benoit, K. E. (2012). A parent-child interactional model of social anxiety disorder in youth. *Clinical Child and Family Psychology Review*, 15, 81–91. <https://doi.org/10.1007/s10567-011-0108-1> PMID:22116625
- Oppenheimer, C. W., Ladouceur, C. D., Waller, J. M., Ryan, N. D., Allen, K. B., Sheeber, L., Forbes, E. E., Dahl, R. E., & Silk, J. S. (2016). Emotion socialization in anxious youth: Parenting buffers emotional reactivity to peer negative events. *Journal of Abnormal Child Psychology*, 44(7), 1267–1278. <https://doi.org/10.1007/s10802-015-0125-5> PMID:26783026
- Papachristou, H., Theodorou, M., Neophytou, K., & Panayiotou, G. (2018). Community sample evidence on the relations among behavioural inhibition system, anxiety sensitivity, experiential avoidance, and social anxiety in adolescents. *Journal of Contextual Behavioral Science*, 8, 1–8. <https://doi.org/10.1016/j.jcbs.2018.03.001>
- Pass, L., Arteche, A., Cooper, P., Creswell, C., & Murray, L. (2012). Doll play narratives about starting school in children of socially anxious mothers, and their relation to subsequent child school-based anxiety. *Journal of Abnormal Child Psychology*, 40, 1375–1384. <https://doi.org/10.1007/s10802-012-9645-4> PMID:22588362
- Pass, L., Mastroyannopoulou, K., Coker, S., Murray, L., & Dodd, H. (2017). Verbal information transfer in real-life: When mothers worry about their children starting school. *Journal of Child and Family Studies*, 26, 2324–2334. <https://doi.org/10.1007/s10826-017-0735-3> PMID:28775661
- Pearcey, S., Alkozei, A., Chakrabarti, B., Dodd, H., Murayama, K., Stuijzand, S., & Creswell, C. (2018). Do clinically anxious children cluster according to their expression of factors that maintain child anxiety? *Journal of Affective Disorders*, 229, 469–476. <https://doi.org/10.1016/j.jad.2017.12.078> PMID:29334641
- Pickard, H., Happé, F., & Mandy, W. (2018). Navigating the social world: The role of social competence, peer victimisation and friendship quality in the development of social anxiety in childhood. *Journal of Anxiety Disorders*, 60, 1–10. <https://doi.org/10.1016/j.janxdis.2018.09.002> PMID:30268999
- Pontillo, M., Tata, M. C., Averna, R., Demaria, F., Gargiullo, P., Guerrero, S., Pucciari, M. L., Santonastaso, O., & Vicari, S. (2019). Peer victimization and onset of social anxiety disorder in children and adolescents. *Brain Sciences*, 9(6), 1–16. <https://doi.org/10.3390/brainsci9060132> PMID:31174384
- Ranta, K., La Greca, A. M., Kaltiala-Heino, R., & Marttunen, M. (2016). Social phobia and educational and interpersonal impairments in adolescence: A prospective study. *Child Psychiatry and Human Development*, 47, 665–677. <https://doi.org/10.1007/s10578-015-0600-9> PMID:26514560
- Rapp, A. M., Lau, A., & Chavira, D. A. (2017). Differential associations between social anxiety disorder, family cohesion, and suicidality across racial/ethnic groups: Findings from the National Comorbidity Survey-Adolescent (NCS-A). *Journal of Anxiety Disorders*, 48, 13–21. <https://doi.org/10.1016/j.janxdis.2016.09.009> PMID:27697370
- Reardon, T., Harvey, K., Young, B., O'Brien, D., & Creswell, C. (2018). Barriers and facilitators to parents seeking and accessing professional support for anxiety disorders in children: Qualitative interview study. *European Child & Adolescent Psychiatry*, 27, 1023–1031. <https://doi.org/10.1007/s00787-018-1107-2> PMID:29372331
- Reardon, T., Spence, S. H., Hesse, J., Shakir, A., & Creswell, C. (2018). Identifying children with anxiety disorders using brief versions of the Spence Children's Anxiety Scale for children, parents, and teachers. *Psychological Assessment*, 30(10), 1342–1355. <https://doi.org/10.1037/pas0000570> PMID:29902050
- Remmerswaal, D., Muris, P., & Huijding, J. (2016). Transmission of cognitive bias and fear from parents to children: An experimental study. *Journal of Clinical Child and Adolescent Psychology*, 45(5), 642–654. <https://doi.org/10.1080/15374416.2014.987378> PMID:25658170
- Reuland, M. M., & Teachman, B. A. (2014). Interpretation bias modification for youth and their parents: A novel treatment for early adolescent social anxiety. *Journal of Anxiety Disorders*, 28(8), 851–864. <https://doi.org/10.1016/j.janxdis.2014.09.011> PMID:25445075
- Riskind, J. H., Kleiman, E. M., Weingarden, H., & Danvers, A. F. (2013). Cognitive vulnerability to anxiety in the stress generation process: Further investigation of the interaction effect between the looming cognitive style and anxiety sensitivity. *Journal of Behavior Therapy and Experimental Psychiatry*, 44(4), 381–387. <https://doi.org/10.1016/j.jbtep.2013.03.002> PMID:23651606
- Rudolph, J., & Zimmer-Gembeck, M. (2014). Parent relationships and adolescents' depression and social anxiety: Indirect associations via emotional sensitivity to rejection threat. *Australian Journal of Psychology*, 66, 110–121. <https://doi.org/10.1111/ajpy.12042>
- Sackl-Pammer, P., Özlü-Erkilic, Z., Jahn, R., Karwautz, A., Pollak, E., Ohmann, S., & Akkaya-Kalayci, T. (2018). Somatic complaints in children and adolescents with social anxiety disorder. *Neuropsychiatry*, 32, 187–195. <https://doi.org/10.1007/s40211-018-0288-8> PMID:30218392

- Scaini, S., Belotti, R., & Ogliari, A. (2014). Genetic and environmental contributions to social anxiety across different ages: A meta-analytic approach to twin data. *Journal of Anxiety Disorders*, 28(7), 650–656. <https://doi.org/10.1016/j.janxdis.2014.07.002> PMID:25118017
- Scaini, S., Belotti, R., Ogliari, A., & Battaglia, M. (2016). A comprehensive meta-analysis of cognitive-behavioral interventions for social anxiety disorder in children and adolescents. *Journal of Anxiety Disorders*, 42, 105–112. <https://doi.org/10.1016/j.janxdis.2016.05.008> PMID:27399932
- Schiele, M. A., & Domschke, K. (2018). Epigenetics at the crossroads between genes, environment and resilience in anxiety disorders. *Genes Brain & Behavior*, 17, e12423. <https://doi.org/10.1111/gbb.12423> PMID:28873274
- Schleider, J. L., Ginsburg, G. S., Keeton, C. P., Weisz, J. R., Birmaher, B., Kendall, P. C., Piacentini, J., Sherrill, J., & Walkup, J. T. (2015). Parental psychopathology and treatment outcome for anxious youth: Roles of family functioning and caregiver strain. *Journal of Consulting and Clinical Psychology*, 83(1), 213–224. <https://doi.org/10.1037/a0037935> PMID:25222799
- Schubel, K., Gitik, M., Domschke, K., & Goldman, D. (2016). Making sense of epigenetics. *The International Journal of Neuropsychopharmacology*, 19(11), 1–10. <https://doi.org/10.1093/ijnp/pyw058> PMID:27312741
- Serra Poirier, C., Brendgen, M., Vitaro, F., Dionne, G., & Boivin, M. (2017). Contagion of anxiety symptoms among adolescent siblings: A twin study. *Journal of Research on Adolescence*, 27(1), 65–77. <https://doi.org/10.1111/jora.12254> PMID:28498537
- Shahar, B., Doron, G., & Szepeswol, O. (2015). Childhood maltreatment, shame-proneness and self-criticism in social anxiety disorder: A sequential mediational model. *Clinical Psychology & Psychotherapy*, 22, 570–579. <https://doi.org/10.1002/cpp.1918> PMID:25196782
- Shimada-Sugimoto, M., Otowa, T., & Hettema, J. M. (2015). Genetics of anxiety disorders: Genetic epidemiological and molecular studies in humans. *Psychiatry and Clinical Neurosciences*, 69, 388–401. <https://doi.org/10.1111/pcn.12291> PMID:25762210
- Spence, S. H., Donovan, C. L., March, S., Kenardy, J. A., & Hearn, C. S. (2017). Generic versus disorder specific cognitive behavior therapy for social anxiety disorder in youth: A randomized controlled trial using internet delivery. *Behaviour Research and Therapy*, 90, 41–57. <https://doi.org/10.1016/j.brat.2016.12.003> PMID:27988427
- Spence, S. H., & Rapee, R. M. (2016). The etiology of social anxiety disorder: An evidence-based model. *Behaviour Research and Therapy*, 86, 50–67. <https://doi.org/10.1016/j.brat.2016.06.007> PMID:27406470
- Stein, D. J., Lim, C. C. W., Roest, A. M., de Jonge, P., Aguilar-Gaxiola, S., Al-Hamzawi, A., Alonso, J., Benjet, C., Bromet, E. J., Bruffaerts, R., de Girolamo, G., Floresco, S., Gureje, O., Haro, J. M., Harris, M. G., He, Y., Hinkov, H., Horiguchi, I., Hu, C., . . . Scott, K. M., & the WHO World Mental Health Survey Collaborators. (2017). The cross-national epidemiology of social anxiety disorder: Data from the World Mental Health Survey Initiative. *BMC Medicine*, 15(1), 143. <https://doi.org/10.1186/s12916-017-0889-2> PMID:28756776
- Su, S., Pettit, G., & Erath, S. (2016). Peer relations, parental social coaching, and young adolescent social anxiety. *Journal of Applied Developmental Psychology*, 42, 89–97. <https://doi.org/10.1016/j.appdev.2015.11.007>
- Sweeney, C., Warner, C. M., Brice, C., Stewart, C., Ryan, J., Loeb, K. L., & McGrath, R. E. (2015). Identification of social anxiety in schools: The utility of a two-step screening process. *Contemporary School Psychology*, 19(4), 268–275. <https://doi.org/10.1007/s40688-015-0055-9> PMID:26609497
- Telman, L. G. E., van Steensel, F. J. A., Maric, M., & Bögels, S. M. (2018). What are the odds of anxiety disorders running in families? A family study of anxiety disorders in mothers, fathers, and siblings of children with anxiety disorders. *European Child & Adolescent Psychiatry*, 27, 615–624. <https://doi.org/10.1007/s00787-017-1076-x> PMID:29110074
- Van Zalk, N., Tillfors, M., & Trost, K. (2018). Mothers' and fathers' worry and over-control: One step closer to understanding early adolescent social anxiety. *Child Psychiatry and Human Development*, 49, 917–927. <https://doi.org/10.1007/s10578-018-0807-7> PMID:29730770
- Van Zalk, N., & Van Zalk, M. (2015). The importance of perceived care and connectedness with friends and parents for adolescent social anxiety. *Journal of Personality*, 83(3), 346–360. <https://doi.org/10.1111/jopy.12108> PMID:24957362
- Waite, P., & Creswell, C. (2014). Children and adolescents referred for treatment of anxiety disorders: Differences in clinical characteristics. *Journal of Affective Disorders*, 167, 326–332. <https://doi.org/10.1016/j.jad.2014.06.028> PMID:25016489
- Wang, M., Wu, X., & Wang, J. (2019). Paternal and maternal harsh parenting and Chinese adolescents' social anxiety: The different mediating roles of attachment insecurity with fathers and mothers. *Journal of Interpersonal Violence*. Advance online publication. <https://doi.org/10.1177/0886260519881531> PMID:31608734
- Weijers, D., van Steensel, F. J. A., & Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: A structural modeling approach. *Journal of Child and Family Studies*, 27, 1992–2003. <https://doi.org/10.1007/s10826-018-1024-5> PMID:29755251
- Weymouth, B. B., & Buehler, C. (2018). Early adolescents' relationships with parents, teachers, and peers and increases in social anxiety symptoms. *Journal of Family Psychology*, 32(4), 496–506. <https://doi.org/10.1037/fam0000396> PMID:29620376
- Weymouth, B. B., Fosco, G. M., Mak, H. W., Mayfield, K., LoBraico, E. J., & Feinberg, M. E. (2019). Implications of interparental conflict for adolescents' peer relationships: A longitudinal pathway through threat appraisals and social anxiety symptoms. *Developmental Psychology*, 55(7), 1509–1522. <https://doi.org/10.1037/dev0000731> PMID:31070436
- Wong, Q. J. J., & Rapee, R. M. (2016). The aetiology and maintenance of social anxiety disorder: A synthesis of complementary theoretical models and formulation of a new integrated model. *Journal of Affective Disorders*, 203, 84–100. <https://doi.org/10.1016/j.jad.2016.05.069> PMID:27280967
- Wu, Y. L., Zhao, X., Li, Y. F., Ding, X. X., Yang, H. Y., Bi, P., & Sun, Y. H. (2016). The risk and protective factors in the development of childhood social anxiety symptoms among Chinese children. *Psychiatry Research*, 240, 103–109. <https://doi.org/10.1016/j.psychres.2015.08.046> PMID:27092863
- Xu, J., Ni, S., Ran, M., & Zhang, C. (2017). The relationship between parenting styles and adolescents' social anxiety in migrant families: A study in Guangdong, China. *Frontiers in Psychiatry*, 8(626), 626. <https://doi.org/10.3389/fpsyg.2017.00626> PMID:28473798
- Yang, L., Zhou, X., Pu, J., Liu, L., Cuijpers, P., Zhang, Y., Zhang, H., Yuan, S., Teng, T., Tian, L., & Xie, P. (2019). Efficacy and acceptability of psychological interventions for social anxiety disorder in children and adolescents: A meta-analysis of randomized controlled trials. *European Child & Adolescent Psychiatry*, 28, 79–89. <https://doi.org/10.1007/s00787-018-1189-x> PMID:30006672
- Zarger, M., & Rich, B. (2016). Predictors of treatment utilization among adolescents with social anxiety disorder. *Children and Youth Services Review*, 71, 191–198. <https://doi.org/10.1016/j.childyouth.2016.11.011>
- Ziegler, C., Dannlowski, U., Bräuer, D., Stevens, S., Laeger, I., Wittmann, H., Kugel, H., Döbel, C., Hurlmann, R., Reif, A., Lesch, K. P., Heindel, W., Kirschbaum, C., Arolt, V., Gerlach, A. L., Hoyer, J., Deckert, J., Zwanzer, P., & Domschke, K. (2015). Oxytocin receptor gene methylation: Converging multi-level evidence for a role in social anxiety. *Neuropsychopharmacology*, 40, 1528–1538. <https://doi.org/10.1038/npp.2015.2> PMID:25563749