

SOCIAL ANXIETY DISORDER IN ADOLESCENCE AND
IMPLICATIONS FOR SCHOOL SETTINGS

By

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Abstract

Social anxiety disorder (SAD), sometimes referred to as social phobia, is a disorder in which an individual experiences fear of negative evaluation in social situations. The disorder has an early age of onset with approximately 60% of individuals retrospectively reporting symptom onset prior to 17 years of age (Rosellini et al., 2013). SAD is also common with a prevalence rate of 7% in community samples of children and adolescents (Beesdo-Baum, Knappe & Pine, 2009). Although SAD can be effectively treated, many adolescents do not seek help. As a result, they experience impaired functioning in a number of life domains such as academics and relationships that persist into adulthood and impact their quality of life. The education system has the potential to address the promotion, prevention, and intervention of mental health problems such as SAD at the classroom, school, and/or community level. Suggestions for policy and practice are discussed.

Keywords: social anxiety, social anxiety disorder, social phobia, adolescents, education, school-based mental health, mental health promotion, mental health prevention; mental health intervention

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Chapter 1: Introduction

Social anxiety disorder (SAD), sometimes referred to as social phobia, is a disorder in which an individual experiences fear of negative evaluation in social situations. A common age of onset is in adolescence (Rosellini et al., 2013). Adolescence begins around age 12 or 13 and continues until approximately 18 years of age. In Western societies, most adolescents attend secondary school and live at home with the family unit. However, relationships with parents become less important while friends move to the forefront and are perceived as the most important source of support (Furman & Buhrmester, 1992). Moreover, Furman and Buhrmester (1992) state that intimacy, mutuality, and self-disclosure with friends become increasingly essential during this time. It is during this stage that romantic relationships begin to emerge and by age 15, most adolescents will have had at least one romantic relationship (Brown, 2004). As a result of SAD, some adolescents may not be able to participate fully in the developmental milestones of adolescence such as the development of close friendships, the initiation of dating behaviour, and completion of secondary school. Furthermore, the impacts in adolescence may extend into adulthood and result in a reduction in the quality of relationships and employment opportunities. Furthermore, SAD has implications for the whole community (Mental Health Commission of Canada, 2011).

Mental health problems, such as SAD, pose a significant economic burden. On behalf of the Mental Health Commission of Canada, Smetanin et al. (2011) estimated the total financial burden of mental health. They conservatively estimated that the direct costs in 2011 were 42.3 billion with 6.3 billion in indirect costs. Direct costs include hospitalizations, physician visits, medication, and care and support staff. Indirect costs are losses in productivity such as short-term disability, long-term disability, and early death. The cumulative cost over the next 30 years is projected to exceed 2.5 trillion dollars.

The estimates provided by Smetanin et al. (2011) can be used in order to determine the approximate costs of SAD in Canada in 2011. The Mood Disorders Society of Canada (2009) estimated that 6.7% of Canadians met criteria for a diagnosis of SAD and because 19.8% of Canadians have a mental health illness (Smetanin et al, 2011), we can infer that approximately 34% of the costs associated with mental health problems can be directly attributed to SAD. Therefore, the direct costs in 2011 for SAD were 14.3 billion and 2.1 billion in indirect costs. The direct costs are probably somewhat of an overestimation considering that many individuals with SAD do not seek treatment, but the indirect costs through loss of productivity are likely greater. Nonetheless, mental health problems and SAD in particular, pose a significant economic burden to Canadians. However, social anxiety is not always negative; in some cases it can function positively.

Historically, researchers studied the negative aspects of social anxiety, but some researchers have described how social anxiety can be adaptive (Leitenberg, 1990). For instance, the fear of negative evaluation can motivate people to obey existing rules and conventions. Rasmussen and Dover (2006) supported the hypothesis that social anxiety can be adaptive and indicate that it may function to protect one's sense of physical or psychological safety. Additionally, anxiety is a state that has been shown to be a source of motivation in specific contexts. Yerkes and Dodson (1908) first described the relationship between arousal and performance using the inverted-U hypothesis. They indicated an optimal level of arousal on a task led to better performance than either arousal that was too low or too high. There have been mixed results in studies since then but more recent research suggests that certain variables, such as age or gender, may impact results. One study investigated age differences in working memory performance when experiencing tense arousal (Riediger et al, 2014). The results

suggested that anxiety experiences were associated with lower working memory performance but only in middle-aged and older adults, not in younger adults.

Regardless of whether or not anxiety may be adaptive for some individuals, for other individuals, anxiety goes beyond adaptive levels and interferes with daily activities such as work and school. An individual may be diagnosed with a Social Anxiety Disorder or Social Phobia if the level of social anxiety and social avoidance result in impaired functioning that reaches clinical significance. Social Phobia was first documented by the Diagnostic and Statistical Manual of Mental Disorders system in its third revision (Turner, Beidel & Townsley, 1992). Over the following revisions, the diagnostic criteria changed as well as the term used to describe social phobia. Therefore, the literature related to this topic employs various terms and definitions. For the purposes of this paper, research using the terms fear, anxious, social phobia (SP), social anxiety (SA), and SAD are considered.

The current version of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013a) outlines the following diagnostic criteria for SAD:

A. Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech).

Note: In children, the anxiety must occur in peer settings and not just during interactions with adults.

B. The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e., will be humiliating or embarrassing; will lead to rejection or offend others).

C. The social situations almost always provoke fear or anxiety.

Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, clinging, shrinking, or failing to speak in social situations.

D. The social situations are avoided or endured with intense fear or anxiety.

E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.

F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

G. The fear, anxiety or avoidance causes clinically significant distress or impairment in social, occupation, or other important areas of functioning.

H. The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.

I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder, such as panic disorder, body dysmorphic disorder, or autism spectrum disorder.

J. If another medical condition (e.g., Parkinson's disease, obesity, disfigurement from burns or injury) is present, the fear, anxiety, or avoidance is clearly unrelated or is excessive. (pp. 202-203)

Furthermore, the DSM-V (2013) explicates a “performance only” based SAD that involves anxiety restricted to speaking or performing in public with the absence of anxiety and/or avoidance of nonperformance based social situations.

The current definition utilized by the DSM-V has been an improvement over earlier versions of the DSM for a number of reasons (American Psychiatric Association, 2013b). First, the definition is now broader allowing for a diagnosis based on a larger variety of social situations such as conversations, not just performance situations. Hence, individuals who would not have been able to receive a diagnosis of SAD in the past, now can. Second, a timeframe criterion of experiencing symptoms for at least six months has been included for adults and children in order to prevent diagnoses of SAD in individuals experiencing brief or temporary fear. Third, recognizing fearful responses as excessive or unreasonable has shifted focus from the individual to the clinician because many individuals with SAD do not recognize their own symptoms as being unreasonable.

Although the DSM definition of SAD is most commonly used in the recent literature, some researchers have divided mental health concerns into two broad types: externalizing and internalizing problems (Merrell, 2008). This division is important to understand and consider when exploring SAD because it may help to understand problems relating to assessment and treatment as well as issues adolescents may face in school settings. Merrell (2008) defines externalizing problems as behaviours directed outward at others that are often disruptive to activities in the classroom. Conduct problems and hyperactivity-impulsivity are examples of externalizing problems. On the other hand, Merrell (2008) explains that internalizing problems develop and persist within the individual and result in little disruption to classroom instruction. Examples of internalizing problems are anxiety and depression. Although these two domains are separate, comorbidity is possible such that a student with a conduct disorder may develop social anxiety as a result of feeling inadequate in social situations, or a student who has anxiety may

become aggressive and exhibit disruptive behaviours. Consequently, comorbidities must be examined in relation to SAD.

Comorbidities can occur at any time and may confer additional impairments to individuals with SAD. Substance use disorders and anxiety disorders have been reported to co-occur, but some researchers have indicated that the apparent order of onset and the association with different anxiety disorders needs to be examined more precisely (Marmorstein, 2012). Marmorstein (2012) used data from the National Comorbidity Survey-Replication that included a cross-sectional sample from the United States. The data revealed that SAD was positively associated with substance use disorder but that SAD almost always had an onset prior to a substance use disorder developing. Some researchers have found that SAD in mid-adolescence initially functions in a protective manner such that avoidance of social situations makes it less likely that the adolescent will use substances such as alcohol or marijuana. However, marijuana use may begin as a method to cope with situations that are anxiety provoking (Buckner, Heimberg, Matthews & Silgado, 2012). Hence, individuals with SAD are at an increased risk of developing a substance use disorder.

A substance use disorder is only one possible comorbidity; it is also possible that an individual with SAD can have another anxiety disorder or even a mood disorder. Fehm, Beesdo, Jacobi, and Fiedler (2008) found the odds ratio of having another anxiety disorder to be 22.2 and a mood disorder to be 19.7 suggesting high rates of comorbidity for these particular mental health concerns. Research has also suggested that people with comorbid SAD and major depressive disorder (MDD) have higher levels of suicidal ideation, suicide attempts, specific suicide plans, and past hospitalization from attempts than those with only MDD (Cogle, Keough, Riccardi & Sachs-Ericsson, 2009). Therefore, it would appear that individuals with

SAD are at risk of developing other mental health problems that may confer more negative impacts than SAD alone. As a result of these impacts, there will likely be large costs associated with health care.

Compared to earlier versions, the DSM-V has an improved capacity to accurately diagnose SAD. Receiving a timely diagnosis of SAD can ameliorate some of the additional negative consequences that may result, such as the likelihood of developing a comorbid mental health problem. In order to determine how common SAD is in adolescence, the prevalence rates are explored.

Prevalence Rates

In order to determine the prevalence rate of SAD, research often focuses on community samples to obtain an accurate depiction of the prevalence rate of SAD in the community of interest. In 2012, Statistics Canada administered the Mental Health and Well-being Survey to a sample of Canadians 15 years of age and older. They reported that the 12-month prevalence rate for any anxiety disorder was approximately 12% and that 2.6% of Canadians in this sample reported symptoms consistent with generalized anxiety disorder. However, this report may not provide an accurate depiction of SAD in the adolescent population. First, the survey only determined the symptoms that may be consistent with generalized anxiety disorder and not SAD specifically, and second, the sample included adults.

A study conducted in the United States aimed to delineate the prevalence rate of anxiety in the adolescent population. The National Comorbidity Survey—Adolescent Supplement (NCS-A) was administered to 10,123 participants between the ages of 13 to 18 (Merikangas et al., 2010). In order to generate DSM-IV diagnoses, the researchers used a modified version of the World Health Organization (WHO) Composite International Diagnostic Interview (Version

3.0), which is a fully structured interview that was administered by trained lay interviewers. The researchers determined that 31.9% of adolescents in this survey met diagnostic criteria for an anxiety disorder and it was the most common diagnosed condition in this sample. This is a much larger percentage than was found in the Mental Health and Well-Being Survey administered in Canada. Some possible explanations may be that the samples varied due to the age range of the participants, country of origin, and the two studies used different assessment instruments, and diagnostic systems. However, it is possible that a similar prevalence rate for anxiety could be found in Canadian adolescents.

The two studies discussed above have not accurately addressed the prevalence rate of SAD in the adolescent population. One study that aimed to provide an accurate prevalence rate of social phobia in adolescence was a review conducted by Beesdo-Baum, Knappe, and Pine (2009). These researchers examined the epidemiological findings related to social phobia from 1990 to 2007. They concluded that approximately 7% of the community samples of children and adolescents had social phobia and that social phobia was the second most common anxiety disorder. However, this study included data from many different countries that used different assessment and diagnostic instruments. As a result, the prevalence rate for SAD in adolescence is difficult to ascertain but nonetheless, the data presented above demonstrates that SAD in adolescence is common enough to warrant concern.

Age of Onset

Research on age of onset of SAD appears to be based almost exclusively on treatment; however, another layer of complexity exists in that much of the research in this area examines retrospective data and may hence, be subject to recall bias. Therefore, there is also variability in the reported age of onset as a result. Earlier research by Turner et al. (1990) found that the

average age of onset was in early to middle adolescence, around the age of 16 years. Prior to the Turner and colleagues (1990) study, little research was conducted on children and adolescents because mental wellbeing and anxiety were seen as predominantly adult concerns. More recently, Rosellini et al. (2013) conducted a retrospective study using a sample of 210 participants between the ages of 17 to 24 years accessing assessment and treatment at Boston University's Center for Anxiety and Related Disorders. They found that 21% of participants reported having an age of onset during early childhood (10 years or younger), 10% during middle childhood (10-13), 28.1% during adolescence (14-17), 19.5% during late adolescence/young adulthood (18-22), and 11.4% during adulthood (23 or older).

Therefore, SAD has an early age of onset and is prevalent in adolescent populations. It has been demonstrated that there are negative impacts associated with SAD that affect the adolescent and society. In order to prevent the onset of SAD, or to at least prevent additional negative consequences for the adolescent, knowing what the risks are could inform the practices of parents, educators, clinicians, and researchers.

Chapter 2: Etiology of SAD

Understanding the risk factors that contribute to the development and maintenance of SAD is important so that appropriate interventions can be designed. One theory that lends itself well to this study is the developmental psychopathology perspective (Cicchetti & Cohen, 1995), which postulates that psychopathology results from multiple causal influences, that it is important to understand both successful and unsuccessful adaptations, and that it occurs in a developing organism. Looking more specifically at the multiple causal influences, factors relating to an individual's biology, psychology, and environment are associated with onset and need to be addressed.

The Biological Basis of SAD

There are three main areas of biological research that are examining the biological contribution to the development of SAD; behavioural-genetic research, neuroimaging studies, and neuroendocrinology. Behavioural-genetic research aims to quantify the incidence of SAD in individuals with a familial connection and compare this to the incidence in controls. Neuroimaging studies look at how various brain structures may be involved in the development of SAD, and neuroendocrinology examines the extent to which certain neurotransmitters may be linked to the presence of SAD. Each of these three main areas is discussed below.

Behavioural-genetic research. Behavioural-genetic research was the first attempt to prove that excessive fear and anxiety had a biological basis. Because advanced technologies were unavailable for use in earlier studies, researchers needed to use more novel procedures so data on twins and relatives were used to lend some support for the genetic transmission of childhood anxiety disorders. One early study looked specifically at twins and determined that a twin's level of fearfulness could be predicted from a co-twin's score on the Fear Survey Schedule for Children-Revised (Stevenson, Batten, & Cherner, 1992). Furthermore, these

researchers noted that the frequency of fears for monozygotic twins were more similar than for dizygotic twins, lending support for the genetic transmission of fears because monozygotic twins share more genes compared to dizygotic twins. A criticism of this study is that it is assessing fears as opposed to anxiety or SAD. In order to address this concern, other studies that examined the familial transmission of social anxiety are explored next.

In order to determine if parental psychopathology impacted the development of SAD in adolescence, Knappe et al. (2009) used a community sample of 1395 adolescents from Munich, Germany that were prospectively studied over 10 years. Parental psychopathology was assessed according to the DSM-IV criteria using the computer assisted version of the Munich Composite International Diagnostic Interview (DIA-X/M-CIDI) and supplemented by family history reports. These researchers found that having a parent with social phobia, any anxiety disorder, depression, or alcohol use disorders was associated with an offspring's risk of developing SAD.

The results of the Knappe et al. (2009) study lend some additional support to the genetic basis of the development of SAD. However, these studies are only able to indicate that there is an association between the presence of SAD amongst family members without the ability to hypothesize on the mechanism of transmission. With advances in technology, researchers are now able to examine the physical structure of the brain through neuroimaging to observe the specific brain structures that may be involved in the behavioural expression of SAD.

Neuroimaging studies. Neuroimaging studies became possible around the 1980s for diagnostic and research purposes. Hence, researchers were able to not only obtain images of the brain but also images of how the brain was functioning. Structures in the brain that are of particular interest in the behavioural expression of SAD are the amygdala, the prefrontal and anterior cingulate cortices, and the orbitofrontal cortex (OFC; Davidson, 2002; Goldin et al.,

2009; Machado-de-Sousa et al. 2014; Milad et al., 2007). The amygdala responds to fear and the OFC underlies social behaviour such as emotion and decision-making (Davis, 1992). The medial orbitofrontal cortex is responsible for monitoring, learning, and memory of the reward value of reinforcers, while the lateral orbitofrontal cortex is associated with evaluation of punishers that can lead to changes in behavior (Kringelbach & Rolls, 2004). The hypothesis that increased activity in the amygdala paired with OFC dysfunction during exposure to social situations may cause an individual to experience the situation as fearful was first supported using brain-imaging data (Tillfors et al., 2001).

To demonstrate the involvement of the amygdala in the experience of SAD, Evans et al. (2008) used neuroimaging to determine if angry schematic faces would induce exaggerated amygdalar responses in participants with SAD as compared to participants with no disorder. They chose angry faces because individuals with SAD have a fear of being negatively evaluated. They found that participants with SAD exhibited exaggerated responses in the right amygdala compared to participants without SAD. In another experiment, Blair et al. (2011) used functional magnetic resonance imaging of the medial prefrontal cortex (MPFC) to show its involvement in SAD. They had participants read first person (e.g., I'm ugly) and second person (e.g., You're ugly) viewpoint comments. They found that the participants with SAD showed more activation in the MPFC during second person viewpoint comments than participants without SAD. Additionally, the reduction in MPFC activity during first person viewpoint comments was correlated significantly with the severity of social anxiety symptoms. These authors concluded that individuals with social anxiety relate their self-concept to the view of others. Links have also been drawn between variations in the RGS2 gene, childhood behavioural

inhibition, and amygdala activation in participants with social anxiety (Smoller et al., 2008).

Therefore, it would appear that the amygdala is involved in the experience of SAD.

Other researchers have examined the structural differences in the brain regions. Irle et al. (2010) found that men with generalized social anxiety (GSA) had decreased amygdalar and hippocampal volumes compared to those without GSA. Another study found that there were no volumetric differences in the amygdala and hippocampus of participants with social anxiety versus those without social anxiety (Syal et al., 2012). Yet another group of researchers obtained increased amygdalar and hippocampal volumes in anxious individuals compared to controls within their study (Machado-de-Sousa et al., 2014). This difference in results can be explained by the impacts of increased metabolic activity on brain structures, stress-induced brain plasticity, and finally, the participants in each study. First, it is hypothesized that increased metabolic activity in certain brain structures may lead to increased blood flow, which may result in small volume increases (Frodl et al. 2003). Second, research using rats has shown that chronic stress that increases anxiety-like behaviour is associated with dendritic hypertrophy in the basolateral amygdala and dendritic atrophy in the hippocampal area (Vyas & Chattarji, 2004). As a result, there may be small volume decreases in this case. Third, comparing the participants in the studies conducted by Machado-de-Sousa et al. (2014), Syal et al. (2012), and Irle et al. (2010) allows one to recognize that the participants in Machado-de-Sousa et al.'s study were on average, 10 years younger than the participants in either of the other two studies. This difference in age is important because prolonged stress, which is a direct result of social anxiety, may lead to atrophy of particular brain structures. Additionally, the participants in the Machado-de-Sousa et al. (2014) study had not received any treatment for their disorder and they refrained from ingesting food and beverages that could have impacted their results.

Neuroimaging studies have allowed researchers to implicate various brain structures with SAD. More research is required in order to determine if there is a genetic basis to the variation in brain structures or if the variation is impacted by the behavioural expression of SAD over time. In order to learn more about the relationship between the genetic basis and the behavioural expression of SAD, longitudinal studies would need to examine if and how brain structures change over time. Additionally, further investigation into the interaction of different brain structures in the behavioural expression of SAD is necessary. However, examination of brain structures is only one piece of the puzzle, neuroendocrinology must also be investigated.

Neuroendocrinology. Specific neurotransmitters have also been associated in the expression of SAD. Of particular interest are gamma-aminobutyric acid (GABA), dopamine, and serotonin. Data from earlier animal studies indicated that decreases in the GABA levels in the brain were associated with the development of anxiety-like behaviour (Dalvi & Rodgers, 2001). The association between GABA levels and behaviour in animals have provided some evidence for researchers to begin examining GABA levels in the human brain to determine if GABA levels could be involved in the expression of SAD. Pollack et al. (2008) used proton magnetic resonance spectroscopy to look more specifically at levels of GABA in human brain structures. They found that although the whole brain of individuals with and without SAD had the same mean level of GABA, there was a difference in the mean level in the thalamus with individuals with SAD having a significantly lower mean than controls. Consequently, there appears to be some association between the experience of SAD and increased concentration of GABA in certain brain structures.

Looking at the involvement of dopamine in the expression of SAD, some studies have demonstrated an association between dopamine active transporter (DAT) and the development of

social phobia (Tiihonen et al., 1997). Tiihonen and colleagues (1997) found that participants with social phobia had lower striatal dopamine reuptake site densities than gender and age matched controls. On the other hand, more recent studies have found conflicting results. For instance, a study conducted by Wee et al. (2008) found that there was increased DAT binding while Schneier et al. (2009) found no difference in DAT binding and the expression of social phobia. In order to address the conflicting evidence available, Warwick et al. (2012) used a voxel-based analysis in order to explore the effects of selective serotonin reuptake inhibitor (SSRI) pharmacotherapy on DAT binding. The voxel-based approach allowed the investigators to consider focal differences in brain anatomy and is based on statistical parametric mapping. Their results indicated that there was increased DAT binding in localized areas of the brain: the left caudate, and the left putamen. Therefore, they concluded that there is altered striatal dopaminergic functioning in individuals with SAD and that SSRI pharmacotherapy of SAD may increase striatal dopaminergic tone.

To assess the involvement of serotonin in the development of SAD, Lanzenberger et al. (2007) conducted a study using positron emission tomography (PET) and a radioligand ([carbonyl-¹¹C]WAY-100635) in order to obtain high contrast scans of various brain regions. Their results demonstrated lower serotonin-1A receptor binding in the amygdala and mesiofrontal areas of SAD participants when compared to participants without SAD. Thus, the ability to bind serotonin may be involved in the expression of SAD.

Therefore, there is some evidence to suggest that biological factors play a role in the development and expression of SAD. Immediate family members, and in particular, twin studies, have demonstrated a potential genetic link. With the advent of certain technologies, researchers are able to look more closely at brain structures and neurotransmitters that may be

associated with the expression of SAD. It is possible that the individual differences that have been found in these structures and neurotransmitters may be genetic in nature. However, genetic factors alone do not fully explain the occurrence of SAD. It is possible that certain environmental conditions may enhance or diminish the expression of SAD.

Environmental Factors

Another area that has been shown to impact the development of SAD is the environment to which adolescents are exposed. The nature of this interaction is likely bidirectional such that the environment influences the adolescent and the adolescent influences the environment. In their review, Brook and Schmidt (2008) identify four particular areas that have an impact, including parenting and family environment, adverse life events, society and cultural factors, including gender roles, which are discussed next. They indicate that these factors are not discreet topics but rather, their borders are somewhat indistinguishable.

Parenting and family environment. Even though relationships with parents and family become less important in adolescence while friends move to the forefront, parents and the family environment continue to be influential. For the most part, many adolescents continue to live in the parental home and are impacted by parent's past and present psychopathology, parenting style, and parenting behaviour. In order to determine if family environment impacts SAD in adolescence, Knappe et al. (2009) prospectively studied a community sample of 1395 adolescents aged 14 to 17 years at baseline from Munich, Germany. Adolescent perceived parental rearing was assessed using the German version of the Questionnaire of Recalled Parental Rearing Behaviour. The German version of the McMaster Family Assessment was used to assess six dimensions of family functioning: problem solving, communication, role behaviour, affective responsiveness, affective involvement, and behaviour control. These researchers found

that parental rearing styles of overprotection, rejection, and lack of emotional warmth were associated with an offspring's risk of developing social phobia. However, family functioning measures were not associated with an increased risk of offspring developing social phobia. Furthermore, there was a significant interaction between parenting style and psychopathology such that greater parental psychopathology and parental rearing styles of overprotection, rejection, and lack of warmth contributed to a greater risk of social phobia in adolescence.

Knappe et al. (2009) demonstrated that there is an association between parental psychopathology and parental rearing in the development of social phobia in a community sample. However, there are limitations to this study. First, this study relied on reports of offspring's perceived parental rearing instead of using an objective measure. It is possible that offspring perception may be impacted by either parental psychopathology or offspring psychopathology. Another drawback was that the research was conducted primarily with mothers. Actually, only 27 interviews were conducted with a father and this was only as a result of the mother being unavailable. Some researchers have implied that the father's contribution to parenting is similar to the mother's but this may not be the case (Brook & Schmidt, 2008). Therefore, these results cannot be applied to parenting in general because this study did not have sufficient participation from fathers in order to assess the unique contribution of a father's psychopathology or parental rearing.

In an attempt to demonstrate that parental behaviour by mothers and fathers differentially impacts social anxiety in childhood, Majdandzic et al. (2014) used the birth records of the Municipal Health Service of Amsterdam to recruit 94 families with two children aged two and four to partake in their study. They operationally defined challenging parental behaviour as a playful behaviour aimed at pushing a child to his or her limits (e.g. Show me you can do it!).

Parenting behaviour of mothers and fathers was assessed separately using a 10-minute puzzle task and two 7.5 min. game tasks that were too difficult for the children to complete independently, thus requiring adult assistance. On one occasion, the children went to the university research center with their mother and on another occasion, they went with their father. At these visits and approximately six months later, child social behavioural inhibition was assessed using the episode Stranger Approach in which a male stranger engaged a child in a conversation when the child was alone. The interaction was coded using five time intervals and measured intensity of facial fear, intensity of bodily fear, intensity of verbal fear, withdrawal, gaze aversion, and verbal hesitancy on 2 to 4 point scales. From their results, the authors concluded that paternal challenging parental behaviour decreased social behavioural inhibition in first-born children, but maternal challenging parenting behaviour appeared to increase social behavioural inhibition in these same children. The same result was not found for second born children. This study is a recent attempt to understand the differential impacts of maternal and paternal parenting behaviour on children and birth order.

There appears to be some evidence that parental psychopathology, parental rearing, and parental behaviour impact social anxiety in adolescents. Also, there is some evidence to suggest that there are unique and differential contributions from mothers and fathers in parenting behaviour that may be implicated in social anxiety with young kids. However, it is important to remember that there may be a bidirectional relationship between parenting factors and the development or maintenance of SAD. Adverse life events are considered next.

Adverse life conditions. Another environmental risk factor that needs to be addressed is adverse life events. There are two main categories: pre and perinatal conditions, as well as traumatic events in childhood. Looking more closely at pre and perinatal life conditions, there is

some scientific literature that connects antenatal maternal stress and anxiety to later behavioural and emotional problems in children (Glover, 2011). One theory used to explain maternal stress on increased psychosocial problems in children is the neurobiological model developed by O'Keane and Scott (2005). They posit that maternal stress results in high levels of cortisol that cross the placenta, impacting the fetus by inhibiting intra-uterine growth, initiating early birth, and altering the glucocorticoid receptors in the brain. The theorized outcome is that the hypothalamic-pituitary-adrenal axis (HPA) is set on high, resulting in a constant endocrine stress response.

Lending some support to this model and the negative impact of prenatal maternal stress on psychosocial development in offspring, was a study conducted by Ping and her colleagues (2015). They recruited women who were pregnant during the 2008 Iowa floods to take part in their study and assessed their objective exposure and their subjective distress levels within three months of the flood. When the offspring were about two and a half years old, the stress response of offspring was assessed at a laboratory at Iowa University using a two-minute mother-toddler separation to induce stress. Salivary samples were obtained from the toddlers at four different time intervals to measure cortisol levels: 10 min. after arriving at the laboratory, another sample 45 minutes later which was 15 minutes prior to maternal separation, 20 minutes post separation, and 40 minutes post separation. The results demonstrated that objective and subjective prenatal maternal stress were positively correlated with cortisol increase. Furthermore, the authors found a larger cortisol increase in toddler salivary samples if their mother experienced the stressor later in her pregnancy. These authors concluded that prenatal maternal stress impacted the psychosocial development of offspring.

There is also evidence suggesting that traumatic life events and SAD are linked (Binelli et al., 2012; Kuo, Goldin, Werner, Heimberg & Gross, 2011). In the literature, traumatic life events such as loss of a loved one, emotional abuse, emotional neglect, physical abuse, physical neglect, family violence, and sexual abuse are often considered. However, many studies provide conflicting results. One study conducted by Kuo et al. (2011) examined five forms of traumatic life events in childhood (sexual abuse, physical abuse, physical neglect, emotional abuse, and emotional neglect) and their association with SAD in university students. The short form of the Childhood Trauma Questionnaire (CTQ-SF) and the Social Interaction Anxiety Scale were administered to 102 individuals who met DSM-IV-TR criteria for a primary diagnosis of SAD and 30 healthy controls. The CTQ-SF was completed by participants and responses were recorded on a 5-point Likert-type scale ranging from never true to very often true. Participants with SAD reported more childhood emotional abuse and emotional neglect than the healthy controls and the severity of SAD was associated with emotional abuse and emotional neglect but not with sexual abuse, physical abuse, or physical neglect.

In another study, university students were once again selected as participants, but there were differences in how SAD and childhood traumatic life events were measured. Binelli et al. (2012) included analysis of 571 university participants who were recruited through campus advertisements distributed in different locations. The negative life events assessed in this study were the loss of someone close, emotional abuse, physical abuse, family violence, and sexual abuse. Each of these measures was assessed using a dichotomous scale via a semi-structured interview. In order to assess social anxiety, the Liebowitz Social Anxiety Scale was used. The results of this study suggested that there was a positive association between family violence and

social anxiety score but associations were not found with the other childhood traumatic life events included in the study.

It is possible that the two studies above may have found conflicting evidence due to a number of factors. First, although both studies used university students, the study by Kuo et al. (2011) recruited many participants with SAD who were accessing support whereas the study by Binelli et al. (2012) recruited participants from the university at large. Second, both studies used different assessment instruments for anxiety and negative life events and could have defined SAD differently. Looking more specifically at negative life events, the results of the Kuo et al. (2011) study could have been impacted by the fact that they used a dichotomous scale instead of a Likert-type scale and their responses were recorded using an interviewer.

Other potential traumatic life events that may be implicated in the expression of SAD are teasing and bullying. Teasing creates an ambiguous situation because it can be interpreted negatively or positively. Because individuals with SAD may interpret ambiguous social situations negatively, they may be more inclined to interpret teasing as negative, even when the intention was to bond or to be playful. A study conducted by Nowakowski and Antony (2013) aimed to determine how individuals with social anxiety react to and interpret teasing. Although they did not use a control group, their findings draw attention to the fact that individuals with different levels of social anxiety may interpret and be impacted by teasing differently. In comparison to the participants in the low social anxiety group, participants in the high social anxiety group in this study indicated that they would experience more negative affect as a result of the teasing scenarios that were presented and interpreted the teasing as more hateful and mean-spirited. Participants who had higher levels of social anxiety were also more likely to indicate that they would change the behaviour that was the focus of the teasing.

Teasing is often meant to be playful without the intention to negatively impact an individual, but this is not the case for bullying. There are four main manifestations of bullying including physical, verbal, social exclusion, and attempts to damage social relationships (Smith & Brain, 2000). In an effort to determine if these forms of bullying could predict social anxiety and to determine if coping moderated this relationship, Boulton (2013) recruited 582 university students to take part in his investigation. He created and administered the Retrospective Childhood Peer Victimization Scale to tap the four common forms of victimization. In order to measure the coping processes of participants, the Ways of Coping Questionnaire-Revised was used while the Social Phobia inventory was used to assess SA. Using a standard multiple regression with social anxiety as the dependent variable and controlling for gender, Boulton (2013) found that 16.8% of the variance in social anxiety could be explained by the four victimization measures. Additionally, he found that higher levels of social exclusion and social relationship forms of victimization predicted greater social anxiety and were significant unique predictors. Coping emerged as a moderator between peer victimization and social anxiety for all forms of peer victimization tested with the exception of relational. This study provides evidence that social anxiety can be predicted by some forms of childhood bullying and that coping is a moderator in this relationship.

Therefore, there appears to be an association between certain adverse life events and SAD. The research in this area is inconclusive for the most part, but it is likely that there are a range of adverse life events that may interact with other factors in either the expression or suppression of SAD. Other factors that may be of interest when studying the etiological underpinnings of SAD include the societal and cultural environments in which children grown up.

Societal and cultural factors. Societal and cultural factors vary quite a bit across the globe so it is necessary to consider these factors in relation to SAD. The following societal factors were included for analysis because there is some evidence in the literature to support their association with the expression of SAD: socioeconomic status (SES), different birth cohorts, and the use of technology. Cultural factors, such as cultural norms, may also be implicated in SAD.

Although SES is included in this section, SES actually crosses more than one factor so it is not only implicated in societal factors. In an effort to determine if SES is associated with mental health problems in children four to 18 years of age, Reiss (2013) reviewed research articles in English and German conducted between 1990 and 2011 using child and adolescent populations. Only studies that used validated instruments to assess mental health were included in the review but a variety of SES markers were included such as household income, poverty, parental education, parental occupation status, etc. In the end, 55 studies met criteria for inclusion in this review. The most important finding was that children and adolescents who were socioeconomically disadvantaged were two to three times more likely to develop mental health problems. Even though SAD was not directly assessed in this meta-analysis, increases in mental health problems can accompany increased rates of SAD. Reiss (2013) highlights the importance of reducing socioeconomic inequalities to improve mental wellness in children and adolescence. If these inequalities are not improved, then a perpetuating cycle of low SES and mental health may result.

Additionally, the fact that the environment in which different cohorts of children and adolescents have grown up in is continuously changing has led some researchers to study different birth cohorts and the prevalence of SAD. In order to determine if changes in anxiety are occurring over time, Twenge (2000) studied birth cohorts between the years of 1952 and

1993 by collecting data from child and college students over that period. In his meta-analysis, he reported that children from the 1980s had substantially higher levels of anxiety than children from the 1950s. This increase over time was shown to be associated with an increase in measures of environmental dangers and decreases in recorded social connectedness.

As a result of changes in technology, the manner in which adolescents maintain social connections has changed. Adolescents now have access to online social sites, text messaging, email, and instant messaging and this is changing the manner in which they communicate and maintain relationships. In order to gain a deeper understanding of technology access and its usage by adolescents, data from the Pew Research Center will be examined. Although the data represent American adolescents, arguably, adolescents in Canada are likely similar. According to PEW Research (2015), 87% of adolescents own a computer or laptop and about three-quarters of adolescents own or have access to a smartphone. On the other hand, only 12% of adolescents indicate that they do not have a cell phone of any type. Among adolescents who have a mobile device, 94% go online at least once daily and they send and receive about 30 text messages per day. PEW Research also indicates that Facebook is the most popular form of social media, being used by 71% of adolescents. Hence, adolescents have relatively easy access to technology and the Internet and are engaging in a great deal of social interaction via this forum.

Research into technology use and the multitasking of media on the impacts of adolescent wellbeing is only beginning to be explored. There is some evidence to indicate that media use, whether used for interpersonal communication or entertainment, impacts wellbeing (Pea et al., 2012). Pea (2012) and colleagues conducted an online survey of 3461 girls from North America aged 8-12. They found that negative social wellbeing was positively associated with media usage. However, this study included only a sample of girls, some of whom were children, so

the results may not apply to boys or to adolescents. Also, this study was conducted using participants who had access to Discovery Girls magazine and the ability to access the online environment, hence, the results may not be generalizable. Furthermore, there were no direct measures of social anxiety in this particular study, only measures of wellbeing based on responses to prompts about social success and normalcy feelings.

In another study that looked at media multitasking, it was determined that media multitasking may represent a unique risk factor for mental health problems such as depression and social anxiety (Becker, Alzahabi, & Hopwood, 2013). The investigators in this study surveyed 319 undergraduate students at Michigan State University who participated for course credit or for extra credit. The questionnaires administered included the Patient Health Questionnaire, the Social Phobia Inventory (SPIN), the neuroticism and extroversion scales of the Big Five Inventory (BFI), and the Media Multitasking Index Questionnaire (MMI). The researchers used a hierarchical multiple regression analysis with social anxiety as the dependent variable and controlled for extraversion and neuroticism. They found that media multitasking was a unique predictor of self-reported symptoms of social anxiety, however, based on the study design, the researchers were unable to determine the direction of causation. It could be that individuals in this sample with social anxiety tended to media multitask or that the act of engaging in media multitasking results in increased levels of social anxiety.

Additional research is required in order to more fully understand the relationship between SAD and media use. It is possible that social media provides an avenue for individuals with SAD to develop and maintain friendships that might be difficult to do otherwise and may actually provide them with a better quality of life. However, it is equally possible that symptoms associated with SAD can be exacerbated because individuals may use social media as a crutch,

thereby increasing their discomfort in engaging in face-to-face social interactions or even preventing them altogether.

Another area that needs to be assessed as a risk factor for SAD is culture because social rules within a society may influence emotional development. Hofmann, Asnaani, and Hinton (2010) sought to review the literature on cultural differences and prevalence rates of SAD to delineate this relationship. They searched PubMed and PsycInfo databases and found 602 articles that met inclusion criteria for their review. Hofmann and colleagues analyzed the studies to determine cultural differences in the prevalence rates of SAD and the mechanisms involved in its expression that may be influenced by culture. Their analysis demonstrated that Asian samples had some of the lowest diagnosed rates of SAD while Russian and American samples had some of the highest rates. It was also communicated that there were some key factors that are influenced by culture that may be involved in SAD. These factors were individualism/collectivism, perception of social norms, self-construal, and gender role and gender identification.

Heinrichs et al. (2006) assessed perceived social norms and the level of social anxiety in eight countries: three countries were collectivistic and five were individualistic. Collectivist societies consist of individuals who pursue harmony with the group and exclude their own individual needs. In contrast, individualist societies are focused on individual feelings and thoughts that may be seen as more important than the needs of the group. Participants responded to vignettes based on societal norms across cultures and completed questionnaires assessing their level of social anxiety. An example of a vignette that was used was, “You are sitting in a math class. The lecturer writes a problem on the board and asks if anybody can solve the problem. You can see that the woman sitting next to you has already worked out the problem but she does

not step forward,” (p. 1190). When commenting on cultural norms within their own societies, data showed that participants from collectivistic societies were more accepting of withdrawn behaviour than those of individualistic societies. However, when asked about their personal perspectives, all participants were equally accepting of these same behaviours. Additionally, collectivist participants reported greater overall levels of the presence of social anxiety. Therefore, the authors concluded that there is a correlation between cultural acceptance of withdrawn behaviour and the incidence of SAD.

Essau et al. (2012) examined the association between social anxiety, self-construals, and perceived social norms, in a total of 886 young adults from Hong Kong and the United Kingdom (UK). Participants completed three measures: The Social Interaction Anxiety Scale to assess anxiety in social interactions, the Self-Construal Scale to measure the participant's beliefs about the relationship between the self and others, and 17 hypothetical Social Behaviour Vignettes. Overall, the results showed that the participants from Hong Kong scored higher in social anxiety and interdependent self-construal than the UK participants. In order to determine if gender, self-construal, and social norms accounted for the variance in social anxiety, Essau and colleagues (2012) used a hierarchical regression analysis. Looking at gender, women scored higher on social anxiety and lower on independent self-construal than men. Also, independent self-construal was negatively correlated with social anxiety symptoms.

In summation, environmental factors have been implicated in the expression of SAD. As communicated above, parental psychopathology, parental style, and parental behaviour are factors that have received attention in the literature and it appears as though both mother and father are important to consider. Also, environmental influences in the prenatal and perinatal environment as well as traumatic events such as abuse may be associated in the development of

SAD. Furthermore, it is important to examine societal factors such as SES, the prevalence rates of anxiety in different cohorts, and how the use of technology may impact the development or maintenance of SAD. Moreover, cultural norms require examination because there is evidence to suggest that these factors may also play a role. In the next section, psychological factors are explored.

Psychological Factors

Much of the research on the involvement of psychological factors in the development and maintenance of anxiety has been descriptive and correlational in nature (Amir & Bomyea, 2010). Amir and Bomyea (2010) posit that the maintenance of SAD results from information processing biases that influence attention, memory and the interpretation of threat-relevant information. Each of these factors is considered below.

Attention. Humans have a limited capacity to attend to information in the environment, therefore, some information is attended to while other information is ignored. The Stroop task is one method that some researchers have used to examine attentional bias for threat-relevant information in individuals with anxiety (Williams, Mathews, & MacLeod, 1996). In this task, participants are asked to name the colour that emotional words are written in while ignoring the meaning of the words. Using the Stroop task, Spector, Pecknold, and Libman (2003) found that participants with social anxiety were slower than participants without social anxiety at naming the colour for socially relevant threat words than for neutral words. However, Amir and Bomyea (2010) criticize that the Stroop task may involve inhibition of word meaning and is therefore not a pure measure of attention.

Researchers attempting to use more direct measures of attention to examine attentional biases for threat-relevant material have used the probe detection task (MacLeod, Mathews, &

Tata, 1986). In the probe detection task, participants are simultaneously presented with a threat and a non-threat word, one on top of the other. A probe is then placed in the position of one of the two words and participants are instructed to identify the location of the probe by pressing one of two buttons and their reaction time is measured. Using this method, Musa, Lepine, Clark, Mansell, and Ehlers (2003) found that participants with SAD had an attentional bias towards threat words. A modification was made to the probe detection task to utilize facial expressions rather than words (Chen, Ehlers, Clark & Mansell, 2002). Chen et al. (2002) found that participants with anxiety had a slower reaction time for detecting the dot when it appeared on the spatial location of a previously presented negative face than for a neutral face. They suggested that individuals with anxiety may show an attentional bias away from threatening faces. However, other researchers have provided evidence that individuals with social anxiety have an attentional bias toward threat faces (Mogg, Philippot, & Bradley, 2004).

Horley, Williams, Gonsalvez, and Gordon (2004) provided a possible explanation for the inconsistent findings. These researchers contended that behavioural measures are an indirect measurement of attentional processing and can be confounded by post-perceptual processes such as decision-making and motor responses. In order to investigate attentional processes more directly, Mueller et al. (2009) used measurements of brain electrical activity through event-related potentials (ERPs) and source localization techniques with the dot probe task using facial expressions. Three main results are noteworthy. First, participants with SAD had a greater attentional bias toward angry faces relative to happy faces compared to the control group. Second, participants with SAD demonstrated less attentional bias when probes replaced emotional rather than neutral faces, whereas control participants showed the opposite result.

Third, participants with SAD had a faster reaction time to probes replacing angry versus happy faces.

In summary, the literature indicates that attentional bias may be associated with SAD. It has been demonstrated through a diverse range of studies using various methodologies that individuals with social anxiety can be characterized by an attentional bias toward threat-relevant information. However, more research is required as not all studies are consistent in their results. Some explanations for the lack of consistency may be methodological issues (Weierich, Treat, & Hollingworth, 2008) or even the level of threat (Helfinstein, White, Bar-Haim & Fox, 2008). For example, Weierich et al. (2008) criticize studies for using stimuli in their experiments that do not correspond well to the actual stimuli that are encountered in the world. Their second criticism is based on the comparison stimuli. In most studies, a neutral or positive comparison stimulus is used as a control but a negative, non-threat stimuli is not.

Interpretation biases. The manner in which an individual with SAD interprets social interactions is also important in understanding the etiology and maintenance of SAD. Social interactions are characteristically ambiguous and require one to judge the adequacy of one's performance and judge the approval or disapproval of others (Amir & Bomyea, 2010). A number of methods have been employed to examine interpretation bias in anxiety with semantic, verbal stimuli. One method is the interpretation of ambiguous sentences (Eysenck, Mogg, May, Richards, & Mathews, 1991). Another method is using ambiguous videos (Amir, Beard & Przeworski, 2005) and a variation of this exists using interpretations of positive scenarios (Vassilopoulos, 2006).

Beginning with ambiguous sentences, Eysenck et al. (1991) had participants listen to sentences that could lead to negative or neutral interpretations. Afterward, participants were

asked to complete a recognition test that included alternate versions of the sentences that were either unambiguously threatening or emotionally neutral and then rate the sentences for its similarity to the original. Participants with anxiety validated the negative and benign versions as being equally similar in meaning to the original sentences, whereas the control group rated the benign sentences as being more similar to the original sentence than the negative versions. Another method that was applied by Richards, Reynolds and French (1993) was the interpretation of homophones while Amir, Foa and Coles (1998) used the interpretation of homographs.

Rather than using sentences, Amir et al. (2005) used ambiguous videos to assess interpretation bias. In each video, an actress was filmed making an ambiguous, positive, or negative comment that appeared directed toward the viewer. The participant was then asked to rate how they would feel in that situation. The participants in the study with social anxiety rated the ambiguous social interactions more negatively than participants without anxiety.

Additionally, the relationship between social anxiety and interpretations about positive information has been studied by Vassilopoulos (2006). Unambiguous scenarios depicting positive and mildly negative social events were presented to two groups of participants. They then answered open-ended questions, provided ratings for experimenter-provided, alternative explanations, and also estimated their own emotional reaction if the event did happen to them. Participants with social anxiety were more likely to interpret positive social events in a negative way and estimate the emotional cost of negative social events to be higher than participants who had lower levels of anxiety. Anxiety was measured using the Social Phobia and Anxiety Inventory and the State-Trait Anxiety Inventory.

Hence, it appears as though individuals with SAD may interpret social situations differently than those without. In studies looking at sentences and videos depicting negative social events, individuals with SAD tended to rate these social situations more negatively than control groups. Moreover, they tended to interpret positive social events in a negative way.

Memory biases. Studies of memory bias in SAD have been less conclusive. For instance, Foa, Gilboa-Schechtman, Amir and Freshman (2000) conducted two experiments to examine memory for facial emotional expressions in individuals with social phobia. Their results indicated that individuals with social phobia had a better memory for all facial expressions compared to the control group and that there was increased recognition of negative versus nonnegative expressions for individuals with social phobia but not for the control group. However, other researchers have not found similar results.

In another study, individuals were presented with prose passages instead of facial expressions and a different result was found (Wenzel & Holt, 2002). Participants were presented with two evaluative threat and two neutral prose passages. After each passage, a free recall task was completed. These researchers found that participants with social phobia performed more poorly on the recall task than the control group.

In yet another study, female only participants with social phobia, depression, and healthy controls participated in two tasks, a target word search and an anagram completion task (Rinck & Becker, 2005). The target word search required participants to find a target word specific to social phobia or depression in a matrix of distractor words. There was no significant difference in the amount of time required to locate the target word between participants with social phobia and the control group. In the second task, participants needed to solve anagrams and then

complete a recall task of the anagram words. Once again, no significant difference between groups was found.

Although each of these studies have reported conflicting results, it is necessary to examine the different methodologies that were employed. One involved recall for facial emotional expressions, one used prose passages, and another used a target word and anagram task. Recall of facial expressions may be a more relevant task to assess the extent to which memory bias may be involved in the maintenance of SAD. The reason is that this disorder is characterized by a fear of social situations. The other two experiments involved tasks that involved written information as opposed to an actual social situation. Additional research in this area targeted at assessing memory bias in social situations is required in order to further understand the contribution of memory bias to SAD.

In summation, the research points to the complexity of SAD. The etiological factors proposed in the development and/or maintenance of SAD are often interrelated and bidirectional in nature. Regardless of the etiological factors that contribute to the development and/or maintenance of SAD, it is important to consider treatment approaches, not only to aid in reducing symptoms of SAD but also to better understand this disorder. In the following section, various treatment approaches are presented and data concerning their effectiveness are discussed.

Chapter 3: Assessment and Treatment of SAD in Adolescents

Assessment

Although many assessment techniques have been developed to identify adolescents with SAD, a large proportion of SAD in adolescence goes unrecognized by the adolescent themselves, parents, and professionals such as teachers (Kashdan & Herbert, 2001). Even if it is recognized that an adolescent has SAD, recognizing SAD is difficult as a result of developmental and societal factors. Furthermore, it is essential to use a number of methodologies in the assessment process in order to arrive at a valid diagnosis. Some of these methodologies and related examples are discussed in this section. To begin, assessment-seeking behaviour is examined.

Adolescent help-seeking behaviour. Adolescent help-seeking behaviour is impeded by a variety of factors. Adolescents with SAD may perceive their symptoms as similar to other peers rather than signifying a mental health concern, so they may not seek assistance (Millar, Lean, Sweet, Moraes & Nelson, 2013). They may also choose not to seek assessment and treatment on their own due to either the potential stigma associated with mental health issues or fear of negative evaluation by others (Ryan & Warner, 2012). Because concern about negative evaluation by others is a core feature of SAD, the stigma associated with seeking help may have a greater impact on these adolescents than other adolescents with mental health concerns. Hence, it may be more pertinent in the case of SAD that other individuals in the life of the adolescent become involved in suggesting assessment. Parents may want to assist in seeking an assessment but may face barriers of their own such as transportation, costs associated with treatment, and/or time away from work (Millar et al., 2013). On the other hand, some parents may not recognize the extent of their child's impairment or may think that their child will grow out of it (Ryan & Warner, 2012). Teachers are also in a unique position to observe symptoms of SAD in adolescents and can be involved in the referral process. The role of teachers will be

discussed in greater detail later in this paper. Even when SAD is suspected by an adolescent, parent, or teacher, there are other factors that pose challenges in help-seeking behaviour. For example, there may be system barriers such as the availability of mental health services, individual characteristics and beliefs, or a lack of knowledge.

Difficulties conducting assessments in adolescence. The diagnosis of SAD in adolescence is complicated for a variety of reasons. In Ontario, mental health services and professionals are not equitably distributed across the province. In fact, the Canadian Mental Health Association, Ontario (2009) indicates that mental health services in rural and northern communities lack availability, accessibility, and are even less comprehensive than in urban areas or southern areas of the province. This gap is troublesome when we consider reports that individuals living in northern and rural areas are in greater need of counseling services compared to individuals living in urban areas (Ward, 2005). However, system barriers are not the only obstacle, challenges exist at the personal level as well.

There are a number of characteristics and beliefs at the individual level that pose challenges when mental health workers are assessing adolescents. Smith and Handler (2007) explained that many adolescents are unable to describe their feelings and experiences accurately, which impacts the results of interview assessments. These authors also stated that adolescents may not understand why they are being assessed and may compare this process with the only other similar process they are aware of, namely, school testing. Because these adolescents often have emotional and social problems, they are more vulnerable to the pressures that exist in an assessment situation. Therefore, they may be concerned about providing correct answers instead of truthful ones, thereby impacting the validity of the assessment. Another difficulty lies in the refusal to take part in an assessment by the adolescent. For instance, an adolescent who has SAD

may also have other anxieties such as specific phobias that could include fear of using public transportation, being in a confined space like an office, or being around certain people. Other phobias that relate to attending the appointment may prevent an individual with SAD from seeking an assessment. Therefore, it may be difficult to accurately assess an adolescent for the presence of SAD so it is important to employ a combination of appropriate instruments for the assessment of SAD.

Assessment methods. Herbert, Rheingold, and Brandsma (2010) explained that assessment measures for SAD can be organized according to the methodology of the procedure. These researchers indicated that one of the most common assessment measures for SAD is the clinical interview, but note that it is not an effective method for diagnosing SAD in adolescents on its own because adolescents tend to under-report their symptoms. They also describe interviewer-rated scales as another procedure that can be employed in diagnosing SAD, whereby the interviewer rates fear and avoidance of social situations using Likert scales. Yet another common methodology for the assessment of SAD involves role-playing procedures, whereby adolescents are exposed to simulated social situations that are re-enacted in a therapist's office or laboratory. Beidel, Turner, Young, and Paulson (2005) successfully used the Role-Play Test (RPT) with children and adolescent samples to determine the effectiveness of treatment approaches to SAD. However, Herbert et al. (2010) posit that additional research is required in order to assess the reliability and validity of the RPT and role-playing procedures.

Thought-listing and thought-endorsement procedures have also been developed in order to assess SAD in individuals. These processes involve having an individual report their thoughts in response to a social task and to rate the frequency of these thoughts. This procedure is often used in conjunction with a role-playing procedure. Given the difficulties that some adolescents

may have describing their feelings and experiences, this procedure may not be very effective with this segment of the population. Lastly, Herbert et al. (2010) described a number of self-report measures that have been developed in order to diagnose SAD. The most commonly used self-report measures specifically created for children and adolescents with SAD include the Liebowitz Social Anxiety Scale for Children and Adolescents, the Social Phobia and Anxiety Inventory for Children, and the Social Anxiety Scale for Children (Beesdo, Knappe & Pine, 2009).

Liebowitz social anxiety scale for children and adolescents. The Liebowitz Social Anxiety Scale for Children and Adolescents (LSAS-CA) consists of 24 items rated on 0-3 point Likert scales and can be used for individuals 7 years of age and older (Herbert et al., 2010). Twelve of the items are based on social interactions and the other 12 are based on performance situations. Six subscale scores are calculated and include Total Anxiety, Social Anxiety, Performance Anxiety, Total Avoidance, Social Avoidance, and Performance Avoidance. The LSAS-CA has been shown to have high internal consistency ($\alpha=0.83-0.95$) and test-retest reliability ($r=0.89-0.94$) by Masia-Warner et al. (2003). In order to evaluate the factor structure of the LSAS-CA, Storch et al. (2006) used exploratory factor analysis that supported a two-factor solution. Based on item content, the two factors were named Social and School Performance.

The social phobia and anxiety inventory for children. The Social Phobia and Anxiety Inventory for Children (SPAI-C) was developed by Beidel, Turner, and Morris (1999) and can be used with children aged 8 to 18 years. The SPAI-C consists of 26 items that assess distress in a variety of potentially anxiety-producing situations. Children and adolescents rate their level of distress in various situations based on the characteristics of the audience. Storch, Masia-Warner,

Dent, Roberti, and Fisher (2004) demonstrated that the test has high internal consistency ($\alpha=0.92$) and adequate reliability ($r=0.47$).

The social anxiety scale for children or adolescents—revised. The Social Anxiety Scale for Children or Adolescents—Revised (SASC-CA) has separate child (LaGreca & Stone, 1993) and adolescent (LaGreca & Silverman, 1997) versions. The versions are appropriate for use with children and adolescents between the ages of 9 and 18. The tests consist of 18 items that assess social-evaluative anxiety and yields three factors: fear of negative evaluation, social avoidance and distress in new situations, and general avoidance and inhibition. The SASC-CA has been shown to have good discriminate validity (Kristensen & Torgersen, 2006) and good internal consistency ($\alpha=0.93$) and test-retest reliability ($r=0.60$; Storch et al., 2004).

Some difficulties pertaining to assessment of SAD in the adolescent population have been considered from a variety of perspectives. Adolescents are not very likely to seek help on their own, but even if they choose to seek help, there are system and personal barriers in this process. Advances in technology hold some potential to change help-seeking behaviour for adolescents who recognize that they require assistance, particularly with less formalized approaches to assessment and treatment. If an adolescent chooses to pursue assessment with a clinician, a variety of assessment methods will need to be utilized to arrive at a diagnosis of SAD. Furthermore, once an adolescent receives a diagnosis of SAD, a treatment plan needs to be developed.

Treatment Approaches

There are two main approaches to the treatment of SAD in adolescents: psychopharmacology and psychosocial treatments. Psychopharmacology is the study of the use of medications in the treatment of mental health disorders (American Society of Clinical

Psychopharmacology, 2015). Conversely, psychosocial treatments aim to modify individual thoughts and behaviours. Psychopharmacology and psychosocial treatment approaches can be used independently or in combination but researchers suggest that a combination of the two approaches is best (Canton, Scott & Glue, 2012).

Psychopharmacology. There are a number of psychopharmacological treatments available for use in the treatment of mental health problems. In their review, Canton et al. (2012) determined that Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) were common choices for treatment of SAD because of their effectiveness and their tolerability profiles. Two other available psychopharmacologic treatments identified Canton et al. (2012) include monoamine oxidase inhibitors (MAOIs) and benzodiazepines. However, these medications are not commonly prescribed for treatment of SAD because of the potential for either food and drug interaction liabilities or dependence and withdrawal issues. Therefore, the focus of this section will be on SSRIs and SNRIs.

Selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs). SSRIs were initially prescribed for use as antidepressants but they have been shown to be effective in the treatment of anxiety disorders (Vasile, Bruce, Goisman, Pagano & Keller, 2005). Vasile et al. (2005) reported that the use of both SSRIs and SNRIs is safe with a low risk of physiological dependence, and an ability to treat comorbid psychiatric disorders such as depression, obsessive-compulsive disorder, panic disorder, and posttraumatic stress disorder that may accompany social anxiety. Canton et al. (2012) conducted a meta-analysis in order to clarify optimal treatment for social phobia. Their study did not focus exclusively on adolescent population but, nonetheless, provides some insight into the effectiveness of various pharmacological treatment approaches. In order to look at the efficacy

of some of the common medications, their search method involved identifying all randomized, double-blind, parallel group treatment trials in social phobia. Their inclusion criteria encompassed studies with a control group, a DSM diagnosis of social phobia/SAD, and incorporation of treatment outcomes. The result was that 41 papers that were included for analysis. Based on their investigation of this data, the authors concluded that participants who used SSRIs or SNRIs displayed improvements in SAD symptom ratings. The fact that treatment with SSRIs or SNRIs can be beneficial does not mean that they are safe for everyone.

One disadvantage to SSRI and SNRI use is the delay in onset of effects that may last from several days to several weeks (Canton et al., 2012). However, a more pressing concern with these medications is that they have been linked to suicide when used as a treatment for depression (Bjorkenstam et al., 2013). Although there are no studies linking SSRI or SNRI to suicide attempts in individuals with a diagnosis of SAD, the findings based on a DSM diagnosis of depression may be relevant, particularly if we consider the fact that SAD and depression can be comorbid. Subsequently, the risk of adolescent suicide is possible and should be taken very seriously. Looking more closely at SSRI use and suicide, Bjorkenstam et al. (2013) found that the odds ratio (OR) for suicide in the first 28 days of treatment with SSRIs was 2.7 (95% CI: 1.6-4.4) for women, and 4.3 (95% CI: 3.0-6.1) for men. This study also found that there were key periods of time in which an individual using a SSRI exhibited greater suicidal behaviour. Men were most at risk 8-11 days after SSRI initiation while women were at greater risk during days 12-15. This study did not find evidence that adolescents or young adults were more at risk of committing suicide than individuals in other life stages, however, some previous studies have demonstrated that adolescents using SSRI had a greater likelihood of committing suicide (Geddes, Barbui, & Cipriani, 2009). It seems essential that adolescents with SAD be monitored

very closely if SSRI or SNRI is chosen as part of their treatment plan, especially in the first month of initiating the medication.

Although pharmacological treatments such as SSRIs, and SNRIs have been shown to be effective in the treatment of anxiety in adolescents, some adolescents and their families have concerns about their use. For instance, some adolescents may choose to discontinue their use because of adverse effects of the medication (Cheeta, Schifano, Oyefeso, Webb & Ghodse, 2004). Other families knowing that the adolescent brain is very malleable to environmental stimuli such as medications, may be concerned about the short-term and long-term consequences to brain development (Karanges & McGregor, 2011). For families and adolescents who have concerns about the use of psychopharmacology, it is important that another method of treatment be considered such as psychosocial treatments.

Psychosocial Treatments. Psychosocial treatments are designed to decrease distress through the teaching of new skills to help individuals take greater control of their lives. Some of the more common interventions in the literature include Cognitive Behavioural Therapy (CBT), Internet-Based CBT, Family Therapy, Social Skills Training (SST), Mindfulness- and Acceptance Based Therapies, as well as Attention Bias Modification Programs (AMPs). These interventions were chosen for inclusion in this paper because there is recent research that has provided some evidence to support their effectiveness as a treatment for anxiety for adolescents. Each intervention is explained and studies examining their effectiveness are presented.

Cognitive behavioural therapy (CBT). Powers, Capozzoli, Handelsman and Smits (2010) describe CBT as the current psychosocial treatment of choice for SAD and explain that it is a learning-based approach targeted at helping individuals eliminate their core fears, avoidance, and anticipatory anxiety. Bruce and Heimberg (2014) explained that the best-supported

cognitive behavioural strategies for individuals with SAD include a combination of cognitive restructuring and exposure, and that social skills training and relaxation exercises are also commonly employed. In 2008, Hofmann and Smits conducted a meta-analysis of randomized placebo-controlled trials that demonstrated that CBT was correlated with clinically meaningful improvements in the level of anxiety for participants with SAD and other anxiety disorders.

In the first phase of CBT, otherwise known as the “skill-building” phase, individuals are introduced to the concepts of automatic thoughts and rational responses, and self-monitoring is emphasized so that individuals can identify their own anxious thoughts and thinking errors (Detweiler, Comer & Albano, 2010). Detweiler et al. (2010) described the second phase as the “exposure” phase whereby children and adolescents are provided with opportunities to practice their newly acquired skills in increasingly fear-inducing contexts.

CBT can also be administered individually or within a group setting. In order to evaluate the efficacy of individual and group CBT in adolescents with SAD, Herbert et al. (2009) conducted a randomized control trial with 73 adolescents. Participants were recruited through community media announcements or were referred by local school personnel or social service agencies. Participants were included in the study if they were between 12-17 years old, had a DSM-IV diagnosis of primary SAD, and were comfortable communicating in English. Assessment measures included the Anxiety Disorders Interview Schedule for DSM-IV; Child Version, the Clinical Global Impression Scale—Severity, the Social Phobia Anxiety Inventory for Children, the Social Anxiety Scale for Children, the Reaction to Treatment Questionnaire, the Subjective Units of Discomfort Scale, and a Behavioural Assessment consisting of three 3-minute tasks including a dyadic role play, a triadic role play, and an impromptu speech. Measures were completed at pre-treatment, post-treatment, and at six months following

completion of treatment. The results were that both individual and group CBT reduced symptoms of distress and improved psychosocial functioning. However, the treatment gains at the six-month follow-up were higher for group CBT participants than for those who participated in the individual CBT. The authors contended that group CBT required active participation and provided a regular exposure to peers that may have had longer lasting impacts.

Internet-based CBT. Many individuals with SAD are reluctant to obtain services for a variety of reasons such as uncertainty about where to go, fear of negative evaluation by the treatment professional, and cost (Olfson et al., 2000). Therefore, Andersson et al. (2006) developed the first Internet-based CBT for SAD. This treatment protocol includes moderated online discussion groups, educational reading and activities, minimal contact with a therapist via e-mail, and quizzes designed to promote learning and assess participants' understanding of the treatment procedures. It has also been adapted for use on mobile devices.

Ebert and his colleagues (2015) conducted a meta-analysis of computer, Internet, and mobile-based CBT interventions that targeted depression and anxiety in youth. Included in their analysis were studies that used a CBT intervention, the intervention had to be administered electronically, the studies had to target depression, anxiety, or both disorders, participants had to include children and/or adolescents, and a control condition was used. Thirteen studies met inclusion criteria. The researchers used overall effect analyses and determined that Internet-based CBT (computer, Internet, and/or mobile) decreased anxiety and depression symptoms in youth and concluded that it is an effective treatment option.

Cognitive-behavioural family therapy (CBFT) The focus of the CBFT treatment approach is to decrease anxious symptomatology in the child or adolescent and also to teach parents productive ways to respond to and support their child (Maid, Smokowski & Bacallao,

2008). Basically, the parents and child learn how to cope with anxiety provoking situations together. CBFT consists of 16 sessions, in which both the parents and children participate in all meetings. The program consists of two distinct portions: the first is training, and the second part involves implementing the skills learned in the training. The training involves learning the 'FEAR' plan acronym, whereby each letter is associated with one of the four steps in the plan. F stands for 'Feeling frightened?' E inquires 'Expecting bad things to happen?' A asks about 'Attitudes and actions that will help?' R denotes 'Results and rewards?' In the second phase of the program, families are exposed to anxious stimuli in a gradual manner beginning with guided imagery in a therapist's office and continuing to exposures in the community.

The effectiveness of CBFT treatment has been evaluated for anxiety but not SAD specifically. One recent study did not find a significant improvement of CBFT over child-focused CBT for children and adolescents with a primary diagnosis of any anxiety disorder (Jongerden & Bogels, 2015). One hundred and four children who were referred to one of seven community mental health centers and 44 children with no anxiety diagnosis from the general population participated in the study; participant age ranged from 8-18 years. Children who had comorbidities or who were using anxiety-reducing medication that was not kept at a steady dose were excluded from this study. A randomized controlled trial was used, anxiety was assessed using the Anxiety Disorders Interview Schedule for DSM-IV: Child and Parent Version, and questionnaires assessing child and parent anxiety symptoms, parenting behaviours, and family functioning were administered at pre-treatment, post-treatment, as well as at three month and one year follow up. The results of this study are not clear given that there is some evidence that family functioning and parenting factors play a role in the etiology and maintenance of childhood anxiety disorders. However, it is also theorized that the relationship between parenting factors

and childhood anxiety disorders is bidirectional so it is possible that child-focused CBT indirectly impacts family functioning and/or parenting factors.

Another study compared CBFT and child-focused CBT in participants with Separation Anxiety Disorder between the ages of 8 and 13 years (Schneider et al., 2013). The authors of this research study found that there were few between-group differences with a slight advantage of the CBFT condition. They concluded that parent training did not confer a large advantage over child-focused CBT. Given that CBFT requires a substantial amount of time from parents and confers the same advantages as child-focused CBT only, clinicians may want to disclose these results when recommending treatment options to families. In some cases, parents may feel the need to be doing something to help their child but in other cases, parents may have conflicting obligations such as work and caring for other children.

In order to determine if CBFT confers any advantages to families of adolescents with SAD, researchers must examine the difference between CFBT and CBT therapies for adolescents with SAD. However, based on the investigations of the above-mentioned studies, it seems unlikely that CBFT would confer a huge advantage over child-focused CBT for SAD.

Social skills training (SST). SST is an instructional intervention targeted at interpersonal skills. The strategies employed in SST include behavioural rehearsal, therapist modeling and corrective feedback, homework assignments, and social reinforcement (Bruce & Heimberg, 2014). Beidel et al. (2014) explored the effectiveness of this treatment approach using 106 adult participants between the ages of 19 and 78 years who met criteria for a DSM-IV diagnosis of SAD. Participants were randomized to three groups: Social Effectiveness Therapy (SET; combination of SST and exposure therapy), exposure therapy alone, or a waitlist control group. These investigators assessed self-report measures of social anxiety using the Social Phobia and

Anxiety Inventory and three behavioural tasks to assess social skills (role-play interactions, unstructured conversation task, and an impromptu speech task). The behavioural tasks were videotaped and rated by independent raters pre and post treatment. The raters were unaware of the participants' degree of anxiety or their phase of treatment. The results of this study showed that both treatment conditions of SET or exposure therapy alone significantly reduced stress in comparison to the wait list control group. Therefore, evidence suggests that SET is an efficacious treatment for SAD in adult populations. Social skills training programs may also prove to be beneficial for adolescents with SAD, but research is necessary to explore the effectiveness of SET or exposure therapy for adolescents.

Mindfulness- and acceptance-based therapies. Mindfulness- and acceptance-based therapies are increasingly being used to treat a variety of psychological disorders including SAD (Bruce & Heimberg, 2014). These approaches are similar to CBT in that they encourage individuals to reduce avoidance of important situations due to fear and to form a different relationship with their thoughts and emotions. Where it differs is that these strategies attempt to encourage a depersonalized view of thoughts as naturally occurring mental events that do not need to be judged or evaluated. Three examples of these therapies are mindfulness-based stress reduction (MBSR; Kabat-Zinn, 2003), mindfulness-based cognitive therapy for children and adolescents (MBCT-C; Semple & Lee), and acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson 1999). There are a number of studies examining the benefits of these therapies in adulthood and even in childhood but there is a lack of research focused on the adolescent population.

Kocovski, Fleming and Rector (2009) sought to assess the feasibility and effectiveness of mindfulness and acceptance-based group therapy (MAGT) in the treatment of SAD in adults.

They recruited 42 participants with SAD who were assessed for measures of social anxiety, mindfulness and acceptance and depression at pretreatment, midtreatment (six weeks), posttreatment (12 weeks), and at a three-month follow-up session. The results of this study revealed that there were significant reductions in social anxiety and depression, and significant increases in mindfulness and acceptance. However, this study did not examine impacts of this program in adolescents, it did not have a control group, and did not compare the effectiveness of this therapy with other therapies.

More recent studies have aimed to compare the effectiveness of mindfulness therapies with CBT. Kocovski, Fleming, Hawley, Huta, and Antony (2013) recruited a sample of 100 participants between the ages of 18-65 years with SAD and randomized them to one of three treatment conditions: a 12-week mindfulness and acceptance-based group therapy, a 12-week CBT group therapy, or a waiting list control group. There were no improvements in social anxiety measures in the waiting list control group but the mindfulness and CBT groups showed significant reductions in social anxiety measures. Because there were no significant differences between the two treatment conditions, it was concluded that both CBT and mindfulness therapies have a similar impact on SAD. However, the demand for CBT exceeds the supply of health care professionals who can administer it so mindfulness is a very promising avenue to explore because there are less rigorous educational requirements to its use and it is more cost effective (British Columbia Ministry of Health, 2007).

Semple, Lee, Rosa, and Miller (2010) sought to determine the effectiveness of the MBCT-C in reducing anxiety symptoms using a sample of 25 children aged 9-13 years. The study used a randomized cross-lagged design to include a wait-listed control group. Measures included the Multidimensional Anxiety Scale for Children, the State-Trait Anxiety Inventory for

Children, and the Child Behaviour Checklist at pretest and at 3-month follow-up. The researchers found significant reductions in anxiety symptoms for participants with elevated anxiety levels at pretest.

Research has demonstrated that mindfulness- and acceptance-based therapies are effective in reducing symptoms of SAD in adults (Kocovski et al. 2009; Kocovski et al., 2013). The MBCT-C was developed specifically for use with children and adolescents. Some preliminary findings suggest that the MBCT-C is effective in reducing anxiety symptoms in children (Semple et al., 2010). More research is required in order to determine the effectiveness of the MBCT-C in adolescents and more specifically, in children and adolescents with SAD.

Attention bias modification programs (AMPs). It has been demonstrated through a diverse range of studies that individuals with social anxiety have an attentional bias toward threat-relevant stimuli (Mogg et al., 2004; Musa et al., 2003). Hence, researchers have begun to investigate whether training attention away from socially threatening stimuli such as negative faces, can reduce the symptoms of social anxiety. Using the dot probe task, Schmidt, Richey, Buckner, and Timpano (2009) investigated the effectiveness of an AMP by comparing a treatment condition to a placebo condition. Participants were women between the ages of 22 and 24 years. Schmidt et al. (2009) trained participants in the treatment condition to attend to images of neutral faces instead of faces showing disgust by delivering sixteen 20-minute computer sessions over eight weeks. Then, they examined symptom differences between the two groups at posttreatment and at a four-month follow-up. Although there were differences at posttreatment between the two groups such that there were reduced symptoms of social anxiety in the treatment condition, the results were not significant. However, at the four-month follow-up, group differences were significant with 72% of participants in the AMP treatment no longer meeting

criteria for SAD compared to only 11% in the placebo condition. In a similar study, Amir et al. (2009) found comparable results but an independent test of participants' biases were obtained at baseline. In a follow-up examination of the factors that predict treatment success with AMP, the researchers showed that it was only more effective than placebo for individuals who demonstrated attentional biases toward social threat prior to the start of the treatment (Amir, Taylor, & Donohue, 2011).

In summation, there is evidence to suggest that many different treatment approaches are effective in reducing anxiety symptoms in adolescents with SAD. With the exception of CBT, many of these investigations have used adult participants when investigating their effectiveness, so it is essential that future studies examine the benefits of each treatment approach using adolescent participants because the impacts of treatment approaches may be different. Additionally, many of the studies excluded individuals who had comorbid diagnoses but the reality is that many individuals with SAD will also have other mental health problems. The effectiveness of various treatment approaches for a number of co-occurring diagnoses also needs to be addressed in the literature. Nevertheless, it appears as though there is low treatment utilization in adolescence with only about 14% of individuals accessing some form of treatment for social anxiety (Cognigni et al., 2012). Identifying non-treatment seeking adolescents, increasing access to services, and training educators to recognize and refer adolescents for assessment is something to consider.

The fact remains that if adolescents with SAD do not seek help, they will continue to experience difficulties in various life domains such as education and relationship development. These difficulties may then extend into their adult lives impacting their ability to secure financial stability and long-term relationships. The next chapter outlines the negative impacts an

adolescent may experience and how these impacts continue to influence them well into adulthood.

Chapter 4: Impacts of SAD from Adolescence to Adulthood

There are a multitude of ways that SAD can negatively impact an adolescent and it is likely that these impacts can continue into adulthood. Early on in this field of study, researchers determined that children with social phobia experienced emotional distress and impairment in their daily academic, social, and family functioning (Beidel, Turner, & Morris, 1999). This chapter reviews the negative impacts of SAD in adolescence, emerging adulthood, and adulthood.

Adolescence

SAD has a frequent age of onset in adolescence (Rosellini et al. 2013) and left untreated, adolescents may experience negative impacts in their academic achievement, peer relationships, and romantic relationships. Academic achievement is necessary because college and university programs require students to have a secondary school diploma and competitive grades. Peer relationships are essential because they foster the development of necessary skills for adulthood. Furthermore, the ability to maintain peer relationships may be involved in the initiation of romantic relationships. The negative impacts experienced in adolescence may confer greater impacts as adolescents progress through future developmental phases.

Academic achievement. One of the most important milestones for adolescents is participating in education because it leads to postsecondary pathways that in turn, lead to future employment opportunities and financial stability. For a variety of reasons, academic achievement may be impaired in adolescents with SAD. Wood's (2006) research supported the fact that children with anxiety disorders may not be performing to their actual academic ability level. Very few current studies have examined the relationship between SAD and secondary school academic performance. I was only able to locate one recent study that investigated the relationship between academic achievement and non-cognitive variables such as anxiety. Puar

(2012) recruited a sample of 400 secondary school students from eight different schools who completed a general anxiety scale for children to assess anxiety and board examinations were used to calculate their level of achievement. A significant relationship was found between increased anxiety scores and lower academic achievement. Because postsecondary institutions use grade averages in the admissions process, it is likely that some students with SAD may not gain admittance to postsecondary school or that they may not be accepted into a preferred program as a result of lower grades.

Knowing that academic achievement is impaired in adolescents with SAD is concerning but what is more pressing is why this may be the case. Langley, Bergman, McCracken and Piacentini (2004) found evidence of associations between childhood anxiety and specific school related tasks. These tasks were rated according to their interference with a child's performance in school using a Likert-type scale. Responses were ranked as not at all (0), just a little (1), pretty much (2) or very much (3) and percentages were computed for children scoring a task as two or more. Giving oral reports or reading out loud interfered with the progress of 36% of children, another 31% of children indicated taking tests or exams interfered with their progress, 28% indicated trouble concentrating on work, and 20% of children responded that getting to school on time interfered with their success. Furthermore, the researchers reported that 89% of children reported significant interference on at least one item. All of the above mentioned tasks are essential components to the success of an adolescent in school. Therefore, difficulties in these areas may hinder an adolescent's progress in school and lead to poor academic evaluations, perhaps even failures, that do not reflect the adolescent's true academic capability.

In an attempt to avoid distressing school situations, adolescents with SAD have been found to exhibit school refusal behaviour (Albano & Detweiler, 2001). Kearney and Silverman

(1996) defined school refusal behaviour as refusal to attend school or remain in classes for an entire day. It can include skipped classes, periodic school absences, and tardiness. Typically, this behaviour commences in the first two years of secondary school and approximately 8% of adolescents that exhibit this behaviour have social anxiety (McShane, Walter & Rey, 2001). School refusal behaviour is detrimental because research has shown that students with chronic attendance problems have significantly lower levels of scholastic achievement (Kearney, 2001). Furthermore, data suggest that attendance issues are associated with a lower probability of graduating from high school (Gewertz, 2006). A study done by Gewertz (2006) found that freshmen who missed 10-14 days of classes per semester had a 40% chance of graduating from secondary school in four years. Looking more specifically at SAD, Stein and Kean (2000) found a statistically significant association between a lifetime diagnosis of SAD and the likelihood of leaving secondary school before graduating. Considering that many well paying careers require postsecondary education, employment pathways may be degraded for adolescents who do not graduate from high school. Unfortunately, academia is not the only area where adolescents with SAD experience difficulty; peer relationships are also of concern.

Peer relationships. Another important goal at this life stage is the development of friendships and relationships with others. In order to develop relationships with peers, it is essential to possess the appropriate social skills to do so. However, there is evidence to suggest that children with social phobia have poorer social skills compared to children without social phobia (Beidel et al., 2005). This is an important finding because developmental psychologists suggest that early social isolation can prevent the acquisition of social skills, because a great deal of social behavior is learned by engaging in peer interactions (Rubin, Stewart & Coplan, 1995).

Therefore, children with SAD enter a cyclic relationship whereby difficulty forming friendships leads to poorer social skills and in turn, continued trouble developing peer relationships.

When children transition to adolescence, peer relationships become increasingly important. It is the formation of these friendships that are instrumental in helping adolescents to develop a sense of personal identity, as well as to develop social skills and feelings of personal competence (Furman & Hand, 2006). These skills are all necessary for adult functioning; however, adolescents with SAD may experience difficulties in relationship formation and may experience the quality of relationships differently. Tillfors, Persson, Willen, and Burk (2012) sought to better understand the impact that SAD had on adolescent peer relationships. Their participants included 1528 adolescents attending grades 7-10 at onset of the study in one of four secondary schools in a small city in Sweden. Data were collected at two intervals, Time 1 (beginning of study) and Time 2 (one year later). Participants completed the Social Phobia Screening Questionnaire for Children, a peer report that gauged peer acceptance, a self-report of peer victimization, and relationship quality was assessed using the Friendship Quality Questionnaire. The researchers used a structural equation model to examine bi-directional links between social anxiety and peer relationship characteristics. They found that lower levels of peer acceptance were associated with increases in social anxiety but also that social anxiety interfered with the development of healthy peer relationships. Subsequently, it is also possible that social anxiety can impede the initiation of romantic relationships because longitudinal research suggests that romantic relationships often develop from an affiliation with peers (Connolly, Furman & Konarski, 2000).

Romantic relationships. To examine the relationship between social anxiety and romantic relationships more closely, Hebert, Fales, Nangle, Papadakis, and Grover (2013)

recruited 456 students between 14-19 years of age from four secondary schools in Northern New England to participate in their study. Of these participants, 381 had engaged in dating as indicated by a self-report measure entitled the Dating History Questionnaire. Social anxiety for all participants was assessed using the Social Anxiety Scale for Adolescents. There were no differences in social anxiety between participants who were dating and those who had never dated, suggesting that date initiation and social anxiety are not related, a finding that is contrary to earlier investigations (Connolly et al., 2001). Hebert and colleagues (2013) also sought to assess the quality of the peer network and relationships to determine if there was an association between social anxiety, friendship quality, and relationship quality. The perception of an adolescent's same-sex and other-sex peer network was assessed using the Peer Relationships Questionnaire. The quality of same- and other-sex friendships and the most recent romantic relationship was assessed using the Network of Relationships Questionnaire. These researchers found an indirect pathway between social anxiety and romantic relationships such that social anxiety was associated with impairment in same-sex friendships; these friendships were associated with impairment in other-sex friendships that in turn, were associated with impaired functioning in romantic relationships.

Romantic relationships in adolescence serve many functions. They enhance the self-worth, social status, and sense of belonging and provide social support, companionship, and intimacy (Furman & Buhrmester, 1992). It would seem that adolescents with SAD may not be gaining the full benefit of these functions because they experience impaired functioning in their romantic relationships. Furthermore, the quality of these adolescent romantic relationships may be indicative of the quality of future adult romantic relationships.

Emerging Adulthood

Emerging Adulthood is a proposed developmental period in industrialized societies that comprises the age range of 18-25 (Arnett, 2000). Demographically, Arnett argues that the delay in the timing of marriage and parenthood and the lack of normative demographic milestones at this life stage make it a unique developmental period. He also argues that distinct features of emerging adulthood are the feeling that one is neither an adolescent nor adult; the focus on identity exploration in love, work and worldviews; focus on the self; and the availability of a number of life possibilities (Arnett, 2004). In this section, scholastic achievement, friendships, and romantic relationships at this proposed developmental period are explored.

Academic achievement in post-secondary school. The prosperity and wellbeing of individuals in Western society is invariably tied to post-secondary education. McMahon and Oketch (2013) found that higher education is associated with health, happiness, reduced crime rates, and lower welfare costs. However, attending college or university involves engagement in various novel social and academic activities related to this stage of life. An example of a social activity would be making new friends. Academic activities may include group study sessions and initiating and/or participating in discussions with professors and teaching assistants. The social nature of these interactions may impact the success of an individual with social anxiety in university or college.

Looking first at the transition to college, Taylor, Doane and Eisenberg (2014) studied how social support impacted the transition from high school to college. They utilized a longitudinal design to examine the relations among anxiety and perceived social support. Over time, they found that anxiety symptoms were negatively associated with perceived support from friends. These authors suggest that anxious individuals may find it more difficult to create social

support systems during their transition to college or that they may perceive their networks to be less sufficient.

Taylor et al. (2014) suggested that it might be difficult to create new social support systems when transitioning to postsecondary education. For this reason, it is worthwhile to explore how social anxiety may impact student learning and well-being. In order to address student learning and well-being, Russell and Topham (2012) utilized web surveys with a sample of 787 university students. Their findings indicated that social anxiety negatively impacted students' learning and well-being and that social anxiety is persistent in a small portion of students. Lending further support to the impact on post-secondary progress, Brook and Willoughby (2015) examined the direct effects of social anxiety on scholastic achievement and investigated how the formation of social ties may indirectly impact academic progress of individuals with social anxiety. The participants were students at a university in Southern Ontario, Canada who completed annual assessments of social anxiety, social ties, and academic achievement for three successive years. The results of this study indicated that social anxiety had a negative direct relationship with academic achievement over time and that social ties functioned as an indirect mechanism impacting this association. The authors concluded that social ties played a critical role in successful academic outcomes.

Studies examining the scholastic achievement of college students are lacking as well as comparison data examining the difference in educational implications between the two different institutions. It stands to reason that the results may vary because college programs tend to have smaller class sizes that may result in more interaction with classmates and instructors. The additional interaction required in college programs may confer greater impairments for students with SAD.

Peer and romantic relationships. Because relationships appear to have an impact on scholastic achievement, it is fundamental that relationships be examined in more detail as these relationships may impact other areas of life. Individuals in emerging adulthood typically like to spend most of their time with friends and romantic partners and turn to them when they are feeling down (Furman, Simon, Shaffer & Bouchee, 2002). Those with social anxiety may be impaired in their ability to form and maintain these close relationships. As a case in point, McNamara, Nelson and Christofferson (2013) found that being shy and anxious hindered one's ability to meet the developmental tasks associated with emerging adulthood, such as developing an identity and forming quality relationships with peers and parents. The association with developmental tasks was found to be more significant in individuals who were shy and anxious as opposed to being merely shy. A lack of quality relationships was also more pronounced for friendship than in parental relationships. One possible reason for this finding may be that the parent relationship continues to remain constant in an individuals' life but many students must develop new friendships when they transition to postsecondary education.

Additionally, there may be impacts in romantic relationships during emerging adulthood for those with a diagnosis of SAD. One recent study attempted to delineate the relationship between social anxiety and romantic relationship satisfaction. Porter and Chambliss (2014) had the romantic partner without social anxiety participate in the study in order to determine if an association existed between social anxiety and romantic relationship satisfaction, social support, and intimacy of 163 undergraduate students. Their results suggested that individuals with social anxiety experienced interpersonal difficulty in romantic relationships. In particular, the study found that higher social anxiety in women was associated with wanting, receiving and providing less support based on self-report measures. However, this result was not found for partner-report

measures or for men in this sample. Another finding was that women who reported strong levels of received support from their partner were more likely to indicate romantic satisfaction. In both genders, high social anxiety was associated with relationships that were rated as less emotionally intimate and the perception that intimacy was riskier. Therefore, emerging adults with high social anxiety perceive their relationships as having poorer quality than individuals without social anxiety.

As has been demonstrated, social anxiety is prevalent in emerging adulthood and poses unique challenges throughout this developmental period. The transition to postsecondary education is more difficult due to a perceived lack of an appropriate social support system and scholastic achievement is hindered. There is the possibility that these factors will continue to impact individuals after the emerging adulthood developmental period and extend into employment. Additionally, friendships and romantic relationships are more difficult to form and maintain. Once again, these factors can contribute to later dissatisfaction in relationships. The next section examines the impact of social anxiety in adulthood.

Adulthood

Typically, the initial development of social anxiety is relatively uncommon during the adult stage of development (Wittchen & Felm, 2003); however, negative impacts of SAD continue to persist. Adulthood is often categorized by age and further segmented by such terms as early, middle and late adulthood. For the purposes of this paper, adulthood will be conceptualized as the age range from approximately 26 to 60 years. Adulthood can be considered a unique phase of development because it is the time at which individuals typically seek out career opportunities, form more stable and longer lasting relationships, and have children. Having social anxiety may impact one's ability to participate in these milestones. This

section begins with a description of experienced difficulties in career and romantic relationships, and ends with assessments of quality of life.

Employment. Beginning with career and employment, there are a number of variables that may lead individuals with social anxiety to show reduced participation in the workforce, degraded employment pathways, and diminished work performance (Waghorn, Chant, White & Whiteford, 2005). In order to address the specific barriers that adults with social anxiety face in obtaining employment, researchers obtained intake assessments from 265 adults seeking employment services (Himle et al., 2014). Social anxiety was measured using the Mini-Social Phobia Inventory and it was determined that 35% of the adults screened positive for SAD. These researchers found a significant difference between those with SAD and those without in the employment barriers, skills, and job aspirations. Adults with SAD were more likely to indicate skills barriers to employment such as a lack of interview skills, a lack of training, and a lack of work-related experience. They were also more likely to aspire to realistic jobs rather than social jobs and reported possessing less social employment skills. The fact that adults with SAD prefer realistic jobs over social jobs is not surprising given that previous research has indicated children with social phobia have poorer social skills than their peers (Beidel et al., 2005). It is likely that these deficits in social skills continue into adulthood. In another study using participants in a primary care setting, adults with SAD were found to have twice as high of an unemployment rate compared with adults with other disorders (Beard, Moitra, Weisberg & Keller, 2010). Therefore, adults with SAD may experience more degraded employment opportunities than other adults with different mental health concerns.

Relationship quality. Moreover, the difficulties in obtaining a relationship and the quality of that relationship continue to persist into adulthood. The most significant relationship

during this developmental stage is typically marriage. Breslau et al. (2011) explained the association between various mental health disorders and their association with marriage and divorce in a multinational population based sample that included 19 countries. The sample sizes per country varied from 2357 to 12790. A fully structured lay-administered interview was conducted with each participant using the Version 3.0 of the World Health Organization Composite International Diagnostic Interview to generate DSM-IV diagnoses. These researchers found that there was a significant association between SAD and a lower probability of marriage but also that those who did marry were significantly more likely to divorce. Because adults with SAD experience barriers to employment and more difficulty in relationships, they may also have lower quality of life (QOL) measures.

Quality of life. A recent investigation found that adults with generalized social phobia had significantly impaired QOL when compared to adults with no disorder and adults with performance-based social phobia (Wong, Sarver, Beidel, 2012). This study recruited 379 adults between 18-81 years of age and used the Structured Clinical Interview for DSM-IV. Two self-report instruments were also used in the study, namely, the Social Phobia and Anxiety Inventory was administered to assess the severity of social anxiety symptoms across social and performance situations and the Quality of Life Questionnaire was used to assess QOL across 15 domains. Three social skills tasks were used to assess social discourse (Simulated Social Interaction Test, Unstructured Conversation Task, and Impromptu Speech Task). Adults with generalized social phobia were found to have lower QOL scores and comorbidity resulted in greater QOL impairments for these participants.

The section highlighted the fact that adults with SAD have higher rates of unemployment and face various employment barriers. Additionally, adults with SAD are less likely to be

married but are also more likely to have their marriages end in divorce. These factors have the potential to lead to various economic hardships. Finally, lower quality of life measures were also shown in this population.

Having SAD puts one at risk for a number of negative impacts. Poorer academic performance in secondary school closes postsecondary pathways and degrades employment opportunities in adulthood. Difficulties with peer and romantic relationships continue across developmental stages and lead to lower quality of life measures in adulthood. Because adolescents spend a large majority of their time in school, secondary schools may be an appropriate setting in which to direct interventions for SAD.

Chapter 5: Educational Implications of SAD in the Ontario Education System

In Canada, the responsibility for education is delegated to the provinces and territories. Hence, each individual province and territory is responsible for developing and implementing their own policies and procedures related to education. The branch of government in Ontario that is concerned with education is the Ontario Ministry of Education. This section of the paper will focus primarily on Ontario, and as such, the information is not necessarily applicable in other areas of Canada. In Ontario, mental health programs related to promotion, prevention, and intervention are now being implemented within the education system; however, there are obstacles to implementation of such programs. First, it is imperative that teachers have some basic understanding of the symptoms of SAD and how an adolescent can be referred for an assessment. Second, policies supporting the academic success of adolescents with SAD have not been investigated or delineated. Without clear guidelines, students with SAD may continue to experience difficulty in school and beyond.

Educator Knowledge of SAD

Because SAD is an internalizing mental health problem that does not typically disrupt the activities in a classroom, students may be less likely to receive school-based supports. The inability of an educator to recognize the needs of students with SAD could be as a result of lack of educator knowledge of internalizing problems and SAD, or there may be barriers that prevent referrals. In order to determine the knowledge base of primary school teachers, teachers in Cambridge in the United Kingdom were included in a study by Loades and Mastroyannopoulou (2010). These researchers assessed teacher recognition of various emotional and behavioural disorders in children using vignettes and also asked the teachers to rate the severity of the disorder. The results of their study demonstrated that teachers were generally good at recognizing both the existence and severity of symptoms of behavioural (externalizing) and

emotional (internalizing) problems in the vignettes. However, teachers were more significantly concerned about a child with clinical-level symptoms of a behavioural problem than a child with clinical-level symptoms of an emotional problem. Papandrea and Winefield (2011) also indicated that students displaying externalizing problems are more likely to receive the supports and assistance that they require than students who experience internalizing problems, who are often overlooked or neglected. Hence, it would appear as though primary school teachers have the knowledge to identify students with internalizing problems, but many students are still not being referred for school-based supports.

The picture may be different in secondary settings. Primary teachers spend considerably more time with the students in their class because they often teach multiple subjects and remain the student's teacher for the duration of the school year. In Ontario, secondary students often take part in a semestered, rotary system and have eight different teachers in one school year; four in one semester and four in the other. A teacher will typically see students in a class for approximately 75 minutes daily. Teaching students for such a short period of time may limit the extent to which teachers truly get to know their students. Hence, a lack of time may impact a teacher's ability to identify internalizing mental health problems such as SAD. In order to determine how knowledgeable middle and high school educators are about SAD, Herbert, Crittenden, and Dalrymple (2004) developed the Knowledge of Social Anxiety Disorder Scale (KSADS) that they distributed to school personnel who consisted of certified teachers, certified school counselors, and licensed school psychologists. They also distributed the Knowledge of Attention Deficit Disorders Scale (KADDS) to serve as a comparison. Herbert et al. (2004) found that across employment groups, there were significantly lower mean scores for the KSADS compared to the KADDS and that the teachers' mean scores were significantly poorer

than the other employment groups. The level of confidence of each occupational group in their knowledge was also assessed. Teachers reported lower levels of confidence than either the school counselors or the school psychologists. Hence, it is possible that teacher knowledge of SAD differs depending on the school division taught.

There may also be a relationship between teacher socio-demographic characteristics and the likelihood of a student receiving a referral for SAD. Headley and Campbell (2011) conducted a study examining the ability of primary school teachers to refer children with anxiety symptoms. In order to determine a teacher's ability to refer children for supports, 358 primary school teachers were presented with five vignettes portraying varying degrees of anxiety. Teachers were asked to complete the Teachers' Anxiety Identification and Referral Questionnaire (TAIRQ), whose measures were developed by these researchers. The findings of this study indicated that female teachers were more likely to refer than male teachers. Although a similar study has not been conducted with secondary school teachers, the percentage of male teachers at the secondary level (41%) in Canada is much greater than that at the elementary level (16%; Statistics Canada, 2013). Therefore, one could hypothesize that there may be even less likelihood of students receiving a referral in secondary school if male secondary teachers are less likely to refer. In order to understand the impediments to the referral process, more studies must be done. Other socio-demographic characteristics of teachers, such as years of teaching experience, may impact a teacher's likelihood of referring a student for assessment.

Therefore, adolescents in middle school or high school may be less likely to be identified as having internalizing mental health problems and less likely to be referred for supports. It is worrisome that some teachers lack knowledge and confidence about their knowledge of SAD because it is the teachers who are most often the referral point to a school counselor or

psychologist. In an attempt to address this concern, the Ministry of Education in Ontario and the Ontario College of Teachers (2013) have proposed changes to the teacher preparation program.

Beginning in 2015, the Bachelor of Education programs in Ontario will have mental health curriculum added to their teacher education programs (Ontario College of Teachers, 2013). Including mental health education as part of teacher education is an optimal time to educate future teachers about the reality of mental health concerns in schools. Recent graduates from the Bachelor of Education programs have not received the same level of mental health education that the new graduates will be receiving. As such, an opportunity for a comparative investigation exists to analyze the preparedness of new teachers entering the education field. Knowledge of mental health, knowledge of the referral process, and a teacher's perceived competence in handling mental health concerns can be determined. The results of such a study would serve to inform curriculum development at the program level to ensure that it is meeting the needs of future teacher education graduates. Additionally, referral rates for externalizing and internalizing symptoms in adolescents can be determined prior to integration of the new curriculum and afterward to investigate if education translates to practice. Integrating mental health into the curriculum in teacher education programs addresses the concerns of new teachers but other strategies will need to address the potential knowledge gap of current educators. Next, the referral process at the secondary school level will be described.

Referral Process

Within the Ontario secondary school setting, a student is typically referred to a guidance counselor or administrator for an initial discussion of concerns by either a fellow student or a teacher. The meeting involves discussion about a referral to a school-based mental health professional such as a school social worker or mental health nurse. Once the student meets with

one of these professionals, they have an initial discussion to determine the extent of their needs. Some students will continue to access support at school via a school-based professional while other students with more complex and involved needs are referred to external mental health supports. Provided that the adolescent is not in crisis, he/she is expected to continue to attend school. During this time, it is important that a plan be developed in order to support the adolescent emotionally and academically. There are two potential supportive pathways that a student can access, one is via the Special Education program and the other is through the Student Success Initiative.

Special education. One way that students with SAD can be supported academically and emotionally within the school setting is by making accommodations to instruction, environment, and assessment through the school's special education department. In order for a student in Ontario to qualify for special education services, he or she must meet particular criteria. In Ontario, there are several categories of exceptionalities and each have different criteria that must be met in order to be considered for identification for special education services.

Categories of exceptionalities. According to the categories of exceptionalities put forth by the Ontario Ministry of Education in *Special Education: A Guide for Educators* (2001), there are five different broad categories of exceptionalities, namely, Behaviour, Communication, Intellectual, Physical, and Multiple. An adolescent with SAD whose educational performance is adversely impacted by their excessive fears, anxieties, or difficulties managing social interactions are eligible for a Behaviour Exceptionality. The definition of Behaviour Exceptionality is:

A learning disorder characterized by specific behaviour problems over such a period of time, and to such a marked degree, and of such a nature, as to adversely affect educational performance, and that may be accompanied by one or more of the following:

- a) An inability to build or to maintain interpersonal relationships;
- b) Excessive fears or anxieties;
- c) A tendency to compulsive reaction;
- d) An inability to learn that cannot be traced to intellectual, sensory, or other health factors, or any combination thereof (p. A18).

Even if an adolescent and their family choose to pursue identification with an exceptionality, the process for obtaining an identification takes time and involves a number of policies and procedures. The Ontario Ministry of Education (2001) outlines the requirements that must be adhered to in order to obtain a diagnosis of an exceptionality, but the school boards are left to interpret the policies. In an attempt to clarify the application of the categories of exceptionalities, The Ontario Ministry of Education sent a Memorandum to the Directors of Education in 2011. In this document, it states that the categories of exceptionalities were developed to address a wide range of conditions that may impact a student's ability to learn, that a medical condition does not need to be diagnosed, and that all students with learning based needs are entitled to appropriate accommodations. However, there still remains ambiguity in the interpretation of the Memorandum and the manner in which it is interpreted can be different for different school boards. For example, the Rainbow District School Board requires that students must have a psychological assessment, a speech-language assessment or a medical diagnosis to be considered for a Behaviour exceptionality (Rainbow District School Board, 2014-2015). On the other hand, the Sudbury and District Catholic School Board uses these same criteria with the

addition of the option to diagnose based on observations and/or checklists compiled and reviewed by the Learning Support Services Team (Bagnato, 2013).

In order for an adolescent to obtain a Behaviour identification, the family would need to be willing to accept and seek support through this process; however, the core feature of SAD is the fear of negative evaluation by others (American Psychiatric Association, 2013). In fact, in a study conducted by Olfson and colleagues (2000), it was found that a common reason for individuals not to seek treatment for SAD was fear about what others would think or say about them. Therefore, it might also be possible that adolescents and/or their parents may choose not to seek an identification as an exceptional student for fear of how the adolescent will be evaluated by peers in their classrooms, and perhaps even by teachers. Therefore, the decision as to whether or not to label an adolescent as having a Behaviour Exceptionality must be carefully considered.

Labeling students with exceptionalities has both positive and negative consequences. There was a considerable amount of research conducted on the use of labels in special education between the 1970s to about the year 2000, but fewer evidence-based research studies have occurred past this point. The lack of recent literature may reflect the fact that previous research provides support for both positive and negative consequences, and that educational policy continues to emphasize the positive aspects of labeling.

Positive and negative consequences of labels. In order to address the question of whether or not the use of labels in special education are beneficial, Lauchlan and Boyle (2007) addressed five dichotomies in their article. To begin, they compared evidence suggesting that labels ensured access to financial and human resources for students to the argument that increased resources may be available but appropriate interventions using those resources may be

lacking. In Ontario, school boards receive additional funding based on the number of exceptional students that they need to provide supports to (Ontario Ministry of Education, 2015). Moreover, students requiring more intensive supports garner greater sums of financial support from the Ontario Ministry of Education. In the 2015-2016 school year, the Ontario Ministry of Education (2015) has allocated approximately \$2.7 billion to support students with special education needs in Ontario. This is a very large sum of money that is being allocated to students with special education needs. Lauchlan and Boyle (2007) indicated that one can legitimately question if these extra resources are being used effectively to target children's difficulties.

In particular, Kershaw and Sonuga-Barke (1998) explained that the label "emotional and behavioural difficulties" used in the United States school system is much too broad to recommend and apply programs of intervention. Students with emotional and behavioural difficulties can exhibit internalizing or externalizing symptoms that require very different interventions. In Ontario, the same is true for the category Behaviour Exceptionality. It is a broad term that can encompass a number of different diagnoses such as Attention-Deficit Hyperactivity Disorder, Oppositional-Defiant Disorder, Obsessive-Compulsive Disorder, Depression, and Social Anxiety, to name a few. The educational interventions necessitated by each of these disorders are likely to be very different. Hence, additional financial and human resources have the potential to service students with a label, but intervention programs must be targeted precisely.

A second dichotomy that Lauchlan and Boyle (2007) discussed is whether a label raises awareness and promotes understanding or if it leads to stigmatization. Research is available to support both sides of the argument. Gus (2000) used a case study to describe the usefulness of the Autism label to raise awareness and develop understanding by classmates. A grade 10

student with Autism was feeling rejected by his peers until they were educated about Autism and the student's strengths and needs. Afterward, the classmates were better able to respond to the student with Autism and as a result, the student felt less rejected. However, this student always had a label and that did not change the way his peers interacted with him. Instead, targeted education toward his classmates improved his relationships with his peers. Thus, it is not the label that raised awareness and understanding, but the education that his classmates received. Other researchers contend and provide evidence that labels have negatively impacted some individuals. In fact, Gillman, Heyman and Swain (2000) discussed a number of cases in which they contended that a label led to social disadvantages and even exclusion. For instance, a woman with Down Syndrome had been spending weekends and holidays in a community home over about a year. When she later received a diagnosis of Alzheimer's disease, she was refused community housing. In this case, a label led to exclusion from a prospective home. It may be possible that the end result, stigmatization or acceptance and understanding, is a function of the nature of the disability, individual differences in self-esteem and confidence, and/or the disposition of other students. Assigning the label, SAD, may not provide the awareness and understanding that some other labels may provide. Instead, it may lead to disadvantages and exclusion because mental health problems are not widely understood.

It is also possible that labels can provide clear communication between stakeholders involved in students' lives, but it is equally likely that labels can lead to generalization of student's difficulties thereby neglecting their individual strengths and needs (Lauchlan & Boyle, 2007). Educators need to use a shared terminology as a communication strategy because there is limited time to meet and discuss student progress in a school day. However, Lauchlan and Boyle (2007) indicate that generalizations may be the result. For example, there is concern about

whether or not educators have a shared meaning of a label. Wilson (2000) considered various terms related to educational discourse in order to identify the inherent dangers in using categorizations. As a case in point, he demonstrated that learning difficulties could represent a number of meanings such as a physical illness, a lack of access to educational resources, or a lack of humility. Furthermore, in the need to categorize students, IQ tests are often used and there are issues with the reliability and validity of these measures (Feuerstein, Rand & Hoffman, in Lauchlan & Boyle, 2007). Therefore, labels can provide a convenient way for educators to communicate but everyone may not possess a shared and accurate meaning.

Next, Lauchlan and Boyle (2007) communicated that a label provides some families and children with an explanation about why the child is experiencing difficulties. For some families and children, use of a label can be reassuring, perhaps even empowering, and it helps to alleviate stress. Riddick (2000) in her exploration of the relationship between labeling and stigmatization, interviewed 27 children and 16 adults with dyslexia. She found some evidence in the interviews to suggest that some children and adults felt better knowing they had an individual difference instead of thinking that they were not intelligent. On the other hand, Lauchlan and Boyle (2007) argued that labels can cause people to focus on the child's deficits instead of school, classroom, community, and policy deficits that do not meet the needs of the child. Moreover, teachers may perceive students with a label as less capable and lower their expectations as a result. The more appropriate action would be to provide the necessary supports to ensure that the child is meeting the same expectations as the rest of the class. For adolescents with SAD, it may be possible that teachers could lower their expectations for social interaction and academic achievement, thereby reinforcing the symptoms associated with SAD.

The last dichotomy addressed by Lauchlan and Boyle (2007) looks at how labels confer a sense of belonging to a group versus how labels are a target for teasing, bullying, and low self-esteem. Finlay and Lyons (1998) interviewed 28 participants with learning difficulties to investigate how the label “learning difficulties” impacted self-descriptions and self-evaluations. About two thirds of the participants admitted to having the label “learning difficulties,” but only when they were asked directly. One can infer that the participants in this study did not feel a sense of belonging to the group, “learning difficulties.” Moreover, those who did identify as having learning difficulties were asked to evaluate themselves and they did not evaluate themselves any more positively than those who did not identify as part of the group. Because about one third of this group denied having learning difficulties even when directly asked, it supports that they were trying to avoid a negative outcome to admitting a learning difficulty.

After careful consideration of the positive and negative consequences of labeling as indicated above, families must make an appropriate decision for their child as to whether or not a label would be beneficial. Adolescents may provide input in this decision, but parents will always be involved unless the adolescent is 18 years of age or older. Based on the negative consequences of labeling, it may be inappropriate for adolescents with SAD to seek an identification of a Behaviour Exceptionality. However, if the family does decide to proceed with the identification process, an adolescent who meets the school board criteria for a Behaviour Exceptionality and their family will need take part in an Identification, Placement, and Review Committee (IPRC) meeting.

Identification, placement, and review committee. The role of the IPRC is to decide if a student should be considered an exceptional pupil and, if so, what type of placement is appropriate (The Ontario Ministry of Education, 2001). The IPRC is composed of at least three

educators, one of whom is required to be a Principal or Supervisory Officer. The parents or guardians and the student are invited to attend. Each school board in Ontario has its own procedures for inviting parents to attend the IPRC meeting but the Ontario Ministry of Education (2001) sets out some minimal requirements. Every effort should be made on the part of the IPRC to accommodate the parents' schedules and written notification of the meeting must be sent 10 days prior to the meeting communicating the date, time, and location of the meeting. Additionally, a copy of the board's *Parents' Guide to Special Education* needs must be sent to parents. The Parents' Guide to Special Education contains information about the IPRC and decision-making process.

At the meeting, relevant information about the student is reviewed and their strengths and needs are discussed. After discussion about the student, the IPRC decides whether or not the student should be identified as an "exceptional pupil." If so, the Ontario Ministry of Education (2001) categories and definitions of exceptionalities are used to decide which category is appropriate. Then, a decision about the special education placement of a student is considered. Placement options include a regular classroom with indirect support, a regular class with resource assistance, a regular class with resource withdrawal, a special education class with partial integration, or a full-time special education class.

The Ontario Ministry of Education (2001) Special Education documents explains each of the above mentioned placement options. Placement in a regular classroom with indirect support means that the student is placed in a regular classroom for the entire day and the teacher is provided with support on how to meet the needs of the student. A regular class with resource assistance also involves placement in a regular class but students receive some specialized instruction either individually or in a group from a qualified special education teacher in their

own class. A regular class with resource withdrawal involves placement in a regular class and the student receives instruction outside of the classroom from a qualified special education teacher but for less than 50% of the school day. Placement in a special education class with partial integration means that the student is in a special education class but is integrated into a regular classroom for at least one instructional period daily. Finally, full-time placement in a special education class involves no integration in a regular classroom.

After all the pertinent information has been presented, considered, and reflected upon, the IPRC will make a decision about identification and placement (Ontario Ministry of Education, 2001). The result is shared via a written statement of decision that communicates whether or not the IPRC has identified the student as exceptional, and if so, what category of exceptionality will be used. The written document provides a description of the student's strengths and needs, the placement decision, and any recommendations regarding the student's program. In addition, the reasons for placing a student in a special education class will be provided if this is the decision that the IPRC makes. At this point, parent consent for the IPRC decision is requested. Parents can choose to sign the written statement of decision at the meeting or they can take it home and return it to the school. The placement decision will be implemented once the parents provide consent.

In the case of students with SAD, a variety of placement options are available based on the level of support that the adolescent requires. An adolescent with SAD who is pursuing a secondary school diploma and seeking identification with a Behaviour Exceptionality will have a placement in a regular classroom with either indirect support or resource assistance. These students require some accommodations to instruction, environment, and/or assessment in order to meet with academic success but do not require intense special education supports. For other

students, a diagnosis of SAD may accompany another exceptionality, such as Autism, Mild Intellectual Disability, or a Developmental Disability. If these students are not working toward a secondary school diploma, the family may be seeking an identification through the IPRC process of Multiple Exceptionalities. If a student is already placed in a special education class with partial integration, or a full-time special education class, then this placement is likely to be maintained. Within 30 days of parent agreement with the IPRC decision, an Individual Education Plan (IEP) must be created for the student (Ontario Ministry of Education, 2004). If a parent does not agree with the IPRC decision or does not want their child to have an IEP developed, then they can choose not to sign the documentation. Without signed documentation by a parent, an adolescent will not be formally identified as an exceptional pupil and will not have an IEP developed (Ontario Ministry of Education, 2004).

Individual education plan versus non-exceptional individual education plan. If a family does not want to pursue an official identification, an IEP can still be created and shared but it is termed a Non-Exceptional Individual Education Plan (NIEP) instead (Ontario Ministry of Education, 2004). There are only minor variations in an IEP and NIEP (e.g., inclusion of category of exceptionality, assessment data, date of most recent IPRC), hence, for the remainder of this section, the two will be considered together. An IEP is a written plan based on an assessment of the student's strengths and needs that impact a student's ability to learn and to demonstrate their learning (Ontario Ministry of Education, 2004). The IEP is a working document, meaning that it can be changed as new information becomes available. It identifies the accommodations that a student requires to achieve to his or her potential and also serves as an accountability tool for the student, the student's parents, and everyone who has responsibilities to meet their goals and learning expectations.

An IEP outlines accommodations that are specific to the student that will help them be successful both emotionally and academically at school. There is one section of this document that is particularly important for the student, parents, and teachers. The section is the accommodations section that includes instruction, environment, and assessment (Ontario Ministry of Education, 2004). Instructional accommodations involve changes in teaching strategies, environmental accommodations are adjustments to supports in the physical environment, and assessment accommodations are changes in assessment activities and methods. These changes should be individualized to the student and are required for the student to demonstrate their learning. For example, a student with a Communication: Learning Disability who has poor organizational skills may require a reminder from the teacher to place his/her work in a binder and to email their homework to themselves. This strategy is appropriate to this student so that he/she has the materials to complete homework and the knowledge of what to do. This strategy might not be appropriate for a different student who has difficulty getting his/her thoughts onto paper so the use of assistive technology such as Dragon Naturally Speaking is required to verbally write an essay.

It would seem appropriate to provide accommodations to students with SAD because studies have shown that adolescents with SAD have lower academic achievement than they are capable of (Puar, 2012; Wood, 2006). Additionally, research has demonstrated that there are particular school-related tasks that cause distress for students with anxiety disorders (Langley et al., 2004). Providing an accommodation for a distressing task is an appropriate measure to support adolescents with SAD.

Some families and adolescents may not want to pursue supports through special education and may opt to pursue support through student success instead. Within the student

success initiative, students are not labeled with exceptionalities so parents and students may perceive this avenue as less stigmatizing. Additionally, many of the same supports mentioned above are also considered within the Student Success Initiative (SSI).

Student success initiative. The SSI is a response by the Ontario Ministry of Education to help students succeed and graduate from high school (Student Success/Learning to 18 section, 2009, ¶1). The focus is on high-quality course options and more one-on-one support when students need extra help. Within the secondary school setting, a student success team (SST) provides this support to students and consists of a principal, student success teacher, guidance counselor, special education teacher, and other educators. Programs such as credit rescue, credit recovery, and supervised alternative learning (SAL) are offered to pupils. Credit rescue programs provide intervention to students before they have experienced failure in a course. Credit recovery is a scheduled period that is provided to a student who has failed a course so that he/she is able to recover the failed course and take at least one additional credit during this scheduled time. SAL programs provide learning opportunities for students in workplaces, through volunteering, and participation in life skills courses and counseling. Other supports offered include customized timetabling to ensure the success of students and re-engagement initiatives that target grade 12 and 12+ students who have either left school or who have not been attending. Furthermore, members of the SST are available to provide emotional support and advocacy services to students, and any member of this team can be involved in communicating the strengths and needs of students who are accessing social-emotional support.

In summary, it appears as though many teachers have an understanding of anxiety but adolescents are still not accessing the support that they require in order to receive an assessment and treatment. As will be discussed further, beginning in 2015, teacher education programs will

include mental health in their curriculum but a systematic approach to address educational concerns at the provincial level will need to be considered in order to reach additional educational staff. Within the school setting, it is possible to identify adolescents with SAD as having a Behaviour Exceptionality in order to gain access to special education services. However, using labels to identify students has both positive and negative impacts that need to be considered when making a decision about whether or not to pursue this. Regardless, the student success initiative is another avenue that students with SAD can access for emotional and academic support.

Chapter 6: Mental Health Interventions in Secondary School

There is a need to improve access to mental health services and the quality of care received by individuals with anxiety disorders in Canada (Roberge, Fournier, Duhoux, Nguyen, & Smolders, 2011). Additionally, access to mental health services in northern and rural areas of Ontario are inferior to access in other parts of the province. Cairney et al. (2015) indicated that children and youth in northern Ontario have increased prevalence rates of mental health problems and substance use disorders, however, they receive less physician-based mental health care than their southern counterparts. Furthermore, Cairney et al. (2015) also point out that remote regions in Ontario have a lower per capita supply of psychiatrists and therefore, have a shortage of services, a shortage of trained professionals, and have increased difficulties posed by distances and transportation. As a result, school-based mental health supports have been proposed as a possible facilitator in the access of mental health services.

Adolescents spend a great deal of time at school, making school an ideal location to provide supports for mental health problems. Actually, schools offer a number of advantages over community-based settings because they are an optimal environment for preventative education, early identification, and early intervention (Lean & Colucci, 2010). Van Acker and Mayer (2009) indicated that school-based services offer a superior ability to connect with adolescents compared to community settings, and some families find that school-based settings are less stigmatizing. Additionally, school-based settings can address the financial barriers that may prevent adolescents from accessing supports (Millar et al., 2013). For these reasons, many secondary schools are now addressing mental health concerns.

Current State of School-Based Mental Health Supports

At the school level, the Mental Health Commission of Canada (MHCC; 2013) recognized that there were a number of initiatives directed at school-based mental health, but there was a

lack of integration and common vision across initiatives. Hence, they sought to synthesize the literature related to frameworks for best practices, provide a scan of the various programs and services that were being provided in Canadian schools, and conduct a national survey of school districts related to their needs and practices. The following discussion of the current state of school-based mental health will rely heavily on the MHCC's findings from their research.

MHCC synthesis of the literature. The MHCC (2013) synthesis of the literature for frameworks of best practices considered 363 reviews and meta-analyses, but only 94 met inclusion criteria. Inclusion criteria were not fully explained by the researchers but they did indicate that only high quality research was included. Looking at mental health promotion, the MHCC (2013) found positive results for mental health promotion activities. They indicated that social skills training or social emotional learning programs were effective at increasing the ability of students to cope with a large range of problems. They concluded that universal mental health promotion programs were effective but that greater benefits were achieved if skills were taught systematically as a whole class or whole school and over a longer period of time than a year.

The MHCC (2013) also examined school-based mental health prevention programs and considered their effectiveness in reducing both internalizing and externalizing difficulties. For adolescents experiencing internalizing problems, the MHCC found that school-based behavioural or cognitive behavioural programs were effective in reducing symptoms. For adolescents with externalizing behaviours, prevention approaches that focused on prosocial skills development, conflict resolution, anger management, and stress management were the most effective in reducing symptoms of aggression or conduct problems. However, they reported that there was

an inconsistent evidence base for prevention programs aimed at suicide prevention and substance use disorders.

Next, school-based intervention programs are considered. The MHCC (2013) indicate that a number of interventions exist to address a variety of mental health concerns. Similar results to school-based prevention programs were found with internalizing problems being best addressed by behavioural and cognitive behavioural interventions and skill building and conflict resolution for externalizing problems. Interventions aimed at either internalizing or externalizing problems can be delivered effectively either in groups or individually. However, care must be taken to avoid contagion effects when working with groups of students with externalizing problems. Contagion effects occur when individuals adopt similar attitudes and behavioural styles as a result of affiliating with others who are deviant (Hanish, Martin, Fabes, Leonard, & Herzog, 2005).

Scan of programs and services in Canada's education system. The MHCC (2013) developed the School Based Mental Health and Substance Abuse (SBMHSA) scan to gather information about programs, models, and initiatives that were being used in Canada. There were 200 programs that were nominated for inclusion in the scan but interviews were conducted with contacts from only 147 of these programs because some contacts did not call to participate. The interviews were approximately one hour in length, were conducted in English or French by a trained member of the scan team, and were semi-structured. There were some key findings from this scan. Programs tended to focus on risk behaviour prevention (50%); prosocial skill development (41%); or mental health literacy (37%). Some of the key barriers to implementation of programs were funding; buy-in from staff, students, or the community; financial barriers; and the time and capacity required. However, there were also key enablers

such as partnerships, capacity, an identified need, and leadership. There was limited involvement of youth and parent/family involvement in program design and implementation. Furthermore, about half of the respondents in the study indicated that their programs were not subject to evaluation. Of the programs that involved evaluation criteria, there was a large discrepancy regarding what constituted a formal evaluation. Also, many of the programs that were implemented in schools had a weak link to evidence from the literature.

As a result of the scan, the SBMHSA (2011) developed a searchable database of evidence-based programs being utilized at the school and/or board level across Canada. I used the database to find programs that were suitable for internalizing problems and social emotional learning as a search focus and secondary school students as the target population. The search yielded 20 programs for consideration. Based on the 20 programs that were identified, a quick scan of their program focus resulted in the list being narrowed to five programs. Programs were not considered if they involved community interventions that were not offered within the school. Of these programs, two will be discussed later in this chapter: FRIENDS and Positive Action. According to the MHCC (2013), the remainder of the programs did not include appropriate research methodologies such as inclusion of a measure of internalizing or externalizing problems, pre and post treatment measures, or even a control group.

National survey of needs and practices. The National Survey of Needs and Practices was developed to describe the current state of service delivery of school mental health and substance use in Canada (MHCC, 2013). Representatives from 643 schools representing 177 school districts from across Canada completed the survey. The results suggested that school boards in Canada did not yet possess the organizational conditions to deliver coordinated, evidence-based strategies in their schools. They also did not have thorough policies in place

relating to protocols for decision-making, systematic training, and role clarity. Additionally, the focus for mental health services tended to be on intervention services for high needs students instead of mental health promotion and prevention. Last, respondents indicated the need for more professional development for educators, particularly aimed at promotion and prevention, how to recognize the signs and symptoms of mental health problems, and how to better engage families.

In summary, the MHCC determined that there is a need for an integrated approach to mental health promotion and prevention in schools that is based on evidence from the literature. Furthermore, there is also a documented need for better organizational structures in school boards and across Ministries in Ontario to deliver coordinated services and professional development for staff on mental health. Therefore, the Ontario Ministry of Education developed the Supporting Minds (2013) document in order to address some of the concerns related to better integration and coordination of services and professional suggestions for educators.

Three-Tiered Approach

Most schools are providing some form of social-emotional support for adolescents, but these supports vary from school board to school board and sometimes even school to school (Millar et al., 2013). The Supporting Minds (2013) document advocates for a tiered approach to mental health that includes promotion, prevention, and intervention. The first tier is focused on prevention through student engagement and mental health promotion. Activities are implemented either school or class wide and the Ministry of Education suggests that these strategies need to focus on social emotional learning. There has been some support for the use of social emotional learning in the literature (Durlak et al., 2011). The second tier focuses on mental health prevention with more targeted interventions for students who are at increased risk

of developing mental health problems (Supporting Minds, 2013). Finally, the third tier is the level at which clinical interventions are required. Some researchers have identified that few schools have adequately developed services according to this tiered approach to mental health (Lean & Colucci, 2010).

Classroom, School, and Community Interventions

In direct relation to this tiered approach, Supporting Minds (2013) indicated that mental health supports for adolescents can be offered at different system levels. Classroom-based interventions can be implemented within the management of the classroom or through curriculum. Supports offered at the school level are typically in the form of a school-based preventative program or primary access to mental health personnel. The community supports are those supports that are offered by outside community agencies either within the community or at school.

Classroom interventions. At the classroom level, educators have a very important role to play in the promotion and prevention of mental health problems. Educators are ultimately responsible for the manner in which they relate to students in their classrooms. The Ontario Ministry of Education document, Supporting Minds (2013), specified some important roles for educators. First, educators can create a positive classroom environment. There are some programs such as Positive Action that can be administered at a classroom or school-based level that help educators to create positive classroom environments but these kits are quite costly. The purchase of one secondary school kit would be appropriate for distribution of the program to 30 students and would cost \$450 (Positive Action, 2015). The effectiveness of Positive Action will be discussed in a later section of this chapter. Instead of purchasing a costly resource, educators can access resource material such as the resource manual entitled Creating Inclusive Classrooms

authored by Salend (2010). There is a chapter in this text that addresses how an educator can create a classroom environment that promotes positive behaviour. The information is based on evidence from the literature and although there would be a cost in accessing the resource, it would be helpful to all educators and is a one-time investment.

Second, educators can help students to identify their emotions and develop effective ways to manage those emotions (Supporting Minds, 2013). This process would be similar to mindfulness- and acceptance-based therapies. Educators can also help students to improve their coping and problem solving skills. One potential avenue for educators to explore is emotion coaching. Gottman, Katz, and Hooven (1997) first described the concept emotion coaching as a parenting style where the parent is aware of their own and their child's emotional experiences and who help their children to understand and regulate their feelings prior to seeking a solution to a problem. Havighurst et al. (2013) conducted a study to determine if parental participation in a parental emotional socialization program was effective in increasing parents awareness and regulation of their own emotions, if children's emotional competence would improve, and finally, if children's increased emotional competence would lead to a reduction in behaviour problems. The participants were the primary care-giving parents of four and five year-old children who presented with externalizing behaviour difficulties at the Behaviour Clinic of the Royal Children's Hospital or the Western Sunshine Hospital in Australia. Participants were assigned to the intervention ($n=31$) or a waitlist control condition ($n=23$). Questionnaire and observational data were obtained pre-intervention, post-intervention, and at a six month follow-up for all participants. The parent measures included the Difficulties in Emotional Regulation Scale, the Maternal Emotional Style Questionnaire, some selected and relevant items from the Perceptual Evaluation of Speech Quality, and a parent-child observational task. The child

measures were the Peabody Picture Vocabulary Test-Third Edition, the Emotion Skills Task, and the Eyberg Child Behaviour Inventory 6. Teacher reports of child behaviour were also obtained. The results were that parents in the intervention group reported greater empathy and they had improved observed emotion coaching skills. Moreover, their children had greater emotion knowledge and their teachers reported less behaviour problems. It is thus possible that teacher use of emotion coaching can be a useful tool in the classroom.

Because stigma is a major barrier to seeking support for mental health problems, educators can address the stigma associated with mental health problems directly and indirectly through curriculum (Supporting Minds, 2013). Mental health curriculum can be integrated into the content of almost any secondary school course. In English courses, teachers can provide novel choices that have the potential to reduce stigma related to mental health. Physical education teachers can teach mental health directly through the health strand that is a component of Physical Education courses in secondary school. Social Studies classes teach societal issues so mental health could be easily incorporated. Even Math courses can integrate mental health word problems such as determining the percentages of students impacted by various mental health problems and graphing trends over time. Almost any secondary school course can have mental health curriculum integrated into its content in order to achieve the curriculum expectations associated with it. Lastly, educators can talk about mental health with parents, plus offer education and supports to them as well (Supporting Minds, 2013).

In order to assist educators with the promotion and prevention of mental health problems, some school-based programs have also been developed. School-based programs provide an educator with training and resource materials for program implementation. Many of these programs claim to reduce symptoms of various mental health problems. To develop a list of

potential programs, this author researched evidence-based school prevention programs and arrived at a list of nine programs that had published studies in the literature. Each of these programs will be considered next.

School prevention programs. School prevention programs can be administered by educators, board-employed psychological staff, or by community partners. In this section, only evidence-based school prevention programs that target secondary school students and can be easily administered by educators are considered. As such, Coping Cat, the Social and Emotional Aspects of Learning (SEAL) programme, and the Promoting Alternative Strategies (PATHS) Curriculum will not be discussed in great detail, rather a rationale for their exclusion is provided. Coping Cat has been proven to be effective in reducing anxiety but cannot be easily applied in a school-based setting because it must be administered by a trained professional psychologist and must be individualized (Promising Practices Network, 2006). The Social and Emotional Aspects of Learning programme that has been administered in the United Kingdom since 2006/07 will also not be included because it has not been empirically proven to reduce mental health problems reliably (Wigelsworth, Humphrey & Lendrum, 2013). Also, the Promoting Alternative Strategies (PATHS) Curriculum will not be evaluated because it is primarily applicable to elementary school students and does not have equivalent forms for use with adolescents (The PATHS Curriculum, 2012).

The majority of the prevention programs that will be discussed in this section are based on CBT principles. CBT incorporates psychoeducation, skills-building, cognitive restructuring, and exposure and has been shown to be an excellent approach for the treatment of anxiety in adolescents (Herbert et al., 2010). Six different evidence-based school prevention programs will be considered in this section, namely, Skills for Academic and Social Success (SASS), the

FRIENDS program, Positive Action, the Penn Resiliency Program, Strong Teens, and Mindfulness programs. All of these programs, with the exception of SASS, can be universally applied in a secondary school setting or can be used independently in particular classes.

Skills for academic and social success (SASS). Skills for Academic and Social Success is an intervention program aimed at reducing SAD (Fisher, Masia-Warner & Kolin, 2004). The intervention takes place over three months and consists of 12 weekly group sessions that last approximately 40 minutes. The group sessions have five core components: psychoeducation, realistic thinking, social skills training, exposure, and relapse prevention. The group sessions are followed by two group booster sessions that take place on a monthly basis to prevent relapse and identify any remaining barriers. During this time, two 15-minute individual meetings also occur. There are four weekend social events that provide real-world exposure and help to generalize the skills learned. Parents attend two group sessions where they receive psychoeducation and learn techniques to help their child. Teachers also attend two meetings and help to incorporate classroom exposures under the supervision of a group leader.

Using this methodology, Masia-Warner et al. (2005) conducted a randomized wait-list control trial of 35 adolescents attending secondary school in New York. Participants were assessed at pre- and post-intervention, and at a nine-month follow up by a blind independent evaluator, self-report inventories, and parent reports. The independent evaluator interviewed participants and their parents separately using the Anxiety Disorders Interview Schedule for DSM-IV: Parent and Child Versions, and interviewed only the participants with the Liebowitz Social Anxiety Scale for Children and Adolescents, the Social Phobic Disorders Severity and Change Form, and the Children's Global Assessment Scale. Self-report inventories consisted of the Social Phobia and Anxiety Inventory for Children, the Social Anxiety Scale for Adolescents,

the Children's Depression Inventory, and the Loneliness Scale. The parent report consisted of the Social Anxiety Scale for Adolescents: Parent Version. Independent evaluator, parent, and adolescent ratings demonstrated that the SASS program reduced social anxiety and avoidance and improved social functioning. In fact, 67% of the participants in the SASS intervention no longer met diagnostic criteria for SAD compared to 6% of the wait-list group. Moreover, the treatment gains were maintained at the nine-month follow-up. However, the procedure for SASS is very intensive and so other researchers have aimed to delineate its effectiveness in a modified version.

More recently, Miller et al. (2011) examined the effectiveness of a modified version of SASS using a sample of 27 adolescent secondary school students. The trainers used in the administration of the program were teachers, counselors, and peer mentors who participated in two 3-hr training sessions. Students were recruited from a high school through self-referring or by referrals from educators or peers. The program was delivered over 12 weeks and each session lasted about 40 minutes. As a measure of anxiety, the Multidimensional Anxiety Scale was used, the Mobility Inventory for Teens was used to assess agoraphobic avoidance associated with anxiety, and the Centre for Epidemiological Studies Depression Scale for Children was used to assess depression. Each of these measures was administered pre- and post-treatment. Participants in the study showed a reduction in anxiety, behavioural avoidance, and depression symptoms from pre- to post-treatment.

There are a few limitations of this study that need to be addressed. Firstly, there was no control group so it was not possible to compare the results of Miller et al.'s (2011) study with students who did not receive the SASS program to know if the program was efficacious. Future studies can incorporate a control group. Secondly, even though 58 adolescents were referred for

the study, only 27 participated; this means that 31, over half of referred students, declined participation. A further analysis determining how many self-referred and other-referred participants chose to take part in the study would have been beneficial. Individuals who are ready to seek treatment tend to benefit more from it than individuals who are not ready to seek treatment (Ryan, Lynch, Vansteenkiste & Deci, 2011). Nonetheless, it would appear that efficacious treatments are available for adolescents with SAD but that a large proportion of these adolescents are not willing to accept treatment. A future study can seek to determine reasons as to why adolescents with SAD are not engaging in treatment and perhaps involve them in program development.

The FRIENDS program. The FRIENDS program was modeled after the Coping Cat program but designed so that it could be implemented at the group level (Briesch, Sanetti & Briesch, 2010). The curriculum consists of 10 one-hour sessions, with follow-up sessions occurring one month and three months after. Adolescents are taught the acronym FRIENDS. The F stands for feelings, R for relax, I for I can try, E for encourage, N for nurture, D for don't forget and S for stay happy. The program can be offered to children and adolescents between the ages 4-18 years.

To determine the effectiveness of the FRIENDS program for preventing the development of anxiety in student populations, a meta-analysis conducted by Maggin and Johnson (2014) will be described. The inclusion criteria included use of the FRIENDS program, the study had to be conducted with students enrolled in Kindergarten to Grade 12, it had to be conducted in a school or classroom environment, a standard measure of anxiety needed to be used that had demonstrated psychometric properties, a control group needed to be present, and the article had to be published in English. Based on the inclusion criteria, 51 studies were candidates to include

in the analysis but upon closer review of the research, other studies were removed from the analysis. Therefore, 17 studies were used in the final analysis. Students identified as being at low risk for anxiety had scores in the subclinical range for anxiety on the pretest and those considered at elevated risk had pretest scores of anxiety in the clinical range. The effectiveness of the FRIENDS program was evaluated by calculating a series of standardized mean difference effect sizes comparing treatment and control groups on posttest and follow-up outcomes on measures of anxiety. The original analysis demonstrated that students who were at low risk for developing anxiety and who participated in the FRIENDS program demonstrated a slight reduction in anxiety after program completion but the initial gains only lasted for 12 months and not beyond. In a secondary analysis, studies with a poor methodological quality were dropped from the analysis and it was determined that participants at low risk for developing anxiety did not demonstrate lower measures of anxiety compared to the control group. Furthermore, no relationship was found between a reduction in anxiety symptoms and participation in the FRIENDS program for students who were deemed high-risk for anxiety.

Maggin and Johnson (2014) indicated that additional research into the effectiveness of the FRIENDS program needs to address the methodological weaknesses that they identified. Moreover, they discuss some school-based recommendations from their research. First, they indicate the need for appropriate screening instruments in schools to determine which students would benefit from a school-based program such as FRIENDS or from more intensive supports. Second, there is a need for educators to maintain the initial improvements in anxiety accrued by students in the FRIENDS program; they suggest periodic booster sessions. Third, these researchers suggest that the feasibility of using teachers in the implementation of the FRIENDS program in schools.

Positive action. Positive Action is a classroom-based curriculum with scripted lessons (Lewis et al., 2013). The six core concepts in this program are self-concept, positive actions for body and mind, positive actions focusing on getting along with others, and managing, being honest with, and continuously trying to improve oneself. The Positive Action program purports a cyclic relationship between our thoughts, actions, and feelings such that if one engages in positive actions, then one feels good about oneself (Positive Action, 2014). On the other hand, negative perceptions of one's self can lead to negative thoughts and actions that spur increased negative perceptions. Although Positive Action does not target anxiety specifically, benefits may occur.

Lewis et al. (2013) investigated the correlation between the Positive Action program and the emotional health of participants of a predominantly low SES urban community. They employed a longitudinal research design beginning with participant measures in grade 3 and continuing for six years. A total of 624 students from 14 Chicago public schools participated in the study; seven schools served as a control comparison while the other seven schools administered the Positive Action program. Self-report measures were used in the study and data were gathered at baseline and at seven additional times. The Positive and Negative Affect Scale for Children was used to assess positive affect, life satisfaction was measured using the Student Life Satisfaction Scale, Depression and Anxiety were assessed using 12 items from the Behaviour Assessment System, and social-emotional and character development were measured with the Social-Emotional and Character Development Scale. The results of the study were modest but, relative to controls, students who had participated in the Positive Action program improved their positive affect and life satisfaction over time, and had lower depression and anxiety at the end of the study. Moreover, the results for positive affect, depression, and anxiety

were mediated by an increased change in social-emotional and character development in schools using the Positive Action program over time.

There were a few limitations of the study that may have impacted the results. In particular, about 79% of the participants in grade 3 at the start of the study dropped out by the conclusion of the study. The authors indicated that there was high school mobility and this could have impacted the results. Also, all of the measures that were used were self-report measures, teacher or parent reports were not obtained, nor were the students observed at any point by the researchers.

Penn resiliency program. The Penn Resiliency Program was designed to target depression but can also be used with other internalizing or externalizing problems (Cutuli et al., 2013). The program can be administered by teachers or by counselors and is appropriate for students aged 10-14 years. The program delivery consists of sessions that involve discussions, skill training, role-playing, and homework that reinforces program content.

Brunwasser, Gillham, and Kim (2009) conducted a meta-analytic review to evaluate the effectiveness of the Penn Resiliency Program in reducing depressive symptoms. Studies were included in the review if they used a control condition, if the Penn Resiliency Program was used to evaluate its effectiveness on depressive symptoms, and if there were both baseline and post intervention data collection. Studies were not excluded as a result of suboptimal research methods or whether or not the study was published. The researchers included 17 controlled evaluations for analysis. The program effects were evaluated overall, and based on gender and symptom level. The researchers found evidence that the Penn Resiliency Program reduced depressive symptoms up to one year post-intervention. Moreover, the effects were significant with both low and elevated baseline symptoms and among boys and girls. The selection criteria

for this meta-analysis were quite liberal because studies with methodological concerns were included as well studies from clinical samples. However, this study did not look at the effectiveness of the Penn Resiliency Program with symptoms of anxiety.

To address the effectiveness of the Penn Resiliency Program with internalizing symptoms, an investigation by Cutuli and colleagues (2013) will be considered. Participants were 697 middle school students who were assigned to one of three conditions: Penn Resiliency Program, the Penn Enhancement Program (an alternative intervention), or a control. Parent, teacher, and self-report questionnaires were completed prior to the intervention, two weeks post intervention, and at six month intervals for the next three years. Adolescents completed the Youth Self Report Form, parents completed the Child Behaviour Checklist, and current teachers completed the Teacher Report Form. All three of these measures provide composite scores for internalizing and externalizing symptoms. Parent-reports of adolescent internalizing symptoms were reduced in the Penn Resiliency Program condition but not in the control condition. Moreover, the results suggested that a reduction in internalizing symptoms was indicated by parents at the two-week post treatment and for the other follow-up sessions. There were no differences in self or teacher reported changes in internalizing symptoms. Also, there was no difference in internalizing symptoms between the two treatment conditions.

Strong teens. The Strong Kids and Strong Teens programs were developed in response to the need for evidence-based mental health interventions that were not too expensive or too difficult for teachers to deliver in schools (Kramer, Caldarella, Young, Fischer, & Warren, 2014). The Strong Kids curriculum has five different age-categorized instructional manuals from pre-kindergarten to grade 12 that are suited to a students' developmental stage. Each

manual consists of 10-12 lessons ranging from 35-50 minutes in duration that are delivered weekly. The Strong Teens program is appropriate for students in grades 9-12.

I was only able to find one study that empirically investigated the effectiveness of the Strong Teens program in reducing symptoms of emotional distress. The study was conducted by Merrell, Juskelis, Tran, and Buchanan (2008) and included only 14 students who were from a special education school. Even though the program was found to be effective in reducing symptoms of emotional distress as communicated by self-report measures, this study cannot be generalized to all other students due to the small sample size and the specific population of students targeted. With the lack of research into the effectiveness of the program with secondary school students, a study using elementary students will be considered because the programs are based on similar theory.

Kramer et al. (2014) recruited 348 participants from a school using the Strong Kids curriculum and 266 students from a different school that served as a control group. Teacher ratings on the internalizing subscale of the Social Skills Rating System and the peer relations subscale of the School Social Behaviour Scale-Second Edition were used at pretest and posttest (17 weeks later). Students who took part in the Strong Kids curriculum were found to have decreases in internalizing behaviours while students who were in the control school had increases in internalizing behaviours.

There is some preliminary support for the use of the Strong Kids curriculum in reducing internalizing symptoms, but more studies are required in order to determine if the Strong Teens program will confer the same results. Future studies can focus on more representative samples and increased sample sizes. Additionally, assessments with psychometric properties should be considered to identify specific internalizing problems.

Mindfulness and mindUp. Mindfulness was previously discussed in Chapter 3 of this document as a psychosocial treatment approach for SAD in a clinical setting. One educational program that has Mindfulness at its core is the MindUp program (The Hawm Foundation, 2015, ¶ 1). Currently, the MindUp curriculum can be used for children from Kindergarten to grade eight and consists of 15 lessons. The MindUp curriculum provides strategies for students to improve their attention, their self-regulation skills, build resilience to stress, and to develop a positive mindset. Although a secondary school equivalent has not yet been developed, Mindfulness programs are being applied in secondary school settings under the general term Mindfulness. Hence, Mindfulness will be considered here as a school-based intervention for secondary school students.

Zenner, Herrnleben-Kurz, and Walach (2014) reviewed the evidence regarding effectiveness of school-based mindfulness interventions. Databases were searched for studies that met inclusion criteria; the interventions had to be mindfulness-based, implementation had to be in a school setting, participants were students from grades 1-12, and quantitative data were used to measure psychological aspects. Zenner et al. (2014) included 24 studies in their analysis and the weighted mean effect size was used in the final analysis. Two kinds of overall effect sizes were estimated; a within-group effect size was determined using changes between pre- and post-intervention in each study and a controlled between-group effect size was derived for all controlled trials. Effect sizes were calculated for perceived stress and coping, factors of resilience, and emotional problems, and cognitive performance. The authors determined that students who participated in mindfulness-based training in schools had greater cognitive performance and greater resilience to stress.

Six different school-based mental health programs were explained and some relevant research findings were discussed. There is some support that school-based mental health programs can benefit students, but some of the data indicate that only small improvements are made. Therefore, it is critical that schools and school boards carefully consider each program prior to implementation of any program. In respect to SAD, some of these programs may be more beneficial than others and this topic will be considered in more detail in the next chapter. School-based mental health programs are not suitable for all students; some students may require additional supports that the schools are not able to provide on their own. Instead, students are referred to community-based interventions.

Community-based interventions. In 2011, the Ontario government released the Open Minds, Healthy Minds document that explains the government's approach to improve availability and access to mental health services across the province. The plan resulted from the collaboration of three ministries: the Ministry of Health and Long Term Care, the Ministry of Children and Youth Services, and the Ministry of Education. A lead agency for Child and Youth Mental Health was established for 33 geographical areas in Ontario. In Sudbury, the Child and Family Centre is the lead agency (Ontario Ministry of Children and Youth Services, 2015). Their School Based Mental Health program is an intervention aimed at providing time-limited therapy to youth between 12-18 years of age and their families experiencing mental health problems (Child and Family Center, 2014, ¶12). This program is offered in collaboration with the four local school boards and services are provided confidentially in the school setting. Typically students receive a referral to this program from a Guidance Counselor, a Principal, a Vice-Principal, or a school Social Worker or Mental Health Nurse.

Another method that adolescents in the Sudbury, Manitoulin, and Chapleau areas can use to access mental health or addictions support is a smartphone app called Be Safe (Health Sciences North, 2015). It was created through a partnership between the Sudbury-Manitoulin Service Collaborative and the Centre for Addiction and Mental Health. The app provides adolescents with access to services anytime or anywhere and contains information about contacts for services, a personal safety plan, and pocket guide that can be printed and filled out that would provide information to others in the event of a crisis. The app may be particularly helpful for adolescents with SAD because they are worried about negative evaluations of others. Using a device instead of a face-to-face interaction to seek support may prove to be very beneficial.

Another option that exists in Northern Ontario is telepsychiatry. Telepsychiatry involves the use of videoconferencing technology for psychiatric applications such as counseling or education. Myers, Valentine, and Melzer (2008) conducted a study to determine child and adolescent utilization of telepsychiatry and parent satisfaction using a Parent Satisfaction Survey. Psychiatrists at a regional children's hospital provided consultation and management services to participants 2-21 years of age at four different rural sites near Washington. After 12 months, parent satisfaction was surveyed and utilization data were obtained. The authors noted that telepsychiatry use was weighted toward diagnosis and pharmacotherapy and contend that this may have been a reflection of the fact that many of the participants were receiving Medicaid. In Washington, Medicaid only reimburses psychiatric services weighted toward diagnostic assessment and pharmacotherapy. Satisfaction data obtained from parents was high across participant age and was greater for children and adolescents with return appointments. Some researchers have also postulated that telepsychiatry may be more beneficial for certain children given that they may be more forthcoming with telepsychiatry than they are with face-to-face

counseling (Pakyurek, Yellowlees & Hilty, 2010). It seems possible that adolescents with SAD may be more receptive to telepsychiatry services for this very reason.

However, there are limitations and barriers to accessing telepsychiatry services. Deslich, Stec, Tomblin, and Coustasse (2013) described some of the limitations in their article. They explained that there are concerns about privacy, security, and patient safety. Deslich and colleagues (2013) stated that engaging in telepsychiatry requires an individual to set up the technology for the session and store the data from the session. This represents a potential breach of privacy because someone not directly involved in the care of a patient may be privy to telepsychiatry sessions. Furthermore, as a result of the electronic trail of the session, there is the possibility that someone not involved in treatment in any manner could breach patient confidentiality. Patient safety is also a concern because video and audio sessions lack nonverbal communication, hence, there may be a greater likelihood of misunderstandings between the patient and the provider. Moreover, there are barriers to accessing telepsychiatry services, particularly in northern and remote communities where access to technology may be limited or may not be sufficient.

In the Sudbury area, the Sudbury and District Health Unit is another community-based promotion and prevention service that can be accessed. The School Health Promotion Team consists of a Manager, public health nurses, a dietician, program assistants, health promotion workers, and a health promoter (Sudbury & District Health Unit, 2013). Their goal is to promote resiliency in children and adolescents by working with school partners, parents, and other community agencies. A school health request form can be accessed on their website in order to obtain additional information or services and a number of curriculum resources for teachers are available.

In summary, school boards in Ontario are using a three-tiered approach to addressing mental health problems. Prevention and intervention strategies are being used at both Tier one and two levels. Many schools and school boards have implemented prevention and intervention strategies, but careful consideration of prevention strategies that claim to have a solid evidence-base needs to occur. There are some programs that have garnered attention in the literature and are reported to be evidence-based in popular media; however, there are methodological concerns in many of evidence-based prevention studies. Future research will need to address the effectiveness of school-based prevention and intervention programs under more rigorous conditions. Regardless, it appears as though some of the programs confer at least a small benefit.

Chapter 7: Implications for Policy and Practice

There are two main areas that have the potential to improve access to supports for adolescents dealing with SAD that can be addressed in an educational setting. One strategy is to look critically at current policy and determine if there are changes that can be made to make accessing support easier. Another strategy is to change or improve the manner in which supports are delivered to students by considering current practice in education.

Policy

Changes to educational policy can be made that may help individuals with SAD improve their access to support and may even be helpful to other students. In particular, policies related to labeling adolescents are considered as well as the current categories of exceptionalities as proposed by the Ontario Ministry of Education (2001).

To label or not to label. As discussed in chapter five, there is currently no consensus in the literature about labeling students. Instead, there appear to be positive and negative consequences and researchers are not examining large-scale alternatives to labeling. Two of the main arguments for maintaining labels in the school system are that they provide a measure for securing financial resources and are an effective communication tool. However, a strategy that can be used to continue to provide access to resources and foster communication are strengths/needs based assessments. Strengths/needs assessments can be universally applied to all students and secure databases can be maintained to update student records on an ongoing basis. The benefit of this approach is that it addresses many of the negative consequences of labels, but can continue to provide schools with financial support and ease of communication. In fact, strengths/needs assessments may provide superior communication within the school system and between educators and other stakeholders. Strengths/needs based assessments can provide an effective framework for developing targeted interventions for all students and will ensure that

educators get to know all of their students, even students who are socially withdrawn. Moreover, strengths/needs based assessments can provide an early warning sign for mental health problems if there are significant changes to a student's needs. Hall (2010) compiled an extensive list of resilience and strength-based assessments for children and youth. From Hall's compendium of measures, I examined the strengths-based measures to determine which ones would be appropriate for administration with secondary school students. The measures obtained were the Behavioural and Emotional Rating Scale (BERS), the Emotional Quotient Inventory (EQ-i:YV), the Search Institute Surveys—Profiles of Student Life-Attitudes and Behaviours Questionnaire (ABQ), the Social Skills Rating Scale (SSRS), and the Strengths Assessment Inventory-Youth Version (SAI-Y). Each of these measures is considered with an emphasis on their suitability for use in a secondary school setting.

Behavioural and emotional rating scale (BERS). The BERS is a 52-item scale that was developed to measure strengths in five areas: interpersonal strengths, family involvement, intrapersonal strengths, school functioning, and affective strengths (Hall, 2010). The reliability coefficients for the test-retest and inter-rater reliabilities were both above .80 (Epstein, Harniss, Pearson & Ryser, 1999) and the correlations for the convergent validity were generally found to be moderate to high (Harniss, Epstein, Ryser & Pearson, 1999). The researchers recommended that the BERS was psychometrically sound and could be used easily by educators to assess students and to promote positive programming for students with special education needs.

Emotional quotient inventory (EQ-i:YV). The EQ-i:YV has two versions, one with 30 items and one with 60 items (Hall, 2010). The responses to the items are used to assess five primary scales: intrapersonal, interpersonal, stress management, adaptability, and general mood. Hall notes that there are several positive aspects to using the EQ-i:YV. First, it was developed

and standardized on 10,000 children in Canada and the United States thereby ensuring the results can be generalized to Canadian adolescents. Second, there are both self-report and observer report forms so the EQ-i:YV has the potential to be administered to larger groups of students and is therefore, less onerous to the educator. Lastly, the manual that accompanies the measure also provides strategies that educators can use to improve the emotional and social competence in adolescents.

Search institute surveys—profiles of student life-attitudes and behaviours questionnaire (ABQ). The ABQ questionnaire is used with adolescents between the ages of 11-18 years and contains 152 items (Hall, 2010). The questions assess 40 developmental assets that the Search Institute found to be linked to positive outcomes. The developmental assets are divided into two broad categories: external and internal assets. External assets include categories related to support, empowerment, boundaries and expectations, and constructive use of time. On the other hand, internal assets include commitment to learning, positive values, social competence, and positive identity. Price, Dake, and Kucharewski (2002) assessed the psychometric properties of the ABQ and found that the average internal consistency 0.50 with stability reliabilities of 0.45. Hence, this measure has relatively poor psychometric properties. The benefit of the ABQ is that it can be used in a school or educational organization to assess overall functioning of students.

Social skills rating scale (SSRS). The SSRS was developed in 1990 by Gresham and Elliott and it was designed to be used as a screening tool to identify children with behaviour problems (Hall, 2010). The SSRS focuses on three measurement areas, namely, social skills, problem behaviours, and academic competence (Community-University Partnership, 2011). Generally, it would take about 15-25 minutes for a secondary school student to complete and

scoring would take about five minutes. Therefore, it does not require a significant amount of time from an educator or student to complete the questionnaire. The Community-University Partnership (2011) indicated that internal consistency scores ranged from .84 to .95 on each of the scales and that test-retest reliability using teacher scores ranged between .84 and .93 across the scales. In terms of validity, low to moderate (.20s and .50s) were found across three validation studies.

Strengths assessment inventory-youth version (SAI-Y). The SAI-Y is a self-report measure that uses 124 items to assess strengths in children and youth (Hall, 2010). Items are divided into two domains: contextual and developmental. The contextual domain examines the manner in which the adolescent interacts with others such as peers, the family, and interactions with the school, employment, or community. The developmental domain looks at the child's individual functioning by examining personality, personal and physical care, and leisure and recreation. Brazeau, Teatero, Rawana, Brownlee, and Blanchette (2012) conducted a study to determine the psychometric properties of the SAI-Y. The internal consistency estimates ranged from .60 to .96, the test-retest reliability was .86 for the content scale and .85 for the empirical scale.

Admittedly, changing current policy would be a large undertaking but could be phased in beginning in pre-kindergarten. In order to determine if strengths/needs based assessments are a better alternative to current labeling practices, research studies would need to be designed to determine if strengths/needs based assessments provide improved academic and social emotional functioning for students than labeling. The design would need to incorporate methodology and measurement instruments that evaluate the benefit for different subsets of students such as English as a Second Language learners or students with various exceptionalities. Training

programs would need to address the manner in which the Strengths/Needs assessments are being completed and the criteria that would be applied to allocate extra funding. Adoption of a strengths/needs based assessment would eliminate the need to label a student so that he/she can receive extra supports and also be directly involved in their educational plans.

Conducting strengths/needs based assessments could be a challenge for a few reasons. First, there may be additional costs to school boards as a result of purchasing assessment materials and training staff on how to use them. Second, there may also be challenges for teachers to find the time to have adolescents complete the assessments. Third, many of the assessments are self-report measures and it is possible that adolescents may not have a completely accurate view of themselves. However, because the current practice in education is to label adolescents, some suggestions about improving the system are addressed next.

Changing the behaviour label. In Ontario, adolescents with SAD are eligible to receive a diagnosis of Behaviour. The term “behaviour” has come to have a negative connotation and many individuals think about externalizing symptoms and not internalizing symptoms when referring to behaviour. Furthermore, there has not been a revision of the categories of exceptionalities since the publication of *Special Education: A Guide for Educators*, almost 15 years ago. As previously described, there are five broad categories of exceptionalities. However, unlike other categories of exceptionalities, the Behaviour category does not have any subcategories. For instance, the category Communication is subdivided into five categories: Autism, Deaf and Hard of Hearing, Language Impairment, Speech Impairment, and Learning Disability. The Intellectual category is subdivided into three categories: Giftedness, Mild Intellectual Disability, and Developmental Disability. Subdivisions were necessary in order to provide a label that had the potential to communicate more precise information about a student.

The same has not been done for Behaviour, but should be considered. Hence, there are two potential avenues for the Ontario Ministry of Education to explore. The Behaviour category can be renamed to provide a label that is more positively perceived or they can consider subdividing the Behaviour category in order to provide a more specific label. Some variations in terminology that could be considered instead of Behaviour are Social and Emotional Health, Social and Emotional Wellness, Mental Wellness, or even Health Related Exceptionality. Changing the manner in which labels are used in the Behaviour category could benefit students with SAD and other students.

Assigning a label may confer positive or negative consequences for an adolescent with SAD. Instead of using labels, a universal strengths/needs based assessment was proposed as an alternative strategy. Use of strength/needs based assessments may be too difficult to standardize but may present other benefits. However, a change in policy to reflect this is not likely to be undertaken without solid evidence to support its effectiveness. Instead, current policy related to the Behaviour category of exceptionality can be changed. Suggestions were provided to make the label more inclusive and accurate. Next, opportunities to improve current practice are described.

Practice

There are two processes that will be discussed here that can be employed to improve mental health outcomes for adolescents with SAD. The first area is directed toward increasing educator knowledge. By providing the necessary education and professional development opportunities to current teachers and teacher candidates, it is more likely that prevention efforts can be effective. Additionally, when teachers work with students with SAD, they will be able to implement appropriate classroom accommodations to meet their educational and social and

emotional needs. The second area relates to selecting an effective school-based mental health prevention and intervention program.

Educate the future educator. In a national survey of school mental health use and delivery, The Mental Health Commission of Canada (2013) found that educators were seeking professional development related to mental health promotion and prevention strategies, recognizing the signs and symptoms of various mental health problems, and how to engage families. In order to improve educator knowledge, instruction and training can be provided within the Bachelor of Education program and in employment settings. A process for improving educator knowledge of mental health problems is outlined below.

Bachelor of education candidates. Bachelor of Education programs will be required to incorporate mental health curriculum as part of their programs beginning in 2015. According to Diana Coholic, the teacher education program at Laurentian University will be including 18 hours of instruction in this area (personal communication, September 15, 2015). It is therefore necessary to consider what components need to be incorporated into the curriculum. To begin, it would be essential for teacher candidates to understand the importance of considering mental health in an educational context. Therefore, information about prevalence rates and the negative impacts of untreated mental health problems within the school setting and beyond will need to be addressed.

Next, an examination of relevant Ontario Ministry of Education documents such as Supporting Minds (2013) can follow. A course developer can deconstruct this document in order to organize some components of the curriculum. For instance, information from this resource could be used to introduce teacher candidates to promoting positive mental health with students. Teacher candidates can investigate and create a plan as to how they can manage their classrooms

to promote positive social and emotional outcomes for their students. They can also consider the manner in which they communicate with students, both verbally and non-verbally. Additionally, as part of the teacher education program, teacher candidates are also required to practice creating lesson plans. With this in mind, the course developer can require that students create a lesson plan for a subject that incorporates mental health content. Teacher candidates will then have a lesson that can be used in the classroom to educate students about mental health issues and to reduce some of the stigma associated with it. Moreover, teacher candidates can be asked to engage in critical appraisal of research studies that address prevention and intervention programs. Teacher candidates will first need to be taught how to critically analyze research, then studies about school-based mental health prevention and intervention programs can be provided to them for critical analysis.

Teacher candidates can also be taught how to identify students who may have mental health problems and how culture can play a role in the expression of symptoms. The Supporting Minds (2013) document can serve as a general introduction to eight different mental health clusters and provides definitions, symptomology, and classroom strategies for each one. Additionally, because Ontario is a diverse province with multicultural needs, instruction about how culture plays a role in the variation in the signs and symptoms of mental health would need to be addressed. Another recommendation would be to discuss mental health problems in specific cultural populations in Ontario such as Indigenous people. Because there are many employment opportunities for new teachers in northern, remote communities, information about cultural variation in mental health expression for Indigenous peoples is very relevant. An effective teaching tool that may be helpful to address this area of the curriculum would be case studies. Case studies present realistic and complex situations that teacher candidates can learn

from. The use of case studies will allow teacher candidates to identify what the problem may be in a realistic but hypothetical situation, recognize and articulate their position, evaluate a plan of action, and gain an appreciation of the point of view of others.

The Supporting Minds (2013) document indicates that an educator has an important role in connecting students with appropriate mental health services. Teacher candidates can be informed about how to approach the topic of mental health with a student that they are concerned about, about their obligations in terms of confidentiality, and how to approach sensitive topics with parents and guardians. In order to obtain information about the community supports that are accessible, teacher candidates can be asked to comprise or search for a list of the mental health agencies in their home community or where they plan to seek employment. They can also review the websites of community agencies offering mental health supports to locate information about additional programs that may be of interest to them or the school where they will be seeking employment. Conversely, the course developer can have guest speakers from various mental health agencies present in class.

Another important component of the mental health curriculum could be to consider providing teacher candidates with the opportunity to either volunteer or complete a placement with a mental health agency. Teacher candidates can learn about mental health from a different perspective that could increase their capacity to work with students with mental health problems in schools. Furthermore, they could share their experiences with their classmates in engaging presentations so that their peers can learn from their experiences.

Last, the course developer can also consider educating teacher candidates about parent engagement. Parent engagement can be defined as the collaboration process between parents and school staff to support and improve the learning, development, and overall health of children

and adolescents (Centers for Disease Control and Prevention, 2012). Parent engagement has many benefits such as positively impacting a child's learning, parents find it easier to help their children, and there are more positive and supporting relationships between parents and educators (Council of Ontario Directors of Education, 2012). Even though parent engagement has many positive benefits, the MHCC (2013) reported that many educators felt that parent engagement in mental health was lacking. Additionally, they found that none of the school-developed programs aimed at mental health promotion or prevention involved parents or students in their creation. Therefore, parent engagement at the school level needs to be emphasized with teacher candidates.

In order to address this gap in parent engagement, the course developer can use content from the *Planning Parent Engagement Guide: A Guidebook for Parents and Schools* (Council of Ontario Directors of Education, 2012). Teacher candidates can be taught about changing the culture of parent engagement and how to incorporate the feedback from parents to improve the parent engagement in their classroom or school. In the education system, many teachers and school administrators use contact with parents at home as a way of communicating problems at school, however; more effort directed toward positive interactions may help engage parents in their child's education. Teacher candidates can be instructed on strategies to engage parents such as communication with them and getting families to participate in school-based activities. Additionally, examples of parent satisfaction surveys can be shared with teacher candidates with an explanation about how the results of these surveys can be used to inform their practice. Afterward, students can be asked to develop a parent engagement plan for their first year of teaching.

Therefore, the mental health curriculum in the Bachelor of Education programs can help teacher candidates to understand the importance of learning about mental health, they can be introduced to resources such as Supporting Minds (2013) and the Counsel of Ontario Directors of Education (2012) documents that can then be used as teaching tools and employment tools. Teacher candidates can be instructed in how to promote positive mental health, learn to identify the signs and symptoms of various mental health problems, how to connect students with appropriate mental health services, provide placement or volunteer opportunities, and provide education about parent engagement. The preceding curriculum recommendations can be helpful in educating teacher candidates about mental health problems, but professional development opportunities also need to be offered to improve the knowledge of current educators.

Educators in schools. Many of the curriculum components for mental health education discussed in the previous section can also be used in the professional development of educators who are currently employed. Therefore, the following discussion will focus on opportunities that exist within the current framework of education. In order to effectively address mental health education in the workplace of educators, long-range plans will need to be developed. Long-range plans can consider the various aspects of mental health that can be focus the learning of educators using three existing professional development structures: monthly staff meetings, professional development days, and professional learning communities. Each of these structures will be described next.

Monthly staff meetings. In Ontario, staff meetings typically occur monthly in schools and this is an opportunity for staff to engage in professional development. Time could be allocated at these meetings to provide education to secondary school staff about adolescent mental health. Because educators want education to improve their ability to recognize the signs and symptoms

of various mental health problems (MHCC, 2013), each monthly staff meeting can focus on one mental health problem. Information can be delivered by a school administrator, a mental health professional, or a guest speaker. Moreover, educators can be directed to other relevant supports for that particular mental health problem contained within the Supporting Minds (2013) document or other resources.

Professional development days. Professional development days allow for a greater amount of time to be allocated to a topic. Hence, professional development days may be excellent choices to engage in learning related to mental health literacy. Whitley, Smith, and Vaillancourt (2012) indicate that educator mental health literacy is critical in school-based prevention of mental health problems. Therefore, mental health literacy training for educators would serve two functions: first to increase teacher knowledge of promotion and prevention strategies and second, in learning to recognize the signs and symptoms of mental health problems. Professional development days can be organized in a variety of different ways. For instance, experts can be brought in to provide keynote sessions to large groups of staff members. Alternatively, different sessions can be offered, and educators can have some choice in attending sessions related to mental health topics that are of interest to them. Other options include staff receiving targeted training to implement school- or class-based programs or even taking part in curriculum design of subject-specific mental health promotion and prevention activities.

Professional learning communities. Another professional development opportunity where teachers can engage is a Professional Learning Community (PLC: The Building Capacity Series, 2007). Typically, teachers and administrators are involved in the PLC and meetings take place at regularly scheduled intervals within the school setting. Sometimes PLC groups are constructed by request from a school board or school administrators but in other cases, they

develop as a result of educators having a shared vision for improvement in a particular area of education. There are six necessary components to a PLC (The Building Capacity Series, 2007). First, commitment to student learning and fair and equitable instruction from classroom to classroom is at the center of professional learning, decision-making, and action. Second, student attainment and knowledge of skills is the focus rather than teaching. Therefore, educators collect various types of assessment data in their evaluation of the program in order to improve their own teaching practice or intervention materials. Third, a PLC must be based on strong relationships and deep respect because PLCs involve sharing, questioning and inquiry about beliefs and practices, and encouraging feedback. Fourth, PLCs are based on collaborative inquiry involving sharing of practices, student work, and planning. Fifth, leadership is required to foster supportive environments, encourage risk taking, promote reflection, and challenge the status quo when it comes to student learning. Sixth, alignment results when teachers collaborate to promote high levels of learning. The knowledge gained from PLCs is often shared with the entire staff and sometimes within the school board. Next, strategies that can be used in classrooms to support students with SAD are considered.

Classroom strategies for students with SAD. With appropriate education and professional development, educators can work towards implementing classroom strategies that may be helpful to students with mental health problems. For students with SAD, the Supporting Minds (2013) document recommends a number of classroom strategies that can be organized into categories: initiating and maintaining communication between the home and school, developing positive classroom strategies, and those based on CBT approaches.

The first category or strategy to support students with SAD is to connect with the student's family. By initiating contact, an educator can determine if the same behaviour occurs

at home or in other situations and to ask the family what successful approaches they have used to help their child. Communicating with the family is essential and may provide a teacher with valuable information. However, a teacher may also be communicating with a family that is unaware of their child's internalizing symptoms so an educator will need to be prepared for this.

A second category of strategies to consider when working with adolescents with SAD is to develop an atmosphere of acceptance in the classroom and provide an environment where students feel welcome to speak up and participate (Supporting Minds, 2013). Creating a positive atmosphere is important for the learning of all students, so this strategy has the potential to help more than just the student with SAD (Lewis et al., 2013). An educator can talk openly about the fact that everyone feels nervous about public speaking (Supporting Minds, 2013). Students with SAD fear negative evaluation from others (American Psychiatric Association, 2013) and may take comfort in knowing that they are not alone in their fears of public speaking. However, it is possible that such a statement could also normalize their excessive fears so instead of seeking assistance, an adolescent may think that everyone experiences equivalent levels of anxiety to theirs in public speaking tasks.

A third category of strategies relate to some of the principles involved in CBT (Powers et al., 2010). Educators can resist the pressure to allow the student to avoid social interactions (Supporting Minds, 2013). Instead, recommended accommodations are to provide opportunities for the student to answer yes/no questions instead of open-ended questions, then graduate to providing the student with the answer to the question before class with opportunities to rehearse answers before class to prepare the student to answer out loud in class. In CBT, individuals are exposed to fearful situations a little bit a time and this approach can be supported in a classroom environment using the above-mentioned strategies (Detweiler et al., 2010). In order to aid

students with SAD in working in groups, it is recommended that students work, socialize, and speak in small groups, first with one classmate, then with two, three, or four classmates (Supporting Minds, 2013). This can be a very effective strategy especially if the groups are teacher created because the teacher can pair the student up with classmates who are warm and welcoming. The teacher can also encourage autonomy to help the student develop effective coping and problem-solving skills (Supporting Minds, 2013).

Last, the student can be encouraged to participate in extracurricular activities (Supporting Minds, 2013). Miller, Gilman, and Martens (2007) indicated that there are two types of extracurricular activities: unstructured and structured. Unstructured extracurricular activities such as video gaming and using the Internet often have little or no adult supervision, and do not convey improvements in social emotional functioning. On the other hand, structured extracurricular activities are typically highly structured, collaborative activities that are supervised or guided by competent adults. Structured extracurricular activities have standards of work performance and require that students voluntarily participate in an ongoing manner. Miller et al. (2007) indicated that participation in structured extra-curricular activities has a positive influence on the physical and mental development of adolescents. Furthermore, Guevremont, Findlay and Kohen (2014) found that socioemotional and academic outcomes were improved for adolescents who participated in structured extracurricular activities, no matter what type of extracurricular activity (ex. Sports, music, art, etc.), or whether they were participating in-school or out-of-school. It is likely that individuals with SAD would obtain social emotional benefits from participating in extracurricular activities.

The classroom strategies that are recommended in the Supporting Minds (2013) document can be very beneficial to a student with SAD. The first strategy involved family and

educator communication. The second set of strategies involved developing a positive classroom environment and there is evidence to suggest that positive classrooms can reduce internalizing symptoms (Lewis et al., 2013). Third, some of the accommodations are CBT related approaches that have been evaluated as an effective treatment option for SAD (Hofmann & Smits, 2008). However, there are some strategies that have not yet been considered.

I recommend a few other strategies specifically targeted toward oral presentations and public speaking that are not addressed in the Supporting Minds (2013) document. In secondary school, oral presentations are more common than in elementary school, and are often longer in duration, and students may not necessarily be in classes with their supportive peer group. Delivering oral presentations is documented as distressing for students with SAD (Langley et al., 2004). Therefore, there is a need for the use of strategies to support adolescents with SAD in doing oral presentations. Some suggested strategies are to allow the student to sit instead of stand, read from notes instead of cue cards, and present before school, during lunch, or after school to a smaller group of classmates or peers. However, these strategies need to be implemented within an action plan that aims to have the student progress over time. For example, at the beginning of a semester, a student may present to just a teacher at lunch and can read from notes while sitting. Perhaps the next time this student must present or communicate orally to the class, the student will once again read their notes at lunch but will have to stand instead. Each time the student can be encouraged to continue to further his/her skills. Another accommodation that can be made relates to differentiating the assessment of an oral communication assignment. For example, when students present information, teachers are often assessing a student's eye contact, body language, and the tone, fluency, and pace of their voice. Instead of focusing solely on the assessment criteria that need to be demonstrated in public

speaking, educators can focus on the improvements that the student is making in their oral presentation skills over time.

Evidence-based mental health program selection. Ultimately, schools and school boards will need to make a decision as to whether or not to implement a school-based mental health program and if they choose to, they need to which one meets their needs best. In Chapter six, six potential programs were described and some empirical evidence for each was presented. Although many of the studies to date have methodological concerns, there appears to be some preliminary support for all of them. A discussion of the applicability of each program in reducing symptoms of SAD will be presented next.

The Skills for Social Success program demonstrates some promise for reducing symptoms of SAD. One benefit of this program is that it was developed particularly as an intervention for SAD and has shown some strong promise in reducing SAD symptoms. The full version of the program requires a trained interviewer and this may not be feasible for all schools. However, a modified version of the program has been developed in order to ameliorate the need for a trained interviewer and has demonstrated some effectiveness. The Penn Resiliency Program was originally created as an intervention program for depression but can have some beneficial impacts in reducing internalizing symptoms that result from other mental health problems. However, studies evaluating its effectiveness found support from parent reports only, not from teacher or child reports. The Penn Resiliency Program may not be an effective option to pursue for students who have SAD due to the mixed results in reducing internalizing symptoms and because the program does not have a version for children over the age of 14.

The FRIENDS program is another option to consider for mental health prevention that can be administered by educators in their own classrooms; making it a feasible option. The

program has been shown to reduce anxiety symptoms for adolescents who have a low risk of anxiety. However, the initial gains may only last for 12 months so schools will need to address a loss of positive impacts through booster sessions. The FRIENDS program is a little costly as boards can expect to pay approximately \$300 per educator, with a required recertification every three years that would cost about \$100 (Austin Resilience Development Inc., 2015).

Furthermore, classroom supplies must also be purchased. Consequently, some boards may find this option too financially straining. As a school-wide strategy to improve character development, the Positive Action program holds some promise. Some studies have shown that adolescents have seen a reduction in anxiety but only modest improvements were obtained. Additionally, there are no direct measures in the research assessing its effectiveness in reducing symptoms of SAD. However, it is a costly program that may not make it a feasible option for all schools.

The Strong Teens program was developed in response to the need for a school-based mental health program that was not expensive and could be administered to adolescents in secondary school by educational staff. There is some evidence to suggest that internalizing behaviour symptoms decrease as a result of participation in the program, but there is no evidence that looks specifically at a reduction in SAD symptoms. Hence, more research is required to determine its effectiveness with adolescents. Mindfulness programs have demonstrated some effectiveness in increasing cognitive performance, increasing resiliency to stress, and decreasing anxiety symptoms. Furthermore, the curriculum for these programs can be delivered by educators with minimal training and the programs are affordable. It would appear that this would be an excellent choice for some schools. The choice that a school or school board will make will depend on their financial resources and the needs of their school(s).

Conclusion

In summation, many of the strategies included in the Supporting Minds (2013) document can help a student with SAD perform better academically and may even reduce their internalizing symptoms. Furthermore, the positive impacts of the classroom strategies for SAD are supported in the literature. However, there are some additional strategies that I recommend to better meet the needs of adolescents with SAD who fear public speaking. Because adolescents with SAD do not present for assessment and treatment for a variety of reasons, educators have a very important role in providing support to these students to ensure their academic and social emotional success. School-based mental health programs may be a valuable support to teachers in promoting and preventing mental health problems but future research in this area needs to consider a number of recommendations when planning research designs.

Increasing awareness of SAD is essential for a couple of reasons. First, like many other mental health problems, the stigma attached to having SAD may prevent an adolescent from seeking support. Actually, in the case of SAD, the fear of stigma may be even worse because the core feature of SAD is the fear of negative evaluation or embarrassing oneself. Therefore, educating the public about SAD can reduce the stigma that is associated with it. A second reason that increasing awareness is needed is because some adolescents impacted by SAD may not recognize that they have symptoms consistent with this disorder. Because early identification and intervention lead to better health outcomes, the sooner adolescents with SAD realize that their fears require intervention, the more likely they are to commence treatment and improve their outcomes. The school environment is a critical place to begin increasing awareness because students spend a good majority of their time there and it is during this stage of development that many adolescents begin to experience symptoms of SAD. However,

awareness campaigns aimed at mental health in general are not likely to provide any benefits.

Instead, a more focused approach is necessary.

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