

Running head: SCHOOL PSYCHOLOGISTS AND STUDENT SOMATIZATION

THE ROLE OF SCHOOL PSYCHOLOGISTS IN ASSISTING STUDENTS WITH  
SOMATIZATION

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MICHAEL ATKIN

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APPROVED:

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Kenneth C. Schneider, Ph.D.

---

Linda A. Reddy, Ph.D.

DEAN:

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Francine Conway, Ph.D.

# SCHOOL PSYCHOLOGISTS AND STUDENT SOMATIZATION

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# SCHOOL PSYCHOLOGISTS AND STUDENT SOMATIZATION

## Abstract

This study explored the role of school psychologists in providing assessment and treatment services to students experiencing somatic symptoms. Participants were recruited from a convenience sample of members of five State organizations of school psychologists. A web-based survey was utilized to obtain information on the participants' perceptions regarding their roles, experiences, and competencies related to the assessment and treatment of students with somatic symptoms; facilitators and barriers to such processes; and pertinent training and education needs. A total of 190 participants out of approximately 3,521 potential respondents completed the survey, representing an overall 5.4% response rate. Overall, the majority of study participants reported that they do not feel that they have received adequate training nor have sufficient competencies to provide competent assessment and treatment services to somaticizing students. The participants shared that the most prevalent interventions and roles that they have provided in instances in which they have been involved in assessing and treating these students have included multi-method informed approaches (interviews, observation, behavior rating scales, review of records), consultation with teachers, administering Cognitive Behavior Therapy (CBT), and providing counseling focused on stress reduction and emotional expression. Interventions not frequently utilized included encouraging students to recognize the psychological origin and nature of their symptoms and encouraging students to increase their lessened physical activities. Respondents indicated that in the context of assisting students with somatic issues, their overall collaboration/consultation with school nurses and outside medical providers has been very limited. The most prevalent barriers confronted in attempting to assist these students included parental resistance/denial, insufficient training and knowledge, limited contact with such students, and staff resistance. The least frequent barriers were student

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resistance/denial and professional/district restrictions. Limitations of the study, directions for future research, and implications for the training, professional development, and practices of school psychologists are discussed.

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## Chapter I

### Introduction

Somatic illnesses are extremely common amongst children and adolescents (Campo & Fritz, 2001; Gulewitsch, Rosenkranz, Barkmann, & Schlarb, 2014; Haughland, Wold, Stevenson, Aaroe, & Woynarowski, 2001). Despite the fact that such illnesses are typically indicative of underlying psychological, emotional, and social distress, accurate assessment and diagnosis is often absent (Schulte & Petermann, 2011). When physical examinations do not reveal an organic source for the symptoms, children may be dismissed by professionals as faking their complaints, and the true nature of the problem will linger unaddressed (Campo & Fritz, 2001).

Somatic illnesses frequently have adverse consequences on the youth at hand and their general educational and social achievement (Garalda, Bowman, & Madalia, 1999; Saps et al., 2009). Somatization amongst youth contributes to considerable time out of class and frequent absenteeism from school (Lieb, Phister, Masataler, & Wittchen, 2000). Consequently, academic achievement and social relationships are often affected (Garalda, Bowman, & Madalia, 1999). Families are also impacted as substantial time, use of health care resources, and finances are spent seeking relief of symptoms (Barsky, Orav, & Bates, 2005). Due to the fact that school absenteeism has been recognized as a common precursor towards diminished academic performance, school dropout, violence, and substance use (Saps et al., 2009), awareness of possible features of child and adolescent somatization is essential (Campo & Fritz, 2001; Eminson, 2007).

The term “somatization” has been defined as the manifestation of physical complaints or pains that are medically unexplained, inadequately accounted for on the basis of appropriate physical assessment, and lacking an etiological structural abnormality (Campo & Fritz, 2001;

Kellner, 1991; Lipowski, 1988). The reported symptoms must cause functional impairment or distress and they should not appear to be intentionally produced (Campo & Fritz, 2001). Additional terms that are synonymous with this definition include “psychosomatic”, “functional”, and “medically unexplained” symptoms and disorders (Eminson, 2007). The Diagnostic and Statistical Manual of Mental Disorders (DSM) recognizes somatoform disorders as a psychological diagnosis, as it has been included in that publication ever since the release of DSM-III (American Psychiatric Association, 1980; American Psychiatric Association, 1994; American Psychiatric Association, 2013). The current DSM-5 diagnosis is known as Somatic Symptom Disorder (American Psychiatric Association, 2013). The DSM-5 diagnostic criteria include “one or more somatic symptoms that are distressing or result in significant disruption of daily life”, that there must be “excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns” and that “although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months)” (American Psychiatric Association, 2013).

The frequency of somatic illness within adult primary care settings has been estimated to be as high as 25-50% (Hilderink, Collard, Rosmalen, & Oude Vashaar, 2013). The time-consuming and expensive treatment of somatic illnesses has been described as a “crisis” within medical care (Barsky, 1995). Although less research has been conducted to assess the prevalence of pediatric somatization in contrast to the adult population, medically unexplained physical symptoms in children and adolescents are common (Campo & Fritz, 2001; Gulewitsch, Rosenkranz, Barkmann, & Schlarb, 2014; Haughland, Wold, Stevenson, Aaroe, & Woynarowski, 2001). Campo et al. (2002) found that in a sample of over 21,000 pediatric appointments, approximately one third of visits with “frequent aches and pains” were medically

unexplained. Haughland et al. (2001) analyzed cross-national data and found that 11-15 year old adolescents commonly experienced somatic health complaints at least weekly. In a study conducted to assess the prevalence of somatization amongst children and adolescents in the five Nordic countries, 24% of the youth experienced somatic complaints occurring at least weekly or every other week (Berntsson & Kohler, 2001).

### **Etiology, Risk Factors, and Comorbidity**

There are numerous psychological, social, and educational conditions that have been recognized as risk factors for the development of somatic illness amongst children and adolescents. Early life experiences that often contribute to somatization (both in children and adults) include trauma, neglect, physical or sexual abuse, childhood illness, parental illness, personality, maladaptive parenting styles, and poor parental and interpersonal attachment (Fiddler, Jackson, Kapur, Wells, & Creed, 2004; Lieb et al. 2002; Stuart & Noyes, Jr., 1999). Additional factors associated with pediatric somatization include family conflict, school problems, poverty, and exposure to violence (Campo et al., 1999; Shannon, Bergren, & Matthews, 2010).

Discrepant results of numerous studies seem to suggest that mental health problems within youth can serve both as an etiological factor in the development of somatization, as well as being a corollary ramification of persistent suffering from those symptoms (Shannon, Bergren, & Matthews, 2010). Somatization among youth has been associated with significantly higher risk for psychopathology (Campo & Fritz, 2001; Campo et al., 1999). The majority of youth with a somatic disorder fulfill the criteria of at least one co-morbid psychiatric disorder (Schulte & Petermann, 2011). The most common co-morbid psychological impairment with somatization in

children is anxiety and depression (Meesters et al., 2003). Somatic illness in childhood may predict functional impairment and emotional disorder in adulthood (Hotpf et al., 1998).

Within the school setting, various factors may contribute to the development of somatic complaints (Baldry, 2004). Victims of bullying (both direct and indirect) report much higher rates of headaches, abdominal pain, and other musculoskeletal pains within the shoulders, arms, knees, and back (Lien , Green, Welandar-Vatu, & Bjertness, 2009). Other school stressors that often contribute to somatic pain include poor academic performance, lower cognitive abilities, and lack of positive relationships with teachers and peers (Eminson, 2007). When a somaticized child is frequently absent due to symptoms, it only serves to exacerbate any previous academic and social struggles (Shannon, Bergren, & Matthews, 2010).

### **Common Manifestations of Physical Pain and Illness**

Although somatization can manifest as many forms of illness and symptoms, the most commonly reported somatic complaints found within child and adolescent populations are headaches and stomachaches (Masi, Favilla, & Stefania Mucci, 2000; Saps et al., 2009; Shannon, Bergren, & Matthews, 2010). Other common symptoms include fatigue, musculoskeletal pain, dizziness, nausea, sleeplessness, poor appetite, and other gastrointestinal problems (Bailey et al., 2005; Saps et al., 2009). The typical onset of pediatric somatic symptoms is in childhood and early adolescence, and the incidence rates increase throughout the progression of the teenage years (Campo et al., 2002; Haughland et al., 2001). Data indicates that girls are more likely than boys to present with somatic complaints throughout childhood and adolescence (Campo et al., 2002; Steinhausen & Metske, 2007).

## **School Personnel and Medical Professionals**

Although most school-age children with somatic complaints seek assistance from the school nurse, there is a scarcity of nursing literature that addresses the importance and dynamics of recognizing, assessing, and treating somatization (Shannon, Bergren, & Matthews, 2010). Indeed, school nurses, teachers, and parents are often not knowledgeable about the nature and prevalence of somatic illness and therefore they often become worried, annoyed, and/or frustrated with students who frequently complain of unexplained physical symptoms (Shannon, Bergren, & Matthews, 2010).

Although there are a minority of physicians trained in the assessment and treatment of somatization, most medical professionals are completely unaware that a physical complaint may be caused by psychological and emotional factors (Sarno, 2006; Schechter, 2014; Schubiner, 2012). The lack of accurate diagnosis by medical professionals not only fails to address the underlying issues but typically contributes to the patient's conviction that he or she has a medical disease and inherent physical deficiency. This often contributes to prolonged suffering, recurrence of complaints, and possible worsening of symptoms (Stuart & Noyes, Jr., 1999).

## **The Role of the School Psychologist**

Although some health-care psychologists are trained with the competencies and skills to assess and treat somatization amongst children and adolescents, research is limited as to whether or not school psychologists have received adequate training to do so (Kubiszyn, 1999). Due to the prevalence of somatization in school-age children within educational settings (Saps et al., 2009), it is imperative that school psychologists receive appropriate training in order to better assist the youth they serve (Allen, Mathews, & Shriver, 1999; Barraclough & Machek, 2010). Even when school psychologists may have received adequate training in somatic assessment and

treatment, there has been limited research to date to assess the levels of collaboration between school psychologists and other school personnel, such as nurses, in that process (Shannon, Bergren, & Matthews, 2010).

Due to the fact that most children with somatic complaints in a school setting will seek assistance from the school nurse (as the child is typically unaware that there may be psychological and emotional factors involved), it is likely that school psychologists may be unaware of the prevalence of somatization amongst the population they serve. As a result, those students may never receive the diagnosis and interventions they need. Moreover, even in a setting where there may be a school nurse competent in somatic care and assessment, without comprehensive interdisciplinary collaboration between the school psychologist and school nurse, the student may not be granted the necessary school counseling or mental health services.

Despite the importance for school psychologists to be involved in the assessment and treatment of student somatization (because of the potential for school absences and lowered academic performance), there are additional potential barriers that may complicate the interdisciplinary collaboration needed in that process. Parents, school staff, primary care physicians, and insurance companies may exert significant pressure to assess or treat complex problems in a less time-consuming and inexpensive manner than the psychologist feels is appropriate (Kubiszyn, 1999). These pressures are likely extant within such scenarios due to professional and personal beliefs of health professionals and parents. As mentioned, many health professionals are unaware of the prevalence of somatization and are not adequately trained to acknowledge psychological and emotional factors contributing to somatic illness. In addition, due to misconception and stigma related to mental health, parents and families may not understand or be willing to acknowledge psychological, emotional, or behavioral problems in

their child (Owens et al., 2002; Pescosolindo et al., 2008). Finally, intervening with students with somatic disorders may fall outside the traditional Child Study Team role which determines the work of many school psychologists.

Although there are several evidence-based models for efficacious conceptualization of and intervention for somatization, if school psychologists have not been adequately trained and educated in somatic assessment and treatment, they may be unable to help families access appropriate services. This professional role and responsibility of school psychologists is in consonance with the proposition of Nastasi (2000) that school psychologists serve as health-care providers, when appropriate. In situations in which a school psychologist is uncertain if a student's physical ailment is somatic in nature, this responsibility may entail the referral to and subsequent collaboration with a competent pediatrician or physician familiar with the diagnostic process for somatization. Bradley-Klug et al. (2010) have suggested that school psychologists are the professionals within the school environment who are best suited to assume the role of the school-medical system liaison. Unfortunately, research indicates that the current state of affairs is that school psychologists and pediatricians have minimal professional interaction and collaboration with regard to the youth that they serve (Bradley-Klug et al. 2010; Bradley-Klug et al. 2014).

In addition to formal training and education, potential avenues in which school psychologists can become better aware of the prevalence of somatization within the populace they serve may include monitoring of school absenteeism and increased collaboration with the school nurse. School psychologists can monitor school absenteeism and observe which students have frequently been absent due to seeming manifestations of somatization. School psychologists can collaborate with school nurses to assess which students have made frequent or numerous



visits to the nurse with medically unexplained symptoms. As discussed above, the effects of somatization on students' school performance and peer relationships are significant and complex. There is limited research to date that has assessed how much school psychologists know about somatization and the effects that it can have on children within the school setting. Due to this lack of research, the current study intends to assess school psychologists' knowledge about somatization as well as their understanding of its prevalence and consequences on children and adolescents within the school setting.

### **Research Questions**

In light of the significance and prevalence of the problem at hand and the related circumstances, issues, and consequences, the current study sought to address the following research questions:

1. Are school psychologists aware of the prevalence of somatization amongst school-age children and adolescents?
2. Are school psychologists aware of the risk factors and etiological components correlated with somatic illness amongst youth?
3. Are school psychologists adequately trained to assess and treat somatic illness?
4. Do school psychologists believe they have the necessary competencies to be involved in the assessment and treatment of somaticizing youth?
5. Are school psychologists utilizing particular interventions to assess and treat somatic illness amongst children and adolescents?
6. Do school psychologists practice inter-disciplinary collaboration with school nurses to assess and treat somatic illness within schools?
7. Have school psychologists specifically been involved in cases of somatization amongst the youth that they serve? If so, what was their role?

8. What are the most significant barriers that school psychologists experience in attempting to treat students with somatic symptoms?

## Chapter II

### Review of the Literature

#### Medical Issues Within Schools

Due to advances in technology and medical treatment, there has been a dramatic increase in the number of children with chronic health conditions who attend school (Shaw, Glaser, Stern, Sferdensch, & McCabe, 2010). Current estimates suggest that between 10% and 30% of school-age children experience a chronic health condition (Clay, 2004; Phelps, 2006). Chronic health conditions (defined as conditions that persist for more than three months) significantly impact students' physical, emotional, and social development and functioning, increasing the responsibility of school psychologists and other staff to construct environments that support the medical and educational needs of those students (Shaw et al., 2010; Vila et al., 2003).

Although each student and his or her medical condition are unique, common ramifications of chronic medical conditions within the school are frequent absenteeism and inability to meet curriculum requirements (Thies, 1999), difficulties in peer and social relationships (Power & Bradley-Klug, 2012), treatment adherence (La Greca & Mackey, 2009), anxiety and stress (Power & Bradley-Klug, 2012), depression, and somatic complaints (Stam et al. 2006). Chronic illnesses typically have a direct effect on school achievement and engagement, as 45% of students with such conditions fall behind in school, often resulting in the development of a negative attitude and disengagement from school (Theis, 1999).

#### The Role of the School Psychologist

Due to the prevalence and ramifications of such medical conditions, it is essential for school psychologists to be familiar with these issues in order to effectively address problems in need of support, implement interventions and strategies to promote wellness and favorable

educational outcomes, and communicate concerns to parents, teachers, and medical professionals (Bradley-Klug et al., 2013). Although school nurses have historically been responsible for the needs of students with chronic health issues, they are either in short supply or even nonexistent in some school districts (Guttu, Engelke, & Swanson, 2004). This limited access to school nurses has led to the need for other school personnel to support these students (Nabors, Little, Akin-Little, & Iobst, 2008). School psychologists, in particular, are well qualified to provide and assist with the educational needs of these students due to their training in consultation, data-based decision making, problem identification, and prevention and intervention development and implementation (Bradley-Klug et al. 2013). Additionally, school psychologists' expertise and knowledge of childhood development, mental health, and education prepares them to recognize and intervene with many of the issues facing these students (Barraclough & Macheck, 2010).

Such a professional role expansion is compatible with the efforts of the school psychology field to veer away from being solely the "special education gatekeeper" (Reschly, 2004) and is consistent with recent mandates for school psychologists to be more involved with students experiencing health issues (Barraclough & Macheck, 2010). The American Psychological Association Council of Representatives (1998) recommended that school psychologists work with diverse populations, including "those that experience chronic or acute conditions of childhood and adolescence that influence learning and mental health" (p. 108). The Council of Representatives further stated that the responsibility of school psychologists entails "consultation with physicians and other professionals concerning the school functioning and learning of children with disorders such as attention deficit hyperactivity disorder, learning disorders, chronic illnesses, physical or genetic conditions, and substance abuse" (p. 109).

### **Other Health Impairment (OHI) Classification**

A crucial way in which school psychologists apply their knowledge of health conditions and their effects on education and functioning is through recognizing and assisting children with chronic medical conditions related to the Individuals with Disabilities Education Improvement Act (IDEIA) disability category of “other health impairment” (OHI) (Wodrich & Spencer, 2007). According to Grice (2002), the OHI classification was created in order to guarantee services for students with health conditions who otherwise may not have qualified through one of the other IDEA categories. According to the U.S. Department of Education (1999b, p. 12422), OHI comprises children “having limited strength, vitality or alertness, including heightened alertness with respect to the educational environment that: (1) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia; and (2) adversely affects a child’s educational performance”. The Department of Education has clarified that the above list of health conditions is not exhaustive and that other health impairments can qualify for OHI classification as well; “the list of acute or chronic health conditions in the definition of other health impairment is not exhaustive, but rather provides examples of problems that children have that could make them eligible for special education and related services under the category of other health impairment” (71 Fed. Reg. at 46550).

Currently, approximately 12% of students (K-12) in the United States are classified with an IDEIA disability and receive related special education services (U.S. Department of Education, 2014). Between 1995 and 2002, the number of children receiving OHI services increased seven-fold (U.S. Department of Education, 2004). In 2012, OHI was the third largest IDEIA classification, as nationwide data revealed that of U.S. students ages 6-21 who received

IDEIA services, 40% were classified under specific learning disabilities, 18% as speech or language impairments, 13% as other health impairment, 8% as autistic, 7% as intellectually disabled, 6% as emotionally disturbed, and the remaining 7% were a combination of the remaining 7 classifications (U.S. Department of Education, 2014). However, although the OHI category has been authorized since 1990 with the passage of the IDEIA and it is an oft-utilized classification, it continues to be a minimally researched topic (Wodrich & DuPaul, 2007). Particularly, scant research addresses the specific medical conditions that are being classified under OHI (Wodrich & Spencer, 2007). The lone exception to this is ADHD, as numerous states have revealed that their escalating OHI rates are primarily attributed to the increasing number of students being identified with ADHD, as that diagnosis has been formally included under the IDEIA OHI classification since 1997 (U.S. Department of Education, 2001).

In an attempt to unearth more about the nature of school psychologists' utilization of the OHI classification, Wodrich and Spencer (2007) conducted a survey of 161 school psychologists (regional sample taken from one U.S. southwestern state) in which the participants were asked several questions germane to their experiences with students classified under OHI. Regarding the frequency of OHI classification usage, the psychologists were asked how often over the past 12 months they had been involved with identifying students for OHI services. 4% of respondents replied "never", 24% replied 1 or 2 times, 45% replied 3-6 times, 20% replied 7-11 times, and 6% replied 12 or more times. When asked which medical diagnoses they had helped students secure OHI services for within the past 12 months, 85% of respondents replied ADHD, followed by epilepsy (27%), asthma/pulmonary diseases (21%), psychiatric diagnoses (19%), diabetes (17%), cancer/leukemia (12%), cardiac disorders (8%), cerebral palsy (7%), orthopedic conditions (7%), genetic disorders (5%), Tourette syndrome (4%), central nervous system and

cranial anomalies (4%), fetal alcohol syndrome (3%), hemotologic disorders (3%), digestive or kidney disorders (3%), hearing/vision impairments (3%), and acquired brain injury (2%). Those conditions provided by 1% or less of respondents included lead poisoning, migraine headaches, endocrine disorders, sleep apnea, traumatic brain injury, developmental coordination disorder, encephalitis, Gullian-Barre, immune disorders, and spina bifida.

The category of psychiatric diagnoses, which was mentioned by 19% of respondents, included anxiety, bipolar disorder, obsessive-compulsive disorder, oppositional defiant disorder, Asperger's disorder, and pervasive developmental disorder. The researchers observed that some conditions listed by respondents (e.g., psychiatric disorders, developmental coordination disorder), at least on the surface, demonstrate no clear match with the federal definition. They posit that this suggests that OHI may be used flexibly in order to procure services not necessarily envisioned when the definition was drafted. However, they conclude that further research is necessary before it is appropriate to suspect that there are occasional failures to adhere to the letter and intent of the federal definition.

### **Where Does Somatization Fit In?**

Based on the above research, it appears that some students presenting with somatic illnesses or symptoms which negatively affect their educational performance are currently not being classified under OHI. This is noteworthy in light of Wodrich and Spencer's (2007) discovery that school psychologists are currently utilizing OHI for many psychiatric diagnoses (based on a more flexible and broad understanding of the federal guidelines). However, it may be that some students who experience chronic somatic issues receive medical diagnoses of their symptoms and are ultimately receiving OHI services through those diagnoses. A possible indicator of this is that in the survey conducted by Wodrich and Spencer, there were several

medical diagnoses mentioned by the respondents that are sometimes somatic in nature, such as migraine headaches, digestive disorders, epilepsy, asthma, and immune problems (Abbass, Kisley, & Kroenke, 2009; Abbass, Lovas, & Purdy, 2008, Sarno, 2006; Schubiner & Betzhold, 2012; Sopher, 2003; Testa, Krauss, Lesser, & Brandt, 2012).

Further evidence that students with chronic somatic issues are not receiving OHI services based on a DSM-5 diagnosis of somatic symptom disorder is that although physicians (and especially pediatricians) are instrumental in determining OHI appropriateness, data reveals that diagnoses of such disorders are rarely made by physicians (Dimsdale et al., 2013) Not only is a medical diagnosis necessary for an OHI determination, but physicians will often initiate requests for services by contacting school personnel about their patients, while at other times they will respond to the requests of parents, educators, and school psychologists when a need is identified (Wodrich & DuPaul, 2007). However, in spite of the paramount role that physicians play in recognizing and securing OHI services, they rarely make diagnoses of somatization. In a study of over 28 million Anthem Blue Cross insured individuals of all ages, somatoform diagnoses were almost never coded (Levenson, 2011). Other research reveals that such diagnoses are almost non-existent in other medical databases as well, such as Medicare, Medicaid, and Veteran's Administration (Creed, 2006). Yet it is apparent through abundant studies conducted in medical settings, as well as through clinical observations and experience, that somatic disorders and symptoms are extremely prevalent in those settings (Dimsdale et al., 2013).

Numerous researchers posit that the scarcity of somatic diagnoses in medical settings can be attributed in part to the rigorous diagnostic criteria for somatoform disorders in the DSM-IV, and that this was one of the primary reasons why "somatic symptom disorder" (the DSM-5 diagnosis) was revised to include less stringent diagnostic criteria (Dimsdale et al., 2013).



Although these hypotheses may likely explain (at least in part) the scarcity of the OHI usage for somatic illness, further research may be warranted to address why students suffering from chronic somatic issues which adversely affect their school performance and functioning may not be receiving services (when appropriate) through an OHI classification.

A final overlap between the OHI classification and somatic symptoms pertains to students who experience chronic medical conditions of a purely organic nature. Boekarts and Roder (1999) conducted a meta-analysis of relevant literature and found that children who experience a chronic medical illness have significantly higher rates of somatic symptoms as well. They suggest this is likely due to the fact that such children are subject to a greater level of stressful experiences and circumstances than children without a chronic disease. Examples of frequent disease-related stressors include physical, academic, and social restrictions, medication adherence, physician visits, social stigma, increased familial stresses, and maladjustment with peers.

The reality of such a phenomenon is consistent with the current diagnostic conceptualization of the DSM-5, which recognizes that psychological factors can contribute to and worsen the overall condition and symptoms of those with a medical condition. The DSM-5 includes the somatic disorder of “psychological factors affecting other health conditions”, which is diagnosed when “psychological or behavioral factors adversely affect the medical condition in one of the following ways: 1) the factors have influenced the course of the medical condition as shown by a close temporal association between the psychological factors and the development or exacerbation of, or delayed recovery from, the medical condition; 2) the factors interfere with the treatment of the medical condition (e.g., poor adherence); 3) the factors constitute additional well-established health risks for the individual; or 4) the factors influence the underlying

pathophysiology, precipitating or exacerbating symptoms or necessitating medical attention” (American Psychiatric Association, 2013).

Although school psychologists may often be equipped with the competencies and knowledge to assist students in need of OHI services, it is possible they may be unaware of or unequipped to recognize and treat the somatic symptoms experienced by students with chronic medical issues. This is in line with Kubiszyn’s (1999) conclusion that although many health-care psychologists may be trained with the competencies and skills to assess and treat somatization amongst children and adolescents, research is limited as to whether or not school psychologists have received adequate training to do so. Further, somatic symptoms may be harder to detect when the student is already suffering from an underlying organic medical disease and additional competencies may be needed to decipher between symptoms of somatic and organic natures. As can be concluded from the above pertinent data, there are numerous and multifaceted issues confronting school psychologists as they attempt to assist students with medical and somatic conditions. Future research is necessary to determine the nature of their involvement in the assessment and treatment of students presenting with such issues, as well as in what manner such involvement fits within the roles of the school psychologist and IDEIA disability classification.

### **The History of Somatization and Its Diagnosis**

Historical documentation of somatization can be traced as far back as ancient Egyptian and Greek civilizations, where the phenomenon of hysteria was observed. Symptoms typically involved pain with the lack of any structural abnormalities at the site of the pain. (Woolfolk & Allen, 2007). Although hysteria included other features in addition to somatic complaints, the term was still utilized to describe somatization until the 1970’s. The first landmark work describing the psychopathology and presentation of somatization was Paul Briquet’s *Traite*

*Clinique et Therapeutique de L'hysterie* (1859), in which he describes three related syndromes: conversion disorder, hysterical personality, and multiple chronic unexplained somatic symptoms (Dongier, 1983). In the 1960's, researchers elaborated on Briquet's findings and developed a list of 57 possible symptoms, of which 25 were necessary in order to be diagnosed with "Briquet's syndrome". This set of diagnostic standards ultimately served as the precursor to the diagnostic criteria introduced in the DSM-III (Woolfolk & Allen, 2007).

The mind-body connection and how it relates to overall physical health was observed and treated by others as well. The term "psychosomatic" was first used by Heinroth in 1818 as "describing the interplay between mind and body in health and disease" (West, 1982). In 1895, Sigmund Freud and Joseph Breuer published *Studies in Hysteria*, where they conceptualized the phenomenon of "conversion" as an intra-psychic process that results in somatic symptoms. The work initiated the effort to theorize the psychic dynamics involved in the somatic process, such as physical symptoms representing an unconscious form of communication, a means for attaining secondary gain, or an avenue for avoiding emotional discomfort. The term "somatization" was introduced by Stekel (1924) to describe "the conversion of emotional states into physical symptoms". The pioneer of American psychosomatic medicine was Franz Alexander (1950), who veered away from a purely psychoanalytic approach to theorizing the somatic process, as he introduced two types of symptoms: 1) those in which psychic conflicts are converted symbolically through physical symptoms, and 2) those in which the symptoms result from the physiological effects of emotional arousal. The latter type was consistent with the contemporary, parallel research of Canon & Seyle on psychosocial stress and its effects on health (Woolfolk & Allen, 2007).

“Somatization disorder” was introduced into the DSM nomenclature with the publication of the DSM-III in 1980 (American Psychiatric Association, 1980). The DSM-III-R (American Psychiatric Association, 1987) diagnostic criteria required a lifetime history of at least 13 medically unexplained physical symptoms. The DSM-IV (American Psychiatric Association, 1994) introduced a group of somatoform disorders, with somatization disorder as the primary diagnosis (Dimsdale et al., 2013). According to DSM-IV, the diagnosis required at least four unexplained pain symptoms, two unexplained gastrointestinal symptoms, one unexplained sexual or menstrual symptom, and one pseudo-neurological symptom (American Psychiatric Association, 1994). Due to the stringent and meticulous criteria, clinicians found these diagnostic guidelines perplexing and unreliable (Simon & Gureje, 1999), contributing to a rarity in actual diagnosis for somatization disorder (Dimsdale et al., 2013). However, DSM-IV simultaneously offered a diagnosis of “undifferentiated somatoform disorder”, which was more loosely defined and allowed for a larger percentage of the population to meet diagnosis criteria.

There were several additional shortcomings of the DSM-III and DSM-IV diagnostic criteria for somatization disorder. The defining characteristic of the disorder was “medically unexplained symptoms” (MUS). This assertion was problematic because 1) it is not always feasible to decipher whether or not there is a definitive medical explanation for symptoms, 2) such a notion only reinforces a rigid mind/body dualism, 3) patients felt (at times) that such an MUS principle implies that their symptoms are “all in their head”, and 4) medical diagnoses typically rely on the presence of certain features rather than on their absence (Dimsdale, 2013; Mayou, 2014). Due to these barriers, physicians rarely diagnosed somatoform disorders and many patients never received appropriate interventions (Dimsdale, 2013).

It was primarily for these reasons that the DSM-5 re-conceptualized the somatization diagnosis and introduced “somatic symptom disorder” (SSD). The SSD diagnostic criteria includes persistent (typically longer than 6 months) and clinically significant somatic complaints that present with disproportionate and excessive thoughts, feelings, and behaviors regarding the symptoms: “one or more somatic symptoms that are distressing or result in significant disruption of daily life”, there must be “excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns”, and that “although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months)” (American Psychiatric Association, 2013). Researchers and practitioners (Dimsdale et al., 2013; Hauser, Bialas, Welsch, & Wolfe, 2015; Mayou, 2014) posit that the SSD criteria are less rigid than those of its DSM predecessors and that they were instituted in order to improve on the aforementioned shortcomings of the earlier versions. Additional benefits of the modified criteria are: 1) SSD does not focus solely on the somatic symptoms, but rather inculcates as well the effect the symptoms have on the individual’s thoughts, emotions, and behavior, 2) the severity of symptoms and the individual’s response are allocated across a diagnostic continuum (mild, moderate, or severe), and 3) SSD may or may not accompany another diagnosed medical condition. Researchers are optimistic that the newly minted SSD criteria will help to foster an increased diagnostic rate for chronic somatic symptoms (one that is more accurate with actual prevalence) and will allow for easier assessment and subsequent treatment of somatic symptoms (Dimsdale et al., 2013; Hauser, Bialas, Welsch, & Wolfe, 2015; Mayou, 2014).

The DSM-5 includes two additional diagnoses that are relevant in certain cases where the symptoms do not qualify for a full-fledged SSD diagnosis. “Other specified somatic symptom and related disorder” relates to somatic symptoms that meet SSD criteria, other than the fact that

the duration of symptoms is less than 6 months. “Unspecified somatic symptom and related disorder” applies to “presentations in which symptoms characteristic of a somatic symptom and related disorder that cause clinically significant distress or impairment in social, occupational, and other important areas of functioning predominate but do not meet the full criteria for any of the disorders in the somatic symptom and related disorders diagnostic class” (American Psychiatric Association, 2013).

### **Prevalence and Manifestation of Pediatric Somatization**

Although less research has been conducted to assess the prevalence of pediatric somatization in contrast to the adult population, somatic symptoms in children and adolescents are common (Campo & Fritz, 2001; Gulewitsch, Rosenkranz, Barkmann, & Schlarb, 2014; Haughland, Wold, Stevenson, Aaroe, & Woynarowski, 2001). However, it is difficult to ascertain a definitive rate of prevalence, as numerous studies have yielded discrepant results. Campo et al. (2002) found that in a sample of over 21,000 pediatric appointments, approximately one third of visits with “frequent aches and pains” were medically unexplained. Haughland et al. (2001) analyzed cross-national data and found that 11-15 year old adolescents commonly experienced somatic health complaints at least weekly. In a study conducted to assess the prevalence of somatization amongst children and adolescents in the five Nordic countries, 24% of the youth experienced somatic complaints occurring at least weekly or every other week (Berntsson & Kohler, 2001). Several studies indicate that between 40-75% of children and adolescents endure headaches at least monthly (Milde-Busch et al., 2010; Vila et al., 2009) and that 10-43% experience frequent somatic abdominal pain (Huguet & Miro, 2008; Vila et al., 2009). Santalahti et al. (2005) suggest that discrepant study results of the prevalence of

childhood headaches (and possibly other symptoms as well) may possibly be due to varying definitions and classifications of such symptoms and disorders.

Significantly, there may be some indication that prevalence rates of contemporary childhood somatization are increasing. Sillanpaa & Anttila (1996) compared the reported rates of headaches in 7-year-old children in 1974 to comparable demographic data in 1992 and found that the rates increased from 14% to 52% during that time. Similarly, Santalahti et al. (2005) assessed the prevalence rates of headaches and abdominal pain in 8-year-olds in Finland in 1989 and subsequently in 1999 and found that the rates increased significantly over that time as well. The researchers posit that the seemingly increasing rates of pediatric somatization may be attributed to changing social environments and increasing negative life events and daily stressors. The researchers also found that they discovered higher rates of somatization by assessing the affected youth regarding the symptoms they experience, in contrast to asking parents how often their children experience those symptoms. They conclude that it is incumbent upon practitioners to not rely solely on parental report of somatization but rather to assess through the child's vantage point as well.

### **Models of Conceptualization**

There have been several prominent psychological theories aimed at explaining the underlying psychic and physiological processes contributing to somatic symptoms. As discussed above, psychoanalysis and early psychosomatic medicine developed its theory of somatization based on Freud and Breuer's observations of conversion as an expression of intra-psychic conflicts. McWilliams (2011) summarizes much of the psychoanalytic literature relevant to the somatic process. She conceptualizes somatization as a psychological defense mechanism against unpleasant, unconscious emotions. Perhaps the most significant intra-psychic component of the

somatic process in psychoanalytic thought is the existence of “alexithymia” (Krystal, 1977; Mattila et al., 2008; Sifeos, 1973), a term coined by psychoanalyst Peter Sifneos in 1973 to characterize difficulty in identifying and describing emotions. Nemiah, Freyberger, and Sifneos (1976) observed that alexithymia is highlighted by several features: difficulty identifying subjective feelings, difficulty describing feelings to others, and a predominant externally-oriented cognitive style that detracts from self-awareness of one’s inner experience. If one’s childhood environment and experiences do not foster adequate developmental acquisition of language mastery to describe internal experiences, the primitive automatic physical responses may be the only linguistic avenue for emotional arousal and experience (McWilliams, 2011). In this light, individuals who frequently and characteristically react to stress with illness may be conceptualized as having a somaticizing personality (PDM Task Force, 2006).

Although there have been numerous studies demonstrating the correlation between alexithymia and somatization in adult populations (Barlow et al. 2004; DeGutche et al. 2004; Waller & Scheidt, 2004; Watson & Pennebaker, 1989), recent studies have highlighted that correlation in children and adolescents as well. Gilleland, Suveg, Jacob, & Thomassin (2009) found that in children, negative affect and poor emotional awareness were strong predictors of somatic symptoms. However, a study conducted by Jellesma et al. (2009) found that pediatric patients with multiple somatic symptoms were often capable of describing numerous emotions and previous emotional experiences, and they often reported more negative feelings than children without multiple somatic complaints. The researchers posited that this suggests that young people with significant somatic symptoms may have greater emotional awareness of the times they feel sad or afraid. Similarly, Rieffe et al. (2004) found that somaticizing youth did not differ significantly than their peers in their ability to identify emotions. Jellesma et al. (2009) and



Rieffe (2004) concluded that the primary dynamic in somatization in youth may not always lie in their ability to communicate their feelings that caused the somatic symptom, but rather their inability to regulate their emotions appropriately and adaptively cope with negative and adverse situations. Woolfolk and Allen (2006) have noted a comparable discrepancy in both research and clinical observations in adult populations and have concluded similarly that there are likely two common somatization personalities; “that of the stoic, tight-lipped, defensive, overcontrolled, uncommunicative individual...and that of the neurotic, hypersensitive, histrionic person...who dramatically verbalizes one complaint after another, in both the psychological and somatic domains”. They conclude that the most prominent intra-psychic component of somatization is difficulty with emotional regulation and processing, with various forms and manifestations, such as emotional valence, emotional intensity, and emotional disconnection.

Numerous studies have been conducted which demonstrate similar personality types and coping styles which are strong predictors of somatic symptoms in children. Jellesma et al. (2009) found that youth who often perceived situations in life as uncontrollable and lacked confidence in their abilities to adapt to stress had a significantly higher tendency to somaticize. A later study by Jellesma et al. (2011) found that emotional intelligence and a firm sense of coherence can serve as a buffer from developing somatic symptoms. Giacobbo et al. (2011) observed that children presenting with somatic symptoms tend to internalize their anger and often present as not overtly aggressive. Their most common personality traits were a high degree of anxiety and the tendency to struggle to meet unrealistic, self-imposed goals and expectations.

### **The “TMS” Model**

A prominent treatment model for somatic illness has been developed by Sarno (1998, 2006), Schechter & Smith (2005), Schechter et al. (2007, 2014), and Schubiner & Betzold

(2012). This model is heavily predicated on the aforementioned psychoanalytic theory of somatization and on the notion that the human mind represses many unpleasant emotions in the unconscious, as a means of self-defense and survival. The unconscious mind will repress these emotions because it perceives them as being too painful for the individual to experience consciously. The individual is unaware of this repressive thought process, as it occurs completely outside the realm of consciousness. The most common unpleasant emotions repressed in the unconscious (according to this model) include fear, guilt, shame, loss of control, vulnerability, self-pressures, feelings of inferiority, rage, and sadness, amongst others. Often, these unpleasant emotions can be attributed to several possible sources, including certain adverse childhood experiences (such as abuse, trauma, lack of love and support, poor parental attachment), personality traits such as perfectionism, conscientiousness and people-pleasing tendencies, current life and psychosocial pressures, aging and mortality, and any situation in which the individual represses anger.

Sarno (1998, 2006) originally coined the term “tension myositis syndrome” (TMS) to refer to the somatic manifestation of these unconscious emotions. Although some researchers and practitioners of this model have adapted the term “mind-body syndrome” (Schubiner & Betzold, 2012), many clinicians of the approach still refer to it as the “TMS model”. Sarno hypothesized that the psychological and biophysical process involved in somatization is that the unconscious emotional states (originating in the brainstem nuclei, basal forebrain, and amygdala) activate physical symptoms via the autonomic-peptide, immune-peptide, and endocrine-peptide systems. The physiological explanation for the pain or discomfort, albeit being somatic in nature, is that neurological pathways affect the function of local muscle and nerve tissues, as evidenced by tender or trigger points on palpitation of an affected body area. The unconscious perpetuates a

state of oxygen deprivation towards the affected muscle and nerve tissue, resulting in pain, weakness, and/or other unpleasant physical symptoms. Symptoms can manifest in any area of the body and can include pain, stiffness, weakness, tingling, burning, itching, numbness and other unpleasant sensations or disease states.

The TMS model posits that the primary intra-psychic dynamic in the somatic process is that the individual's unpleasant, unconscious emotions have increased substantially (qualitatively and/or quantitatively) and in a sense, these emotions have become too potent and pervasive for the unconscious to continually repress. As the unconscious "fears" (so to speak) for the individual's conscious experience of these emotions, as a "self-protection" it creates physical, somatic symptoms as a means of distraction from such an emotional awareness. Although most people would prefer to become aware of and consciously experience these emotions rather than suffer physical pain and discomfort, this psychosomatic process evolves completely outside of consciousness. In light of such theoretical dynamics, Schechter and Smith have renamed somatic manifestations as the "distraction pain syndrome" (DPS), with the physical symptoms initiated as an avenue for distraction from unconscious, unpleasant emotions. Additionally, at times the unconscious may create physical symptoms as means of "secondary gain", in order to circumvent emotionally unpleasant circumstances or responsibilities in the individual's life (Freud, 1953; Sarno, 2006; Woolfolk & Allen, 2010; Schechter, 2014; Wilmshurst, 2015).

## **Treatment**

Sarno (1998, 2006), Schechter & Smith (2005), and Schubiner & Betzold (2012) delineate the primary components of the TMS treatment protocol. The first element is psycho-education of TMS theory and methodology. Symptoms will only diminish if the individual genuinely and affirmatively comprehends and acknowledges that his or her symptoms are

somatic in nature. When psychosomatic causation is doubted, the unconscious will persist in perpetuating symptoms as a means of distraction from the unpleasant emotions. The second treatment component involves an exploration of the patients' unpleasant, unconscious emotions and stressors. When the individual becomes consciously aware of the contributory repressed emotions, the unconscious has no further incentive in maintaining distraction via physical symptoms. Sarno (1998, 2006) clarifies that this does typically require a complete conscious experiencing of these emotions, but rather conscious insight and awareness of the causal emotions suffices for the somatic symptoms to cease.

The third recovery component is the termination of any physical or other restrictions imposed since the inception of the symptoms. In many instances of somatization, individuals gradually discontinue many physical activities and endeavors due to pain and fear of symptom exacerbation. When an individual is confident that his or her symptoms are organically benign and therefore increases physical activities to self-reinforce that conviction, symptoms will typically diminish and ultimately dissipate. The final treatment element consists of the patient further developing coping skills for approaching common stressors and life circumstances in a more adaptive manner. Common stress reduction techniques that have been inculcated into TMS treatment include cognitive-behavior programs, meditation, progressive relaxation training, biofeedback, comedy, music therapy, hypnosis, and guided imagery (Rashbaum & Sarno, 2003). Similarly, because somatic symptoms can originate due to certain personality traits (such as perfectionism, people-pleasing, low self-esteem, etc.), personality modification is at times recommended (based on the case presentation and circumstances) as an addendum to the overall treatment regimen. Sarno (2006), Schechter (2014), and Schubiner & Betzold (2012) note that in clinical experience and documented research, majority of patients utilizing the various

components of the TMS treatment model are able to eradicate all somatic symptoms by means of self-directed psycho-education, introspection, journal-writing, relaxation techniques, and increased physical exercise. Approximately 20-30% of individuals require psychotherapy to assist in acquiring deeper emotional and psychological discovery and insight.

A psychotherapy orientation that can be conceptualized as an avenue for TMS treatment is Intensive Short-Term Psychodynamic Psychotherapy (ISTPP) (Abbas, Kisely, & Kroenke, 2009; Schubiner & Betzhold, 2012). Similar to the TMS model, ISTPP methods aim to foster insight into diverse unconscious phenomena, process intra-psychic conflicts, and seek to remedy alexithymia issues, such as difficulties with identifying and experiencing emotions (Abbas, 2015). The TMS model and ISTPP have demonstrated considerable efficacy (through numerous research studies and clinical observations) at treating a wide-range of somatic manifestations. Some of the most commonly studied manifestations include chronic back pain (Schechter et al. 2007), fibromyalgia (Hsu et al. 2010), fatigue (Schechter, 2014), irritable bowel syndrome and other related gastrointestinal symptoms (Sarno, 2006), tension and migraine headaches (Abbas, Lovas, & Purdy, 2008), hypertension, and various dermatological, neurological, cardiovascular, respiratory, and immunological symptoms and conditions (Abbas, Kisely, & Kreonke, 2009).

Ruden (2008) hypothesizes a slightly different psycho-physiological explanation for somatic illness. When an individual experiences trauma and cannot behaviorally express the emotional content of the event, the subsequent feelings of weakness and helplessness trigger a complex neurobiological process resulting in pain. The process is initiated in the lateral nucleus of the amyglada, which activates excitatory neurons in different regions of the body, including the sympathetic nervous system and the hypothalamic-pituitary axis, resulting in severe pain, weakness, and other unpleasant symptoms. Ruden professes that successful treatment can be

achieved through re-experiencing the emotions of the initial trauma and developing the capacity to appropriately process the trauma with lessened emotional arousal and activation. This would seem to be supported by the fact that Eye Movement Desensitization and Reprocessing (EMDR), an evidence-based intervention aimed at reprocessing traumatic memories and experiences, has demonstrated efficacy in numerous studies with treating various chronic somatic pain conditions (Grant & Threlfo, 2002; Kavakci, Semiz, Kaptanoglu, & Ozer, 2012; Marcus, 2008; Mazzola et al. 2009; Tesarz et al. 2013)

A final psychological intervention that has been studied in the context of chronic somatic symptoms is Cognitive Behavior Therapy (CBT). The modification of pain-centered beliefs in many CBT approaches is achieved via cognitive restructuring, problem-solving training, relaxation exercises, guided-imagery, and stress-reduction techniques (Thieme & Gracely, 2009). There seems to be a discrepancy in research literature as to the efficacy of CBT in treating somatization. While some CBT studies have demonstrated minimal reduction in somatic symptoms (Boyce, Talley, Balaam, Kolski, & Truman, 2003; Woolfolk & Allen, 2007), others have yielded more positive results (Escobar et al, 2007, Vazquez-Rivera et al., 2009). Many researchers have concluded that this discrepancy may be explained by the fact that CBT is an “umbrella-term”, as there are diverse manifestations as to how clinicians administer CBT methodology and strategies. The CBT models that demonstrate efficacy in treating somatization tend to conceptualize somatic conditions as psychological in origin and correlated with repressed emotions and emotional dysregulation. Those models construct interventions within an emotion-focused framework, similar to the aforementioned TMS model. In contrast, the CBT models that have yielded minimal effectiveness likely approach such conditions as being primarily biophysical in nature, with the cognitive-behavioral approaches focused on developing better

strategies for coping with the symptoms (Hanscom, Brox, & Bunnage, 2015; Woolfolk & Allen, 2010).

### **Somatization in Schools and the School Psychologist's Role**

As discussed above, the prevalence of youth suffering from somatic symptoms and conditions is widespread and the psychological, emotional, social, and academic affects on those children are significant and pervasive. Common ramifications within schools are that such students often experience frequent absenteeism from school (Lieb, Phister, Mastaler, & Wiitchen, 2000), diminished academic productivity, and school disenfranchisement (Garalda, Bowman, & Madalia, 1999). When a student with somatic symptoms is frequently absent, it only serves to exacerbate any previous academic and social struggles (Shannon, Bergen, & Matthews, 2010).

In light of the aforementioned prominent psychological conceptualizations of somatization, it is possible that such youth are likely experiencing much intra-psychic conflict, emotional repression and dysregulation, and stress as etiological components of the somatic process. Although some of those factors may be attributed to conflicts unrelated to the school setting (i.e. parental and familial attachment issues, trauma, neglect, physical or sexual abuse, personality, parental illness), there are numerous school-related dynamics that may contribute to those symptoms. Bullying (either of a physical or emotional nature) often plays a significant role in the development of somatic complaints within schools (Baldry, 2004), as victims of bullying report significantly increased rates of headaches, abdominal pain, and numerous other somatic pains and symptoms (Lien, Green, Welandar-Vatu, & Bjertness, 2009). Poor academic performance, lower cognitive abilities, lack of positive relationships with teachers and peers (Eminson, 2007), and low self-esteem (Terwogt et al. 2006) often contribute as well to

somatization amongst students. In line with the above psychological conceptualizations, students may develop these symptoms as an expression of or a distraction from their unconscious conflicts, or as a means for secondary gain to absolve themselves of the circumstances or responsibilities contributing to their emotional conflict.

As mentioned, recent mandates have called upon school psychologists to become more actively involved in the assessment and treatment of students with medical conditions. Many researchers and practitioners have extended this duty to include working with youth with somatic symptoms as well (Allen, Mathews, & Shriver, 1999; McMahon & Harper, 1990, Power & Bradley-Klug, 2013). Although most school-age somaticizing children seek assistance from the school nurse, statistics reveal that school nurses, teachers, and parents are often not knowledgeable about the psychological etiology and components involved in somatization, and therefore are often unequipped to assist these youth (Shannon, Bergren, & Matthews, 2010).

In light of the problem at hand, there are numerous ways in which school psychologists can become more involved in assisting students presenting with somatic issues. A likely first step is accurate identification and assessment (Campo & Fritz, 2001). As students with such symptoms will not typically approach the school psychologist for initial assistance (Shannon, Bergren, & Matthews, 2010), it is incumbent upon school psychologists to preemptively collaborate with the school nurse and teachers to assess which students may be experiencing significant, somatic complaints (McMahon & Harper, 1990). Occasionally, chronic somaticizers can be easily identified by school nurses and teachers as well, and increased interdisciplinary collaboration can allow school psychologists to become informed of the prevalence of somatization amongst the students that they serve. If school psychologists fail to identify students presenting with such issues, the underlying emotional and mental health needs of those



students may linger unaddressed and the physical symptoms will likely persist (Allen, Mathews, & Shriver, 1999). Further, school psychologists can periodically monitor school-wide absentee lists to ascertain whether there may be students experiencing habitual absenteeism due to somatic symptoms. If the school psychologist is unsure if an identified child's symptoms are somatic or organic in nature, a referral can be made to an appropriate physician knowledgeable of pediatric somatization and diagnosis (Allen, Mathews, & Shriver, 1999; Power & Bradley-Klug, 2013; Tobin & House, 2016).

Once a diagnosis of somatization has been established, the school psychologist can undertake a comprehensive psycho-social assessment of the student in order to determine the most prominent stressors, emotional conflicts, and germane factors likely contributing to the somatic process. This course of action may entail a student interview, psycho-education and interviews with parents, teachers, administration, review of records, cognitive-behavioral assessment measures, observations, and other relevant methods (Allen, Mathews, & Shriver, 1999; Shapiro & Rosenfeld, 1987; Tobin & House, 2016). Schechter (2014) posits that a candid student interview is often the best avenue for deciphering the underlying emotional issues: "In general, a better way to deal with children having medically benign pain is to sit down and explore the child's feelings about school, friends, bullies, and other pressures". He professes that the crucial next step for the healing process with these youth is through educating them about the correlation between their stresses and their physical symptoms: "By bridging the mind/brain gap that often underlies these complaints, we can help our children better understand their stress...teaching kids from an early age to see pain as a warning, that something else is bothering them, would prevent a lot of future health conditions and chronic pain. The younger the better...when it comes to exposing people to these concepts in an age-appropriate way". Other

researchers as well have documented that educating children as to the benign nature of their somatic symptoms and maintaining a focus on the underlying emotional issues typically results in more efficient and lasting emotional and physical healing (Allen, Mathews, & Shriver, 1999; Campo & Fritz, 2001).

Due to the fact that somatic symptoms often serve as “red flag” that the student at hand may be struggling academically or socially within school, the school psychologist can assist the student with acclimating better with his or her academic and social responsibilities and environments (Allen, Mathews, & Shriver, 1999; Power & Bradley-Klug, 2013). When appropriate, the school psychologist can ascertain whether the student may need special education or related IDEIA services to assist with academic functioning and productivity. Decreasing school stress through improving teacher and peer support, lessening academic tension and classroom noise, and preventing bullying reduces school-based somatization in children (Shannon, Bergren, & Matthews, 2010). As the lack of adaptive emotional expression and regulation skills are often primary etiological components in youth somatization, the school psychologist can administer individual or group counseling aimed at fostering those emotional capacities to these students. Somatizing youth are often lacking in other adaptive psycho-emotional skills and counseling can inculcate relevant interventions such as coping skills, cognitive restructuring, relaxation techniques, social skills, and exploration of familial and interpersonal relationships and dynamics (Campo & Fritz, 2001). Addressing such issues and deficits typically contributes to improvements in student academic engagement and achievement and overall school functioning (Zyromski & Joseph, 2008). In cases in which the school psychologist suspects or discovers that the student has experienced severe trauma, abuse, or

neglect, a referral for outside counseling may be necessary in order to grant the student appropriate interventions that may not be feasible within the school setting.

In conclusion, although somatic symptoms are highly prevalent among children and adolescents, research is limited as to the nature of the assessment and treatment of such youth within the school setting. School psychologists, due to their proficient knowledge of psychological, emotional, educational, and medical issues related to child development and functioning, may likely be the professionals best suited to assume the primary mantle of responsibility in assessing and treating these students (when appropriate). As ample research has been conducted exploring the causative emotional factors and intra-psychic dynamics within the somatic process, school psychologists can use that knowledge to guide their involvement and interventions in such cases and ultimately better assist the youth they serve.

## Chapter III

### **Method of Investigation**

The objective of this study was to gather nominal descriptive information from a sample of school psychologists and to investigate their experiences, competencies, and perceptions related to assessing and treating child and adolescent somatization within schools; facilitators and barriers to such processes; and pertinent training and education needs. The methodology used in this study, including the research design, participants, instrumentation development, and procedures are discussed in this chapter.

### **Research Design and Data Analysis**

A survey method was utilized to examine the factors relevant to school psychologists and their experiences, competencies, and perceptions related to assessing and treating students' somatic symptoms within schools. Kerlinger and Lee (2000) posit that survey research is aptly suited to "obtaining personal and social facts, beliefs, and attitudes" (p. 611). Greenlaw and Brown-Welty (2009) affirm that a survey design allows for compilation of demographics and perceptions in an efficient and cost-effective manner. The statistical methods that were utilized as part of the survey format and the post-survey data analysis included qualitative and quantitative measures. The survey included non-parametric measurements of correlation for ordinal data and the data produced for the quantitative analysis were descriptive statistics. The survey questions that included a scale modeled after a Likert scale were assessed as ordinal data. The survey questions which included categorical variables were assessed through quantitative analysis. The survey questions which included a free response were assessed through qualitative analysis. Data collected from the web-based survey were coded and electronically converted into a database using SPSS (Statistical Package for the Social Sciences), version 22. Responses to close-ended

questions were grouped by response and frequencies and percentages were obtained. For the open-ended questions, responses were coded (manually by the investigator) for content, categorized, and frequency counts by category were conducted and percentages provided.

## **Participants**

**Sample.** The investigator attempted to obtain a sample of school psychologists from various states in the United States so the results may be representative of a national sample of school psychologists. Initially, the investigator contacted (via telephone) the National Association of School Psychologists (NASP) in order to inquire whether it may be feasible to have access to and utilize a national database of its members to solicit their voluntary participation in the study survey. The investigator was notified by NASP that although individual access to its national database of members is granted at times for research purposes, there is a significantly comprehensive and arduous application and review process for approval of such requests. Furthermore, NASP informed the investigator that even when such requests are approved, the information provided is the home mailing addresses of NASP members, while their e-mail addresses are not provided. Due to several reasons discussed below, the primary investigator (in collaboration with his research chair) had previously decided that an electronic survey would be the most optimal method for gathering the information pertinent to the purposes of the survey research. Therefore, the investigator contacted the individual State organizations of school psychologists in the ten states with the largest number of practicing school psychologists (as per Charvat, 2004). Those states (in alphabetical order) are California, Connecticut, Florida, Illinois, New Jersey, New York, Ohio, Pennsylvania, Texas, and Wisconsin. After contacting those ten State organizations to solicit their participation, five of the organizations granted the investigator permission to send out an invitation via e-mail (see Appendix A) to all of their

members to solicit their voluntarily participation in the online survey. The five organizations that agreed to disseminate the invitation e-mail to their members were the California Association of School Psychologists (CASP), Florida Association of School Psychologists (FASP), New Jersey Association of School Psychologists (NJASP), New York Association of School Psychologists (NYASP), and the Ohio School Psychologists Association (OSPA). Each of these organizations agreed to participate and be named in this dissertation research. Current membership data, as provided by the five professional organizations, are displayed in Table 1.

**Ethical Considerations.** Prior to data collection, permission and approval were obtained from each of the five professional groups that were to be surveyed, as well as from the Institutional Review Board (IRB) at Rutgers University. Prior to participation in the survey, all potential participants reviewed an informed consent letter which described the nature of the study, participants' rights, potential risks, and the researcher's contact information (see Appendix A). The identities of survey participants were kept confidential and IP addresses were not collected.

### **Instrument Development**

**Survey.** Due to the fact that there is no previously published survey research or instrument germane to the topic under investigation, the investigator and research chair developed the selected web-based measure based on aforementioned data in the existing literature and in consideration of the objectives of the study (see Appendix B for full survey). Due to the fact that there is no commercially available measure to collect data on the topic at hand, there is no pre-existing validity and reliability data for the selected measure. In consideration of the initial exploratory nature of the survey research into the topic at hand, it was deemed (by the investigator and research chair) to be unnecessary at this time to conduct a

reliability study on the selected measure. It was decided that an electronic survey was the optimal method for gathering information across multiple groups, as Greenlaw and Brown-Welty (2009) have demonstrated that when administered to populations with access to computers, web-based surveys can produce high response rates and with less effort and cost than paper-based surveys. The online format which hosted the survey and resulting data was Survey Monkey ([www.surveymonkey.com](http://www.surveymonkey.com)).

### **Procedure**

The link to the online survey was circulated to potential participants via e-mail by a staff representative of each professional organization. The investigator provided each organization with an appropriate cover letter for introducing the survey to potential participants (see Appendix C). Four of the organizations (FASP, NJASP, NYASP, and OSPA) distributed the survey invitation and link to their members via direct e-mail. One organization (CASP) distributed the survey invitation and link as an item within its weekly electronic newsletter. One organization (FASP) only sent the invitation letter to a list of its members who had previously agreed to participate in requests for research. Each professional organization disseminated the survey during late December 2015 through February 2016. The duration of the survey was 10 weeks after the initial invitation e-mails were sent. Informed consent (see Appendix A) was provided through the survey link prior to the onset of participation in the survey. The participants completed the survey (see Appendix B) online. Participants were given the opportunity to voluntarily provide an e-mail address in order to be entered into a drawing for one of two \$25 Amazon.com gift cards. The email addresses provided were stored separately from the survey data.

**Response Rate.** The investigator attempted to maximize the response rate through the development of an instrument that incorporated several components. Electronic access to and participation in the survey was straightforward, participation was anonymous, data were stored confidentially, the approximate time for completion of the survey was between 10-15 minutes (based on comparison to like measures), and optional participation in a raffle was provided as an added incentive. A total of 190 surveys were completed and included in the data analysis. Each professional organization provided the researcher with the amount of its current members who received the survey invitation e-mail.

Table 1

*Response Rate by Professional Organization*

Organization	<i>n</i>	Number of School Psychologists in Membership Who were Sent an Online Survey Invitation	Response Rate
CASP	23	1380	1.7%
FASP	20	225	8.9%
NJASP	49	626	7.8%
NYASP	74	751	9.9%
OSPA	24	539	4.5%
Total	190	3521	5.4%

**Research Questions**

This study sought to collect information related to the following research questions:

1. Are school psychologists aware of the prevalence of somatization amongst school-age children and adolescents?
2. Are school psychologists aware of the risk factors and etiological components correlated with somatic illness amongst youth?
3. Are school psychologists adequately trained to assess and treat somatic illness?



4. Do school psychologists believe they have the necessary competencies to be involved in the assessment and treatment of somaticizing youth?
5. Are school psychologists utilizing particular interventions to assess and treat somatic illness amongst children and adolescents?
6. Do school psychologists practice inter-disciplinary collaboration with school nurses to assess and treat somatic illness within schools? If so, what is the nature of that collaboration?
7. Have school psychologists specifically been involved in cases of somatization amongst the youth that they serve? If so, what was their role?
8. What are the most significant barriers that school psychologists experience in attempting to treat students with somatic symptoms?

## Chapter IV

### Results

The purpose of this study was to investigate the perspectives of school psychologists regarding their roles, experiences, and competencies related to the assessment and treatment of students with somatic symptoms, as well as potential barriers and relevant factors germane to that process. Data was collected from 190 school psychologists via an online survey. However, some participants did not complete all of the questions on the survey. The number of participants who responded to each question is documented. On an a priori basis, the research methods were not constructed to ascertain group differences due to discrepancies in the sample size of each group. Post hoc analyses were considered and determined to be unlikely to contribute significantly to interpretation of the research data. Therefore, only descriptive methods were utilized for data analysis. The results of the survey data for the pertinent research questions presented earlier as well as the demographic information of the survey participants are reported in this chapter.

#### Demographic Information

The data gathered (based on self-report) on participant gender, years practicing, highest degree earned, type of school primarily served, school setting, and the main populations served in their roles as school psychologists are presented in Table 2. As discussed earlier, the respondents were all school psychologists currently practicing throughout California, Florida, New Jersey, New York, and Ohio. Participants consisted of 161 females (85%) and 29 males (15%). The average number of years practicing was 12.6, with a range of responses between 1 year and 40 years. The majority of respondents reported that their highest professional degree earned was a Masters (54.7%), followed by “other” degree (24.7%) or a Doctorate (20.6%). The

majority of schools in which the participants have primarily served in their professional careers are public schools (92.6%), followed by private (3.7%), parochial (1.1%), and other (2.6%). The majority of respondents have primarily worked in schools in suburban settings (59.5%), followed by urban (22.1%) and rural settings (18.4%). The majority of participants have primarily worked in elementary schools (51.1%), followed by high schools (23.2%), middle schools (13.7%), preschools (6.3%), other (4.7%), and universities (1%).

Table 2

*Nominal Descriptions of the Sample*

Variable	<i>n</i>	Percentage
Gender (n=190)		
Female	161	85
Male	29	15
Years Practicing (n=190)	1-40 years (range)	12.6 (average)
Highest Professional Degree (n=190)		
Doctorate	39	20.6
Masters	104	54.7
Other	47	24.7
Type of School Primarily Served (n=190)		
Public	176	92.6
Private	7	3.7
Parochial	2	1.1
Other	5	2.6
School Setting Primarily Served (n=190)		
Suburban	113	59.5
Urban	42	22.1
Rural	35	18.4
Primary Population Served (n=190)		
Preschool	12	6.3
Elementary	97	51.1
Middle School	26	13.7
High School	44	23.2
University	2	1
Other	9	4.7

**Research Question 1: Are school psychologists aware of the prevalence of somatization amongst school-age children and adolescents?**

In order to answer this question, responses from questions 13, 16, 17, and 20 on the survey were analyzed. These questions surveyed information related to school psychologists' experiences in witnessing and treating student somatization and their awareness of relevant factors. Percentages and frequency counts were calculated based on the number of participants that completed each survey item. On survey question 13, participants were asked to what extent they have worked with children presenting with medical issues who they suspected were suffering from somatic symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 3. Overall, the largest number of respondents (39.9%) rated that they have worked "Very Little" with such students, 37.1% have "Somewhat" worked with such students, 12.9% have "Often" worked with such students, 8.4% "Not at all", and 1.7% have "Very Often" worked with such students.

Table 3

*Experience with Suspected Somatization in Children Presenting with Medical Issues (n=178)*

Response	<i>n</i>	Percentage
"Not at all"	15	8.4
"Very Little"	71	39.9
"Somewhat"	66	37.1
"Often"	23	12.9
"Very Often"	3	1.7

On survey question 16, participants were asked how much they have witnessed students that have experienced significant absenteeism due to somatic symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 4. Overall, the largest number of respondents rated that they have "Somewhat" (36.9%) witnessed significant

student absenteeism due to somatization, while 26.8% have witnessed “*Very Little*”, 22.9% have witnessed “*Often*”, 9.6% have “*Not at all*” witnessed, and 3.8% have witnessed “*Very Often*”.

Table 4

*Frequency of Witnessing Student Absenteeism Due to Somatization (n=157)*

Response (Frequency)	<i>n</i>	Percentage
“Not at all”	15	9.6
“Very Little”	42	26.8
“Somewhat”	58	36.9
“Often”	36	22.9
“Very Often”	6	3.8

On survey question 17, participants were asked if they feel that they are aware of common causes and risk factors for child somatization. The numbers and percentages corresponding to the possible answer options are presented in Table 5. The majority of respondents (50.3%) feel that they are “*Somewhat*” aware of the common causes and risk factors, followed by 24.8% who feel that they are “*Substantially*” aware, 21% are “*Very Little*” aware, 1.9% are “*Not at all*” aware, and 1.9% are “*Very Significantly*” aware.

Table 5

*Awareness of Common Causes and Risk Factors for Child Somatization (n=157)*

Response	<i>n</i>	Percentage
“Not at all”	3	1.9
“Very Little”	33	21
“Somewhat”	79	50.3
“Substantially”	39	24.8
“Very Significantly”	3	1.9

On survey question 20, participants were asked what are the most common forms of somatic illness or symptoms that they have witnessed amongst the youth that they serve. This was an open-ended question and respondents were allowed to provide as many or as few responses they felt were applicable. The numbers and percentages corresponding to the answers

provided are presented in Table 6. The most common somatic symptoms witnessed were stomachaches/gastrointestinal problems (77.7%), followed by headaches (70.8%), fatigue (15.4%), dizziness (11.5%), nausea (10%), generalized pain (10%), asthma/respiratory issues (5.4%), frequent urination, constipation, or diarrhea (5.4%), anxiety (4.6%), allergies (3.8%), inattention/ADHD (3.8%), heart palpitations/tremors (3.1%), epilepsy (3.1%), depression (3.1%), acne (2.3%), and autoimmune disorders (2.3%).

Table 6

*Most Common Somatic Symptoms Witnessed (n=130)*

<u>Somatic Symptom/Illness</u>	<u>n</u>	<u>Percentage</u>
Stomachache/Gastrointestinal	101	77.7
Headaches	92	70.8
Fatigue	20	15.4
Dizziness	15	11.5
Nausea	13	10
Generalized Pain	13	10
Asthma/Respiratory	7	5.4
Frequent Urination/Constipation/Diarrhea	7	5.4
Anxiety	6	4.6
Allergies	5	3.8
Inattention/ADHD	5	3.8
Heart Palpitations/Tremors	4	3.1
Epilepsy	4	3.1
Depression	4	3.1
Acne	3	2.3
Autoimmune	3	2.3

**Research Question 2: Are school psychologists aware of the risk factors and etiological components correlated with somatic illness amongst youth?**

As discussed above, on survey question 17 participants were asked if they feel that they are aware of common causes and risk factors for child somatization. The numbers and percentages corresponding to the possible answer options are presented in Table 4 above. The majority of respondents (50.3%) feel that they are “*Somewhat*” aware of the common causes and

risk factors, followed by 24.8% who feel that they are “*Substantially*” aware, 21% are “*Very Little*” aware, 1.9% are “*Not at all*” aware, and 1.9% are “*Very Significantly*” aware.

### **Research Question 3: Are school psychologists adequately trained to assess and treat somatic illness?**

In order to answer this question, responses from questions 21 and 22 on the survey were analyzed. These questions surveyed information related to school psychologists’ perceptions as to whether or not they have received adequate training to assess and treat somatic symptoms in students. On survey question 21, participants were asked if they feel that they have received adequate training to assess and diagnose somatic symptoms in students (when appropriate). The numbers and percentages corresponding to the possible answer options are presented in Table 7. Overall, the largest number of respondents (39.1%) felt that they have received “*Very Little*” training to assess and diagnose child somatization, 33.3% felt that they have received “*Somewhat*” adequate training, 14.1% have received “*Substantial*” training, 12.8% have “*Not at all*” received, and <1% have received “*Very Significant*” training.

Table 7

*Amount of Training Received to Assess and Diagnose Student Somatization (n=156)*

<u>Response</u>	<u>n</u>	<u>Percentage</u>
“Not at all”	20	12.8
“Very Little”	61	39.1
“Somewhat”	52	33.3
“Substantial”	22	14.1
“Very Significant”	1	<1

On survey question 22, participants were asked if they feel they have received adequate training to treat somatic symptoms in students (when appropriate). The numbers and percentages corresponding to the possible answer options are presented in Table 8. Overall, 36.8% of

respondents rated that they have received “*Somewhat*” adequate training to treat child somatization, 36.1% have received “*Very Little*” training to do so, 18.1% have “*Not at all*” received training, 8.4% have received “*Substantial*” training, and <1% have received “*Very Significant*” training.

Table 8

*Amount of Training Received to Treat Student Somatization (n=155)*

Response	<i>n</i>	Percentage
“Not at all”	28	18.1
“Very Little”	56	36.1
“Somewhat”	57	36.8
“Substantial”	13	8.4
“Very Significant”	1	<1

**Research Question 4: Do school psychologists believe they have the necessary competencies to be involved in the assessment and treatment of somaticizing youth?**

In order to answer this question, responses from questions 23 and 24 on the survey were analyzed. These questions surveyed information related to school psychologists’ perceptions as to whether or not they have the necessary competencies to assess and treat student somatization. On survey question 23, participants were asked if they feel that they have the necessary competencies to assess and diagnose somatic symptoms in students (when appropriate). The numbers and percentages corresponding to the possible answer options are presented in Table 9. Overall, 43.9% of respondents indicated they “*Somewhat*” have such competencies, 31.6% have “*Very Little*” of such competencies, 11.6% do “*Not at all*” have such competencies, 11.6% have “*Substantial*” competencies, and 1.3% have “*Very Significant*” competencies.

Table 9

*Amount of Necessary Competencies to Assess and Diagnose Student Somatization (n=155)*

Response	<i>n</i>	Percentage
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Continued-Table 9

“Not at all”	18	11.6
“Very Little”	49	31.6
“Somewhat”	68	43.9
“Substantial”	18	11.6
“Very Significant”	2	1.3

On survey question 24, participants were asked if they feel that they have the necessary competencies to treat somatic symptoms in students (when appropriate). The numbers and percentages corresponding to the possible answer options are presented in Table 10. Overall, 42.6% of respondents indicated they “*Somewhat*” have such competencies, 31.6% have “*Very Little*” of such competencies, 16.1% do “*Not at all*” have such competencies, 9% have “*Substantial*” competencies, and <1% have “*Very Significant*” competencies.

Table 10

*Amount of Necessary Competencies to Treat Student Somatization (n=155)*

Response	<i>n</i>	Percentage
“Not at all”	25	16.1
“Very Little”	49	31.6
“Somewhat”	66	42.6
“Substantial”	14	9
“Very Significant”	1	<1

**Research Question 5: Are school psychologists utilizing particular interventions to assess and treat somatic illness amongst children and adolescents?**

In order to answer this question, responses from questions 29, 30, 31, 32, 33, 34, and 35 on the survey were analyzed. These questions surveyed information related to the manner in which school psychologists attempt to assess for and treat student somatization and related factors. On survey question 29, participants were asked how they go about establishing that a child has Somatic Symptom Disorder. This was an open-ended question and respondents were allowed to provide as many or as few response options as they felt were applicable. The numbers

and percentages corresponding to the answers provided are presented in Table 11. Overall, 26.5% of respondents indicated they base that decision on a combination of interviews with teachers, parents, and the student, student observation, behavior rating scales, and review of records. 22.2% of respondents don't assess for or establish whether or not a child might have Somatic Symptom Disorder, 14.4% refer out to medical professionals in order to rule out a medical issue, 13.7% do so in consultation/collaboration with medical professionals, 7.7% do so in consultation with the school nurse, 6% do so based on interviews with teachers, parents, and the student, 6% utilize behavior rating scales, 5.3% refer out to a clinical psychologist, 5.1% consult with the DSM-5, 4.3% classify such cases as ED (Emotionally Disturbed) or OHI (Other Health Impairment), 1.7% base such a decision on a review of records, 1.7% utilize medical reports, 1.7% base it on a parent interview, <1% based on a student interview, <1% based on a teacher interview, <1% based on a student observation, <1% refer to a psychiatrist, and <1% assess the impact of the symptoms on learning and social-emotional functioning.

Table 11

*Method(s) for Establishing a SSD Diagnosis (n=117)*

<u>Response</u>	<u>n</u>	<u>Percentage</u>
Combination of Teacher, Parent, & Student Interviews, Observation, Behavior Rating Scales, & Review of Records	31	26.5
Don't Assess or Establish	26	22.2
Refer Out to Rule Out Medical Issue	13	14.4
Consultation with Medical Professionals	16	13.7
Consultation with School Nurse	9	7.7
Interview Parent, Teacher, & Student	7	6
Behavior Rating Scales	7	6
Refer to Clinical Psychologist	5	5.3
Consult the DSM-5	6	5.1
Classify as ED or OHI	5	4.3
Review of Records	2	1.7
Review of Medical Reports	2	1.7
Parent Interview	2	1.7

Continued-Table 11

Refer to Psychiatrist	1	<1
Student Observation	1	<1
Assess Impact on Learning and SE Functioning	1	<1
Student Interview	1	<1
Teacher Interview	1	<1

On survey question 30, participants were asked whether there are any models of psychotherapy or treatment that they utilize to treat somatic symptoms in students. This was an open-ended question and respondents were allowed to provide as many or as few responses as they felt were applicable. The numbers and percentages corresponding to the answers provided are presented in Table 12. Overall, 38.5% of respondents utilize Cognitive Behavior Therapy (CBT), 23.9% don't use a particular model, 11% do not treat students with somatic symptoms, 6.4% use Mindfulness-Based Stress Reduction (MBSR)/mindfulness, 5.5% use relaxation training, 2.8% teach stress management and coping skills, 2.8% use Brief Solution-Focused Therapy, 1.8% use Dialectical Behavior Therapy (DBT), 1.8% use an eclectic combination of approaches, 1.8% increase academic supports and interventions, <1% use motivational interviewing, <1% use Structural Family Therapy, <1% use trauma-informed care, and <1% use guided imagery.

Table 12

*Model Utilized to Treat Somatic Symptoms in Students (n=109)*

<u>Response</u>	<u>n</u>	<u>Percentage</u>
CBT	42	38.5
No Particular Model	26	23.9
Doesn't Treat	12	11
MBSR/mindfulness	7	6.4
Relaxation Training	6	5.5
Stress Management/Coping Skills	3	2.8
Brief Solution-Focused Therapy	3	2.8
DBT	2	1.8
Eclectic Combination	2	1.8

Continued-Table 12

Academic Supports & Interventions	2	1.8
Motivational Interviewing	1	<1
Structural Family Therapy	1	<1
Trauma-Informed Care	1	<1
Guided Imagery	1	<1

On survey question 31, participants were asked that in working with students whom they suspect are suffering from somatic symptoms, how often they encourage the students to identify the underlying stressors in their lives that may be causing the symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 13. Overall, 46% of respondents rated that they “*Often*” encourage such behavior, 19.7% “*Somewhat*” do so, 19.7% “*Very Often*” do so, 8% do so “*Not at All*”, and 6.6% do so “*Very Little*”.

Table 13

*Encourage Somaticizing Students to Identify Stressors (n=137)*

Response	<i>n</i>	Percentage
“Not at all”	11	8
“Very Little”	9	6.6
“Somewhat”	27	19.7
“Often”	63	46
“Very Often”	27	19.7

On survey question 32, participants were asked that in working with students whom they suspect are suffering from somatic symptoms, how often they encourage the students to recognize and acknowledge that the symptoms are psychological in nature and that there is no organic or structural abnormality. The numbers and percentages corresponding to the possible answer options are presented in Table 14. Overall, 33.8% of respondents rated that they “*Somewhat*” do so, 27.2% do so “*Very Little*”, 19.9% do so “*Often*”, 13.2% “*Not at All*”, and 5.9% do so “*Very Often*”.

Table 14

*Encourage Somaticizing Students to Recognize Psychological Nature of Symptoms (n=136)*

Response	<i>n</i>	Percentage
“Not at all”	18	13.2
“Very Little”	37	27.2
“Somewhat”	46	33.8
“Often”	27	19.9
“Very Often”	8	5.8

On survey question 33, participants were asked that in working with students whom they suspect are suffering from somatic symptoms, how often they encourage the students to become more aware of their emotions and to increase their emotional expression. The numbers and percentages corresponding to the possible answer options are presented in Table 15. Overall, 43.8% of respondents rated that they “Often” do so, 29.2% do so “Very Often”, 14.6% “Somewhat” do so, 6.6% “Not at all”, and 5.8% do so “Very Little”.

Table 15

*Encourage Somaticizing Students to Increase Emotional Awareness & Expression (n=137)*

Response	<i>n</i>	Percentage
“Not at all”	9	6.6
“Very Little”	8	5.8
“Somewhat”	20	14.6
“Often”	60	43.8
“Very Often”	40	29.2

On survey question 34, participants were asked that in working with students whom they suspect are suffering from somatic symptoms, how often they encourage the students to increase their physical activity and/or to ignore their physical symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 16. Overall, 32.6% of respondents rated that they do so “Very Little”, 25.2% do so “Somewhat”, 20.7% do so “Often”, 17.8% “Not at all”, and 3.7% do so “Very Often”.

Table 16

*Encourage Somaticizing Students to Increase Physical Activity & Ignore Symptoms (n=135)*

Response	<i>n</i>	Percentage
“Not at all”	24	17.8
“Very Little”	44	32.6
“Somewhat”	34	25.2
“Often”	28	20.7
“Very Often”	5	3.7

On survey question 35, participants were asked if they are familiar with Dr. John Sarno’s model for treating somatic symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 17. Overall, 87.9% of respondents rated that they are not familiar with the model, 10.7% are vaguely familiar with the model, and 1.4% are familiar with the model but do not use it to treat somaticizing students. No respondents (0%) reported that they are familiar with the model and use it to treat somaticizing children in school or in other clinical settings.

Table 17

*Familiarity with Dr. Sarno Model for Somatic Treatment (n=140)*

Response	<i>n</i>	Percentage
Not Familiar at All	123	87.9
Vaguely Familiar	15	10.7
Familiar, but Does Not Use it to Treat Students	2	1.4
Familiar and Uses it to Treat Either in School or in Other Settings	0	0

**Research Question 6: Do school psychologists practice inter-disciplinary collaboration with school nurses to assess and treat somatic illness within schools? If so, what is the nature of that collaboration?**

In order to answer this question, responses from questions 18 and 19 on the survey were analyzed. In addition, responses from question 12 were analyzed as well in order to assess for

baseline levels of collaboration between school psychologists and school nurses in general regarding students with medical issues. On survey question 12, participants were asked how often they collaborate with the school nurse regarding students with medical issues. The numbers and percentages corresponding to the possible answer options are presented in Table 18. Overall, 32.2% of respondents collaborate “*Somewhat*” with the school nurse regarding students with medical issues, 28.3% collaborate “*Often*”, 24.3% collaborate “*Very Little*”, 10.2% collaborate “*Very Often*”, and 5.1% do “*Not at All*” collaborate. On survey Question 18, participants were asked how often they collaborate with the school nurse regarding students with somatic symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 19. Overall, 28% of respondents collaborate “*Very Little*” with the school nurse regarding students with somatic symptoms, 24.3% collaborate “*Often*”, 22.9% collaborate “*Somewhat*”, 19.1% do “*Not at All*” collaborate, and 5.7% collaborate “*Very Often*”.

On survey question 19, participants were asked to elaborate on the nature of the collaboration they have had with the school nurse regarding students with somatization. This was an open-ended question and respondents were allowed to provide as many or as few responses as they felt were applicable. The numbers and percentages corresponding to the answers provided are presented in Table 18. Overall, 22.7% of respondents review medical records and the nurse provides them with similar information, 21.8% discuss the frequency of the student’s visits to the nurse and his or her type of complaints, 16.4% collaborate through IEP meetings and they call the parents together, 10.9% develop a behavior plan for future frequent visits to the nurse, 9.1% connect with outside medical providers/referral, 7.3% don’t collaborate with the school nurse regarding such students, 6.4% discuss a general course of action, with 3.6% the school nurse will

refer such students to the school psychologist, and 1.8% will discuss the diagnosis and possible treatment.

Table 18

*Collaboration with School Nurse Regarding Students with Medical Issues (n=177)*

Response	<i>n</i>	Percentage
“Not at all”	9	5.1
“Very Little”	43	24.3
“Somewhat”	57	32.2
“Often”	50	28.3
“Very Often”	18	10.2

*Collaboration with School Nurse Regarding Students with Somatic Symptoms (n=157)*

Response	<i>n</i>	Percentage
“Not at all”	30	19.1
“Very Little”	44	28
“Somewhat”	36	22.9
“Often”	38	24.2
“Very Often”	9	5.7

*Nature of Collaboration with School Nurse Regarding Students with Somatic Symptoms (n=110)*

Response	<i>n</i>	Percentage
Review Medical Records/Provide Info	25	22.7
Discuss Frequency of Visits & Complaints	24	21.8
IEP Meetings/Call Parents Collaboratively	18	16.4
Develop Behavior Plan for Future Visits	12	10.9
Connect With Outside Medical Providers	10	9.1
Don't Collaborate	8	7.3
Discuss General Course of Action	7	6.4
Nurse Refers Student to School Psychologist	4	3.6
Discuss Diagnosis & Treatment	2	1.8

**Research Question 7: Have school psychologists specifically been involved in cases of somatization amongst the youth that they serve? If so, what was their role?**

In order to answer this question, responses from questions 13 and 14 on the survey were analyzed. On survey question 13, participants were asked to what extent they have worked with children presenting with medical issues who they suspected were suffering from somatic



symptoms. The numbers and percentages corresponding to the possible answer options are presented in Table 3 above. Overall, the largest number of respondents (39.9%) rated that they have worked “*Very Little*” with such students, 37.1% have “*Somewhat*” worked with such students, 12.9% have “*Often*” worked with such students, 8.4% “*Not at all*”, and 1.7% have “*Very Often*” worked with such students. On survey question 14, participants were asked what their roles were in those circumstances that they have worked with students with somatic symptoms and respondents were able to choose one or more answers. The numbers and percentages corresponding to the possible answer options are presented in Table 19. Overall, 73.4% of respondents consult with teachers, 51.5% teach the student coping skills, 50.3% consult with medical professionals, 47.9% refer the student for outside psychotherapy interventions, 40.8% administer individual counseling, 39.1% refer the student for outside medical interventions, 16% responded that they had “Other” roles (which included consulting parents, conducting a psycho-educational evaluation, consultation with the school nurse, or consultation with the school guidance counselor), and 11.2% did not have a significant role.

Table 19

*Role(s) When Having Worked with Somaticizing Students (n=169)*

<u>Response</u>	<u>n</u>	<u>Percentage</u>
Consult with Teachers	124	73.4
Teach Student Coping Skills	87	51.5
Consult with Medical Professionals	85	50.3
Refer for Outside Psychotherapy	81	47.9
Administer Individual Counseling	69	40.8
Refer for Outside Medical Intervention	66	39.1
Other	27	16
Did Not Have Significant Role	19	11.2

**Research Question 8: What are the most significant barriers that school psychologists experience in attempting to treat students with somatic symptoms?**

In order to answer this question, responses from question 25 on the survey were analyzed. On survey question 25, participants were asked what barriers they experience (if any) in attempting to treat students with somatic symptoms. This was an open-ended question and respondents were allowed to provide as many or as few responses as they felt were applicable. The numbers and percentages corresponding to the answers provided are presented in Table 20. Overall, 37.4% of respondents experience parental resistance, denial, and non-compliance, 26.8% feel that their lack of adequate training and knowledge in this area is a significant barrier, 15.4% experience teacher and staff resistance, 15.4% have limited contact with and knowledge of such students, 12.2% have too much of a workload and are limited in time, 8.9% have difficulties contacting appropriate outside medical professionals, 3.3% experience student resistance, denial, and non-compliance, 2.4% feel that the student's unaddressed outside (of school) psychosocial stressors are a significant barrier, 1.6% feel that legal restrictions prevent them from treating such students, 1.6% experience administrative resistance, and the following answers were each provided by <1% of respondents: the social worker or school counselor treat such students, limited resources, inability to lessen the students' academic stresses, and the ignorance and resistance of the school nurse.

Table 20

*Most Significant Barriers Experienced in Treating Students with Somatic Symptoms (n=123)*

<u>Response</u>	<u>n</u>	<u>Percentage</u>
Parental Resistance/Denial	46	37.4
Insufficient Training & Knowledge	33	26.8
Teacher/Staff Resistance	19	15.4
Limited Contact/Knowledge of Such Students	19	15.4
Limited Time/Large Workload	15	12.2

Continued-Table 20

Inability to Contact Medical Professionals	11	8.9
Student Resistance/Denial	4	3.3
Unaddressed Outside Psychosocial Stressors	3	2.4
Legal Restrictions	2	1.6
Administrative Resistance	2	1.6
Student Treated by Social Worker or Counselor	1	<1
Limited Resources	1	<1
Inability to Lessen Academic Stresses	1	<1
Nurse Ignorance/Resistance	1	<1

## Chapter V

### **Discussion**

The purpose of this study was to examine the perceptions of school psychologists regarding their roles, experiences, and competencies related to the assessment and treatment of students with somatic symptoms; facilitators and barriers to such processes; and pertinent training and education needs. A web-based survey was administered to a sample derived from members of five State organizations of school psychologists. This chapter provides a summary of the important findings of the current study and the correlation of the results to other research on the topic. Also discussed are the implications for the practice of school psychology services, limitations of the study, and recommendations for further research.

#### **Education, Training & Competencies in Assessment and Treatment of Somatization**

Three of the primary goals of this research were to ascertain whether school psychologists are aware of the prevalence, risk factors, and etiological components of somatization amongst school-age children and adolescents; whether they have received adequate training to assess for and treat such symptoms; and if they believe they have the necessary competencies to be involved in the assessment and treatment of such youth. In order to determine the answers, survey participants responded to pertinent questions.

Although previous research (as discussed earlier) highlights that students presenting with medical issues and complaints within schools are often actually experiencing somatization, 48.3% of the survey participants indicated that they have “not at all” or “very little” worked with children presenting with medical issues who they suspected were genuinely suffering from somatic symptoms, while only 14.6% of participants reported that they have “often” or very often” worked with such youth. Similar research (discussed earlier as well) also demonstrates

that it is quite common for school-age children and adolescents to experience frequent absenteeism due to somatic symptoms. However, when survey participants were asked how often they have witnessed somatic-related absenteeism amongst the youth that they have served, only 26.7% of participants reported that that they have done so “often” or “very often”, while 63.3% related that they have “not at all”, “very little”, or only “somewhat” observed this. These responses seemingly indicate that school psychologists may have limited awareness of the prevalence of student somatization and typically may not possess sufficient knowledge or skills to be able to determine whether or not students presenting with medical issues or complaints are in reality experiencing somatic symptoms.

As discussed earlier, ample research and clinical practice highlight that one of the most crucial components essential for understanding the etiological nature of pediatric somatization and the ability to assess for and treat such symptoms is the awareness and knowledge of the most common causes and risk factors for the development of these symptoms. In this vein, it is noteworthy that 73.2% of survey participants indicated that they are either “not at all”, “very little”, or only “somewhat” aware of common causes and risk factors for childhood somatization. Although such data suggests that the study participants are limited in their awareness of the etiological components, risk factors, and prevalence of student somatization, their responses indicate that in the instances in which they have suspected and witnessed somatization, the frequency ratio of the observed various somatic manifestations are comparable to frequency ratios of child and adolescent somatic illness reported in previous research. Parallel to previous research (Bailey et al., 2005; Shannon, Bergen, & Matthews, 2010; Saps et al. 2009; Wilmshurst, 2015), study participants reported that the most common somatic symptoms that they have witnessed among their students have been stomachaches/gastrointestinal problems (77.7%),

followed by headaches (70.8%), fatigue (15.4%), dizziness (11.5%), nausea (10%), and generalized pain (10%).

Regarding the training they had received in order to assess for and diagnose somatic symptoms in students, 51.9% of participants reported that they had received “not at all” or “very little” adequate training in this realm, 33.3% felt they had “somewhat” received such training, while only 14% shared that they had received “substantial” or “very substantial” amount of such training. With regards to the training they had received in order to treat student somatization, 54.2% of participants related they had received “not at all” or “very little” adequate training in this realm, 36.8% indicated they had “somewhat” received such training, and only 9% felt that they had received “substantial” or “very significant” amounts of such training. These results indicate that the overwhelming majority of participants believe they have not been adequately trained to assess, diagnose, or treat students with somatic symptoms.

Similarly, the study participants offered comparable sentiments when asked whether they have the necessary competencies to assess, diagnose, or treat student somatization. With regard to the assessment and diagnosis of such issues, 43.2% indicated that they have “not at all” or “very little” of such competencies, 43.9% shared that they have “somewhat” amounts of such competencies, and only 12.9% believed that they have “substantial” or “very significant” of such capabilities. Likewise, 47.7% of participants reported that they have “not at all” or “very little” of necessary competencies to treat student somatization, 42.6% felt they have “somewhat” of such competencies, and only 9.7% believed they have “substantial” or “very significant” amounts of such competencies. Consistent with the sentiments of Kubiszyn (1999), these results underscore that a significant majority of school psychologists may not feel suitably capable to assess, diagnose, and treat such students.

## **Interventions and Roles in Assessment and Treatment of Student Somatization**

Although the aforementioned study data results suggest that school psychologists may be limited in the frequency and nature of their involvement in the assessment and treatment of students with somatic symptoms, the participants were asked to delineate the components of their approaches in those instances in which they have been involved in such procedures. In attempting to establish whether or not a student has Somatic Symptom Disorder (SSD), the most prevalent approach utilized by participants (endorsed by 26.5%) is to base such assessments on a combination of interviews with the student, teachers, and parents, student observation, behavior rating scales, and a review of records. This finding is consistent with the recommendations delineated by Campo & Fritz (2001), Shapiro & Rosenfeld (1987), and Wilmshurst (2015) that such a systemic and multi-method informed approach is typically the most ideal method for assessing somatization within schools. Less common methods utilized by participants in assessing for an SSD include referring out to medical professionals in order to rule out a genuine medical issue (14.4%), consultation/collaboration with medical professionals (13.7%), and consultation with the school nurse (7.7%). These results parallel the findings of Bradley-Klug et al. (2013) who discovered that the current state of affairs is that even with regard to the youth they directly service, the nature of professional interaction and/or collaboration between school psychologists and pediatric medical providers is often of a minimal and limited manner.

The study participants shared the role(s) that they have typically adopted in those instances in which they have been involved in assisting students with somatic symptoms; the most common role assumed by participants has been to consult with teachers (73.4%), followed by teaching the student(s) coping skills (51.5%), consulting with medical professionals (50.3%), referring for outside psychotherapy (47.9%), administering individual counseling (40.8%),

referring for outside medical interventions (39.1%), and 11.2% have not had a significant role in working with these students. Two roles that were each endorsed by less than 10% of respondents included consulting with the school nurse and/or consulting with parents.

As discussed earlier (Chapter 2), there are various clinical orientations for conceptualizing and treating somatization and many of those approaches typically entail numerous intervention components. Therefore, several questions were asked of the study participants in order to better ascertain which treatment models school psychologists are utilizing in treating somaticizing students. In line with earlier research (Escobar et al. 2007; Hanscom, Brox, & Bunnage, 2015; Woolfolk & Allen, 2010) demonstrating its efficacy at treating somatization, the treatment model most prevalently endorsed by participants in treating these students is CBT (38.5%). However, as those authors have noted, there are diverse manifestations of CBT conceptualization and manifestation in treating somatic illness and it stands to be determined the exact nature and features of the CBT interventions utilized by these respondents. Interestingly, 23.9% of participants shared that although they do attempt to treat students with somatic symptoms, they do not utilize a particular model in doing so. However, the reason(s) for these clinicians in not adhering to a particular approach and the exact nature of their interventions needs further clarification. The other treatment interventions most frequently used by participants in treating student somatization include Mindfulness-Based Stress Reduction (MBSR)/mindfulness (6.4%), relaxation training (5.5%), and stress management and coping skills (2.8%).

A notable finding of this research is that 46% of respondents indicated that they “often” encourage students whom they suspect are suffering from somatic symptoms to identify the underlying stressors in their lives that may be causing the symptoms. Furthermore, 19.7% shared



that they “very often” do so and 19.7% rated that they “somewhat” do so; while only 14.6% related that they “very little” or “not at all” encourage such behavior. These responses highlight that although most school psychologists may not feel satisfactorily knowledgeable of the most prominent causes and etiological components of child somatization, most of these professionals seem to possess an implicit, generalized understanding that somatic processes are often initiated (or at least perpetuated) in response to stressful experiences, environments, relationships, or responsibilities. A similar, parallel finding of this study is that 73% of respondents specified that in working with students whom they suspect are experiencing somatic symptoms, they “often” or “very often” encourage the students to become more aware of their emotions and to increase their emotional expression; conversely, only 12.4% of respondents rated doing so “not at all” or “very little”. Comparable to the above finding, although many (if not most) school psychologists may likely not be familiar with prominent etiological dynamics and factors involved in pediatric somatization, they seem to have frequently acquired an inherent appreciation that repressed emotions are often responsible for somatic manifestations and that emotional expression of such feelings is a vital component in the healing process (Abbass, 2015; McWilliams, 2011; Sarno, 2006).

However, concurrent results of this study highlight that school psychologists may typically not be implementing other intervention components that are often essential for successful treatment of somatic symptoms (as indicated through aforementioned research). In working with students whom they suspect are suffering from somatic symptoms, 74.2% of participants indicated that they “not at all”, “very little”, or only “somewhat” encourage the students to recognize that their symptoms (albeit experienced as a physical pain or discomfort) are psychological in origin and that there are no structural or organic abnormalities. Similarly,

75.6% of participants shared that they “not at all”, “very little”, or only “somewhat” encourage such students to increase their physical activities (particularly those that have been lessened due to their symptoms) and/or to ignore their physical symptoms. As discussed earlier, ample research and clinical practice attest that these are both fundamental components in treating somatization and that the absence of their utilization often prevents symptom remission and contributes to persistent suffering. The reasons why most school psychologists may not be including these treatment elements in their work with somaticizing students needs further elucidation; it may be due to lack of knowledge of the centrality of such factors, apprehensions or expectations of student, parent, or staff resistance, legal restrictions, professional or role limitations, or other dynamics.

### **Collaboration with School Nurses**

As discussed above, one of the objectives of this research was to determine the frequency and nature of the inter-disciplinary collaboration between school psychologists and school nurses in the assessment and treatment of somatic illness within schools. In order to obtain a contextual baseline for the findings, participants were also asked to indicate how often they collaborate with the school nurse regarding students with general medical issues; 61.6% of participants specified that that they “not at all”, “very little”, or only “somewhat” collaborate with the school nurse in relation to such students. Significantly, an even greater portion of participants reported that they collaborate with the school nurse even less regarding students with (suspected) somatic symptoms; 70% of participants indicated that they “not at all”, “very little”, or only “somewhat” collaborate with the school nurse in relation to these students. This finding is consistent with Shannon & Bergren’s (2010) impression that the collaboration between these professionals in helping these students is likely of a limited nature and parallels the aforementioned discovery of

the current study that a marginal number of participants revealed that their role(s) in assisting these students have included collaboration with the school nurse.

Study participants revealed that the nature of their collaboration with school nurses in relation to students with somatic symptoms has included varied cooperative efforts. The most frequent collaborative endeavors that they have undertaken in this realm include reviewing medical records and like information (22.7%), discussing the frequency of student visits and the nature of their complaints (21.8%), and joint-efforts through IEP meetings and parental outreach (16.4%). A noteworthy finding is that only 3.6% of participants shared that the school nurse has referred a student with somatic symptoms to them for assessment or treatment. This result further supports the above notion that there is generally minimal interdisciplinary collaboration between school nurses and school psychologists in assisting these students.

### **Barriers to Treatment**

The current research surveyed barriers that school psychologists have experienced in attempting to treat students with somatic symptoms. Interestingly, the most frequent factor indicated by participants (37.4%) was parental resistance, denial, and/or non-compliance. Another prevalent barrier noted by participants (26.8%) was insufficient training or knowledge in the area. Other common obstacles that respondents have encountered include teacher and staff resistance (15.4%), limited contact with such students (15.4%), and limited time/large workload (12.2%). Interestingly, two factors which were both highlighted by respondents as an infrequent barrier to treating student somatization were student resistance/denial (3.3%) and legal/professional/district restrictions. The implications of these findings will be discussed below, as they are relevant to the training and practice of school psychologists.

## **Implications for Training**

The results of this study have implications for school psychologists, as well as for the graduate and training programs that cater to these developing professionals. In particular, as the study sought to discover the nature of school psychologists' training experiences and competencies in assessing and treating students with somatic symptoms, several implications may be pertinent to school psychology graduate programs and training experiences.

As discussed above, the majority of respondents indicated that their training experiences and competencies in assessing and treating students with somatic symptoms are of a minimal and inadequate nature and that they therefore feel insufficiently equipped to assist these students by providing necessary assessment and treatment interventions. Further examination may be warranted to ascertain the primary factor(s) contributing to this reality; it may be due to the fact that the coursework required for the degree predominantly focuses on other aspects of the professional role (such as components of psychological and educational assessment and intervention), the extent to which school psychology students are educated about the increasing professional mandates that highlight school psychologists as crucial providers of school-based services identifying and assisting students with medical, health, and somatic issues, the amount of pre-service pragmatic training opportunities related to pediatric behavioral health that are offered to these graduate students, or other factors.

In light of such findings and consistent with Power and Bradley-Klug's (2013) recommendations, it may be beneficial for school psychology graduate programs to consider restructuring the equilibrium of their required courses to include pediatric behavioral medicine and/or pediatric school psychology, to increasingly incorporate similar electives amongst those offered to their students, and to progressively encourage their students to participate in training

and practicum opportunities germane to working with children and adolescents experiencing medical, health, and somatic issues. As discussed earlier, child and adolescent somatization has become an increasingly researched and better understood phenomenon over recent years. As a result, there may be a significant portion of school psychology graduate professors who may need to obtain a more up-to-date familiarity of the current research and treatment approaches utilized in this emerging domain in order to be able to effectively impart such knowledge and skills to their students.

Results from this study also highlight the numerous avenues of consultation and collaboration that school psychologists often utilize in attempting to assess and treat students with somatic symptoms, as well as how the nature and frequency of such interactions and roles often serve as either a vital support or barrier in assisting these students. Although many school psychology graduate and training programs already provide courses relevant to consultation and related professional skills, this study supports the notions of Power and Bradley-Kulg (2013) and Shaw (2003) that in attempting to assess and treat somaticizing students, school psychologists will often need to be equipped with an enhanced, specialized skill set in order to tactfully and successfully consult, collaborate, and/or partner with students, school nurses, physicians and medical providers, teachers, parents, administration, and other professionals outside of the school setting. Therefore, in consonance with those authors, it may behoove training programs to dedicate some of the consultation and collaboration portions of their curricula to the particular components of these roles that school psychologists will likely encounter when attempting to assist somaticizing youth and how to best navigate, utilize, and maximize such relationships and interactions.

## **Implications for Practice**

The results of this study highlight that most school psychologists perceive that they do not have the necessary skills and competencies to adequately assess and treat students with somatic symptoms. In light of the increasing mandates and notions (discussed earlier) that school psychologists are typically the most endowed professionals with the potential and capabilities to detect, assist, and treat these youth, it may be beneficial for school psychologists to increasingly develop the requisite skills and knowledge to better assume such responsibilities. In addition, results from this study also indicate the various systems-level factors, provisions, and barriers that school psychologists often encounter when attempting to assist somaticizing students.

School psychologists can ensure that they are suitably equipped in these domains to offer optimal services. They can authentically identify their capabilities and deficiencies in these realms through self-awareness and self-evaluation, and subsequently develop personalized action plans to advance their overall proficiencies germane to assisting students with somatic issues. It may behoove professional bodies such as NASP and State school psychology organizations to progressively develop and provide professional development and continuing education opportunities that can impart and foster within practitioners a more enhanced knowledge and skill-set pertinent to somatic illness in children and adolescents. This knowledge and skill-set could include: prevalence, etiology, diagnostic criteria and assessment guidelines, evidence-based treatment options and interventions, systems-level and inter-disciplinary factors inherent in these processes, common barriers and methods for dealing with such obstacles, and other related factors. Along these lines, school districts can increasingly recognize the need for school psychologists' continual didactic training in pediatric school psychology and relevant content areas could be included as part of in-services offered by each district.

Responses from this study indicate the function that school and department personnel can serve in being both facilitators and barriers to school psychologists in the process of identifying, assisting, and treating students with somatic symptoms. Therefore, it may be beneficial for these professionals to be apprised of the study results as well in order to assist them in understanding their ideal role(s) in these processes and how they can positively further the abilities of school psychologists to deliver necessary services to these students. In particular, this study elucidates the current state of affairs between many school psychologists and school nurses in assisting students with somatic issues. As discussed earlier, research highlights that although most school-age children with somatic complaints seek assistance from the school nurse, school nurses are often not knowledgeable about the nature, prevalence, etiology, and other related aspects of somatic illness identification and treatment (Shannon, Bergren, & Matthews, 2010). The study participants' responses demonstrate that the collaboration between school psychologists and school nurses in identifying and treating somaticizing students is typically of a limited and restricted nature. Consequently, it may be beneficial for school nurses to be better trained, educated, and informed of the primary dynamics and features of pediatric somatization, as well as how their professional function can often serve a fundamental role in helping these students through increased collaboration, consultation, and partnership with school psychologists in screening, assessing, and treating somatic illness within their schools.

Consistent with the findings of Bradley-Klug et al (2013), results of this study highlight that the inter-disciplinary collaboration and consultation between school psychologists and physicians/medical professionals is often of a limited and restricted manner. Even among those study participants who reported having attempted to assess and treat students with somatic symptoms, only a portion revealed that their role(s) in those processes included collaboration or

consultation with outside medical professionals. Thus, potential avenues for improving the interdisciplinary relationship and communication between school psychologists and outside medical providers may include the suggestions proposed by the above authors. This would include: progressively involving pediatric professionals in school-based committees, providing in-service trainings for medical professionals on contemporary educational practices, increasing school psychologists' and medical providers' understanding, familiarity, and utilization of eHealth, and increasingly educating these professionals regarding the clinical benefits and enhanced services that can be provided to children and adolescents through increased cooperation and partnerships between these disciplines.

Two promising findings of this study are that 1) participants indicated that the most frequent role they have utilized when attempting to assess or treat student somatization has been collaboration and consultation with teachers and 2) teacher resistance has been one of the least common barriers confronted by participants when attempting to assess or treat these students. As discussed above, numerous authors and researchers have highlighted the significant function that teachers can serve in facilitating the abilities of school psychologists to become more cognizant of students experiencing somatic issues as well as gaining insight into the potential educational, social, or emotional factors contributing to those symptoms. School psychologists and teachers can be informed of these study results in order to give them both further encouragement and optimism to continually utilize the collaborative opportunities between them in assisting these students.

In contrast, participants' responses indicated that the most significant barrier that they have experienced when attempting to assess or treat students with somatic issues has been parental resistance, denial, and/or non-compliance. This finding is consistent with the notions of



Kubiszyn (1999), Owens et al. (2002), and Pescosolindo et al. (2008) that most parents are typically unaware of the prevalence, nature, dynamics, and symptoms of somatization and that due to misconception and stigma related to mental health, parents and families may not understand or be willing to acknowledge the underlying psychological, emotional, or behavioral problems that their children may be experiencing.

There are several potential avenues that may help to increase overall parental understanding and cooperation in addressing somatic symptoms among children and adolescents. Districts can sponsor community-wide forums, workshops, and lectures devoted to educating families about medical and somatic illnesses that often manifest among school-children, the effects of those symptoms on educational, social, psychological, and emotional function, common etiological and causative factors and dynamics, evidence-based treatment interventions and recommendations, and other pertinent matters. Particular emphasis can be placed on the ideal role(s) that parents can serve in assisting youngsters presenting with such conditions. Additionally, parents can be informed of suitable professionals (such as school psychologists and medical providers familiar with pediatric behavioral health and somatic illness) they can utilize and collaborate with in assessing and treating these issues.

As discussed earlier, researchers are optimistic that the newly minted DSM-5 Somatic Symptom Disorder (SSD) criteria and conceptualization (American Psychiatric Association, 2013) will help foster an increased diagnostic rate for chronic somatic symptoms (one that is more accurate with actual prevalence) and will allow for easier assessment and treatment. Consequently, it is anticipated that this will contribute to physicians, pediatricians, and medical providers acquiring a better understanding of the somatic nature of medically unexplained symptoms, greater cognizance of the prevalence of these conditions frequently presenting in

primary care settings, and an increased willingness to diagnose SSD and recommend appropriate and efficacious treatment options. In this vein, pediatricians and other medical providers knowledgeable about pediatric somatization can play a role in reducing the parental resistance often confronted when attempting to assess and treat somatic symptoms. These medical professionals can present the primary theories, science, and research of pediatric somatic processes in a parent-friendly manner that can enable parents and families to more readily embrace the somatic nature of their children's symptoms and potentially reduce any mental health stigma related to such a diagnosis.

A final component of the study results that has relevance to practice is the fact that respondents highlighted that student resistance and/or denial has been an extremely infrequent barrier they have experienced when attempting to assess or treat somatic symptoms within schools. This finding may give school psychologists further encouragement to adopt Schechter's (2014) notion that a candid student interview is often the best avenue for deciphering the underlying emotional issues contributing to the presenting somatic complaints, and supports research documenting that educating children about the benign nature of their somatic symptoms and maintaining a focus on the underlying emotional issues typically results in more efficient and lasting emotional and physical healing (Allen, Mathews, & Shriver, 1999; Campo & Fritz, 2001; Shapiro & Rosenfeld, 1987).

### **Limitations and Directions for Future Research**

The current study contributed several findings to the existing literature regarding the competencies and experiences of school psychologists in assessing and treating students with somatic symptoms. However, the limitations of the study must be considered as well, particularly in terms of the generalization and implications of the results. The study participants were a

sample of school psychologists who were members of (at least) one of five particular State organizations. Although the participating State organizations are geographically diverse (and one may possibly entertain the notion that results may be representative of national data), there was a significantly unequal distribution of survey participation among the States. School psychologists practicing in either New York or New Jersey represented 65% of the overall participants (39% and 26%, respectively), with the remainder of participants representing Ohio (13%), California (12%), and Florida (10%). Therefore, the possibility that the study results accurately reflect nation-wide data and the field at large is limited and further research may be warranted in order to better ascertain whether these results are in line with the overall perceptions, experiences, and competencies of school psychologists across the country.

The utilization of a web-based survey warrants consideration of possible limitations intrinsic to survey methodology. As discussed earlier, although there were collectively 3,521 school psychologists who were solicited and had the opportunity to participate in the survey, the overall response rate was only 5.4% (n=190). Those members who decided to participate and complete the survey may differ in consequential ways in comparison to those members who opted not to participate. For example, study respondents may have been encouraged or felt obliged to contribute to the research due to their level of interest, knowledge, experience, or competencies in working with students with somatic symptoms. If such motivating factors were extant, it may have affected the findings. The survey results may also be vulnerable to the effects of social desirability (the tendency for respondents to provide answers in a manner which they assume will be more acceptable to others). For example, on questions which asked participants about their knowledge and competencies in assessing, assisting, or treating students with somatic symptoms, the respondents who indicated that that they have comprehensive proficiencies in

these domains may have felt (consciously or unconsciously) compelled to do so due to personal beliefs, professional expectations, or district mandates for school psychologists to be delivering such efficient services to students.

The distribution method of the survey may have influenced the response rate as well. For example, the State organizations that disseminated the survey invitation and link to their members via direct e-mail (FASP, NJASP, NYASP, OSPA) yielded a significantly higher response rate than the State organization (CASP) that included the link within its weekly e-mail newsletter. Finally, although the investigator (in collaboration with his research chair) attempted to construct the survey measure so that it could gather the most salient information in a relatively abridged manner, respondent fatigue was evident through the progressive rate of missing data throughout various survey responses. In order to reduce respondent fatigue and maximize response rates in future research, it may be beneficial to further abridge the measure and augment its format to better cater to an online platform.

In addition, it may be beneficial for future research to explore the perspectives of additional stakeholders, such as teachers, students, parents, and other school and administrative personnel. In particular, it may be valuable and insightful to include the perspectives of school nurses, for as discussed earlier they have been identified as having a potentially vital role in collaborating with school psychologists to assist these students through identification, screening, assessment, referral services, and treatment, when appropriate. Furthermore, the participants' responses and study results do not address the efficacy of the services they provided. Thus, it may be informative and beneficial for future outcome-based research to investigate the effectiveness of school psychologists' interventions when providing assessment and treatment services for these students.

Though beyond the scope of the current study, future research could examine the relationship between some of the domains explored in this study (competencies and experiences of school psychologists in assessing and treating students with somatic symptoms) with relevant demographic variables. For example, it may prove valuable and insightful to explore the influences of relevant factors--such as gender of the school psychologist, student ages and grades primarily served, years practicing, school setting, and the ratio of students per school psychologist--on the content areas under investigation in the current study. Furthermore, in order to afford a comprehensive inventory of valuable training content areas and clinical experiences, additional research can purposely focus on identifying an array of didactic content areas and practicum/internship experiences that have enabled school psychologists to be adequately trained to assist somaticizing students with appropriate assessment and treatment services. Results of such research could guide training programs and school districts to adopt and implement modifications that could increase the capabilities of school psychologists to better support students with somatic issues.

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## Appendix A

### Informed Consent

Principal Investigator: Michael Atkin

Project Title: The Role of School Psychologists in the Assessment and Treatment of Youth with Somatic Symptoms

#### INFORMED CONSENT FORM

You are invited to participate in a research study being conducted by Michael Atkin, a doctoral candidate in the Graduate School of Applied & Professional Psychology, Rutgers University. The purpose of this research is to gain information about current practices and beliefs about the role of school psychologists in working with children who present with somatic symptoms.

You are being asked to participate in this study because you are a school psychologist. Participation in this study involves completing an online survey. Each individual's participation will last approximately 10-15 minutes. The survey includes questions about your involvement in the treatment of children with medical and somatic symptoms. There are no foreseeable risks to participation in this study. The benefits of taking part in this study are contributing to the knowledge about school psychologists' roles in working with youth with these presenting issues. In addition, you may choose to enter a drawing for 1 of 2 \$25.00 Amazon.com gift cards. However, you may receive no direct benefit from taking part in this study.

This research is anonymous. Anonymous means that I will record no information about you that could identify you. There will be no linkage between your identity and your response in the research. This means that I will not record your name, address, phone number, date of birth, etc. Should you decide to enter to a drawing for a gift certificate, you will be asked to provide your e-mail address in order to that you can be notified should you win the drawing. However, in all circumstances there will be no way to link your responses back to you. Therefore, data collection is anonymous. Your e-mail address, should you choose to provide it, will not be stored with data from your survey. You will be assigned a participant number and only the participant number will appear with your survey responses. Please note that I will keep all information confidential by limiting access to the research data and storing it in a password protected electronic format.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. When the research study is published as a dissertation, or if the results are presented at a professional conference, only group results will be stated. All study data will be kept for three years. Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable. If you have any questions about the study or study procedures, you may contact Michael Atkin at (908) 227-0424 or [matkin613@gmail.com](mailto:matkin613@gmail.com), or you may contact my advisor Dr. Karen Haboush at [haboush@rci.rutgers.edu](mailto:haboush@rci.rutgers.edu).

If you have any questions about your rights as a research subject, you may contact the IRB Administrator at the Rutgers University, Arts and Sciences IRB:  
Institutional Review Board  
Rutgers University, the State University of New Jersey  
Institutional Review Board for the Protection of Human Subjects  
Liberty Plaza / Suite 3200  
335 George Street, 3<sup>rd</sup> Floor  
New Brunswick, NJ 08901  
Phone: 732-235-9806  
Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

By beginning this survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty. If you choose not to participate, you may close the link to this survey.

Please retain a copy of this form for your records. By participating in the above stated procedures, then you agree to participation in this study.

If you are 18 years of age and older, understand the statements above, and will consent to participate in the study, click on the “I Agree” button to begin the survey. If not, click on the “I Do Not Agree” button which will exit you from the program.

This informed consent form was approved by the Rutgers University Institutional Review Board for the Protection of Human Subjects on 11/10/2015. Currently, there is no expiration on the approval of this form.

## Appendix B

### Survey

School psychologists are increasingly called upon to work with youngsters with an array of medical problems, some of whom will qualify for classification as OHI. Work with these students sometimes poses unique challenges and requires specific training. The following survey is designed to collect data about the medical and physical issues that students might present with. Some of these medical conditions have a clear organic origin, while others seem to be of a more psychological nature.

Included in this survey about medical concerns are some questions about Somatoform disorders which are recognized as a psychological diagnosis by the DSM (Diagnostic and Statistical Manual of Mental Disorders). The current DSM-5 diagnosis is known as Somatic Symptom Disorder. The DSM-5 diagnostic criteria include “one or more somatic symptoms that are distressing or result in significant disruption of daily life” and there must be “excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns” (American Psychiatric Association, 2013). Somatic symptoms refer to physical symptoms that are medically unexplained. For the remainder of the survey, these symptoms are referred to as somatic symptoms. The following questions about somatic symptoms are based on the above DSM-5 criteria and from here on in, the features of Somatic Symptom Disorder are referred to as somatic symptoms.

1. Gender: Male\_\_\_\_\_ Female\_\_\_\_\_
2. How many years have you been practicing as a school psychologist in a school setting?\_\_\_\_\_
3. In what state do you currently practice?\_\_\_\_\_
4. What is the highest degree that you have earned?  
 Doctorate\_\_\_\_\_  
 Masters\_\_\_\_\_  
 Other\_\_\_\_\_
5. What type of school do you serve in your current position?  
 Public\_\_\_\_\_  
 Private\_\_\_\_\_  
 Parochial\_\_\_\_\_  
 Other\_\_\_\_\_
6. Which population(s) have you primarily served in your role(s) as a school psychologist?  
 Preschool\_\_\_\_\_  
 Elementary\_\_\_\_\_  
 Middle\_\_\_\_\_

High School\_\_\_\_\_

University\_\_\_\_\_

Other\_\_\_\_\_

7. Which best defines the setting of the school(s) that you have been employed in?

Rural\_\_\_\_\_

Suburban\_\_\_\_\_

Urban\_\_\_\_\_

8. For the remainder of the survey, unless otherwise specified, all questions asking about your professional involvement are referring to your work over the past five years:

To what extent do you work with children with medical issues in your role as school psychologist?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

9. Approximately what percentage of your overall cases present with a significant medical condition or symptoms?

< 5%\_\_\_ 6-10%\_\_\_ 11-20%\_\_\_ 21-30%\_\_\_ 31-40%\_\_\_ 41-50%\_\_\_

51-60%\_\_\_ >60%\_\_\_

10. What percentage of those cases with a significant medical condition or symptoms do you believe are classified as OHI (Other Health Impaired)?

< 5%\_\_\_ 6-10%\_\_\_ 11-20%\_\_\_ 21-30%\_\_\_ 31-40%\_\_\_ 41-50%\_\_\_

51-60%\_\_\_ >60%\_\_\_

11. How often do you work with children whose medical conditions adversely affect their educational performance?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

12. How often do you collaborate with the school nurse regarding students with medical issues?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

13. To what extent have you worked with children presenting with medical issues who you suspected were suffering from somatic symptoms in your role as school psychologist?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

14. If so, what was your role in those circumstances?

1) \_\_\_refer student for outside medical intervention

2) \_\_\_refer student for outside psychotherapy intervention

3) \_\_\_consulting with medical professionals

4) \_\_\_administer individual counseling

5) \_\_\_consultation with teachers

6) \_\_\_teach student coping skills

- 7) \_\_\_\_ the school psychologist should not have a significant role
- 8) \_\_\_\_ other (if so, please explain) \_\_\_\_\_
15. What percentage of those cases who you suspect are suffering from significant somatic symptoms do you believe are classified as OHI (Other Health Impaired)?  
 < 5% \_\_\_\_ 6-10% \_\_\_\_ 11-20% \_\_\_\_ 21-40% \_\_\_\_ 41-60% \_\_\_\_ >60% \_\_\_\_
16. Have you witnessed students that have experienced significant absenteeism due to somatic symptoms?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=often \_\_\_\_ 5=very often \_\_\_\_
17. Do you feel that you are aware of common causes and risk factors for child somatization?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantially \_\_\_\_ 5=very significantly \_\_\_\_
18. How often do you collaborate with the school nurse regarding students with somatization?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=often \_\_\_\_ 5=very often \_\_\_\_
19. Please provide some examples of that collaboration \_\_\_\_\_
20. What are the most common forms of somatic illness or symptoms that you have witnessed amongst the youth that you serve (ie what are the most common physical features or manifestations that have you observed in students that you suspect suffer from somatic symptoms)? \_\_\_\_\_
21. Do you feel that have received adequate training to assess and diagnose somatic symptoms in students (when appropriate)?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantial \_\_\_\_ 5=very significant \_\_\_\_
22. Do you feel that you have received adequate training to treat somatic symptoms in students (when appropriate)?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantial \_\_\_\_ 5=very significant \_\_\_\_
23. Do you feel that you have the necessary competencies to assess and diagnose somatic symptoms in students (when appropriate)?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantial \_\_\_\_ 5=very significant \_\_\_\_
24. Do you feel that you have the necessary competencies to treat somatic symptoms in students (when appropriate)?  
 1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantial \_\_\_\_ 5=very significant \_\_\_\_
25. What barriers do you experience in treating students with somatization?  
 \_\_\_\_\_

26. What do you see as the preferred role(s) of the school psychologist in working with these children in schools? Choose from among one or several of the following options:

- 1) \_\_\_\_ refer student for outside medical intervention
- 2) \_\_\_\_ refer student for outside psychotherapy intervention
- 3) \_\_\_\_ consulting with medical professionals
- 4) \_\_\_\_ administer individual counseling
- 5) \_\_\_\_ consultation with teachers
- 6) \_\_\_\_ teach student coping skills
- 7) \_\_\_\_ the school psychologist should not have a significant role
- 8) \_\_\_\_ other (if so, please explain) \_\_\_\_\_

27. Out of the options that you chose in the previous question (the various possible roles of the school psychologist in working with children with somatization), please rank which of those roles you view as most and least important, with #1 being given to the most important role in your opinion, #2 the 2<sup>nd</sup> most important role, #3 the 3<sup>rd</sup> most important role, etc.

- 1) \_\_\_\_ refer student for outside medical intervention
- 2) \_\_\_\_ refer student for outside psychotherapy intervention
- 3) \_\_\_\_ consulting with medical professionals
- 4) \_\_\_\_ administer individual counseling
- 5) \_\_\_\_ consultation with teachers
- 6) \_\_\_\_ teach student coping skills
- 7) \_\_\_\_ the school psychologist should not have a significant role
- 8) \_\_\_\_ other (if so, please explain) \_\_\_\_\_

28. To what extent do you feel that school psychologists should be involved in the process of assessing and treating students with somatic symptoms?

1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=substantially \_\_\_\_ 5=very significantly \_\_\_\_

29. How do you go about establishing that a child has Somatic Symptom Disorder?

\_\_\_\_\_

30. Are there any particular models of psychotherapy or treatment that you utilize to treat somatic symptoms in students? (If yes, please describe) \_\_\_\_\_

31. In working with kids who you suspect are suffering from somatic symptoms, how often do you encourage them to recognize and acknowledge that their symptoms are psychological in nature and that there is no organic or structural abnormality?

1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=often \_\_\_\_ 5=very often \_\_\_\_

32. In working with kids who you suspect are suffering from somatic symptoms, how often do you encourage them to identify the underlying stresses in their lives that may be causing their symptoms?

1=not at all \_\_\_\_ 2=very little \_\_\_\_ 3=somewhat \_\_\_\_ 4=often \_\_\_\_ 5=very often \_\_\_\_

33. In working with kids who you suspect are suffering from somatic symptoms, how often do you encourage them to become more aware of their emotions and to express them more?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

34. In working with kids who you suspect are suffering from somatic symptoms, how often do you encourage them to increase their physical activity and/or to ignore their physical symptoms?

1=not at all\_\_\_ 2=very little\_\_\_ 3=somewhat\_\_\_ 4=often\_\_\_ 5=very often\_\_\_

35. Are you familiar with Dr. John Sarno's model for treating somatic symptoms (as published in his numerous books)?

\_\_\_ No, I am not familiar with the model

\_\_\_ Yes, I am vaguely familiar with the model

\_\_\_ Yes, I am familiar with the model, but I do not use the model to treat children with somatic symptoms

\_\_\_ Yes, I am familiar with the model and I use it to treat children with somatic symptoms in school

\_\_\_ Yes, I am familiar with the model and I use it to treat children with somatic symptoms in other clinical settings, but not in school

36. What other questions do you have about the physical issues and complaints that kids are presenting with?

---

## Appendix C

### Cover Letter

Dear Members of [Professional Organization],

My name is Michael Atkin and I am a doctoral student in School Psychology at Rutgers University. I invite your participation in a survey focusing on **children and adolescents presenting with medical issues and somatic symptoms within school settings**.

My study examines the prevalence of students with medical issues and somatic symptoms from the perspective of school psychologists. The survey explores the prevalence of these symptoms within schools, the experiences and roles of school psychologists in assessing and treating these youth, the potential barriers they experience, and areas for further training and knowledge. This survey will take approximately 10-15 minutes of your time. The survey is anonymous and no identifying information will be asked of you. If you choose to complete the survey and provide an e-mail address, you will be entered into a drawing to win one of two \$25 Amazon gift cards.

If you are willing to participate, please click on this link, or copy and paste into your web browser: <https://www.surveymonkey.com/r/somatization-schools>.

If you have any questions or concerns, you may contact me at [matkin613@gmail.com](mailto:matkin613@gmail.com) or my dissertation chair, Dr. Karen Haboush ([haboush@rci.rutgers.edu](mailto:haboush@rci.rutgers.edu)).

Thanks so much for your time and consideration!

This study has been approved by Rutgers University's IRB #E16-274, effective 11/10/2015