

Does the Addition of a Somatization Item Improve the Effectiveness of the Student Risk
Screening Scale (SRSS)?

By

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I would like to dedicate this research to my grandmother, Jane Ziegler. I love you,
Granny!

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ABSTRACT

The purpose of the current study was to determine if an item addressing somatization would improve the ability of the Student Risk Screening Scale for Internalizing and Externalizing Behaviors (SRSS-IE) to identify children at-risk for internalizing disorders. In Phase One, data from three schools were used to determine if the added item contributed to a higher identification rate, as well as to calculate the internal consistency reliability of the scale. The purpose of Phase Two was to assess the validity of the added item. Results from Phase One indicated that the somatization item contributed to a higher percentage of identification of students at-risk. Additionally, Cronbach's alpha for the internalizing scale with the added item was slightly higher ($r = 0.74$) than that found by Lane et al. (2012) ($r = 0.72$). Results from Phase Two were not statistically significant, but contribute helpful qualitative information in support of the somatization item.

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CHAPTER I

INTRODUCTION

Overview

Lipowski (1988) defined somatization as the “tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them” (p. 1359). Several studies have revealed a connection between somatization and other internalizing disorders (Hughes, Lourea-Waddell, & Kendall, 2008; Saps et al., 2009; Shannon, Bergren, & Matthews, 2010; Zolog et al., 2011). These studies also showed that somatization negatively impacts children academically and socially. Given that somatization can have harmful effects on multiple areas of a child’s life, it is important for schools to properly identify children suffering from somatization and other internalizing disorders. Children with emotional or behavioral disorders can receive services and supports under the special education category of Emotional Disturbance (ED). However, the eligibility criteria for ED is vague, and by the time the child’s behaviors are so severe to qualify they are often resistant to interventions (Gresham, 2007). To address this issue, schools have been adopting a multi-tiered system of support in the general education setting (Gresham, 2007). In this system, screeners, such as the Student Risk Screening Scale (SRSS) (Drummond, 1994), are used to identify children at-risk for internalizing and externalizing disorders, and those children are given supports immediately.

The Student Risk Screening Scale (SRSS) was originally created by Drummond (1994). Lane et al. (2012) revised the SRSS to add items that demonstrated common internalizing behaviors. This new scale, The Student Risk Screening Scale for Internalizing and Externalizing Behaviors (SRSS-IE) is broken up into an Externalizing Scale (SRSS-E7) and an Internalizing Scale (SRSS-I5). Both scales have cut scores that place children into categories of no risk, moderate risk, and high risk.

In the introduction of the initial validity study of the SRSS-IE, the authors list somatic complaints as a common internalizing behavior (Lane et al., 2012). However, the SRSS-I5 does not include any items related to somatization. While the SRSS-IE has been supported by research to be an effective screener for externalizing and internalizing behaviors, children with somatic complaints might be overlooked as being at risk. This oversight might be particularly important in school settings because Hughes et al. (2008) found that somatization played a distinctive role in predicting students' performance in school. Internalizing behaviors alone were not able to significantly predict academic difficulties (Hughes et al., 2008). The purpose of this study is to find out if the SRSS-IE will more accurately identify students with internalizing disorders or those at risk for developing internalizing disorders if an item related to somatic complaints is added.

Internalizing Behavior Disorders

Children's behavioral and emotional disorders typically fall into two different categories: externalizing and internalizing. Externalizing behavior disorders have outward manifestations and include verbal aggression, physical violence, and delinquent acts (Lane et al., 2012; Liu, Chen, & Lewis, 2011). Children with externalizing behavior

problems are the children who get noticed by teachers because their behavior is disruptive and has negative effects on the environment of the classroom (Lane et al., 2012). Children who have internalizing behavior problems often do not get noticed and therefore, may not get the help that they need (Lane et al., 2012). Internalizing behavior problems often manifest themselves inwardly and include depression, anxiety, somatic complaints, social isolation, obsessive-compulsive disorders, and suicide (Lane et al., 2012; Liu et al., 2011). Of the various internalizing behavior problems, somatization is unique. Although it is considered an internalizing behavior, it is one of the few outward manifestations of internalizing behavior.

Somatization

Somatization in children occurs when they report physical complaints that have no medical cause (Shannon et al., 2010). Somatization is a commonly repeated occurrence in children and adolescents and includes dizziness, tiredness, general aches, nausea, stomachaches, and vomiting (Hughes, Lourea-Waddell, & Kendall, 2008). Several studies have found headaches to be the most frequently occurring somatic complaint (Saps et al., 2009; Shannon, Bergren, & Matthews, 2010; Zolog et al., 2011). Zolog et al. (2011) surveyed 1450 preadolescents and early adolescents to record the prevalence of somatic complaints in the two weeks prior to the survey, and to determine if there was a relationship between frequent somatic complaints, anxiety, and depression symptoms. They excluded children whose somatic complaints could be explained by physical conditions or chronic illnesses such as menstrual cramps in girls, and asthma, diabetes, and kidney failure (Zolog et al., 2011). They found that 58.5% of the

respondents had experienced headaches and 52.7% had experienced abdominal pain at least once in the two weeks prior to the study. Among the participants who reported somatic complaints four or more times in the two weeks prior to the study, 11.2% experienced abdominal pain, 10.1% experienced headaches, and 9.9% reported leg pains (Zolog et al., 2011).

There is strong evidence that there is a connection between somatic complaints and internalizing disorders including anxiety, depression, and social phobia (Hughes et al., 2008; Saps et al., 2009; Shannon et al., 2010; Zolog et al., 2011). Zolog et al. (2011) examined the relationship between somatization, internalizing disorders, and functional impairment using The Children's Depression Inventory (CDI) (Kovacs, 2010), The Somatic Questionnaire (Domenech-Llaberia et al., 2004), and The Screen for Child Anxiety Related Emotional Disorders (SCARED) (Birmaher et al., 1999). Logistic regression revealed that an increase of depression symptoms as indicated by higher ratings on the CDI increased the probability of the presence of a somatization disorder¹ by 1.08 times, $p < 0.001$; CI: 1.04 to 1.13 (Zolog et al., 2011). Additionally, an increase in general anxiety symptoms increased the probability of the presence of a somatization disorder by 1.09 times, $p < 0.001$; CI: 1.06 to 1.11 (Zolog et al., 2011). An increase in symptoms of separation anxiety was found to increase the probability of the presence of a somatization disorder by 1.21 times, $p < 0.001$; CI: 1.11 to 1.32 (Zolog et al., 2011). Finally, an increase in social phobia was found to increase the probability of the presence of a somatization disorder by 1.07 times, $p < 0.05$; CI: 1.00 to 1.15 (Zolog et al., 2011).

¹ The authors use the terms "somatic complaints" and "somatization disorder" interchangeably.

In another study, children who had been diagnosed with an anxiety disorder exhibited more somatization on the physical symptoms subscale of the Multidimensional Anxiety Scale for Children (MASC) (March, 2013) than children in the control group who did not have an anxiety disorder, $F(1, 106) = 19.78, p < 0.001$ (Hughes et al., 2008). When examining specific somatic complaints, children who had an anxiety disorder reported dizziness, tiredness, aches and pains, nausea, stomachaches, and vomiting (Hughes et al., 2008). Saps et al. (2009) focused on frequent abdominal complaints in children and found a positive correlation between anxiety, depression, and worsening abdominal pain. Two hundred thirty-seven children attending two different schools completed questionnaires including the Children's Depression Inventory, The State-Trait Anxiety Inventory in Children, and the Children's Somatization Inventory weekly for a 16 to 24-week period. Statistical analysis revealed that children who reported abdominal pain in the first month of questionnaires were 3.22 times more likely to continue to report abdominal pain on the following questionnaires, 95% CI: 1.98-5.26 (Saps et al. 2009). This suggests that complaints of abdominal pain and other somatic complaints are not isolated events, but can persist for several months.

Academic and Social Implications of Somatization. Beyond psychological functioning, research has shown a relationship between internalizing disorders and academic underachievement (Ackerman, Izard, Kobak, Brown, & Smith, 2007; Grills-Taquechel, Fletcher, Vaughn, Denton, & Taylor, 2013). One study found that in a group of first graders, high scores on certain subscales of the Multidimensional Anxiety Scale for Children (MASC) (March, 2013) could predict lower scores in different areas of

reading as measured by the Woodcock-Johnson III Tests of Achievement (WJ-III ACH) and the Test of Word Reading Efficiency (TOWRE) (Torgesen, Wagner, & Rashotte, 2012) (Grills-Taquechel et al., 2013). The separation anxiety scale of the MASC (March, 2013) was a significant predictor for basic reading, $t = -2.71, p < .01$, and reading fluency, $t = -2.92, p < .01$ (Grills-Taquechel et al., 2013). The harm avoidance subscale of the MASC was a significant predictor for passage comprehension, $t = 2.31, p < .025$ and reading fluency, $t = 2.28, p < .025$ (Grills-Taquechel et al., 2013). A different study also found a relationship between internalizing behavior and reading problems, but found that the prediction occurred in the opposite direction. Ackerman et al. (2007) found that problems in reading in third graders could predict the presence of internalizing behaviors when those students reached fifth grade. To examine the direction of the relationship between reading problems and internalizing behavior, two different analyses were run. Significant associations were found between the presence of a reading problem in third grade and increased internalizing behaviors in fifth grade ($F(2, 102) = 11.02, p < .01$) (Ackerman et al., 2007). A significant association was not found between the presence of internalizing behaviors in third grade and an increase in reading problems in fifth grade (Ackerman et al., 2007).

Somatic complaints have been associated with lower quality of life, school absenteeism, academic difficulties, and social isolation (Hughes et al., 2008; Saps et al., 2009; Zolog et al., 2011). Saps et al. (2009) found that children who complained of abdominal pain were four times more likely to be absent from school because of the abdominal pain than children who did not complain of abdominal pain. They reported

that 28% of the children who frequently complained of abdominal pain missed school at least once during the study (Saps et al., 2009). Similarly, Zolog et al. (2011) found a significant relationship between somatic complaints and school absences. Of the children with four or more somatic complaints in the two weeks prior to the study, 44.7% were absent from school (Zolog et al., 2011). Hughes et al. (2008) suggest that somatic complaints serve as a way for children who suffer from anxiety disorders to avoid situations that exacerbate their anxiety, including taking tests or having to speak in class. Zolog et al. (2011) defined functional impairment as absences from school. Although they did not directly measure academic performance, they suggest that frequent absences from school put students at a greater risk for struggling academically (Zolog et al., 2011).

Children who report somatic complaints also experience difficulties in school. Hughes et al. (2008) surveyed a group of children with a previously diagnosed anxiety disorder and a control group of children without an anxiety disorder to examine the relationships between anxiety, somatization, and school performance. Anxiety symptoms and somatic complaints were measured using the Anxiety Disorders Interview Schedule for Children (ADIS-C) (Silverman & Albano, 1996), the total anxiety scale, and the physical symptoms subscale of the MASC (March, 2013), and the internalizing and somatic complaints subscales of the Child Behavior Checklist (CBCL). Academic performance was measured using the Teacher Report Form (TRF) (Hughes et al., 2008). They found a significant negative correlation between poor academic performance as measured by the TRF and high somatization scores as measured by both the somatic

complaints scale of the CBCL ($r = -0.33, p < 0.05$) and the physical symptoms scale of the MASC ($r = -0.32, p < 0.01$) (Hughes et al., 2008).

Identification of Behavioral and Emotional Problems in Schools

Children and adolescents who have a behavioral or emotional disorder that is so severe that it negatively impacts school performance can qualify for special education services under the category of Emotional Disturbance. Data from the National Center for Education Statistics (2016) indicate that 5% of children in Special Education are receiving services under the Emotional Disturbance category. The 2015 Position Statement on Mental and Behavioral Health Services from the National Association of School Psychologists (NASP) suggests that a large number of children who experience emotional or behavior problems are not being identified or are not exhibiting symptoms severe enough to qualify for services. The NASP position statement also says that schools should be screening all children to identify those who are at risk so that student support personnel can intervene before their emotional and behavioral problems escalate to the point of needing special education services (National Association of School Psychologists, 2015). Gresham (2007) criticized the Emotional Disturbance eligibility criteria and proposed a multi-tiered response to intervention system in which children could be screened for emotional and behavioral disorders at the universal level. This system would allow for schools to identify children at-risk and intervene earlier before their emotional and behavioral problems become severe and more resistant to intervention. One screening tool that can be used in such a system is the Student Risk Screening Scale (SRSS) (Drummond, 1994).

Student Risk Screening Scale (SRSS)

The Student Risk Screening Scale (SRSS) was originally developed by Drummond (1994) to screen for antisocial behavior in elementary school students. In an effort to better identify students at risk, Lane et al. (2012) revised the SRSS to create the Student Risk Screening Scale—Internalizing and Externalizing (SRSS-IE12). Additionally, Lane, Oakes, Menzies, et al. (2015) revised the SRSS-IE to better generalize to preschool-age students and called the revised scale the Student Risk Screening Scale for Early Childhood (SRSS-EC).

Description of the SRSS. The original SRSS contained seven items (i.e., steal; lie, cheat, sneak; behavior problem; peer rejection; low academic achievement; negative attitude; and aggressive behavior) Teachers rated students using a 4-point Likert-type scale (never = 0, occasionally = 1, sometimes = 2, frequently = 3) (Drummond, 1994). The total score ranged from 0 to 21 and low risk was a total score of 0-3, moderate risk was a total score of 4-8, and high risk was a total score of 9-21 (Drummond, 1994). Studies have supported the SRSS as a reliable and valid tool to use for universal screening purposes at the elementary, middle, and high school level in both urban and suburban settings (Lane et al., 2010; Menzies & Lane, 2012).

Reliability of the SRSS. Lane et al. (2010) conducted two studies of the original SRSS in two different urban middle schools. In the first, teachers completed the SRSS for 534 students. Analyses were run in the fall, winter, and spring and found a statistically significant internal consistency reliability with Cronbach's alpha coefficients of $r = 0.89$, $r = 0.84$, and $r = 0.87$, respectively (Lane et al., 2010). Test-retest reliability was also

computed at three different times and statistically significant correlations were found all three times; fall and winter ($r = 0.86, p < .0001$), winter and spring ($r = 0.68, p < .0001$), fall and spring ($r = 0.57, p < .0001$) (Lane et al., 2010). The second study that was completed with 528 middle school students over the course of two academic years yielded similar results. Cronbach's alpha ranged from 0.83 to 0.88 in the five different time points and statistically significant correlations were found when examining test-retest reliability (Lane et al., 2010).

Validity of the SRSS. The predictive validity of the SRSS was examined by looking at the number of office discipline referrals (ODRs) and the grade point average (GPA) of the students classified as low, moderate, or high risk by the SRSS. The students categorized as moderate or high risk received more ODRs than the students categorized as low risk, $F(1, 112) = 10.23, p < .0018$ (Lane et al., 2010). In the second study, predictive validity was measured against four different variables: GPA, Course Failures (CFs), Out of school suspensions (OSSs), and unexcused absences (UAs) (Lane et al., 2010). Analyses revealed a statistically significant difference in the total number of behavioral and academic events between the risk groups, $F(8, 944) = 13.33, p < .0001$. Individual analyses were also run and revealed that the low risk group had significantly fewer CFs, OSSs, and UAs than the moderate and high risk groups (Lane et al., 2010).

Another study of the predictive validity of the SRSS was conducted at the elementary school level in a suburban setting (Menzies & Lane, 2012). The SRSS was completed on 286 elementary school students at three different time points in the school year and compared to self-control as measured by the Social Skills Rating System,

ODRs, days absent, and language arts proficiency scores as measured by the Scholastic Comprehension Tests and the Harcourt Brace Reading Comprehension Tests (Menzies & Lane, 2012). Analyses revealed the SRSS to have statistically significant predictive validity for self-control ($F(1, 187) = 98.68, p < .0001$, ODRs ($F(1, 200) = 61.10, p < .0001$), and language arts proficiency ($F(1, 198) = 10.71, p = .0011$) (Menzies & Lane, 2012). The scores on the SRSS completed in the fall predicted the students' end of year performance. Correlations were also found between placement in the high risk group and both lower levels of self-control and more ODRs (Menzies & Lane, 2012).

SRSS-IE. The SRSS-IE12 is made up of the original seven externalizing items (SRSS-E7) and five additional items to address internalizing behaviors. The additional items (SRSS-I5) were 1. emotionally flat, 2. shy; withdrawn, 3. sad; depressed, 4. anxious, and 5. lonely (Lane et al., 2012). The revised scale used the same 4-point Likert-type scale as the original. Additionally, the cut scores for risk remained the same as the original for the SRSS-E7. Later research conducted by Lane et al. established cut scores for risk for the SRSS-I5. A total score of 0-1 was considered low risk; 2-3 moderate risk; 4-15 was considered high risk (Lane, Oakes, Swogger et al., 2015). Validity studies of the SRSS-IE suggest that it is a reliable and valid measure and can be used to identify students with both internalizing and externalizing behaviors (Lane et al., 2012; Lane, Oakes, Common, et al., 2015). The initial validity study of the SRSS-IE revealed internal consistency coefficients of $r = 0.84$ for the externalizing scale, and $r = 0.72$ for the internalizing scale. The internal consistency coefficient for the full scale was $r = 0.83$ (Lane et al., 2012).

Lane, Oakes, Common, et al. (2015) conducted a study to examine the convergent validity between the SSRS-IE and another frequently used universal screener, the Social Skills Improvement System-Performance Screening Guide (SSiS-PSG). The SSiS-PSG measures student performance in four different domains: prosocial behavior, motivation to learn, reading skills, and math skills (Lane, Oakes, Common, et al., 2015). Teachers completed both the SSRS-IE and the SSiS-PSG for 458 students. Analyses were run to calculate the Pearson's correlation coefficients between the two measures. Statistically significant negative correlations were found between the SSRS-IE and all four domains of the SSiS-PSG. The correlation between the prosocial behavior domain of the SSiS-PSG and the SSRS-IE was $r = -0.72$ ($p < .0001$) (Lane, Oakes, Common, et al., 2015). The correlation coefficient between the motivation to learn domain of the SSiS-PSG and the SSRS-IE was $r = -0.62$ ($p < .0001$) (Lane, Oakes, Common, et al., 2015). The SSRS-IE was significantly correlated with the SSiS-PSG math skills domain, $r = -0.43$, $p < .0001$, and the SSiS-PSG reading skills domain, $r = -0.41$, $p < .0001$ (Lane, Oakes, Common, et al., 2015). Students with high scores on the SSRS-IE were found to have significant difficulty with prosocial behavior, motivation to learn, math skills, and reading skills as measured by the SSiS-PSG (Lane, Oakes, Common, et al., 2015). These results indicate that the SSRS-IE is a valid measure that can be used to identify students at risk for internalizing and externalizing problems, which can consequently be associated with deficits in prosocial behavior and motivation, and academic difficulties.

SRSS-EC. The Student Risk Screening Scale—Early Childhood version (SRSS-EC) uses the same method to screen for children with internalizing and externalizing behaviors; however, some items were changed to make it more developmentally appropriate. Items on the SRSS-EC include tantrums, active; restless, rejected by peers, ignores teacher and class rules, negative attitude, aggressive behaviors, lies, shy; timid, sad; tearful, worried; fearful, physical complaints (e.g., stomach hurts) (Lane, Oakes, Menzies, et al., 2015). The findings of the initial validity study of the SRSS-EC were consistent with those of previous studies examining the validity of the SRSS-IE. The SRSS-EC is a reliable and valid measure and can be used to screen young students for internalizing and externalizing behaviors (Lane, Oakes, Menzies, et al., 2015).

Purpose of the Current Study

The current version of the SRSS-IE has been supported by research to be an effective screener for externalizing and internalizing behaviors. However, certain children may not be identified because of the absence of an item that addresses somatization. The purpose of the current study was to find out if the addition of a somatization item to the internalizing scale of the SSRS-IE contributes to the accurate identification of more children who are at risk for developing internalizing disorders.

Hypotheses

Hypothesis 1: It is hypothesized that the added somatization item will not reduce the internal consistency reliability of the internalizing scale of the SRSS-IE.

Hypothesis 2: It is hypothesized that children who scored a 3 (i.e., frequently) on the added somatization item will score higher than the normative average on the BASC-3 Flex Monitor scale created by the primary researcher that assesses for symptoms of depression and anxiety.

CHAPTER II

METHOD

Participants

Data utilized for analysis in Phase One of the study came from 2,424 students at three different elementary schools in middle Tennessee screened using the SRSS-IE. These three schools were chosen for further analysis by an administrator in the district because they had the most complete data. The students were in grades kindergarten through sixth. School A was made up of 62.9% White students, 25.3% Black or African American students, and 6.5% Asian students. 3% of School A were English Language Learners and 12.6% of the students were Economically Disadvantaged. 46.1% of the students at School B were white, 33.1% were Black or African American, 2.7% were Asian, and 17.9% were Hispanic or Latino. 11.2% of the students at School B were English Language Learners and 38.9% were Economically Disadvantaged. School C was made up of 55.8% White students, 24.8% Black or African American students, 10% Asian students, and 8.7% Hispanic or Latino students. 7.8% of the students at School C were English Language Learners, and 22.6% of the students were Economically Disadvantaged. Table 1 contains the demographics for the three schools.

Table 1

Demographic Information of Each School

School	% White	% Black/African American	% Asian	% Hispanic/Latino	% English Language Learners	% Economically Disadvantaged
School A	62.9	25.3	6.5	0	3	12.6
School B	46.1	33.1	2.7	17.9	11.2	38.9
School C	55.8	24.8	10	8.7	7.8	22.6

Note. Data from the 2015-2015 school year. Retrieved from TN Department of Education, State Report Card

Approximately 29 children from 12 different schools were invited to participate in Phase Two of the study. A total of eight children returned informed consent forms. Five of these children were too young to receive scores on the BASC-3 Flex Monitor scale. Three children from two different schools participated in Phase Two of the study.

Measures

Student Risk Screening Scale—Internalizing and Externalizing (SRSS-IE). A summary of the psychometric properties of the SRSS-IE was included in Chapter I. A brief overview of the instrument is included here. The SRSS-IE is a 12 item screener used to identify internalizing and externalizing behaviors. It is made up of seven externalizing items and five internalizing items. Teachers rate children using a 4-point Likert scale (never = 0, occasionally = 1, sometimes = 2, frequently = 3) (Lane et al., 2012). The externalizing items and internalizing items are scored separately and students are assigned to a risk category based on cut scores. The cut scores for the externalizing scale

are: 0-3 (low), 4-8 (moderate), and 9-21 (high). The cut scores for the internalizing scale are: 0-1 (low), 2-3 (moderate), and 4-15 (high) (Lane, Oakes, Swogger, et al., 2015).

Behavior Assessment System for Children, Third Edition, Flex Monitor (BASC-3 Flex Monitor) (Reynolds & Kamphaus, 2016). The behavior rating scale used was created by the primary researcher using the BASC-3 Flex Monitor tool on Q-global, a web based scoring platform created and managed by NCS Pearson, the publisher of the BASC-3. Pearson donated free scoring for the Flex Monitor forms for the current study. The Flex Monitor is a progress monitoring tool that allows the user to customize rating forms targeting specific behaviors and then compare the child's scores to a national sample (Reynolds & Kamphaus, 2015). I selected 11 items that targeted symptoms of anxiety and depression: I am afraid I might do something bad; I worry when I go to bed at night; I feel like my life is getting worse and worse; Little things bother me; I feel like I have no friends; I feel lonely; I am afraid of a lot of things; I feel sad; No one understands me; I get nervous when things do not go the right way for me; and I worry but I don't know why (Reynolds & Kamphaus, 2016). The internal consistency reliability of the scale is $r = 0.86$.

The rating scale takes about ten minutes to administer. The administration of the rating scale follows the same format as the BASC-3 Self-Report of Personality form (Reynolds & Kamphaus, 2015). Children between the ages of 8-11 are asked to read the statements that describe how children might think or feel and then pick the rating that best describes their own feelings. The ratings as described on the BASC-3 form are: "N if the sentence never describes you or how you feel, S if the sentence sometimes describes

you or how you feel, O if the sentence often describes you or how you feel, and A if the sentence almost always describes you or how you feel” (Reynolds & Kamphaus, 2016). The scored rating scale yields T-scores with a mean of 50 and a standard deviation of 10. Scores of 41-59 are considered *average*, scores of 60-69 are considered *at-risk*, and scores of 70 and above are considered *clinically significant* (Reynolds & Kamphaus, 2015).

Procedures

The study was completed in two different phases with each phase focusing on a specific hypothesis. The focus in Phase One was to determine if the added somatization item led to the identification of additional children who scored in the high risk category, as well as determining if the added item had an effect on the internal consistency reliability of the scale. Phase Two was conducted to determine if the students who scored a 3 (i.e., frequently) on the added item also obtained an elevated T-score on the BASC-3 Flex Monitor. If so, this would be regarded as an indication of convergent validity between the SRSS and the BASC-3 Flex monitor and would provide content validity support for the somatization item.

Phase One. Teachers from twelve elementary schools in Middle Tennessee followed the usual procedures at their school and completed the SRSS-IE on each of the students in their class. A supplemental item was added to the SRSS-IE. The one added somatization item was written as follows: physical complaints. Teachers rated the somatization item using the same Likert scale as the rest of the SRSS-IE (never = 0, occasionally = 1, sometimes = 2, frequently = 3).

The scores on this item were not programmed into the EXCEL spreadsheet to be scored. This means that student scores were based on the current version of the SRSS and the school counselors and behavior support team followed their usual procedures. The cut scores for risk categories remained the same for the school's already in place screening procedures; 0-1 is low risk, 2-3 is moderate risk, and 4-15 is high risk.

Once the SRSS-IE was scored by the district, three schools with the most complete data were selected by an administrator and I was provided a list of unidentifiable students' scores and the students' score on the new somatization item. I rescored the scale taking into account the additional item. The cut scores for the internalizing scale (SRSS-I5) stayed the same when scoring with the additional item; however, the high risk category had a higher range (i.e., 4-18 vs. 4-15 on the original SRSS-IE). Data from the three schools were used to test the internal consistency hypothesis and to determine if more students were identified as at-risk by the screener because of the added item.

Phase Two. In an effort to maintain the anonymity of the students, school counselors from the twelve schools identified children who endorsed the added somatization item with a rating of 3 (i.e., frequently). School counselors were asked to send home informed consent forms (see Appendix A) to these students asking for parent permission for their child to complete a behavior rating scale. I followed up via email with the counselors to encourage the distribution of the informed consent forms. Phase 2 happened very late (i.e., less than 3 weeks of school remaining) in the school year. My best estimate based on information provided by school counselors is that 29

informed consent forms were distributed. It is unknown what percentage of the eligible pool of students (i.e., students who endorsed the new item with a rating of 3) parents were sent home an informed consent form because I never viewed the data.

Eight signed informed consent forms (i.e., 28% return rate) were returned to the schools; however, only three of these students were old enough to be administered the BASC-3 Flex Monitor scale and receive a score. I did not know that the younger grades were included in the pool that received consent forms. I went ahead and administered the five younger children the scale to gain qualitative information, but did not score the scale.

The rating scale took about 10 minutes to administer and was completed in a private location at the school during the regular school day. I followed an administration script that included assent and debriefing procedures. See Appendix B for a copy of the administration script. Once the child completed the form, I entered the answers into Q-global which then generated T-scores for children 8 and older.

Procedures already in place at the school were followed by the school's behavior support team for students who might require additional supports for difficulties identified by the SRSS-IE. Thus, the school behavior support team's response to a child who needed support was not contingent upon receiving the BASC-3 Flex Monitor scores. Unfortunately, due to the nature of the end of the school year (e.g., school support team no longer meeting), the parents of the three children who completed the scale were not debriefed in the manner originally planned. See Appendix C for a copy of the debriefing letter that I had planned on sending out to the parents.

CHAPTER III

RESULTS

Three of the twelve schools in the participating school district that had the most complete data were chosen by a district administrator for data analysis. See Table 2 for a summary of the number of students with scores that fell in the High Risk category before and after the addition of the new somatization item.

Table 2

Students Classified as High Risk Before and After the Somatization Item

School	<i>N</i>	<i>n</i> Somatization Item Endorsed	<i>n</i> Students High Risk Before Item	<i>n</i> Student High Risk After Item
School A	885	38	45	49
School B	786	32	10	12
School C	753	60	22	36

At the first school, 45 students were classified as High Risk on the internalizing scale of the SRSS-IE (i.e., a total score of 4 or higher on the scale) before the somatization item was scored. Four more students were classified as High Risk after the item was calculated which contributed to an 8.9% increase in identification of High Risk Students. At the second school, there were originally 10 students in the High Risk group. After scores for the somatization item were calculated, there were 12 students in the High Risk group which is a 20% increase in identification of High Risk Students. There were 22 students in the High Risk group at the third school. After the somatization item was

calculated there were 36 students in the High Risk group. The somatization item contributed to a 63.6% increase in the identification of students considered High Risk for internalizing behaviors. See Appendix D for tables containing information about somatization and high risk rates broken down by grade for each of the three schools.

Hypothesis 1

It was hypothesized that the added somatization item would not reduce the internal consistency reliability of the internalizing scale of the SRSS-IE. Cronbach's alpha was calculated using SPSS to measure the internal consistency reliability of the SRSS-IE and the Internalizing Scale of the SRSS-IE (SRSS-I5) with and without the added somatization item. Using a random number generator, 50 participants from each school (150 total) were randomly selected for data entry into SPSS. Cronbach's alpha was calculated for the full SRSS-IE and SRSS-I5 first. Then, the somatization item was entered in to the data sets for each and Cronbach's alpha was recalculated.

Table 3

Cronbach's Alpha for the SRSS-IE and the SRSS-I5 With and Without the Added Somatization Item

SRSS-IE		SRSS-I5		
Without	With	Without	With	
0.77	0.77	0.80	0.74	

Cronbach's alpha for the SRSS-IE with and without the added item was the same ($r = 0.77$). When looking at just the Internalizing scale of the SRSS-IE, Cronbach's alpha of the SRSS-I5 was $r = 0.80$. When Cronbach's alpha was computed with the somatization

item it decreased the internal consistency reliability to $r = 0.74$. This does not support the hypothesis that the added item would not reduce the internal consistency reliability of the internalizing scale of the SRSS-IE.

Hypothesis 2

Permission slips were sent home to approximately 29 students based on follow-up email correspondence with school counselors that worked at the 12 schools. Eight students returned signed permission forms and were administered the BASC-3 Flex Monitor scale that contained items relating to depression and anxiety. Only three of the students were old enough to obtain scores on the scale. The scale has a mean T -score of 50 and a standard deviation of 10. Student scores on the scale were $t = 53$, $t = 58$, and $t = 75$. It was hypothesized that children who scored a 3 on the added somatization item would score higher than the normative average on the BASC-3 flex monitor scale. To test this hypothesis a one-tailed one-sample t -test (with an alpha level of $p = .05$) was run in EXCEL to compare the mean of the sample T -scores ($M = 62$) to the mean T -score of the normative group ($M = 50$). Statistically, the mean T -score of the sample group did not differ from the normative mean; $t = 1.80$, $p = 0.1$. The results of the one-sample t -test do not support the hypothesis.

I took the scales of the five children who were too young to receive scores and looked to see what qualitative information I could gain. See Appendix E for a table containing the response rates for all items. There were some items that were rated with high frequency by the majority of the students. The item “Little things bother me” was rated by 2 students as *often* and 1 student as *almost always*. Three out of the five students

rated the item “I feel like I have no friends” as *almost always*. The item “I get nervous when things do not go the right way for me” was rated by one student as *often* and by 2 students as *almost always*. Although scores could not be generated the endorsement of several items by students at a high rate of frequency suggests that the students who completed these scales were experiencing some characteristics associated with symptoms of anxiety and/or depression. An individual item endorsed at a high level of frequency may flag a need for intervention irrespective if the total scale score is clinically significant. Single items can be used to plan targeted interventions (Reynolds and Kamphaus, 2015) and would have been useful information to provide the school behavior support team if time would have allowed.

CHAPTER IV

DISCUSSION

When schools are able to offer support of varying intensities before students' difficulties become so extreme, it leads to better outcomes for students and schools. However, children who have emotional and behavior disorders often do not get the support they need in schools until their behavioral difficulties are severe and require intensive interventions (Gresham, 2007). The National Association of School Psychologists (2015) recommends the use of three-tiered models of support that utilize screeners such as the Student Risk Screening Scale—Internalizing and Externalizing (SRSS-IE). Research has supported the success of these scales in identifying children at-risk for externalizing disorders (Lane et al., 2010; Menzies & Lane, 2012), but there is still some difficulty identifying children at-risk for internalizing disorders. Children who are at-risk for internalizing disorders are often overlooked because their behaviors are not disruptive in class and do not impede classroom instruction. (Lane et al., 2012) Additionally, due to their nature of internalizing behaviors as being within the child, it can be difficult to see that a child is struggling with such emotions.

One of the few outward presentations of internalizing disorders is somatization, which is when children report experiencing physical pain such as headaches or stomachaches when there is no medical reason for the pain (Shannon et al., 2010). Somatization has been associated with academic difficulties, chronic absences from school, and social difficulties (Hughes et al., 2008; Saps et al., 2009; Zolog et al., 2011). While the SRSS-IE has been supported by research as a reliable and valid screening tool

(Lane et al., 2012; Lane, Oakes, Common, et al., 2015), it does not currently contain an item addressing somatic complaints. As someone who has worked with children for several years both in and outside of the school setting, I noticed that for many children it was easier to say, “My tummy hurts” than “I am feeling anxious about _____.” I also noticed that there were several children who were “frequent fliers” in the Nurse’s Office, but did not ever really appear to be sick. These observations, along with the research I have read on somatization, prompted me to ask the question would the SRSS-IE be a more effective screener if it contained an item that focused on somatic complaints?

Data from three schools was used in analysis and for each school the somatization item contributed to higher identification rates of children at risk for internalizing behaviors. This is a promising finding because it provides evidence that for some children the added item boosted their score to a range that meant the behavior support team would consider whether the student was in need of additional supports. This finding also illustrates that teachers notice when students exhibit somatic complaints. Since internalizing problems can be difficult to identify, asking teachers about somatic complaints may be key to supporting students that can be easily overlooked because they are not displaying disruptive behavior.

There was a wide discrepancy between the number of students identified in the three schools chosen for data analysis. On the lower end, one school identified 8.9% more children falling in the high risk range with the added somatization item, while another school identified 63.6% more children with the item. One possible explanation for the discrepancy could be socioeconomic status. Data from the TN Department of

Education State Report Card for the 2015-2016 school year indicates that the school that had the higher rate of somatization had a greater percentage of students who are economically disadvantaged (TN Department of Education, 2017).

I predicted that the children who scored a 3 on the somatization item would score higher than the normative average (i.e., *T*-score of 50) on the scale I created using the BASC-3 Flex Monitor. The one-sample *t*-test did not reveal a significant difference between the sample group's mean score of $t = 62$, and the normative average ($t = 50$). However, one possible reason for the nonsignificant findings may be the very small sample size. It is important to recognize that one of the *T*-scores was more than two standard deviations above the mean, another was almost one full standard deviation above the mean, while the third was close to the mean. Further item analysis revealed that the three students rated certain items on the scale similarly. All three responded to the item "I get nervous when things do not go the right way for me"; two rated it as *almost always* and one rated it *sometimes*. Another item that had similar ratings among the 3 participants was "I worry but I don't know why." This pattern was also evident on the BASC-3 Flex Monitor scales that could not be scored because the children were too young; there were a few items that were endorsed with a high level of frequency. An individual item endorsed at a high level of frequency may flag a need for intervention irrespective if the total scale score is clinically significant (Reynolds & Kamphaus, 2015). This is another reason why behavior support teams may find it useful to administer a follow-up scale such as a BASC-3 Flex Monitor to students who score in the high risk

range. Single items can be used to plan targeted interventions (Reynolds and Kamphaus, 2015)

I also hypothesized that the added somatization item would not reduce the internal consistency reliability of the internalizing scale. Although Cronbach's alpha of the internalizing scale with the somatization item was lower than Cronbach's alpha of the internalizing scale without the item, it is higher than that found by Lane et al. (2012). While the internal consistency of the full SRSS-IE with the somatization item was lower than that found by Lane et al. (2012), it is still approaching an adequate level of internal consistency reliability deemed appropriate for screening purposes. According to Sattler (2008), adequate internal consistency reliability is at least $r = 0.80$. Although my original hypothesis was not supported by the data, the findings indicate that the internal consistency reliability of the SRSS-IE and SRSS-I5 are fairly consistent with the already validated scale created by Lane et al. (2012). This suggests that it has potential to be an effective screener for identifying students at-risk. Additionally, the other findings from this research such as the increased percentage of identification rates and the students who received high *T*-scores on the BASC-3 Flex Monitor suggest that it is important to individually follow up with students who endorse items, particularly the somatization item, at a high frequency.

Limitations of the Study

There were several limitations to this study that may have impacted the findings. These limitations, however, provide valuable information that can be utilized to improve future research.

The biggest limitation of the study is the low number of participants in Phase 2. Having only three students complete the BASC-3 Flex Monitor makes it nearly impossible to assess if the added somatization item has adequate content validity and improves the predictive validity of the SRSS-IE. There were several factors that contributed to the low participation rate in this phase. Few parents (8 out of 29, or 28%) returned consent forms. One possible factor that influenced the low return rate of consent forms is the stigma associated with mental health issues. It is possible that parents were hesitant to allow their children to participate in a study that might label their child's difficulties as being associated with characteristics of depression or anxiety. I spoke with some of the counselors at the schools and they said that there were parents who contacted them with concerns about the study. One mother whose identity remained anonymous spoke to one of the counselors at length and ultimately decided that she was not comfortable with her child participating in the study. Another possible factor that impacted low participation was the timing of the study. It was not until late in the school year that consent forms were distributed. This limited the amount of time that counselors had to follow-up with parents about participating.

Another factor that affected the sample size of participants for Phase 2 was that I was unaware that kindergarten and first grade students were being screened with the SRSS-IE. The BASC-3 Flex Monitor does not extend down to these age ranges and the scale could not be scored for this group of students. Due to the timing of the study corresponding with the end of the school year there was not time to find another scale and get permission from IRB to use it. While self-report measures can be very useful to assess

internalizing behaviors, it is very difficult to find a self-report form for young children. For Kindergarteners and 1st graders, it might be more beneficial to look at the other factors that research has found to be associated with somatization such as attendance, visits to the school nurse, and academic achievement.

As noted throughout, another limitation that influenced multiple aspects of the study was the timing of the study. The research was conducted at the very end of the school year, which by nature is very busy for teachers and other school staff. This made it difficult to coordinate with the schools to conduct data collection. There was also not much time to wait for additional consent forms to be returned to the school. School ending also prevented me from following up with the student support team to debrief the parents and refer the students in need of tiered level supports as planned.

Another limitation in the research was the wording of the added somatization item. The intended wording of the item was “physical complaints (e.g., stomach hurts)”. This is the wording that Lane, Oakes, Menzies, et al. (2015) used in the Early Childhood version of the SRSS-IE. The wording of the item that the schools adopted was “physical complaints”. It is difficult to know if this affected the teachers’ ratings on this item. Future researchers should insure that the intended wording is adopted. The intended wording was on the preschool version of the SRSS-IE and has been supported by research (Lane, Oakes, Menzies, et al., 2015).

Another final limitation of the study speaks to the difficulty of completing research in schools. The data that was used for analysis were chosen by an administrator in the district. In an effort to maintain the highest level of confidentiality possible for the

students involved, I had to give up some of the control of how data was collected.

Additionally, I didn't always know what progress was being made in sending home consent forms and the return rate of signed consent forms. I believe that this had a negative impact on the success of Phase Two of the study.

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APPENDICES

APPENDIX A
Informed Consent and Signature Page

Dear Parent:

We are asking for your permission to do 2 different, but related things:

(1) We are asking permission for your child to complete a behavior rating scale administered by a MTSU School Psychology Graduate student. The MTSU student will score the scale and provide the results to the school's Behavior Support Team.

(2) We are asking permission for your child's **unidentifiable** results on the behavior rating scale to be used in a thesis project by a MTSU School Psychology Graduate student. Your child's name or any information that could identify your child will not be used in the research. Participation is voluntary and you or your child may decide to stop participating at any time.

The reason we are asking permission to complete the behavior rating scale:

Your child's teacher has noticed that your child often makes physical complaints such as their stomach hurts at school. For some children, this type of complaint can be an indicator of a more serious issue that we do not want to overlook. For other children, it may mean nothing at all. The rating scale can help us more specifically identify what your child is experiencing and determine whether or not this is typical for a child his/her age. Results will be shared with you and the school's Behavior Support Team. If results show that there is something going on that is having a negative impact on your child, the school team will keep you informed of what the school is proposing to do to help your child.

Description of the behavior rating scale: The rating scale includes 11 items that describe how children might think, behave or feel and specifically target symptoms of anxiety or depression (e.g., I feel nervous, I worry about things,). Your child will be asked to rate how often (e.g., sometimes, often, never) this item applies to them. A score is computed that will tell us whether what your child is experiencing is atypical for his/her age.

What your child will do: Your child will go to a quiet place in the school and privately complete the scale with the help of the MTSU graduate student. Your child will miss around 10 minutes of a school activity to complete the scale. Your child will be given the choice to complete the scale or not. You child may also choose to stop participating at any time.

The purpose of the research study: We want to see if children that teachers notice making physical complaints score higher than average on the behavior rating scale. If we find this to be true, then we would encourage school staff to add an item that addresses physical complaints to the screening tool already in use at your child's school. This would help school staff more effectively identify children who are in need of support. Earlier identification of problems typically means better outcomes for student social and academic success and less drain on limited school and family resources. Students who are socially and emotionally healthy benefit from instruction.

Persons to contact in case you have questions or concerns about the research study:

MTSU Student's Faculty Advisor: Monica A. Wallace, Ph.D. monica.wallace@mtsu.edu or 615-898-2165

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance (Tel 615-494-8918 or send your emails to irb_information@mtsu.edu. Please visit www.mtsu.edu/irb for general information and visit <http://www.mtsu.edu/irb/FAQ/WorkinWithMinors.php> for information on MTSU's policies on research with children

Confidentiality. All efforts, within reason, will be made to keep the personal information in your child's research record private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, *if* you or someone else is in danger or if we are required to do so by law.

Foreseeable risks associated with your child's participation in the study. Your child will be at minimal risk or little to no risk due to their participation in the study. They may think about something unpleasant when they answer items on the questionnaire. They will be given an opportunity to ask questions before they return to their classroom.

Thank you for your consideration of our request for your child to participate. Please sign the attached form and return to your child's teacher. Please keep a copy of this letter for your records. Once permission is received, it should be around two-three weeks before you will receive a letter from the school about your child's results on the behavior rating scale.

Sincerely,

Monica A. Wallace, Ph.D.
MTSU Faculty Supervisor

Please sign the attached form and return to your child's teacher if you would like for your child to participate.

Parental Informed Consent Signature Page

Child's Name: _____ Date of Birth: _____

Parent/guardian Name: _____ School: _____

Teacher: _____

No Yes I have read the informed consent document describing the research.

By signing below, I give permission for my child, whose name is identified above, to participate in this study. I understand I can withdraw my child from this study at any time without facing any consequences.

I give permission for my child to complete a behavior rating scale administered by a MTSU School Psychology Graduate student and for the results to be shared with the school's Behavior Support Team.

Parent Signature

Date

I give permission for my child's **unidentifiable** results on the behavior rating scale to be used in a thesis project by a MTSU School Psychology Graduate student

Parent Signature

Date

APPENDIX B
Behavior Rating Scale Administration Script

BEFORE CHILD COMPLETES SCALE THE RESEARCHER ADMINISTERING THE SCALE WILL SAY:

Thank you for volunteering to help. This form has 11 sentences that tell how some boys and girls think or feel or act. I am going to ask you to read each sentence and decide how often the sentence describes you. If you want to stop at any time, just tell me and I will walk you back to class.

If you want to volunteer to fill out the form write your name below:

DIRECTIONS FOR COMPLETING THE SCALE THAT WILL BE READ BY THE RESEARCHER

Remember to read each sentence carefully and choose one answer, even if it is hard to make up your mind. I can tell you any words you need to know. There are no right or wrong answers. Please do your best, tell the truth, and answer every sentence.

You will have four answer choices:

Select **N** if the sentence **never** describes you or how you feel.

Select **S** if the sentence **sometimes** describes you or how you feel.

Select **O** if the sentence **often** describes you or how you feel.

Select **A** if the sentence **almost always** describes you or how you feel.

Circle one answer for each sentence. If you change your mind, just mark an X over the answer you do not want and circle the answer you want.

AFTER CHILD COMPLETES THE SCALE THE RESEARCHER WILL SAY:

Thank you for completing this scale. Do you have any questions that you would like to ask me?

APPENDIX C
Parent Debrief Letters

Sample Debriefing Letter for Average Scores on the BASC 3

Dear Parent of _____,

Thank you for giving consent for your child to complete a behavior rating scale as part of a research study that is being conducted by a graduate student at MTSU.

Your child's score on the behavior rating scale was **average**. This means the way your child described himself/herself is typical for a child this age and there is no cause for concern.

Thank you again for your support of the research project.

Monica A. Wallace, Ph.D.
MTSU Student Thesis Advisor
monica.wallace@mtsu.edu or 615-898-2165

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance (Tel 615-494-8918 or send your emails to irb_information@mtsu.edu. Please visit www.mtsu.edu/irb for general information and visit <http://www.mtsu.edu/irb/FAQ/WorkinWithMinors.php> for information on MTSU's policies on research with children

Sample Debriefing Letter for Elevated (i.e., at-risk or clinically significant)
Scores on the BASC 3

Dear Parent of _____,

Thank you for giving consent for your child to complete a behavior rating scale as part of a research study that is being conducted by a graduate student at MTSU.

Your child's score on the behavior rating scale was **higher** than what is considered typical or average. A higher score may indicate that your child is experiencing some emotional distress. A representative from the school's Behavior Support Team will contact you to discuss the results in more detail, and talk about what supports can be put in place at school and home to help your child.

Thank you again for your support of the research project.

Monica A. Wallace, Ph.D.
MTSU Student Thesis Advisor
monica.wallace@mtsu.edu or 615-898-2165

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance (Tel 615-494-8918 or send your emails to irb_information@mtsu.edu). Please visit www.mtsu.edu/irb for general information and visit <http://www.mtsu.edu/irb/FAQ/WorkinWithMinors.php> for information on MTSU's policies on research with children

APPENDIX D
Somatization and High Risk Rates for Each School

Table 4

Somatization and High Risk Rates for School A

Grade	<i>N</i>	<i>n</i> Somatization Item Endorsed	<i>n</i> Students High Risk Before Item	<i>n</i> Student High Risk After Item
Kindergarten	141	8	5	5
1st	145	3	4	4
2nd	139	6	7	7
3rd	140	10	8	10
4th	129	4	4	5
5th	128	7	14	15
6th	63	0	3	3

Table 5

Somatization and High Risk Rates for School B

Grade	<i>N</i>	<i>n</i> Somatization Item Endorsed	<i>n</i> Students High Risk Before Item	<i>n</i> Student High Risk After Item
Kindergarten	104	3	3	3
1st	108	4	0	0
2nd	105	5	0	0
3rd	126	1	0	0
4th	125	6	0	1
5th	155	9	4	5
6th	63	4	3	3

Table 6

Somatization and High Risk Rates for School C

Grade	<i>N</i>	<i>n</i> Somatization Item Endorsed	<i>n</i> Students High Risk Before Item	<i>n</i> Student High Risk After Item
Kindergarten	98	3	2	3
1st	105	18	1	3
2nd	121	3	3	3
3rd	126	16	3	9
4th	121	5	3	4
5th	114	9	7	9
6th	68	6	3	5

APPENDIX E
Qualitative Information from the BASC-3 Flex Monitor

Table 7

Student Response Rates on the BASC-3 Flex Monitor

Item	Response Rate			
	Never	Sometimes	Often	Almost Always
I am afraid I might do something bad	2	3	0	0
I worry when I go to bed at night	2	1	0	2
I feel like my life is getting worse and worse	1	1	1	2
Little things bother me	0	2	2	1
I feel like I have no friends	2	0	0	3
I feel lonely	2	1	0	2
I am afraid of a lot of things	2	1	2	0
I feel sad	1	2	1	1
No one understands me	1	2	0	2
I get nervous when things do not go the right way for me	0	2	1	2
I worry but I don't know why	1	2	0	2

APPENDIX F IRB Approval Letter

IRB
INSTITUTIONAL REVIEW BOARD
 Office of Research Compliance,
 010A Sam Ingram Building,
 2269 Middle Tennessee Blvd
 Murfreesboro, TN 37129



IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Thursday, March 30, 2017

Investigator(s): Claire Gardner (Student PI) and Monica Wallace (FA)
 Investigator(s) Email(s): crg5b@mtmail.mtsu.edu; monica.wallace@mtsu.edu
 Department: Psychology

Study Title: Does the Addition of a Somatization Item Improve the Effectiveness of the Student Risk Screening Scale?
 Protocol ID: **17-2153**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category (7) *Research on individual or group characteristics or behavior*. A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	APPROVED for one year from the date of this notification	
Date of expiration	3/31/2018	
Participant Size	60 (SIXTY)	
Participant Pool	Children in Murfreesboro City schools	
Exceptions	Participants are at-risk children identified by a behavior rating scale.	
Restrictions	1. Child assent and parental informed consent forms need to be collected.	
Comments	NONE	
Amendments	Date N/A	Post-approval Amendments NONE

This protocol can be continued for up to THREE years (3/31/2020) by obtaining a continuation approval prior to 3/31/2018. Refer to the following schedule to plan your annual project reports and be aware that you may not receive a separate reminder to complete your continuing reviews. Failure in obtaining an approval for continuation will automatically result in cancellation of this protocol. Moreover, the completion of this study MUST be notified to the Office of Compliance by filing a final report in order to close-out the protocol.

Continuing Review Schedule:

Reporting Period	Requisition Deadline	IRB Comments
First year report	2/28/2018	INCOMPLETE
Second year report	2/28/2019	INCOMPLETE
Final report	2/29/2020	INCOMPLETE

IRBN001

Version 1.3

Revision Date 03.06.2016