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Improving Well-being and Behavior in Adolescents Utilizing a School-based Positive

Psychology Intervention

Emily DeBiase

University of Connecticut, 2017

This study employed the 10 core sessions of the Well-Being Promotion Program (Suldo, 2016), a multi-component Positive Psychology Intervention (PPI) with the goal of improving daily happiness and classroom behavior in a sample of high school students at risk for poor school outcomes. PPIs have increasingly been used in school settings to enhance student well-being and to foster a number of behaviors important to student success, such as a positive attitude towards learning, increased school satisfaction, improved social skills, and increased academic engagement. PPIs have also been used with children and adolescents to reduce symptoms of anxiety and depression and to increase positive affect. Additionally, there is some preliminary evidence of the efficacy of PPIs in preventing the development of externalizing behaviors in children and adolescents. However despite the growing use of PPIs in a variety of school settings, there are currently no published studies to date that have explored the effects of a PPI on students' daily happiness and classroom behaviors. The current study utilized a multiple baseline design across 5 adolescents to examine the effects of a school-based wellness promotion intervention on student self-reports of happiness and teacher reports of classroom behavior.

Keywords: Wellness Promotion, Positive Psychology Intervention, At Risk Adolescents, Behavior

Improving Well-being and Behavior in Adolescents Utilizing a School-based Positive Psychology Intervention

Emily DeBiase

B.A., Providence College, 2002

M.S., Southern Connecticut State University, 2005

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APPROVAL PAGE

Doctor of Philosophy Dissertation

Improving Well-being and Behavior in Adolescents Utilizing a School-based Positive

Psychology Intervention

Presented by Emily DeBiase, B.A., M.S.

Major Advisor		
•	Melissa A. Bray, PhD	
Associate Advisor		
	Sandy M. Chafouleas, PhD	
Associate Advisor		
	Nick W. Gelbar, PhD	

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Chapter I: Introduction

Statement of the Problem

American youth are increasingly experiencing mental health challenges. Data from the National Institute of Mental Health (NIMH, 2016) show that one in five children aged 13-18 currently have, or will develop a serious mental health condition. These data highlight the urgent need to address youth mental health concerns. One of the most utilized avenues for addressing youth mental health concerns is through accessing support services within the public schools. Public schools are mandated by law to address students' social, emotional and behavioral needs when those needs impact the student's ability to function in the academic, behavioral, and/or social realms (Individuals with Disabilities Education Act [IDEA], 2004).

Further, a significant body of research has established that students who demonstrate signs of poor mental health in school, such as emotional or behavioral challenges, are at an increased risk for poor educational outcomes and other negative psychosocial outcomes including academic failure, attendance problems, and/or discipline issues (Zins, Bloodworth, Weissberg, & Walberg, 2004). Research findings have shown that students with these types of challenges are more likely to drop out of school, which can contribute to a lifetime of other challenges. (Zins et.al, 2004). As such, those youth who are deemed to be at an increased risk for school failure due to the presence of social-emotional and behavioral challenges are a particularly important group to focus upon for school-based mental health intervention. Iachini, Brown, Ball, Gibson, and Lize (2015) reported that early intervention strategies can help support the re-engagement of at-risk students in the classroom, stating that when students' social and emotional needs are effectively addressed, they may be more available for learning and better able to apply instructional strategies (Iachini et al. 2015). Numerous longitudinal empirical studies (e.g., National Research Council and the Institutes of Medicine, Committee on Increasing

High School Students' Engagement and Motivation to Learn, 2004; Pizzolato, Brown, & Kanny, 2012; Spencer, Dupree, & Hartmann, 1997) support this idea, and demonstrate how social-emotional well-being can influence students' academic engagement and the academic achievement of at-risk adolescents (Iachini et al. 2015).

Having established the importance of focusing upon the mental health needs of at-risk students, it then becomes necessary to identify what constitutes "good" mental health and what types of interventions may be most effective in promoting mental health. School-based mental health professionals need access to evidence-based, easy to implement interventions that can produce measurable results in a relatively short amount of time. But what are the results these interventions are supposed to produce? How does one define mental health? Some of the most promising answers to the questions of what defines complete mental health, and what interventions may be most effective in promoting mental health, have come from the field of Positive Psychology. Within the growing field of positive psychology, there are a growing number of mental health interventions, termed Positive Psychology Interventions.

Positive Psychology Interventions (PPIs) have increasingly been used in school settings to enhance student well-being and to foster a number of behaviors important to student success, such as a positive attitude towards learning, increased school satisfaction, improved social skills, and increased academic engagement. PPIs have also been used with children and adolescents to reduce symptoms of anxiety and depression and to increase positive affect (Froh, Kashdan, Ozimkowski, & Miller, 2009; Layous et. al, 2012; Marques, Lopez, & Pais-Ribeiro, 2011; Proctor et al., 2011; Rashid & Anjum, 2008; Roth, Suldo & Ferron, 2017; Seligman et al., 2009; Suldo, 2016; Suldo, Savage & Mercer, 2014). Additionally, there is preliminary evidence of the efficacy of PPIs in preventing the development of externalizing behaviors in children and

adolescents and reducing problem behaviors (Rashid et.al, 2013; Schonert-Reichl & Lawlor, 2010; Schonert-Reichl et al., 2015).

Purpose of the Study

This study investigated whether a manualized PPI (core sessions of the Well-being Promotion Program) implemented in individual school-based counseling sessions with at-risk high school students would lead to increased happiness and improved classroom behavior. Given the literature base supporting the use of PPIs in improving well-being and academic behaviors, it was hypothesized that students may a) report increased daily happiness levels while participating in this intervention and b) demonstrate increased academic engagement and respectful behaviors in the classroom along with decreased disruptive behavior during the course of the intervention.

Research Questions

- 1.) Is there a functional relationship between implementation of the core sessions of the Wellbeing Promotion Program (WPP) and daily happiness in at-risk adolescents?
- 2.) Is there a functional relationship between implementation of the WPP and classroom behavior in at-risk adolescents?

Secondary Question

1.) Will students report an increase in life satisfaction from pre- to post-intervention?

Chapter II: Literature Review

Interventions for At Risk Students

There are a variety of preventative and responsive intervention options available to support students who are determined to be at risk for poor school outcomes. Students may struggle to succeed in school for any number of reasons including individual, family, and environmental factors. Two factors that have been frequently linked to academic failure are academic disengagement and behavioral problems. Academically disengaged students are more likely to struggle academically, drop out of school, and exhibit problem behaviors (Fredricks, Blumenfeld, & Paris, 2004). An abundance of research has also shown a strong association between the presence of externalizing behavioral problems and poor academic performance (e.g., Kremer, Flower, Huang, & Vaughn, 2016; Williams & McGee, 1994). Depending upon the reasons for disengagement or problem behavior, different academic, social-emotional, or behavioral approaches may be attempted to improve student performance. An often utilized resource for intervention ideas to address student disengagement and behavioral problems is the book, Interventions for Academic and Behavior Problems 2: Preventive and Remedial Approaches by Shinn, Walker, and Stoner, 2002. Within that resource, one may find descriptions of some frequently used school-based interventions for struggling students.

Some of these commonly utilized interventions include school-based counseling and social groups; utilization of behavior management strategies (i.e. behavior contracts, reinforcement systems, function-based behavioral intervention plans); environmental modifications (e.g. seating arrangements, size of instructional group), modification of academic demands, provision of alternative educational settings, additional academic supports (i.e, study skills instruction, supervised study halls); mentoring programs; increased monitoring and check-

ins for academics or behavior; and specific home-school communication plans. Due to the vast range of programs and services employed in the school setting, this cannot be considered an exhaustive list of interventions but a sampling of some of the most common ways schools meet the needs of struggling students.

Wilson and Tanner-Smith (2013) completed a meta-analysis of school-based programs designed to prevent school drop-out and improve educational outcomes for at-risk students. In their comprehensive review, they found numerous programs that fit within the above identified categories. Their review identified the following types of programs and services as among those most commonly used: school or class restructuring (small learning communities, block schedules, career academies, small class size), supplemental academic services (remedial education, tutoring, homework assistance, etc.), community service programs, mentoring, counseling programs, attendance monitoring & contingencies, skills training focused on improving self-esteem, attitudes towards school, or preventing drug use, and case management programs designed to connect students and families with appropriate services (Wilson & Tanner-Smith, 2013)

In considering the existing intervention options for adolescents who may be at risk of school failure, Positive Psychology Interventions (PPIs) have the benefit of bringing a positive focus to treatment efforts without conflicting with other interventions that may already be in place. PPIs can be used in conjunction with other existing treatments and it is not necessary to take away any other supports that may be in place for a student (i.e. other counseling treatments or behavioral supports) in order to implement a PPI. On the other hand, if no interventions are in place for an at-risk student, implementing a PPI may be a good first step towards supporting that student. Arguably, at risk students are in need of as much supplemental support as possible.

While there is little risk or downside associated with efforts to increase well-being, there is the potential for significant benefits in terms of improved academic and social-emotional functioning (Green, Anthony, and Rynsaardt, 2007; Rashid et.al, 2013; Schonert-Reichl & Lawlor, 2010; Schonert-Reichl et al., 2015; Seligman et al., 2009; Waters, 2011).

Positive Psychology Overview

The empirically validated theory behind the positive psychology movement is that complete mental health is not just the absence of psychopathology, but the presence of positive emotions, skills, and experiences. (Seligman & Csikszentmihalyi, 2001; Suldo, Thalji-Raitano, Kiefer, & Ferron, 2016). As stated by Martin Seligman, leading researcher in the field, the goal of positive psychology is to create "a psychology of positive human functioning...that achieves a scientific understanding and effective interventions to build thriving individuals, families and communities" (Seligman, 2002, p. 7). In a positive psychology context, the focus of research on mental health is shifted away from a deficit-oriented approach and towards a strengths-based one. As such, the emphasis of Positive Psychology Interventions (PPIs) is on acknowledging, exploring, and developing what is "right" rather than trying to fix what is "wrong".

Though proponents of positive psychology acknowledge that PPIs are not intended to replace the well-researched, empirically-validated methods of treating mental illness, an ever growing body of research has shown that PPIs used as supplements to traditional therapies, or as standalone treatments can promote improved mental health and reduced symptoms of mental illness (. Moreover, as PPIs have begun to be utilized with adolescents in the schools, researchers are increasingly finding that school-based PPIs targeting youth can effectively support the development and maintenance of positive mental health, and help to promote other positive outcomes for youth.

A Focus on Well-being. When examining mental health from a positive psychology perspective, it is necessary to consider the concept of well-being, a key aspect of complete mental health. Martin Seligman defined well-being with the PERMA model, which stands for positive emotions, relationships, meaning and accomplishment (Seligman, 2011). He theorized that these five elements are those which most significantly contribute to a person's overall sense of well-being. Seligman further stated that well-being is the topic of positive psychology (Seligman, 2011); there is a strong base of empirical support for the importance of studying and promoting well-being.

Researchers have identified numerous desirable correlates of high levels of well-being including improved health, longevity, citizenship, and social relationships (Diener, 2012). Moreover, there are numerous risks associated with low levels of well-being, both at the individual and larger societal levels, including work reductions, health limitations, and poorer psychosocial functioning (Keyes, 2005). Well-being is therefore an important aspect of mental health to address when seeking to intervene to improve overall mental health and functioning.

Subjective Well-Being (SWB), which is a person's perceived sense of their own well-being, has been used as a way to measure overall well-being and happiness. In fact, SWB has often been used as a way to operationally define the more ambiguous term, "happiness" (Diener et al., 2002; Suldo & Shaffer, 2008). SWB is comprised of three interconnected components reflecting both emotional and cognitive aspects of well-being. These include positive affect (the experience of positive emotions in daily life), negative affect (the experience of negative emotions in daily life), and life satisfaction (a cognitive appraisal of one's life) (Diener, 2000). Together, these three components create a comprehensive measure of overall happiness, and

offer mental health professionals clear pathways by which to intervene to increase happiness and well-being.

A growing body of research supports the value of happiness our lives. In their extensive review of literature, Lyubomirsky, King and Diener (2005) discovered that high subjective well-being is related to positive outcomes in many areas of life. Specifically, happy people seem to be more successful than their less happy peers in the three primary life domains of work, relationships, and health (Lyunomirsky et al., 2005). Furthermore, the findings of this research suggested that while success and the attainment of goals can make people feel happy; being happy may also foster the attainment of success and other positive experiences (Lyubomirsky et al., 2005).

SWB and Youth. Out of this larger body of research on happiness and SWB, there is also a growing line of research on the importance of SWB in children and adolescents. After years of research on happiness and the well-being of adolescents, Seligman and his colleagues contended that well-being should be taught in schools because it can serve as an antidote to depression and as a means to increase life satisfaction; and because well-being may promote better learning and more creative thinking (Seligman et al., 2009).

The findings of several other teams of researchers have supported these conclusions, providing compelling evidence that the presence of high SWB in adolescents is associated with numerous positive outcomes. In studies focused on students, these positive correlates have included higher academic achievement, fewer behavioral problems, and improved social relationships (Lyons, Heubner & Hill, 2013; Seligman et al.., 2009; Suldo, Riley & Schaffer, 2006; Suldo & Schaffer, 2008; Suldo, Thalji & Ferron, 2011; Waters, 2011).

In their 2008 study of 349 middle school students, Suldo and Shaffer, (2008) made a number of important findings regarding well-being in adolescents. They found that high SWB in adolescents is associated with greater school satisfaction, improved academic self-perceptions and higher achievement. Notably, they found that amongst students with no signs of psychopathology, those with average to high SWB scored significantly better on state-wide standardized achievement tests than those with low SWB (Suldo & Shaffer, 2008).

Additional research has also supported this relationship between school success and SWB. After accounting for baseline levels of academic performance, Lyons, Huebner and Hills (2013) found that students' levels of SWB significantly predicted their level of emotional, cognitive and behavioral engagement. Further, in a longitudinal investigation, Suldo, Thalji and Ferron (2011) found that initial levels of SWB also significantly predicted GPA one year later.

The presence of high SWB has also been correlated with other positive non-academic outcomes. For example, high SWB has been correlated with higher quality social relationships and better physical health amongst adolescents and college students (Renshaw & Cohen, 2014; Suldo & Shaffer, 2008). There is even some preliminary evidence to suggest that aspects of SWB, specifically life satisfaction, may serve as a protective factor against the development of later externalizing behavioral problems in adolescence (Lyons, Otis, Huebner, & Hills, 2014).

In considering these significant and robust findings, it becomes clear that SWB is an important component of overall mental health and that there is value in seeking to help adolescents develop and maintain high levels of SWB. Positive Psychology is a well-established avenue for the study of well-being and Positive Psychology Interventions (PPIs) are one of the most effective means by which to enhance a person's well-being. A review of the literature on the outcomes associated with PPIs supports this conclusion.

Positive Psychology Interventions and Subjective Well-being

PPIs are uniquely suited to the goal of increasing happiness, as measured by SWB, because they are designed to build strengths and increase positive skills, emotions and experiences. Sin and Lyubomirsky (2009) described PPIs as programs, practices, treatment methods or activities "aimed at cultivating positive feelings, positive behaviors, or positive cognitions" (p.467). Utilizing his PERMA model, Seligman stated that PPIs should target the elements of positive emotions, engagement, relationships, meaning and accomplishment. Based on this logic, PPIs are most often designed to enhance correlates of SWB that can increase an individual's experiences of positive emotions, improve relationships, and/or enhance one's sense of accomplishment.

A review of recent literature reveals examples of PPIs targeting these elements including a) acknowledging and utilizing character strengths (Senf & Liau, 2013), b) practicing kindness (Lyubormisky, Sheldon, & Schkade, 2005) and gratitude (Senf & Liau, 2013), c) developing hope and optimistic thinking (Odou & Vella-Brodrick, 2013), and d) experiencing savoring (Hurley & Kwon, 2012). Overall, research findings have indicated that PPIs targeting these factors have led to increases in SWB as well as decreased signs of psychopathology, specifically depressive symptoms (Seligman, Steen, Park, & Peterson, 2005). Adding further support to these findings, Sin and Lyubomirsky conducted a meta-analysis of 51 PPIs implemented with 4,266 individuals, and found that overall, positive psychology interventions significantly enhance well-being and decrease depressive symptoms.

PPIs in the Schools

There are also a growing number of PPIs which have been developed specifically for use with children and adolescents in school settings. These PPIs have targeted some of the same

correlates of SWB as identified above including: character strengths (Proctor et al., 2011), gratitude (Froh, Kashdan, Ozimkowski, & Miller, 2009), kindness (Layous et. al, 2012), and hope (Marques, Lopez, & Pais-Ribeiro, 2011). Data from empirical studies evaluating these interventions have shown that they have been successful in improving aspects of SWB in children and adolescents.

Some multi-target PPIs have also been developed for implementation with youth in the school setting; and these have shown promising results with respect to improved SWB as well. One example of such a program is the Strath Haven Positive Psychology Curriculum, a comprehensive curriculum developed by Seligman et al. (2009) that is designed to build character strengths, relationships, and meaning, as well as increase positive emotion and reduce negative emotion. In a randomized controlled study of 347 ninth-grade students, researchers found that students who participated in the intervention reported increased enjoyment and engagement in school, while their teachers reported improvements in students' social skills as well as characteristics related to learning, such as curiosity and a love of learning.

Rashid and Anjum (2008), reported on the findings of another multi-component PPI; a small group positive psychotherapy (PPT) intervention implemented with middle school students in a randomized controlled trial in Canada. This PPI consisted of 8 weeks of small group therapy with sessions focusing on: Positive Introduction, Using Signature Strengths, Three Blessings, Savoring, and Family Tree of Strengths. Following intervention, substantial increases in happiness were reported for students in the PPT group.

Another example of positive outcomes associated with a school-based PPI may be found in the research of Suldo, Savage, and Mercer (2014) who developed and evaluated a 10-session multi-component PPI targeting gratitude, kindness, character strengths, hope, and optimism. In

their research evaluating the efficacy of this intervention, they randomly assigned 55 middle school students to participate in either a small group PPI intervention group or a wait list control group. In comparing the baseline to post-intervention data for these two groups, they found that participants in the small group PPI sessions reported an increase in life satisfaction from pre- to post-intervention, while the control group did not report these gains, and in fact showed a slight, though not statistically significant, decline in life satisfaction over the same period of time.

Additionally, Waters (2011) reviewed 12 school-based PPIs designed to foster student well-being and academic performance. This review was wide-reaching, as it explored the utilization of PPIs in several different countries, across different educational contexts and targeting students ranging in age from 5-19 years old. The PPIs reviewed targeted the various focus areas of gratitude, hope, serenity, resilience and character strengths. In reviewing the results of these 12 PPIs, Waters found that overall, positive psychology interventions were significantly related to student well-being and academic performance (Waters, 2011). Moreover, some PPIs produced the additional positive benefit of reduced signs of psychopathology, including lessened symptoms of anxiety and depression (Green, Anthony, & Rynsaardt, 2007; Seligman et al., 2009).

Taken together, the findings of this research provide strong evidence for the efficacy of PPIs in increasing SWB and other factors important to student success including improved academic engagement, enhanced social skills and decreased signs of psychopathology.

Additionally, a number of these above described studies provide evidence for the feasibility and utility of implementing PPIs in a school setting. Knowing that PPIs can lead to a number of positive outcomes for students and that they can be successfully implemented in the schools, we

next discuss how PPIs fit into the educational model, and for which students PPIs may be of the most benefit.

PPIs with Different Student Populations

The positively oriented and preventative focus of PPIs is in line with current movements in the field of education. Current educational initiatives and best practices increasingly focus upon utilizing positive and proactive interventions, such as Response to Intervention (RTI) and Positive Behavior Intervention and Supports (PBIS). Schools are recognizing the need to identify, reinforce, and build students' skills and strengths academically, socially, and behaviorally rather than solely focusing on identifying problems and remediating weaknesses. As such, PPIs fit well into this more positively oriented and proactive educational context.

Furthermore PPIs have broad applicability, are flexible with respect to modality of service delivery, and may be short in duration (i.e. a set number of lessons or sessions), making them well-suited to the educational setting. Because PPIs can be used with a wide range of students and in different contexts within the schools (i.e. individual or small group counseling settings or whole-class settings), and because many PPIs are not resource-intensive; they may be a good investment for school systems. PPIs can be delivered in a classroom setting as a preventative Tier 1 intervention for all students as well as in small group sessions as a Tier 2 intervention for at-risk students.

PPIs can also be used as supplements to other frequently utilized evidence based practices, such as behavioral intervention planning or cognitive-behavioral therapy, for students with more significant mental health needs. As stated by Suldo (2016) "Interventions that purposefully target subjective well-being are in line with a proactive, resource-building approach to mental health services" and "fostering subjective well-being is consistent with other universal

approaches, such as Tier 1 efforts within a multi-tiered framework of mental health supports" (Suldo, 2016)

PPIs and High School Students. While many different types of students may benefit from PPIs, high school students appear to be especially good candidates for these types of interventions. This may be due to their higher level of cognitive development, relative to elementary-aged students, and their ability to understand the more abstract concepts emphasized in most PPIs such as gratitude, optimism and hope. As Sin and Lyubormirsky (2009) reported in their meta-analysis of PPIs, the benefits of PPIs increase linearly with age, a fact which they attributed to the increased wisdom, emotional regulation and self-control of older individuals relative to children.

PPIs and At Risk Students. Some research has also suggested that it may be particularly beneficial to target at risk populations for interventions such as PPIs. Suldo and Shaffer (2008) described a population of "Vulnerable" students who have diminished subjective well-being, but who do not manifest many symptoms of psychopathology, and thus are not identified as having a mental health disorder. Suldo (2016) noted that "Vulnerable" youth are less likely to be targeted for intervention (due to their lack of an identified disability), however there appears to be a clear need for intervention with these students, as Vulnerable youth have worse physical health, lower self-concepts, poorer interpersonal and romantic relationships, and more academic risk than their peers with high subjective well-being. Suldo (2016) stated:

A particular focus on "Vulnerable" students may help increase the likelihood that all students in a school can experience maximum emotional and academic success. Thinking gratefully, performing acts of kindness and achieving gratifications through use of character strengths, and envisioning a better future

create and direct focus to positive feelings about one's past, present, and future, respectively. Such positive emotions create an upward spiral, marked by increased cognitive capacity and behavioral flexibility that has positive impacts on life through enhancing social relationships and well-being. (Suldo, p.79)

Looking beyond this Vulnerable population of youth to those students who are at even greater risk for poor outcomes due to the presence of observable signs of mental health problems, such as mood and behavioral challenges, PPIs may provide much needed, effective support.

Research has supported the efficacy of PPIs for improving outcomes among individuals with internalizing symptoms of anxiety and depression (Seligman et al. 2009), and there is also some preliminary evidence for the potential utility of PPIs in addressing externalizing behavioral symptoms. Suldo and Huebner (2004) made some important connections between life satisfaction (a component of SWB) and the presence of externalizing behaviors in adolescents. They reported that adolescents with positive life satisfaction were less likely to develop later externalizing behaviors in the face of stressful life events than those with lower life satisfaction, thus concluding that low life satisfaction may be a precursor of externalizing behavior problems (Suldo & Huebner, 2004).

These findings were also supported by the recent research of Lyons et al. (2014), who studied the relationship between life satisfaction and the presence of maladaptive behaviors (both internalizing and externalizing) in adolescence. Their findings suggested that lower levels of life satisfaction may be a risk factor for increased maladaptive behaviors among early adolescents. As such, it stands to reason that PPIs which can produce an increase in life satisfaction in students may also have a positive impact upon student behavior.

PPIs and Student Behavior. Some research has also indicated that PPIs targeting mindfulness, positive emotions, and character strengths have resulted in improvements in student behavior (Rashid et.al, 2013; Schonert-Reichl & Lawlor, 2010; Schonert-Reichl et al., 2015). Rashid et.al. (2013) implemented a PPI in which classroom teachers in a middle school setting integrated discussion and activities related to students' character strengths once weekly into their curriculum. A control group of students at another school who did not receive this intervention served as a comparison for some of the outcome measures. Following intervention, parents of the students in the intervention group reported an improvement in students' problem behaviors.

Utilizing a quasi- experimental wait-list control design with 246 middle school students, Schonert-Reichl and Lawlor (2010) also found a positive effect of a PPI on student behavior. They observed decreases in externalizing problem behaviors, specifically aggression and oppositional /dysregulated behaviors in students who took part in their mindfulness intervention program which focused upon fostering positive emotions and limiting negative thinking. Students in the intervention group also showed increases in positive skills, including improved attention and concentration and social-emotional competence as rated by their classroom teachers. Extending these findings, Schonert-Reichl et al. (2015) conducted a randomized control trial of a mindfulness based intervention with components focused upon cultivating positive emotions and performing acts of kindness with 99 elementary school students. Following intervention they found a greater decrease in peer reported aggression, as well as increases in prosocial behaviors amongst students participating in the PPI as compared to those in the control group who received a regular social responsibility program.

In their research on students with externalizing behavior challenges, Jenson, Olympia, Farley, and Clark (2004) highlighted the importance of providing adolescents with behavioral

challenges with a sense of optimism about their future. They noted that the absence of optimism may contribute to a decision to give up and/or drop out of school. As such, PPIs which focus on enhancing optimistic thinking and hope may be appropriate for these struggling students.

Extending PPI Applications

Although there is a growing body of research on the use PPIs with children and adolescents in school settings, the implementation of PPIs in school settings is still a relatively new area of educational practice. As such, more research is needed on school-based applications of PPIs, especially as it relates to what outcomes may be expected and what populations may benefit most from these types of interventions. As stated by Gilman, Huebner and Furlong (2014) in the Handbook of Positive Psychology, despite the progress with respect to school-based applications of PPIs, more research is needed on the "development of and interventions designed to heighten positive psychology indicators" because "empirically validated programs to promote positive psychology constructs are rare" (Gilman, Huebner, & Furlong, 2015, p 9).

There also appears to be limited research on the use of PPIs with at risk populations of high school students, especially those that may exhibit externalizing behavioral symptoms. Moreover, there appears to be no published literature to date which utilizes daily behavioral ratings as an outcome measure for a PPI to determine if a PPI may produce observable changes in a students' daily behavior. Similarly, while other measures of life satisfaction and happiness are regularly utilized to assess PPI outcomes, there are no studies to date which have monitored daily happiness to determine how a PPI may impact students' day to day happiness. This is a unique contribution of the current study, as there seems to be a gap in the literature with respect to understanding how different interventions effect students' day to day functioning. Although educational stakeholders often seek rapid results from intervention, and there is a push towards

increased progress monitoring for students' response to intervention, there are few published studies which examine these types of intermediate, short-term, day to day student responses to social-emotional interventions.

Thus, the goal of this study was to add to the current literature by studying these short-term, observable responses to a social-emotional intervention in a population of at-risk youth. Additionally, this study aimed to extend applications of a recently developed PPI (Well-being Promotion Program, Suldo 2016) by utilizing the core sessions of this intervention in individual counseling sessions with a sample of at-risk students. By examining these different outcome measures it was possible to see if changes in daily happiness and classroom behavior would be evident as a result of participation in this intervention.

Chapter III Methods

Participants and Setting

Five at-risk adolescents (2 male, 3 female) aged 16-17 years participated in this study. Participants were full-time students from a mid-sized suburban public high school in the Northeast. All students were in 11th or 12th grade and English was the primary language spoken by all of the student participants. All students were also enrolled in a general education "alternative" program for struggling students who had been identified by the school as being at an increased risk for school failure.

All students were defined as "at risk" due to their need for additional (Tier 2 or 3) intervention, history of poor academic performance, and presence of behavioral challenges. More specifically, all students demonstrated low levels of academic engagement (as measured by teacher reports and a loss of academic credit not due to medical reasons) and had a history of school behavioral problems (including disruptive classroom behavior, rule infractions, and office discipline referrals). In addition to these criteria students also met the following inclusion criteria to be enrolled in the study: a) they had lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale and b) they were less than totally happy as measured by a score of 6 or less on the General Happiness Scale.

Classroom teachers were also recruited to complete the daily behavior ratings on the five student participants. Two teachers agreed to participate. One teacher was responsible for rating two of the students and another rated three of the students. One teacher was a math teacher and the other was an English teacher, both of whom worked within the alternative education program at the high school. Both teachers were female and were certified full-time staff of the school district.

Additionally, one mental health professional was recruited to deliver the intervention to the selected student participants. The mental health professional was a School Social Worker (SSW) with a master's degree. The SSW was selected on the basis of a) interest in participating in this study, b) ability to meet with the identified student participants once to twice per week for the duration of the intervention phase to deliver the intervention, and c) ability to deliver the intervention curriculum with fidelity to the identified students.

Design

A multiple-baseline design across five students was used to assess the impact of the wellness promotion intervention on students' daily self-reports of happiness and teacher reports of classroom behavior. Student participants were randomly assigned to intervention order in order to increase the ability to make causal inference about intervention effects. To meet What Works Clearinghouse (WWC) standards (Kratochwill et al., 2010) for data collection (3-5 data points per phase), the baseline phase for the first participant lasted for 11 days. Subsequent baseline phases were longer, with the longest being 34 days for the final student. The baseline phase was extended for all participants in an effort to gain baseline stability, since there was variability in the happiness and classroom behavior data for all students. Once Student 1 had attained three days of stable baseline data, intervention was initiated. In an effort to not further delay intervention implementation, each subsequent student began the intervention phase three to eight school days after the previous student.

The intervention phase lasted 11-15 weeks for each participant. The intent was for the intervention to be completed a shorter time frame; however a number of factors extended this phase. For one, since the intervention start was delayed, the intervention phase ran through Thanksgiving and Winter Recesses, causing students to miss a number of days of school.

Additionally, Student 1 was absent from school for over a week during intervention. Student 5 was also out of school for several days during intervention due to an out of school suspension.

Materials and Measures

The Well-Being Promotion Program. The independent variable in this study was the 10 core sessions of the Well-being Promotion Program (Suldo, 2016); a multi-component, multi-target PPI. The 10-session student component of this PPI was implemented in individual counseling sessions with the SSW. Each of the 10 sessions included activities and homework assignments designed to enhance correlates of wellbeing including: students' sense of gratitude, acts of kindness, use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. The session activities were divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session. See Table 1 for a listing of the activities by session. It should be noted that The Well-being Promotion Program (WPP) was developed as a small-group intervention, so minor modifications to the delivery of the program were made to adapt it for use in individual sessions. The content and specific session activities were not modified; however group discussions and sharing activities were eliminated. Instead, students engaged in discussion of session content and sharing with the interventionist.

Daily Happiness Rating. Students' self-reports of daily happiness were gathered using a one question Qualtrics survey (Appendix I) which was sent once a day via email to each student. This Qualtrics survey was based upon Fordyce's the Happiness Measures (Fordyce, 1972). The Happiness Measure (HM) is a sixty-second 2-question scale designed to assess the intensity and frequency of happiness. For the purposes of this study, only the first question of the HM was used. It was presented to participants in an online format to enhance accessibility and facilitate

scale completion. On the HM and the adapted Qualtrics survey, happy emotion is rated by the respondent on an 11-point scale with "0" representing extremely unhappy and "10" representing extremely happy.

The HM is considered reliable (reliability .70-.98) and appropriate for repeated use, as evaluated by Fordyce (1987) who reported that HM may be utilized in both repeated-measures and pretest-posttest designs and previous administrations of the HM do not bias subsequent administrations in any systematic way. Moreover, Fordyce (1987) noted that there is a close correspondence between the average of a series of daily HM ratings and a single, "in general" rating evaluating the same time period, lending further support to the validity of this tool for repeated measures. With respect to convergent validity, a number of studies were conducted demonstrating strong positive correlations (.55 - .70) between the HM and other measure of affect, happiness, and well-being (See Fordyce, 1987). In his review, Diener (1984) concluded that out of twenty well-being indices assessed, the 11-point scale in the HM showed the strongest correlations with daily affect and life-satisfaction of any other measure. With respect to construct validity, a strong relationship exists between the HM and other measures of personality characteristics (.23-.66) that have been established to define happiness in past research (e.g. low levels of anger, hostility, and other negative emotions; high levels of energy, optimism, health, and social relationships; see Fordyce, 1987).

Direct Behavior Rating Standard Form (DBR; Chafouleas, Riley-Tillman, Christ, & Sugai, 2009). Direct Behavior Rating (DBR) is a method of social—emotional and behavioral assessment that combines the strengths of both rating scales and systematic direct observation (Chafouleas, Riley-Tillman, & Christ, 2009). DBR is an evidence-based practice with a significant body of research supporting the efficacy of this tool for assessment, progress

monitoring, and behavioral intervention (see: http://dbr.education.uconn.edu/library/publications/ for a complete listing of research publications). Riley-Tillman, Kalberer, and Chafouleas (2005) reported upon the use of a Daily Behavior Report Card (DBRC), a form of DBR as a tool for monitoring intervention effects, and they found that this tool is generally considered to be very feasible to use, effective and was reported as acceptable to teachers.

The standard form of the DBR was used for this research (Appendix J). When utilizing the DBR standard form, teachers rate students on the percentage of time they are engaged in the three behaviors of Academically Engaged, Respectful, and Disruptive. The DBR defines academically engaged as actively or passively participating in the classroom activity. Being respectful is defined as compliant and polite behavior, to include such behaviors as following teacher directions and engaging in pro-social interactions with peers. Disruptive behavior is defined as student action that interrupts regular school or classroom activity. Examples of specific behaviors may include being out of one's seat, playing with objects, acting aggressively, or talking/yelling about things that are unrelated to classroom instruction. The rater makes a mark on a line from zero to ten (0% to 100%) to reflect his or her estimate of the total percentage of time that the student engaged in the target behavior during that time period.

General Happiness Scale (Lyubomirsky & Lepper, 1999). The General Happiness Scale (also called the Subjective Happiness Scale) was used as a pre-intervention screening measure to ensure that nominated students had room for improvement in their level of general happiness. The text of the scale is included in Appendix L of this manuscript. The General Happiness scale is a brief, 4-item scale developed by Lyubomirsky and Lepper (1999) to measure of global subjective happiness. Respondents rate themselves on a scale of one to seven (low to high) in response to questions such as "Some people are generally very happy. They

enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?"

The scale was developed and validated in 14 studies with a total of 2,732 participants ranging in age from 14 to 94 years. The scale has high internal consistency (Cronbach's alpha = .86), which was found to be stable across samples. The scale also has good construct validity as assessed through studies of convergent and discriminant validity. Lyubomirsky and Lepper found substantial correlations, ranging from 0.52 to 0.72 (M = 0.62), between the Subjective Happiness Scale and other happiness measures.

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson et al., 2003). The BMSLSS (Appendix M) was used as a screening measure to ensure that the student participants who have met the inclusion criteria were also in need of an improvement in their level of life satisfaction. The BMSLSS was administered to students individually prior to the baseline phase of intervention. The BMSLSS is a 6-item self-report measure of students' satisfaction in the five domains of life (family, friends, school, living environment, self) most relevant to youth global life satisfaction. There is one item per domain, plus one global item. Students respond to items such as "I would describe my satisfaction with myself as" on a seven-point Likert scale, from (1) *terrible* to (7) *delighted*. Seligson et al. (2003) report adequate internal consistency ($\alpha = .75$) and evidence of strong criterion-related validity and construct validity based upon strong correlations with other life satisfaction measures.

Student Life Satisfaction Scale (SLSS; Huebner, 1991). The SLSS (Appendix N) was administered to students individually prior to the start of intervention and following completion of the intervention phase, to assess changes in self-reports of life satisfaction. The SLSS is widely utilized and psychometrically sound measure of life satisfaction designed for use with

youth populations (ages 8 -18) Estimates of internal consistency from numerous studies typically fall in the .80 range (Suldo, 2016). The initial validation study of the SLSS found high internal consistency (α = .82) and strong support for construct validity with moderate to high correlations with other measures of happiness.

The SLSS contains seven items and utilizes a 6-point response format consisting of the following response options: 1 = strongly disagree; 2 = moderately disagree, 3 = mildly disagree, 4 = mildly agree; 5 = moderately agree; and 6 = strongly agree. Higher scores thus indicate higher degrees of life satisfaction. As stated by Suldo (2016), research on stability coefficients and changes related to interventions suggests that children's responses are relatively stable yet sensitive to systematic intervention programs.

Treatment integrity checklist. A treatment integrity checklist was included as a part of the Subjective Well-Being Intervention Program, Second Edition. It identified all of the activities which must be completed during each session of the intervention program. The SSW completed this checklist for each intervention session for each student as a way to increase and monitor the consistency and fidelity of intervention implementation.

Usage Rating Profile- Intervention Revised (URP-IR; Chafouleas, Briesch, Neugebauer, & Riley-Tillman, 2011). The URP-IR (Appendix K) was used as measure of social validity to assess the interventionist's perceptions of the usefulness and feasibility of the intervention. The URP-IR is a recent revision or the URP- I (Chafouleas, Riley-Tillman, Briesch, & Chanese, 2008), which was developed to assess five factors (acceptability, understanding, feasibility, integrity, and personal enthusiasm) believed to contribute to the likelihood of an individual initially choosing to utilize an intervention, and then continuing to utilize that intervention over time. The URP-I has good internal consistency and reliability ($\alpha = .79-.95$).

Research conducted on the development of URP-IR utilizing exploratory and confirmatory factor analysis and reliability analysis supported the utility of the revised 29 item, six-factor scale including the factors of: Acceptability, Understanding, Family–School Collaboration, Feasibility, System Climate, and System Support factors (Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013). The interventionist responded to items on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree).

Child Evaluation Inventory (CEI; Kazdin, Siegel, & Bass, 1992). This tool was used as another measure of social validity to assess student perceptions of the intervention. See Table 6 for the CEI items. There are 16 items requiring students to respond on a 5-point Likert scale, to reflect their agreement with each statement. The concepts of Treatment Acceptability and Treatment Progress are assessed in this scale. Treatment acceptability items gather the respondent's judgments about the extent to which the treatment procedures were appropriate, reasonable and enjoyable (Kazdin, 2002). Treatment Progress items ask the respondent to evaluate how much the treatment helped them in handling problems and interacting with others (Kazdin, 2002). Analysis of the scale supports the 2-factor structure consisting of Progress and Acceptability, with strong internal consistency for Factor 1 (.928) and Factor 2 (.899) as measured with Cronbach's alpha (Thurber, Snow, & Thurber, 1990).

Procedures

Recruitment. The building administrator of the intended high school was approached to determine interest in participating in this intervention research. Once interest was established, school based mental health professionals (e.g. School Psychologists, School Counselors, or School Social Workers) within the identified high school were contacted to determine their willingness to utilize this intervention with selected students. Of the professionals contacted, a

school social worker (SSW) was selected to deliver the intervention based upon her interest and availability to meet with students. After initial verbal contact and assent from the school district and SSW was obtained, a letter explaining the intervention, purpose of the study and study procedures was sent to the school with an attached form to document written consent. All school and school staff information letters and consent forms may be found in Appendices A-D of this manuscript.

Pre-baseline. The student researcher then met with the school social worker (SSW) two times to review the contents of the intervention program. A complete intervention manual was provided to the mental health professional and all intervention procedures, including session goals and activities were reviewed. The student researcher also provided the SSW with all of the treatment integrity checklists for each session and reviewed these, along with the expectation that the checklists be completed for each student after each session to maintain treatment fidelity. The SSW had not had any prior experience with this specific intervention, or PPIs in general, so some foundational information about Positive Psychology interventions was also provided in these training sessions.

Concurrently, the SSW nominated 12 students who met criteria for participation (history of academic disengagement and behavioral problems). The student researcher then met with all students to explain the intervention and provide written parental consent forms. Parent information and consent forms are in Appendices E and F. The student information and assent form is located in Appendix G. Six students returned signed consent forms. After the participant pool was identified, the selected students were screened for inclusion to verify that they a) they had lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and (b) were less than totally happy

as measured by a score of six or less on the General Happiness Scale (AuthenticHappiness,org). All six students met inclusion criteria. To further ensure that students had room for improvement in the selected DVs (daily classroom behavior and daily happiness), pre-baseline data was also gathered for three days using the DBR and the daily happiness survey.

The students also met with the student researcher (prior to the collection of pre-baseline data) to review the Qualtrics survey for their daily happiness rating. The survey question and response options were explained and hypothetical situations were utilized to help students calibrate their responses. Specifically, students identified what type of day would constitute a rating "10", "5", "0", and so on. During this time students' email addresses were also obtained so that the survey could be distributed to the students.

A cooperating classroom teacher was also identified during this phase for each of the students chosen for pre-baseline data collection. The student researcher met with the identified teachers to review the DBR form for the collection of daily behavioral data on each of the students. The online training module for the DBR was presented to the cooperating teachers to familiarize them with the form, instruct them on usage, and give them practice rating behavior. Teachers then identified the class period each day during which they would observe the student for the identified target behaviors.

Next, pre-baseline data was gathered for each of the six students. The students completed the daily happiness rating for three days and classroom teachers completed the DBR for three days to ensure that there was room for improvement on the dependent measure for all students. All students did show room for improvement, so random selection was used to identify which five students would participate in the study. The sixth student was debriefed and offered the

opportunity to receive the intervention without being in the study, with the understanding that no data would be collected on that student's participation.

The intervention order was also identified at this time. Students were randomly assigned to an intervention order. The student intervention sessions were also scheduled during this time. Students were scheduled to meet with the SSW weekly during their intervention phase until the content of the 10 sessions had been delivered. The student and SSW worked together to identify the best times to meet to minimize any disruption to academics based upon the student's schedule. Prior to entering into the baseline phase, students also met with the student researcher to take the SLSS to measure life satisfaction prior to participation in the intervention.

Baseline. During this phase, baseline data was gathered for each student participant. Students responded to their survey question daily and classroom teachers began collecting daily behavior data using the DBR standard form. Student 1 remained in the baseline phase for 11 days before beginning intervention. Throughout the baseline phase, daily happiness and behavior ratings were monitored by the student researcher.

Intervention. During the intervention phase, students received the wellness promotion intervention in individual counseling sessions with the SSW. Students completed the activities within the Subjective Well-Being Intervention Program- Second Edition, as outlined in the Description of the Independent Variable section of this manuscript. The interventionist followed the instructions within the manual for the ten student sessions and completed the Treatment Integrity Checklist to document the procedures followed within each intervention session. The student researcher also performed periodic checks for treatment integrity by attending at least one session for each participant and independently completing the treatment integrity checklist. During the intervention phase, data collection continued for the daily happiness ratings as well as

the daily behavior ratings. Classroom teachers who would be completing the DBR were not informed of the time at which the intervention phase began for each student in order to minimize the potential impact on their behavior ratings.

Post-intervention. Upon completion of the intervention, students met with the student researcher and took the SLSS again to measure life satisfaction, post-intervention. Students took a social validity measure (CEI- Child Evaluation), and also met with the student researcher following intervention to informally share their experiences with the program. Following the completion of the intervention phase with all students, the SSW also completed a social validity measure to describe experiences delivering the intervention program.

Data Analyses

Data on daily happiness ratings and daily behavioral ratings were graphed for each participant during the baseline and intervention phases. Visual analysis was employed to assess the effects of the WPP on the dependent variables of daily happiness and classroom behavior. Data were analyzed according to WWC Standards (Kratochwill et al., 2010). Specifically, data were evaluated for changes over time with respect to level, trend, and variability. A significant difference between the pattern of baseline and intervention data would have suggested that the intervention produced a change in happiness and/or behavior. Data were analyzed both within and across phases for each participant to compare patterns in the data points. The researcher also compared the overlap of data points between phases, differences in the means of data points across phases, and the consistency of patterns in similar phases to assess intervention effects. This information was used to determine whether the data met the WWC standard of three documentations of change over three points in time.

The magnitude of change was determined to some extent by comparing means from the baseline to the intervention phase for each participant. It was hypothesized that daily happiness ratings would increase during the course of intervention, as would respectful and academically engaged behaviors, thus the means of the data points during intervention versus baseline for each participant would be higher. Conversely, it was hypothesized that disruptiveness would decrease during intervention, and a lower mean of data points in the intervention as compared to the baseline phase would suggest that the intervention produced that change. Given the nature of this intervention, it also seemed likely that the change in data patterns would be gradual, versus immediate. As such, examining the trend of the data in the intervention phase across participants, as well within participants from baseline to intervention helped provide information about the impact of the intervention on the targeted behaviors.

To supplement visual analysis, the percentage of non-overlapping data (PND) was used to determine data overlap between phases for each student as well as the total sample. PND was chosen as a non-overlap measure due to its ability to provide practically meaningful information about intervention effects while still being relatively easy to compute. Although PND may be influenced by outliers, which is a limitation of this measure, utilizing an additional measure of effect size can counter this limitation.

A measure of effect size was also calculated to determine the significance of any changes in the data from baseline to intervention. The Tau U was calculated for each student and for the whole sample. Tau U was chosen as the measure of effect size because it equally emphasizes all data points by deriving the effect size estimate from pairwise comparisons across phases, and thus is not as influenced by outliers (Parker, Vannest, & Davis, 2011).

Additional information about intervention effects on students' life satisfaction was gathered by examining pre-and post-test scores on the SLSS. Treatment acceptability was measured with the URP-IR and CEI to provide descriptive information on participants' views of the intervention.

Chapter IV Results

Daily Happiness Rating

Students' daily happiness ratings were graphed and visual analysis was employed as the first step of data analysis. Data were analyzed for level, trend, and variability across and within phases. Descriptive statistics (mean, standard deviation, and range) were also calculated for the baseline and intervention phases for all students. The percentage of non-overlapping data (PND) was calculated for each student as well as the overall sample to assess how reliably the intervention increased student happiness. Last, Tau U was calculated as a measure of effect size for each student as well as for the overall sample.

Student 1. During baseline, Student 1 had a mean happiness rating of 3.91 (SD 1.05, Range 3-7). The data within the baseline phase showed a moderate amount of variability with a slight decreasing trend. Upon implementation of the intervention, there was an immediate jump in the data for one point before the happiness ratings dropped off and then became highly variable. Although there was a slight increasing trend in the data during the intervention phase, Student 1's mean happiness rating during intervention was 3.44 with a standard deviation of 1.85 and a range of 0-10. These data show that there was a slight decrease in mean happiness from baseline to intervention and an increase in the overall variability of happiness ratings. Effect size calculations indicate no effect of intervention with significant data overlap. PND was 5% and Tau U yielded an effect size of -.201, with a p-value of .294, reflecting a decrease in happiness from baseline to intervention.

Student 2. Student 2's mean happiness rating during baseline was 5.214 (SD .89, range 3-7). The data within the baseline phase show stability, with 12 out of 14 data points falling within a one point range. Upon implementation of the intervention, the data remained stable for

13 data points, staying within the one point range. After this point, the data dropped off before stabilizing at a lower level, then becoming more variable. There was a slight decreasing trend in the data throughout the intervention phase and Student 2's mean happiness rating during intervention was 4.42 (SD 1.15, range 1-7). These data indicated a decline in mean happiness from baseline to intervention and an increase in data variability. PND was 0%, with 100% of data overlapping from baseline to intervention. Tau U calculations revealed an effect size of -.427, with a p-value of .013. This was significant at the .05 level, however the change was in the opposite direction of the intended intervention effect. Tau U calculations indicated that the mean baseline happiness ratings were significantly higher than mean intervention happiness ratings for Student 2.

Student 3. Student 3's baseline happiness data was highly unstable, with the widest range observed amongst the 5 participants. Student 3's ratings ranged from one to nine with a mean of 5.83 (SD 2.62) during the baseline phase. There was also a slight increasing trend in the data approaching the intervention phase. At intervention implementation the data continued to increase. The first three points of data in the intervention phase were higher than the last three points in baseline. The data remained stable between the values of eight and 10 for eight points before beginning to drop and then becoming highly variable. Student 3's mean happiness rating for the intervention phase was 6.51, up .68 points from baseline. Student 3 rated her happiness higher during intervention than baseline on five occasions. However the mean increase and higher upper limit in happiness ratings were not considered significant. Tau U calculations produced an effect size of .156, with a p-value of .393. Additionally there was significant data overlap between baseline and intervention, with PND calculated at 8%.

Student 4. Student 4 had a mean happiness rating of 3.5 (SD 1.77, range 0-7) during the baseline phase. Student 4 also showed significant variability in her happiness ratings during baseline with a decreasing trend in ratings observed throughout the baseline phase. Upon intervention implementation, there was an immediate jump of four points in the data. Student 4's happiness ratings then remained above the last two points in baseline for 23 points, before dropping to the level of the lowest points in baseline. Student 4's mean happiness rating during intervention was 4.9 (SD = 1.79, range 0-8), up 1.4 points from her baseline mean. Although intervention happiness ratings were generally higher than baseline ratings for Student 4, there was still significant variability in the data during the intervention phase. PND was calculated at 4%. Tau U calculations comparing the mean ratings during baseline and intervention yielded an effect size of .43 and a p-value of .002. This p-value indicated that the mean difference in baseline and intervention happiness ratings was significant at the .05 level.

Student 5. Student 5's baseline happiness data were highly variable with a range of zero to seven and a mean of 3.81 (SD = 2.02). Although the baseline phase was longest for Student 5 (31 points) the data did not stabilize during this phase, rather they showed a marked decreasing trend approaching the start of the intervention. Upon intervention implementation there was an increase in the level of happiness ratings. With the exception of one lower point, the data steadily increased for five points before dropping and clustering around a value of four. The data later increased again, staying within the range of four to eight for the remaining 33 out 37 data points in the intervention phase. Student 5's mean happiness rating during intervention was 4.69 (SD= 1.5, range 1-8), up .88 points from baseline. The data also showed somewhat less variability in the intervention phase as compared to the baseline phase. However, Tau calculations of effect size indicated that the mean increase in happiness from baseline to intervention was not

significant (Effect size .227, p = .09) and despite a reduction in variability, the overlap in data from baseline to intervention was near total (PND 3%).

Overall Sample. PND was calculated for the entire sample and revealed a 96% overlap in data from baseline to intervention (PND 4%). Tau U calculations for the entire sample yielded an effect size of .066. This was not statistically significant (p = .377).

Classroom Behavior

The DBR standard form measuring the three classroom behaviors of Academic Engagement, Respectful, and Disruptive behavior was utilized to assess classroom behavior. Teachers recorded estimated percentages for each behavior following one class period to reflect the amount of time the student engaged in that behavior for the class period. Data from the DBR were graphed and visual analysis was utilized to look for any changes in level, trend, or variability in the data from baseline to intervention, as well as to examine the data within each phase. PND was calculated for each behavior for each student, as well as the overall sample. Effect sizes were also calculated for each of the three behaviors for each student utilizing Tau U.

Student 1. Academically Engaged. Data on Student 1's level of academic engagement showed an increasing trend in baseline from 60% to 80%, with a baseline mean of 72%. (SD = .836, range 60-80%). Upon intervention implementation, academic engagement increased to 90% before beginning a decreasing trend, which continued throughout intervention. There was significant variability in ratings of academic engagement during the intervention phase with engagement ranging from 0-90%. Additionally, there was almost total overlap in the data from baseline to intervention (PND .03%) Student 1's mean academic engagement for the intervention phase was 58% (SD 2.02), a 14% decrease from the baseline mean. This mean difference was

significant (p = .05), however in the opposite of the intended direction. An effect size of -.54 was calculated.

Respectful. Student 1's mean percentage of respectful behavior in baseline was 90% (SD .707, range 80-100%). Data showed a decreasing trend during baseline which continued throughout the intervention phase with an increase in variability of respectful behavior in the intervention phase. Mean percentage of respectful behavior during intervention was 73% with a range of 0-90% and a standard deviation of 1.8. There was total overlap in the data from baseline to intervention (PND 0%). An effect size of -.72 (p= .01) was calculated, indicating a significant difference in the mean percentage of respectful behavior from baseline to intervention. However the difference was in the opposite of the intended direction, with the average percentage being significantly lower in the intervention phase than in the baseline phase.

Disruptive. Student 1's disruptive behavior had a mean of 14% in baseline (SD .54, range 10-20%) with a slight increasing trend. During the intervention phase, Student 1 maintained similarly low levels of disruptive behavior with a mean of 14.2% (SD .99, range 0-40%) for the intervention phase. Student 1's level of disruptive behavior fell below the lowest point in baseline on five occasions, resulting in a 16% PND. An effect size of 0.0, was calculated indicating no effect of the intervention on disruptive behavior, and no significant difference in the mean percentages of disruptive behavior from baseline to intervention for Student 1.

Student 2. *Academically Engaged.* Student 2 had a mean academic engagement level of 67% for the baseline phase (SD 3.34, range 0-10). There was a high degree of variability in the data but with an overall decreasing trend approaching the intervention phase. Upon implementation of intervention, there was an immediate increase in engagement levels from 20% to 70%, with higher engagement levels maintained for four points before decreasing sharply,

then increasing again sharply. Significant variability was present in Student 2's daily levels of academic engagement during the intervention phase, with engagement levels ranging from 0%-100%. There was 100% overlap in the data from baseline to intervention (PND 0%). Student 2 had a mean engagement level of 69.2% (SD 2.77) during the intervention phase. The difference in mean percentage of academic engagement from baseline to intervention was not significant with an effect size of .03 (p=.85).

Respectful. Student 2's data on respectful behavior during the baseline phase showed significant variability ranging from 0-100%. Respectful behaviors during baseline occurred an average of 68% of the intervals observed (SD 3.08). During the intervention phase, percentages of respectful behavior continued to be highly variable, ranging from 0-100%, with total overlap from baseline to intervention (PND 0%). The mean percentage of respectful behavior during intervention was 66.3% with a standard deviation of 2.97. There was a slight decreasing trend in the data during the intervention phase, however the difference in mean percentage of respectful behavior from baseline to intervention was not significant with an effect size of .08 (p=.69).

Disruptive. Student 2 engaged in disruptive behaviors an average of 26% (SD 2.46) of the intervals observed during the baseline phase with a range of 0-90%. Visual analysis revealed that the majority of data points fell within the 0-30% range, with one outlier at 90%. This level remained consistent from baseline to intervention, with all of the intervention phase data points falling within the 0-30% range, with the exception of one point at 80%. Nonetheless, data overlap was total with 0% PND. Student 2's mean level of disruptive behavior during intervention was 16.9% (SD 1.62), a decrease of just over 9% from baseline levels. However, effect size calculations suggested no practical effect (Tau U= .29, p = .17).

Student 3. Academically Engaged. Student 3's baseline data on levels of academic engagement showed significant variability, ranging from 20-100% engaged. There was also an increasing trend in engagement approaching intervention. Student 3's mean engagement level during baseline was 55% (SD = 3.02). Upon intervention implementation, Student 3's engagement levels remained variable, ranging from 10-100%, however her mean level of engagement during the intervention phase was 73% (SD = 2.97), which is an 18% increase from the baseline mean. Student 3 had eight days at 100% engagement during intervention, as compared to one day during the baseline phase. PND for academic engagement was 0%. An effect size of .33 (p= .21) was calculated.

Respectful. Student 3 demonstrated respectful behavior an average of 80% (SD = 2) of the intervals observed during the baseline phase with a range of 50-100%. The data within the baseline phase were highly variable. At the start of the intervention phase, Student 3's percentages of respectful behavior were high (80-100%) and remained at that level for 12 points before dropping to 10% for one day, and then returning to 80%. Student 3's percent of respectful behavior ranged from 10-100%, during the intervention phase, however with the exception of one outlier (10%), Student 3's variability decreased significantly in the intervention phase with all other percentages clustered between 70-100%. Overlap in data from baseline to intervention was 100% (PND 0%). Student 3's mean level of respectful behavior during intervention was 87.4%, (SD 1.83) a 7.4% increase from baseline. A small effect size of .25 (p = .33) was calculated.

Disruptive. Student 3 demonstrated disruptive behavior in the classroom an average of 30% (SD 4.65) of the intervals observed during the baseline phase. There was significant variability in disruptive behavior ratings during this phase, with ratings of either 0% or 90%

recorded on all of the days. Disruptive behavior ratings continued to be highly variable throughout the intervention phase, ranging from 0-100%. The mean was 29.3% (SD 3.65), a .7% difference from the baseline mean. Visual analysis suggested no observable change in this behavior in terms of level, trend, or variability from baseline to intervention. PND was 0% and effect size was .06 (p=.81) indicating no significant differences in disruptive behavior from baseline to intervention.

Student 4. Academically Engaged. Student 4 was academically engaged an average of 79.3% (SD =1.94) of the intervals observed during baseline. Visual analysis showed a decreasing trend in engagement levels approaching the intervention phase. The data were variable in baseline, ranging from 30-100%, however there was only one data point at 30% with the remainder of the data falling between 60-100%. Upon intervention implementation, the data remained relatively stable, with engaged behavior reported at 60-80% for eight days before increasing to 90% for three days. Overall, engagement levels were relatively stable during the intervention phase, ranging from 60-100%, with a mean of 81.1%. Data overlap for baseline to intervention was complete (PND 0%) and the effect size was calculated .08 (p=.69), showing no significant difference in the mean percentages of academic engagement from baseline to intervention.

Respectful. During baseline, Student 4 exhibited respectful behaviors 72.1% (SD = 2.36) of the intervals observed, with her percentage of respectful behaviors ranging from 10-90%. The baseline data were variable, with a decreasing trend approaching intervention. The data on respectful behavior remained variable during the intervention phase, ranging from 20-100% with a mean of 70% (SD 1.98). There was almost complete overlap with baseline data (PND .04%). Although the mean percentage of respectful behavior was slightly lower in the intervention phase

than in the baseline phase, there was an increasing trend in the data as the intervention phase progressed. An effect size of .15 (p=.43) indicated that there were no significant differences in respectful behavior from baseline to intervention.

Disruptive. Student 4 engaged in disruptive behaviors an average of 27.9% (SD 3.02) of the intervals observed during baseline. Her percentage of disruptive behaviors varied significantly within this phase, ranging from 10-100%. Her level of disruptive behavior stayed within a similar range in the intervention phase with data overlap at 100% (PND 0%). However, her mean percentage of disruptive behavior was lower (mean = 19.3%, SD = 1.65, range 0-9), with an 8.6% decrease from the baseline mean. There was also less variability in the disruptive behavior data during the intervention phase and a slight decreasing trend as the intervention phase progresses. A small effect size of .13 (p=.49) was calculated for this behavior.

Student 5. *Academically Engaged*. Student 5 was academically engaged an average of 75.3% (SD = 2.59, range 1-10) of the intervals observed in baseline, with an increasing trend in engagement levels approaching intervention. There was significant variability in the percentages of academic engagement reported within this phase. At the start of the intervention phase percentages were at a similar level as the last several points in the baseline phase. However, the overall level of academic engagement was slightly higher in the intervention phase, with a mean of 77.9% (SD = 2.53, range 1-10). A similar amount of variability was present within the intervention phase; and data from baseline to intervention overlapped completely (PND 0%). The effect size for this variable was .07 (p=.74), indicating low effect.

Respectful. Student 5 demonstrated respectful behaviors an average of 94.6% (SD = .92) of the intervals observed during baseline with a range of 70-100%. Respectful behavior data were relatively stable in the baseline phase, ranging from 90-100% for the last several data

points. The data remained stable and consistently high entering the intervention phase and continued at that level for eight data points before dropping sharply for one data point (20%), and then returning to the same level. Student 5 demonstrated respectful behaviors an average of 91.6% (SD =1.83) during the intervention phase with a range of 20-100%. Data from baseline to intervention showed complete overlap with a PND of 0%. Effect size calculations yielded an effect size of .07 (p=.72) for this variable, indicating a minimal effect.

Disruptive. Disruptive behaviors were recorded an average of 19.3% (SD = 2.46) of the intervals observed during baseline for Student 5 with a range of 0-80%. The data were variable in baseline, ranging from 0-50% with a spike of 80% directly before intervention implementation. At the start of the intervention phase, the percentages of disruptive behaviors began to drop from 50% to 0% over four days of data. Disruptive behaviors remained between 0% and 20% for several days before spiking to 90% for one day, and then returning to a lower level. Student 5's mean percentage of disruptive behaviors during the intervention phase was 16.3% (SD = 2.19) with a range of 0-90%. The data were variable, without a clear trend or pattern during intervention. There was total overlap in the data from baseline to intervention with a PND of 0%. An effect size of .01 was calculated (p=.96), indicating minimal impact of the intervention on this variable.

Life Satisfaction

All participants except for Student 5 increased their Life Satisfaction score by one point or more from pre- to post-intervention. A mean increase of .97 points was calculated for the sample. A paired samples t-test reveals that this difference in scores from pre-to post test was significant (p=.04).

Treatment Integrity

Treatment integrity (TI) was consistently high for all students across all sessions. The SSW completed the TI checklists for each session for each student. In total there were 102 tasks recorded on the checklists to be completed with each student during the course of the 10 intervention sessions. Each session had between nine and thirteen tasks to complete. Each task was recorded sequentially on the TI checklist and marked "yes" or "no" to indicate completion. The SSW completed 96.6% of expected tasks for all students. She completed 97% of the expected tasks with Student 1, 98% of tasks for Student 2, 97% of tasks with Student 3, 95% of tasks with Student 4, and 96% of tasks with Student 5. Additionally the student researcher attended 5 intervention sessions and independently recorded TI, which was 100% for those sessions.

Social Validity

URP-IR. The SSW rated this intervention positively overall. There are 6 factors within the URP-IR, consisting of several items each. For the factor of Intervention Acceptability, the SSW marked "Agree" for all items (mean = 5), indicating that she enjoyed using the intervention, believed it to be a good choice for meeting students' needs, and found that it fit in well with her current practices. For the Understanding factor, the SSW also marked "Agree" for all items (mean = 5) meaning that she understood how to use the intervention. For the Home-School Collaboration factor, the SSW's scores were lower (mean = 3.67), meaning that she did not feel strongly that home-school collaboration was needed to implement this intervention. For the factor of Feasibility, the SSW marked "Agree" for all items (mean = 5), indicating that she found the intervention to be reasonably easy to use, not too time consuming to implement, and not requiring too much preparation or record keeping. The SSW also agreed with all items within the System Climate factor (mean = 5), indicating that this intervention is consistent with the

values of her school and fits within her defined role. For the final factor of System Support the SSW "disagreed" to "slightly disagreed" that she would need additional support or resources to implement this intervention (mean = 2.67).

CEI- Child Evaluation. CEI scores show that students had a positive impression of the intervention overall, and that they experienced some positive effects of the intervention. See Table XX for means and standard deviations for each of the CEI items. With the exception of one item, students on average reported a positive response ranging from "some" to a "whole lot" (range 3.2 -4.6) for all items. Student responses indicated that they learned something from the intervention about changing their thoughts and actions and about increasing their happiness.

Responses also indicated that students derived some enjoyment from the intervention and could use the knowledge gained through the intervention to improve some aspect of their lives. Of the 18 items, the least strongly endorsed was "How much did you learn about getting along with other people?" The most strongly endorsed item was "Please rate how you felt about your counselors", suggesting that students developed and maintained a positive rapport with the SSW throughout this intervention experience.

Chapter V: Discussion

Summary of Results

The 10 core sessions of the Well-being Promotion Program (WPP) were implemented with five students using a multiple baseline design to determine if participation in this Positive Psychology Intervention (PPI) would improve students' self-reports of daily happiness and teacher reports of classroom behavior. PPIs such as this are designed to improve subjective well-being (SWB) because high SWB in youth is associated with numerous positive outcomes including: higher academic achievement, fewer behavioral problems, and improved social relationships (Lyons, Heubner & Hill, 2013; Seligman et al., 2009; Suldo, Riley & Schaffer, 2006; Suldo & Schaffer, 2008; Suldo, Thalji & Ferron, 2011; Waters, 2011).

Numerous PPIs implemented with youth have been shown to successfully increase aspects of subjective well-being, including increased positive affect, reduced negative affect, and increased life satisfaction (Froh, Kashdan, Ozimkowski, & Miller, 2009; Layous et. al, 2012; Marques, Lopez, & Pais-Ribeiro, 2011; Proctor et al., 2011; Rashid & Anjum, 2008; Roth, Suldo & Ferron, 2017; Suldo, 2016; Suldo, Savage & Mercer, 2014). Some research findings have also found that PPIs targeting mindfulness, positive emotions, and character strengths have resulted in improvements in student behavior (Rashid et.al, 2013; Schonert-Reichl & Lawlor, 2010; Schonert-Reichl et al., 2015). Further, research on this specific intervention has shown it to be successful in improving aspects of SWB in youth in the school setting. Suldo, Savage, and Mercer (2014) found a statistically significant increase in life satisfaction (one component of SWB) in the students who participated in the intervention. Using an expanded version of the intervention that included a minimal parent component and booster sessions, Roth, Suldo, and Ferron (2017) replicated these findings, showing an increase in life satisfaction for students using this intervention, as well as significant gains in positive affect and reductions in negative affect.

Given these findings, it was hypothesized that an increase in daily happiness (positive affect) might be seen as a result of participating in this intervention, as well as an improvement in classroom behavior. However the results of this study do not support these hypotheses. Using What Works Clearinghouse (WWC) criteria for single case design, these results do not meet the standard of three demonstrations of change at three different points in time. While sufficient data was collected within each phase, high variability in the data resulted in an overall null effect of the intervention on the two dependent variables of daily happiness (self-report rating) and classroom behavior (as measured by the DBR).

The significant variability in the daily happiness data within the baseline and intervention phases made it impossible to observe a clear pattern of change from baseline to intervention through visual inspection of the level, trend, and variability of data. Effect size calculations supported the lack of intervention effect. One anticipated effect of the intervention was an increase in students' mean happiness levels from baseline to intervention but the data did not reflect a significant change in that direction. That said, three out of five participants did show an increase in their mean happiness levels from baseline to intervention, suggesting the potential for a meaningful impact of the intervention on this variable. Additionally, Student 4's mean increase in happiness from baseline to intervention was significant (Tau=.43, p = .002). While this research is exploratory in nature, and no firm conclusions about intervention effects on this variable can be drawn based upon these findings, these findings are promising in that they may indicate the potential for increased happiness through participation in a PPI such as this.

It was also hypothesized that participation in the intervention might lead to improvements in the classroom behaviors of Academic Engagement, Respect, and Disruptive Behavior.

However there were no observable changes in the level, trend, or variability of the classroom

behavior data from baseline to intervention for these behaviors across the five participants.

Classroom behavior data were also highly variable in all phases for all participants, with close to 100% data overlap from baseline to intervention for the three behaviors of Academic Engagement, Respect, and Disruptive Behavior. PND levels were very low (range 0-16%) with no statistically significant changes observed for any of the five students for any of the three behaviors, with the exception of Student 1, who had lower mean levels of engagement and respect from baseline to intervention.

However, the four other students did show an increase in mean Academic Engagement from baseline to intervention. Additionally, four out of five students demonstrated a decrease in mean levels of Disruptive Behavior from baseline to intervention. While these changes were small, this may be consistent with the expected range of movement on the DBR for lower intensity interventions (Chafouleas, Hagermoser Sanetti, Jaffery, & Fallon, 2012; Chafouleas, Sanetti, Kilgus, & Maggin, 2012). Intervention research using these same DBR scales to assess behavior change suggests that smaller changes may be more typical than larger movements on this measure, with a change of 1-2 points considered practically meaningful and significant (Chafouleas, Hagermoser Sanetti, Jaffery, & Fallon, 2012; Chafouleas, Sanetti, Kilgus, & Maggin, 2012).

There are a number of possible reasons for these findings. With respect to the daily happiness rating, students' responses to the daily questions may have been influenced by factors outside of the intervention, contributing to the variability in the ratings across the phases. Day to day life events (e.g. getting back a grade, fighting with a friend, winning a game) may have influenced students' response to the daily survey question more than the intervention. It is also possible that the single-item question did not adequately capture a general sense of happiness.

Time of year may also have had an effect on the daily ratings. Students began answering their question early in the school year and continued through the end of January. If ratings had instead started in March and continued through to June, it is possible that different results may have been observed. It could also simply be the case that the SWBIP-2 does not have a significant impact on the variable of daily happiness, as measured by this 1-item indicator. While this intervention has been shown to be effective in improving life satisfaction (Suldo, Savage & Mercer 2014), as well as positive affect (Roth, Suldo, & Ferron), daily happiness (measured in this manner) may be a different construct, and therefore may not be impacted in the same manner by those strategies that have been shown to successfully increase components of SWB.

With respect to classroom behavior, similar factors may have influenced these ratings. For one, teacher perceptions of students' behaviors may have been influenced day to day by factors internal to the teacher (i.e. level of stress). Additionally, most student behaviors appeared to fluctuate significantly from day to day, creating a high degree of variability in the data for most of the behaviors. Students' variable behavior may also have been influenced by factors other than the intervention, including internal factors (e.g., tiredness, hunger, stress), external factors such as the class activity (i.e. an interesting lesson topic, movie, test, lecture, etc.) and/or life events for the students (i.e. problems at home or with friends).

Additionally, floor and ceiling effects may have impacted results in some cases. Some students did not have much room for change in their behaviors from baseline to intervention. Specifically, Student 1 had consistently low levels of disruptive behavior in both baseline and intervention phases, and Student 5 had consistently high levels of Respectful behaviors from baseline to intervention, leaving little room for improvement in those specific dependent variables. It is also possible that the SWBIP does not have a significant impact on these

classroom behaviors. This specific intervention was developed to target the empirical correlates and theoretical underpinnings of high SWB (Seligman, 2002), not to treat externalizing behavioral problems or mental health conditions that may manifest in behavioral problems. According to the dual factor model of mental health (Keyes, 2009; Suldo & Shaffer, 2008), increasing SWB is not the same as treating a mental or behavioral health problem. Thus it may be possible that more traditional clinical or behavioral interventions would be necessary to observe significant improvements in student behavior. Additionally, it is possible that secondary positive effects of the intervention may appear following gains in SWB.

Despite the fact that no significant changes were observed in the two DVs as a result of this intervention, a meaningful improvement in life satisfaction was observed, consistent with previous research on this intervention (Suldo, Savage & Mercer, 2014; Roth, Suldo & Ferron, 2017). With the exception of one student, all students rated their overall life satisfaction post intervention as higher by one point or more from pre-intervention. It is also worth noting that consumer satisfaction with the intervention was relatively high. The SSW considered the intervention to be effective, feasible and relatively easy to implement, without a need for additional support, resources or excessive time. This is an important factor to consider when identifying intervention options in a school setting. Furthermore, CEI data indicates the students who participated in the intervention all learned something from the intervention that they could apply to their lives to improve their happiness, which was a key goal of this study.

Additionally, qualitative data gathered through informal debriefings with the students following the intervention spoke to the positive experience students had with the intervention as well as the potential positive impacts of the intervention. Students all shared that they enjoyed participating in the intervention in the one-to-one counseling sessions and that they all took away

something meaningful to apply to their lives. Different students preferred different activities, which is a positive aspect of utilizing a multi-component intervention such as this. As an example, while one student may not have been as impacted by the Acts of Kindness, that same student really appreciated learning about their signature strengths. Two students also made the point that while their daily ratings may not have shown a significant change; it didn't mean that the intervention did not have a positive impact upon them and their lives.

Limitations

There are several limitations to this study related to the participant selection, measurement, study design, and implementation. With respect to the participants selected, all students identified for this intervention had persistent difficulties in school that were manifested by both academic and behavior problems. It is possible that a wellness promotion intervention such as this may not have been sufficiently intense to produce short-term, measureable changes in behavior or happiness when such significant challenges were present. While this intervention was successful in teaching students skills to become happier, it is possible that the problems and challenges facing these students required more traditional or intensive methods of treating behavioral and academic problems.

With respect to measurement, these two measures may not have been able to capture the positive impacts of the intervention on these students. As mentioned previously, some students had limited room for growth on some of the classroom behaviors being measured. Additionally, while the intervention was implemented with high fidelity, the duration of the intervention was longer than anticipated. The intent of this study was to have the intervention delivered over the course of five to seven weeks. However, factors including student absences and scheduled days off as well as other demands placed upon the SSW's time, made this impossible. Therefore the

intervention took longer than intended to deliver, which may have decreased the intensity, and thus the impact on student happiness and behavior. Due to the length of time of the study, history and maturation effects could also be considered limitations of this research.

From a design standpoint, a group design with treatment and control groups might better capture intervention effects. In combination with a group design, using measurements of happiness and behavior at different intervals, such as on a weekly basis, with a control group for comparison may also better capture changes in happiness and behavior that could be attributed to the intervention. Last, with respect to external validity, generalizability of findings are limited due to the small sample size.

Directions for Future Research

This study represented exploratory research on one application of the SWBIP (to an atrisk population of students) using the outcome measures of self-reported daily happiness and classroom behavior (as measured by the DBR). Various aspects of this study could be modified to better understand the utility of this intervention for at-risk students, or to explore other applications of this intervention. For one, this study could be replicated with a similar sample of students using the outcome measures, but with a group design and a larger sample size. Utilization of random assignment to a control or intervention group may more conclusively show any effects of this intervention on these variables in an at risk population of students.

Alternately, this study could be replicated using the same multiple baseline design and outcome measures, but with a different population of students. Rather than focusing upon at-risk students, more typically functioning students may be selected to determine the effects of the intervention on the variables of daily happiness and classroom behaviors. Perhaps choosing

students who have fewer significant academic and/or behavioral problems would make it possible to observe more impact of the intervention on these variables.

Future research on this intervention with either an at-risk or a typically functioning sample of students could also examine the outcome variables of happiness and behavior using different measures and/or different intervals for measurement. A longer happiness survey, or multi-item survey of positive affect may better capture a more global assessment of happiness than the one question survey used in the present study. Other behavioral measures may also be an effective way to assess classroom behavior, such as an on-off task observation with tallies of disruptive behavior. In general, it can be posited that more research on the effects of this and other PPIs with at-risk populations of students may be warranted due to the potential positive impacts of PPIs and this particular population's need for intervention.

Implications for Practice

Due to the small scale, exploratory nature of this study and the lack of observed intervention effects on the selected DVs, implications for practice are limited. More research would be needed to draw any firm conclusions about how this intervention may be applied to this particular population of at-risk students. However, school based mental health professionals may still consider this intervention a viable option for individual or small group work with students, if the goal of service is to teach students happiness building strategies and improve life satisfaction. Previous research has shown the intervention to be effective for these purposes and these findings were also confirmed by the current study.

Additionally, the relative simplicity of delivery of the core sessions of the WPP and student satisfaction with the intervention suggest that it may be a useful tool for school-based mental health professionals to add into their repertoire of counseling supports. No harm has been

shown to come from attempting the activities in the program, however there is a potential for improved well-being. Perhaps school-based service providers would find it useful to implement this intervention in conjunction with other services and supports to address students' academic and behavioral needs.

Conclusion

Implementation of the 10 core sessions of the WPP did not produce measureable effects on the students' daily happiness and classroom behavior, but notable improvements were seen in students' life satisfaction. Additionally, though the effects were small, positive changes in daily happiness as well as in the classroom behaviors of Academic Engagement and Disruptive Behavior were observed for the majority of the students. While this research is exploratory and these findings are certainly not conclusive, even small changes in this positive direction may be considered promising for those working with this at-risk population of adolescents. Further, this research did add to the current literature on applications of PPIs in the schools by implementing a PPI in school-based counseling sessions with at risk high school students, and by utilizing different outcome measures to assess intervention effects. This study also utilized a recently developed manualized PPI which was created with a strong base of theoretical support, but which has only been formally evaluated in two published studies to date (Roth, Suldo, & Ferron, 2017; Suldo, Savage, & Mercer, 2014).

Additionally, this study added to the research base on PPIs in the schools because the students in the current study did show a significant improvement in their life satisfaction following the intervention. This is consistent with the findings of much previous research that has shown that PPIs can effectively improve life satisfaction in youth. Further, there are a

multitude of different ways to continue research on this intervention in the school setting to better understand how it may help students and impact their school functioning.

References

- Abdel-Khalek, A. M. (2006). Measuring happiness with a single-item scale. *Social Behavior and Personality: an international journal*, *34*, 139-150.
- Bowers, A. J., Sprott, R., & Taff, S. A. (2013). Do we know who will drop out? A review of the predictors of dropping out of high school: Precision, sensitivity, and specificity. *The High School Journal*, *96*, 77-100.
- Chafouleas, S., Hagermoser Sanetti, M., Jaffery, L., & Fallon, R. (2012). An evaluation of a classwide intervention package involving self-management and a group contingency on classroom behavior of middle school students. *Journal of Behavioral Education*, 21, 34-57.
- Chafouleas, S. M., Sanetti, L. H., Kilgus, S. P., & Maggin, D. M. (2012). Evaluating sensitivity to behavioral change using Direct Behavior Rating Single-Item Scales. *Exceptional Children*, 78, 491-505.
- Diener, E. (2012). New findings and future directions for subjective well-being research.

 *American Psychologist, 67, 590-597. DOI: http://dx.doi.org/10.1037/a0029541
- Froh, J. J., Bono, G., Fan, J., Emmons, R. A., Henderson, K., Harris, C., & ... Wood, A. M. (2014). Nice thinking! An educational intervention that teaches children to think gratefully. *School Psychology Review, 43*, 132-152.
- Froh, J., Kashdan, T., Ozimkowski, K., & Miller, N. (2009). Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a moderator. The *Journal of Positive Psychology*, *4*, 408–422.

- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46, 213-233. doi:10.1016/j.jsp.2007.03.005
- Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M,
 Winder, B., Peterson, C., Park, N., Abenavoli, R., Contero, A. & Seligman, M.E.P.
 (2011) Character strengths Predict subjective well-being during adolescence. *The Journal of Positive Psychology*, 6, 31-44, DOI: 10.1080/17439760.2010.536773
- Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatté, A. J., Samuels, B., & ...

 Seligman, M. P. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the penn resiliency program. *Journal of Consulting and Clinical Psychology*, 75, 9-19. doi:10.1037/0022-006X.75.1.9
- Green, S., Anthony, T., & Rynsaardt, J. (2007). Evidence-based life coaching for senior high school students: Building hardiness and hope. *International Coaching Psychology Review*, *2*, 24–32.
- Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research*, *54*, 81.
- Hurley, D. B., & Kwon, P. (2012). Results of a study to increase savoring the moment:

 Differential impact on positive and negative outcomes. *Journal of Happiness Studies*, *13*, 579-588. doi:10.1007/s10902-011-9280-8
- Iachini, A. L., Brown, E. L., Ball, A., Gibson, J. E., & Lize, S. E. (2015). School mental health early interventions and academic outcomes for at-risk high school students: A meta-analysis. *Advances in School Mental Health Promotion*, 8, 156-175. doi:10.1080/1754730X.2015.1044252

- Jayawickreme, E., Forgeard, M. C., & Seligman, M. P. (2012). The engine of well-being. *Review of General Psychology*, 16, 327-342. doi:10.1037/a0027990
- Jenson, W. R., Olympia, D., Farley, M., & Clark, E. (2004). Positive Psychology and Externalizing Students in a Sea of Negativity. *Psychology in The Schools, 41*, 67-79. doi:10.1002/pits.10139
- Keyes, C. (2002). The mental health continuum: From languishing to flourishing. *Journal of Health and Social Research*, 43, 207–222
- Keyes, C. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology*, 73, 539-548. doi:10.1037/0022-006X.73.3.539
- Keyes, C. L. M. (2009). The nature and importance of positive mental health in America's adolescents. In R. Gilman, E. S. Huebner, & M.J. Furlong (Eds.), Handbook of positive psychology in schools (pp. 9-23). New York, NY: Routledge.
- Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M & Shadish, W. R. (2010). Single-case designs technical documentation. Retrieved from What Works Clearinghouse website: http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf
- Kremer, K. P., Flower, A., Huang, J., & Vaughn, M. G. (2016). Behavior problems and children's academic achievement: A test of growth-curve models with gender and racial differences. Children and Youth Services Review, 6795-104.

 doi:10.1016/j.childyouth.2016.06.003
- Kutash, K., Duchnowski, A. J. & Lynn, N, (2006). School-based mental health: An empirical

- guide for decision-makers. Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Department of Child & Family Studies, Research and Training Center for Children's Mental Health
- Lyons, M. D., Huebner, E. S., & Hills, K. J. (2013). The dual-factor model of mental health: A short-term longitudinal study of school-related outcomes. *Social Indicators Research*, 114, 549-565. doi:10.1007/s11205-012-0161-2
- Lyons, M. D., Otis, K. L., Huebner, E. S., & Hills, K. J. (2014). Life satisfaction and maladaptive behaviors in early adolescents. *School Psychology Quarterly*, 29, 553-566. doi:10.1037/spq0000061
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*, 803–855.
- Marques, S. C., Lopez, S. J., & Pais-Ribeiro, J. L. (2011). 'Building hope for the future': A program to foster strengths in middle-school students. *Journal of Happiness Studies*, *12*, 139-152. doi:10.1007/s10902-009-9180-3
- Miller, D. N., & Nickerson, A. B. (2007). Changing the past, present, and future: Potential applications of positive psychology in school-based psychotherapy with children and youth. *Journal of Applied School Psychology*, 24, 147-162. doi:10.1300/J370v24n01_08
- National Alliance of Mental Illness (NAMI), 2014. Data retrieved from:

 https://www.nami.org/getattachment/Learn-More/Mental-Health-by-theNumbers/childrenmhfacts.pdf
- Odou, N., & Vella-Brodrick, D. A. (2013). The efficacy of positive psychology interventions to increase well-being and the role of mental imagery ability. *Social Indicators Research*, 110, 111-129. doi:10.1007/s11205-011-9919-1

- Park, N. (2004). The role of subjective well-being in positive youth development. *The Annals of the American Academy of Political and Social Science*, 591, 25-39.
- Parker, R. I., Hagan-Burke, S., & Vannest, K. (2007). Percentage of all non-overlapping data (PAND) an alternative to PND. *The Journal of Special Education*, 40, 194-204.
- Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification. New York: Oxford University Press and Washington, DC: American Psychological Association. www.viacharacter.org
- Rashid, T & Anjum, A. (2008). Positive Psychotherapy for Children and Adults. In J.R.Z. Abela & B.L. Hankin (Eds.) Handbook of Depression in Children and Adolescents (pp. 250-286). New York, NY: The Guilford Press.
- Rashid, T., Anjum, A., Lennox, C., Quinlan, D., Niemiec, R. M., Mayerson, D., & Kazemi, F.
 (2013). Assessment of character strengths in children and adolescents. In C. Proctor, P.
 A. Linley, C. Proctor, P. A. Linley (Eds.), Research, applications, and interventions for children and adolescents: A positive psychology perspective (pp. 81-115). New York,
 NY, US: Springer Science + Business Media. doi:10.1007/978-94-007-6398-2
- Renshaw, T. L., & Cohen, A. S. (2014). Life satisfaction as a distinguishing indicator of college student functioning: Further validation of the two-continua model of mental health.

 *Social Indicators Research, 117, 319-334. doi:10.1007/s11205-013-0342-7
- Rodríguez-Muñoz, A., Sanz-Vergel, A. I., Demerouti, E., & Bakker, A. B. (2014). Engaged at work and happy at home: A spillover–Crossover model. *Journal of Happiness Studies*, *15*, 271-283.
- Rones, M. & Hoagwood, K. (2000). School-based mental health services: A research review. *Clinical Child and Family Psychology Review, 3*, 223-241.

- Roth, R. A, Suldo, S.M., & Ferron. (2017). Improving middle school students' subjective well-being: Efficacy of a multi-component Positive Psychology Intervention targeting small groups of youth and parents. *School Psychology Review*, 46, 21–41.
- Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness*, *1*(3), 137-151. doi:10.1007/s12671-010-0011-8
- Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K., Oberlander, T. F., & Diamond, A. (2015). Enhancing cognitive and social—emotional development through a simple-to-administer mindfulness-based school program for elementary school children: A randomized controlled trial. *Developmental Psychology*, *51*(1), 52-66. doi:10.1037/a0038454
- Seligman, M. E. (2011). Flourish: A visionary new understanding of happiness and well-being (1st Free Press hardcover ed.). New York, NY: Free Press.
- Seligman, M. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14. doi:10.1037/0003-066X.55.1.5
- Seligman, M., Ernst, R., Gillham, J., Reivich, K., & Linkin, M. (2009). Positive education:

 Positive psychology and classroom interventions. *Oxford Review of Education*, *35*, 293–311.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American psychologist*, 60, 410.
- Senf, K., & Liau, A. K. (2013). The effects of positive interventions on happiness and depressive symptoms, with an examination of personality as a moderator. *Journal of Happiness Studies*, *14*, 591-612. doi:10.1007/s10902-012-9344-4

- Shinn, M. R., Walker, H. M., & Stoner, G. (2002). Interventions for academic and behavior problems II: Preventive and remedial approaches. Washington, DC, US: National Association of School Psychologists.
- Shoshani, A. & Steinmetz, S. (2014). Positive Psychology at School: A School-Based Intervention to Promote Adolescents' Mental Health and Well-Being. *Journal of Happiness Studies*, 15, 1289-1311
- Sin, N. & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology: In Session, 65,* 467 487.
- Suldo, S.M. (2016). Promoting Students' Happiness: Positive Psychology Intervention Strategies in School-Based Practice. New York, NY: Guilford Publications.
- Suldo, S. M., Riley, K. N., & Shaffer, E. J. (2006). Academic correlates of children and adolescents' life satisfaction. *School Psychology International* 27, 567-582.
- Suldo, S.M., Savage, J.A., & Mercer, S.H. (2014). Increasing Middle School Students Life Satisfaction: Efficacy of a positive psychology intervention. *Journal of Happiness Studies*, *15*, 19-42.
- Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, *37*, 52-68.
- Suldo, S. M., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective well-being, psychopathology, and mental health status yielded from a dual factor model. *The Journal of Positive Psychology*, 6, 17-30.
- Suldo, S.M., Thalji-Raitano, A., Kiefer, S., & Ferron, J. (2016). Conceptualizing high school students' mental health through a dual-factor model. *School Psychology Review*,

- *45*, 434 457.
- Waldinger, R. J., & Schulz, M. S. (2010). What's love got to do with it? Social functioning, perceived health, and daily happiness in married octogenarians. *Psychology and aging*, 25, 422.
- Waters, L. (2011). A review of school-based positive psychology interventions. *The Australian Educational and Developmental Psychologist*, 28, 75-90. doi:10.1375/aedp.28.2.75
- Zins, J., Bloodworth, M., Weissberg, R., & Walberg, H. (2004). The scientific base linking social and emotional learning to school success. In J.E.Zins, R.P.Weissberg, M.C.Wang, & H.J.Walberg (Eds.), Building academic success on social and emotional learning: What does the research say? (pp. 3–22). New York, NY: Teachers College Press.

Table 1
Well-being Promotion Program Core Sessions

Session	Summary of Session Content
1	Introduce intervention; increase understanding of subjective well-being; You at Your Best writing and sharing exercise.
2 & 3	Focus on gratitude; daily gratitude journaling; gratitude visit
4	Focus on kindness; students perform five Acts of Kindness
5, 6 & 7	Identify students' signature character strengths using the Values in Action Inventory of Strengths for Youth; apply signature strengths in new ways; extend enjoyment of positive experiences by learning savoring techniques
8	Thinking optimistically
9	Hopeful thinking; Best Possible Self in the Future writing activity
10	Termination; review of the happiness strategies; discuss how to apply strategies to future life situations

Table 2
Students' Daily Happiness Ratings

	Baseline			Intervention			Effect Size	PND
	M	(SD)	Range	M	(SD)	Range		
Student 1	3.909	1.054	3-6	3.439	1.853	0-10	-0.201	5.5
Student 2	5.214	.89	3-7	4.421	1.15	1-7	-0.4273	0.0
Student 3	5.833	2.62	1-9	6.516	2.6	0-10	0.1563	7.8
Student 4	3.5	1.77	0-7	4.904	1.79	0-8	0.4295	3.8
Student 5	3.806	2.02	0-7	4.688	1.5	1-8	0.2272	2.8

Table 3

Daily Behavior Rating (DBR)

	Baseline Ratings			Intervention Ratings			Effect Size	p	
	M	(SD)	Range	M	(SD)	Range			
Academically Engaged									
Student 1	7.2	.836	6-8	5.8	2.02	0-9	-0.5419	0.0547	
Student 2	6.7	3.335	0-10	6.9	2.77	0-10	0.0375	0.8594	
Student 3	5.5	3.016	2-10	7.3	2.972	1-10	0.3333	0.2076	
Student 4	7.9	1.94	3-9	8.1	1.05	6-10	0.0767	0.6902	
Student 5	7.5	2.59	1-10	7.8	2.53	1-10	0.0667	0.7418	
				Respectfu	ıl				
Student 1	9.0	.707	8-10	7.258	1.806	0-9	-0.7161	0.0111	
Student 2	6.8	3.084	0-10	6.625	2.970	0-10	-0.0844	0.6901	
Student 3	8.0	2.0	5-10	8.741	1.83	1-10	0.2531	0.3386	
Student 4	7.2	2.359	1-9	7.0	1.98	2-10	-0.1534	0.4253	
Student 5	9.5	0.915	7-10	9.158	1.834	2-10	-0.0702	0.7287	
Disruptive									
Student 1	1.4	.5477	1-2	1.419	.99	0-4	0.0065	0.9818	
Student 2	2.6	2.458	0-9	1.688	1.615	0-8	-0.2906	0.1697	
Student 3	3.0	4.65	0-9	2.926	3.65	0-10	-0.0617	0.8155	
Student 4	2.8	3.017	0-10	1.926	1.685	0-9	-0.1323	0.4919	
Student 5	1.9	2.463	0-8	1.632	2.191	0-9	0.0105	0.9585	

Table 4
Student Life Satisfaction Scale (SLSS)

	Pre- Intervention	Post - Intervention	Difference
Student 1	3.57	5.0	1.43
Student 2	3.43	4.43	1.0
Student 3	3.57	4.86	1.29
Student 4	2.0	3.43	1.43
Student 5	4.86	4.57	29

Table 5

SLSS Paired Samples t-test

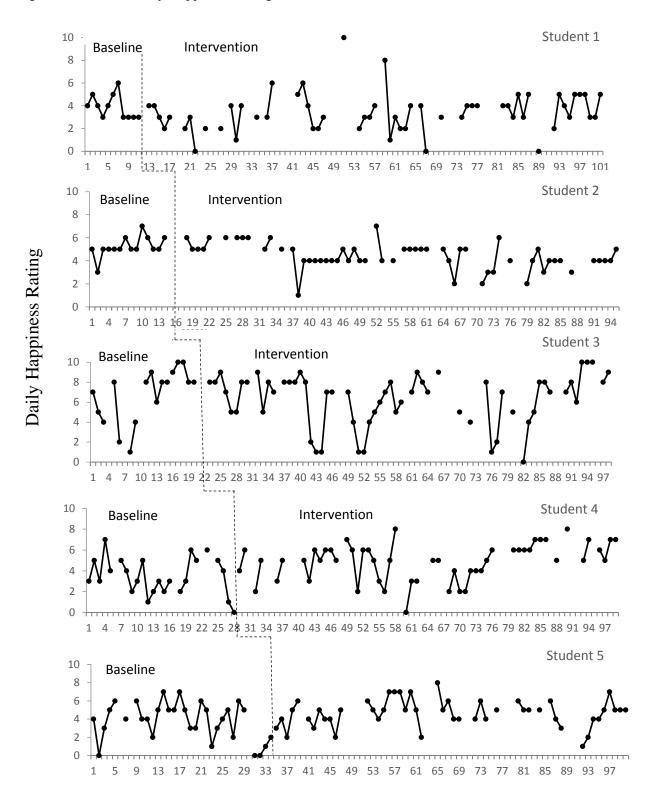
	Pre- Intervention	Post- Intervention	Mean Difference	SD	t-score	df	р
SLSS Pre-Post	3.49	4.45	.97	.72	2.99	4	.04

Table 6

CEI-Child Evaluation

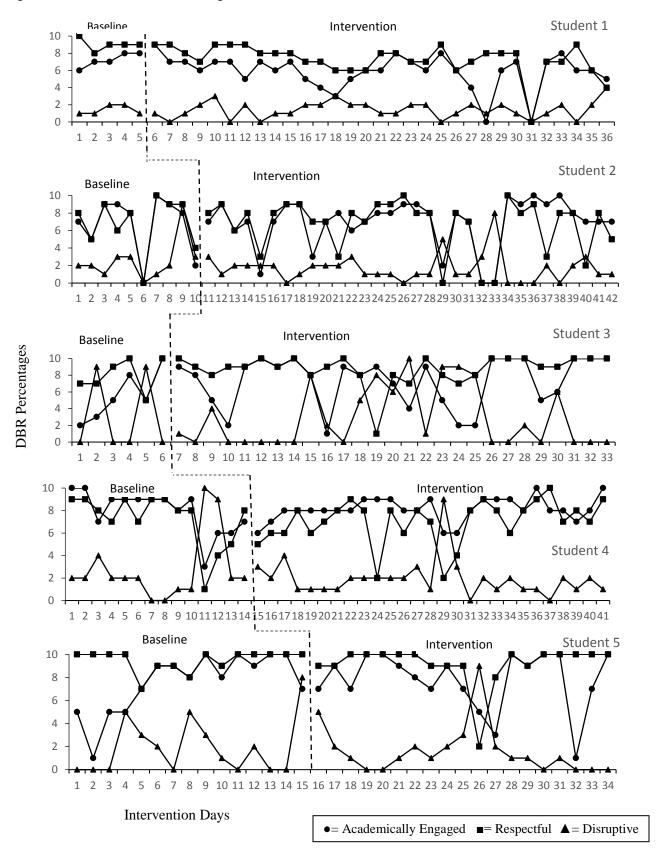
Item	Mean	SD	Range
How much do you think you have learned from counseling?	3.4	0.55	3-4
How much did you learn about changing your actions and thoughts?	3.6	0.89	3-5
How much did you learn about increasing happiness?	3.2	0.84	2-4
How much did you learn about getting along with other people?	2.4	0.89	2-4
How much fun was it to be in counseling?	3.6	1.14	2-5
How much did you look forward to going to the counseling meetings?	3.8	0.84	3-5
When you were in the meetings, did you want them to be over quickly?	3.6	0.89	3-5
How much did you like counseling?	3.6	0.89	3-5
How interesting were the meetings?	3.4	0.55	3-4
Please rate how you felt about your counselors.	4.6	0.55	4-5
Please rate how much you think your counselors liked you.	4.4	0.89	3-5
Are you able to use what you learned in counseling to help you in school?	3.6	0.55	3-4
Are you able to use what you learned in counseling to help you become happier?	3.8	0.84	3-5
Are you able to use what you learned in counseling in dealing with adults?	3.2	0.84	2-4
Are you able to use what you learned in counseling in dealing with other students?	3.2	1.30	2-5
How much have your thoughts and actions improved because you were in counseling?	3	0.71	2-4

Figure 1. Students' Daily Happiness Ratings



Intervention Days

Figure 2. Classroom Behavior Ratings



APPENDIX A

Administrator Recruitment Script

Step 1: Initial Contact

Hello. Thank you for taking the time to speak with me. I am Emily DeBiase and I am a PhD student working under the supervision of Dr. Melissa Bray from the School Psychology Program at the University of Connecticut. My advisor and I are investigating ways to improve social-emotional and behavioral outcomes for at risk students. This research study is for high school students aged 14-18 years who are in need of Tier 2 or 3 social-emotional intervention due to academic disengagement and/or behavioral difficulty in school. The goal of our research is to see if student participation in a Positive Psychology Intervention (PPI), the core sessions of the Wellbeing Promotion Program, can lead to improvement in their daily happiness and classroom behavior. The idea is that these improvements may open the door to other positive experiences and outcomes for these students over time, like improved academic performance.

If you are interested in this idea, I'd like to give you an overview of the study procedures and describe the risks and benefits associated with this research. This will give you a chance to learn more about the study and ask any questions you may have.

Step 2: Describe Procedures

If you agree to have this study take place at your school, consent forms will be completed by all individuals involved in the study including (students, parents of those students, classroom teachers, and the school psychologist and/or social worker).

The following procedures will take place during the 2016-2017 school year:

School-based mental health professionals will be approached to determine their interest in participating in this intervention research. The intervention content and timeline will be explained to the school-based professional by the student researcher. Once a mental health professional is identified who is willing to administer the intervention, that individual will be asked to identify (10 - 20) students who may be good candidates for the intervention.

Student participants will be nominated on the basis of the following criteria: (1) The student demonstrates a low level of academic engagement as measured by teacher reports and/or a loss of academic credit and/or (2) The student has a history of school behavioral/discipline problems which may include: disruptive classroom behavior, negative interpersonal interactions, office discipline referrals, as measured by school staff reports and/or review of school records.

After students who meet these criteria are nominated by school staff, these students will be approached by the mental health professional to determine their interest in participating in the intervention. If they are willing to participate, consent for study participation will be given to their parents and/or to the student if the student is 18 years of age. For students under 18, study assent will be obtained.

Next, interested students who have consent to participate will complete two additional brief screening measures to ensure they have potential to benefit from this type of intervention. Students who may benefit would be (1) students with lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and (2) students who report being less than totally happy as measured by a score of 6 or less on the General Happiness Scale (AuthenticHappiness,org). Of the students who meet these screening criteria, 3-5 students will be selected to be in the study.

Classroom teachers of those selected students will be approached in order to identify one teacher per student who is willing and able to complete the Daily Behavior Rating (DBR) form for each student for one class period a day, to track their classroom behavior before and during the intervention. The DBR form and completion instructions will be reviewed with the teacher by the student researcher.

Concurrently, the mental health professional will be working with the student and his/her teachers to identify times to schedule the intervention sessions, which will occur once to twice weekly for 30-45 minutes in the mental health professional's office for a period of 5-7 weeks, during which the content of 10 sessions will be completed.

Before starting the intervention, baseline data will be gathered on each student. The two variables we will be looking at are students' daily self-reports of happiness and teacher reports of classroom behavior. Students will respond to a one question survey which they will receive via text or email once daily asking them how they are feeling. Teachers will compete the DBR following one class period per day for the student. Students will also meet with the student researcher for about 5 minutes to complete the Student Life Satisfaction Scale (SLSS), a brief scale which will be used as a pre- and post-test measure of intervention effects.

Students will not all start the intervention at the same time, rather the intervention start times will be staggered such that each student starts one week after the previous student. Students will be randomly assigned to their intervention order. Baseline data collection will last one week for the first student, two weeks for the second, and so one. This staggering procedures is part of a study design called "multiple-baseline" design. The intervention start time is staggered to show that any changes observed in the students' mood and behavior are really the result of the intervention, and not some other outside factors.

During the intervention phase, each student will meet individually with the mental health professional to receive the intervention. The intervention is called, the core sessions of the Wellbeing Promotion Program (Suldo, 2016). It is a multi-component, multi-target PPI. The 10 session student component of this PPI will be implemented over the course of five to seven school weeks in individual counseling sessions with a school-based mental health professional. Each of the 10 sessions includes activities and homework assignments that are designed to enhance students' gratitude, acts of kindness, use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. These session activities are divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session.

Data will be collected daily on the students' happiness and classroom behavior while they are participating in the intervention. Following completion of the intervention, students will take the SLSS again. Six to eight weeks after the intervention is completed for each student, the student will take the daily happiness survey and the teacher will complete the DBR for one week to see if intervention effects are maintained.

Step 3: Describe Risks and Benefits

A potential risk to your students involves missing class activities, however every effort will be made to schedule the intervention sessions during the least intrusive times of the day (such as study hall times) to minimize the impact of missed class time. Students may also find completing the daily happiness rating for the duration of the study to be a minor inconvenience.

Potential risks for teachers include the inconvenience of completing a daily behavior rating for one class period per day for the duration of the study. The DBR form is brief, which should minimize the inconvenience, however it will still take time each day to do.

The inconveniences for the mental health professional include taking the time to learn and deliver a new intervention program, and taking the time at the end of the study to complete the Usage Rating Profile- Intervention Revised (about 15 minutes) to provide their feedback on the intervention program.

Your students may not directly benefit from this research; which is another potential risk of this study. However, we hope that their participation in the study helps us to determine the potential benefits of this intervention for students who are in need of additional social-emotional support.

There are some potential benefits for the students and staff who participate in this research as well. For one, the intervention may improve their daily happiness levels and/or their classroom behavior. These improvements alone would be of value, however improvements in these areas may also have a positive impact on other areas, such as students' availability for instruction. Moreover, through participation in the intervention, student participants may learn "happiness skills" that they can apply after the study to help them overcome other challenges they may face. Additionally, teachers can benefit from students' improved behavior, as this may contribute to more time being available for learning tasks. Mental health professionals will also learn a new, research-based intervention and be provided with the materials at no cost, which they may use in their ongoing work with students. Teachers and mental heal professionals will also be offered an incentive participation. They will receive a \$25.00 Amazon gift card at the study's end.

Step 4: Ending the Meeting

I have given you a lot of information today. Do you have any questions that would help you decide whether or not you would like to participate?

If you are still interested in having the study take place at your school, I would like to give you a permission form which includes all of the information we have discussed today. Please complete the form within one week if you plan on participating in the study. If you decide to participate, please contact me through email (Emily.debiase@uconn.edu) and I will collect the consent form.

If you have any questions or concerns after considering and reviewing this information, please call me at (860) 916-41861503. Thank you for your time today. **End meeting.**

APPENDIX B

Administrator Permission Form for Participation in a Research Study

University of Connecticut

Principal Investigator: Melissa Bray, Ph.D., Professor of School Psychology

Student Researcher: Emily DeBiase, MS, 6th Year, Doctoral Candidate in School Psychology **Study Title:** Improving Well-being and Behavior in Adolescents Utilizing a School-based

Positive Psychology Intervention **Sponsor:** University of Connecticut

Introduction

Thank you for taking the time to read this permission form. This form is requesting your permission to allow this research study to be conducted in your school. This research is conducted by the student researcher, Emily DeBiase for her dissertation under the direction of Prof. Melissa Bray, Ph. D. from the Department of School Psychology in the Neag School of Education. Approval for this research to be conducted in Newington Public Schools has been given by _______ (letter enclosed).

Why is this research study being done?

The purpose of this research study is to investigate whether a school-based Positive Psychology Intervention (PPI) will lead to improved daily mood and behavior among at-risk high school students. The primary research questions are: 1.) Will students report increased happiness as measured by a daily happiness survey while participating in this intervention? 2.) Will students demonstrate positive changes in classroom behavior as measured by daily teacher ratings during the course of the intervention? Students considered to be at risk due to academic and/or behavioral challenges are in need of evidence-based interventions to help them attain more positive outcomes. PPIs are designed to build skills and strengths and to enhance positive emotions and experiences. PPIs have increasingly been used in school settings to enhance student well-being and to foster a number of other behaviors important to student success, such as a positive attitude towards learning, increased school satisfaction, improved social skills, and increased academic engagement. PPIs have also been used with children and adolescents to reduce symptoms of anxiety and depression and to increase positive affect. Additionally, there is some preliminary evidence of the efficacy of PPIs in preventing the development of externalizing behaviors in children and adolescents.

What are the research procedures?

If you agree to have this study take place at your school, consent forms will be completed by all individuals involved in the study including (students, parents of those students, classroom teachers, and the school psychologist and/or social worker).

The following procedures will take place during the 2016-2017 school year:

School-based mental health professionals will be approached to determine their interest in participating in this intervention research. The intervention content and timeline will be explained to the school-based professional by the student researcher. Once a mental health professional is identified who is willing to administer the intervention, that individual will be asked to identify (10 - 20) students who may be good candidates for the intervention.

Student participants will be nominated on the basis of the following criteria: (1) The student demonstrates a low level of academic engagement as measured by teacher reports and/or a loss of academic credit and/or (2) The student has a history of school behavioral/discipline problems which may include: disruptive classroom behavior, negative interpersonal interactions, office discipline referrals, as measured by school staff reports and/or review of school records.

After students who meet these criteria are nominated by school staff, these students will be approached by the mental health professional to determine their interest in participating in the intervention. If they are willing to participate, consent for study participation will be given to their parents and/or to the student if the student is 18 years of age. For students under 18, study assent will be obtained.

Next, interested students who have consent to participate will complete two additional brief screening measures to ensure they have potential to benefit from this type of intervention. Students who may benefit would be (1) students with lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and (2) students who report being less than totally happy as measured by a score of 6 or less on the General Happiness Scale (AuthenticHappiness,org). Of the students who meet these screening criteria, 3-5 students will be selected to be in the study.

Classroom teachers of those selected students will be approached in order to identify one teacher per student who is willing and able to complete the Daily Behavior Rating (DBR) form for each student for one class period a day, to track their classroom behavior before and during the intervention. The DBR form and completion instructions will be reviewed with the teacher by the student researcher.

Concurrently, the mental health professional will be working with the student and his/her teachers to identify times to schedule the intervention sessions, which will occur once to twice weekly for 30-45 minutes in the mental health professional's office for a period of 5-7 weeks, during which the content of 10 sessions will be completed.

Before starting the intervention, baseline data will be gathered on each student. The two variables we will be looking at are students' daily self-reports of happiness and teacher reports of classroom behavior. Students will respond to a one question survey which they will receive via text or email once daily asking them how they are feeling. Teachers will compete the DBR after one class period per day for the student. Students will also meet with the student researcher for about 5 minutes to complete the Student Life Satisfaction Scale (SLSS), a brief scale which will be used as a pre- and post-test measure of intervention effects.

Students will not all start the intervention at the same time, rather the intervention start times will be staggered such that each student starts one week after the previous student. Students will be randomly assigned to their intervention order. Baseline data collection will last one week for the first student, two weeks for the second, and so one. This staggering procedures is part of a study design called "multiple-baseline" design. The intervention start time is staggered to show that any changes observed in the students' mood and behavior are really the result of the intervention, and not some other outside factors.

During the intervention phase, each student will meet individually with the mental health professional to receive the intervention. The intervention is called, the Well-being Promotion Program (Suldo 2016). It is a multi-component, multi-target PPI. Only the 10 core session student component of this PPI will be implemented over the course of five to seven school weeks in individual counseling sessions with a school-based mental health professional. Each of the 10 sessions includes activities and homework assignments that are designed to enhance students' gratitude, acts of kindness, use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. These session activities are divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session.

Data will be collected daily on the students' happiness and classroom behavior while they are participating in the intervention. Following completion of the intervention, students will take the SLSS again. Six to eight weeks after the intervention is completed for each student, the student will take the daily happiness survey and the teacher will complete the DBR to see if intervention effects are maintained.

Space and Equipment Requirements

No space or equipment needs are required to do this research.

What are the risks or inconveniences of the study?

A potential risk to your students involves missing class activities, however every effort will be made to schedule the intervention sessions during the least intrusive times of the day (such as study hall times) to minimize the impact of missed class time. Students may also find completing the daily happiness rating for the duration of the study to be a minor inconvenience.

Potential risks for teachers include the inconvenience of completing a daily behavior rating for one class period per day for the duration of the study. The DBR form is brief, which should minimize the inconvenience, however it will still take time each day to do.

The inconveniences for the mental health professional include taking the time to learn and deliver a new intervention program, and taking the time at the end of the study to complete the Usage Rating Profile-Intervention Revised (about 15 minutes) to provide their feedback on the intervention program.

Your students may not directly benefit from this research; which is another potential risk of this study. However, we hope that their participation in the study helps us to determine the potential benefits of this intervention for students who are in need of additional social-emotional support.

What are the benefits of the research?

There are some potential benefits for the students and staff who participate in this research. For one, the intervention may improve students' daily happiness levels and/or their classroom behavior. These improvements alone would be of value, however improvements in these areas may also have a positive impact on other areas, such as students' availability for instruction. Moreover, through participation in the intervention, students may learn "happiness skills" that they can apply after the study to help them overcome other challenges they may face. Additionally, teachers may benefit from students' improved behavior, as this may contribute to more time being available for learning tasks. Mental health professionals will also learn a new, research-based intervention and be provided with the materials at no cost, which they may use in their ongoing work with students.

Will there be payments for participation? Are there costs to participate?

There are no costs associated with this study. Cooperating staff will be given a \$25 Amazon gift card as a thank you for their participation.

How will the information of my staff and students be protected?

The following procedures will be used to protect the confidentiality of the data collected from you. The researchers will keep all study records (including any codes to your data) locked in a secure location. Research records will be labeled with a code. The code will be derived from the student's first and last initial followed by a number to reflect how many people have enrolled in the study. All electronic files (e.g., database, spreadsheet, etc.) containing identifiable information will be password protected. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the primary investigator and student researcher will have access to the passwords. Data that will be shared with others will be coded as described above to help protect students' identities. At the conclusion of this study, the researchers may publish their findings. Information will be presented in summary format and you will not be identified in any publications or presentations. We will do our best to protect the confidentiality of the information we gather from you but we cannot guarantee 100% confidentiality. In certain situations, such as when abuse or neglect is suspected, the student researcher will have to break confidentiality.

You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Can my staff, students, and I rescind permission and what are our rights?

School staff and students do not have to participate in this research if they do not choose to do so. If they do agree to be in the study, but later change their mind, they may withdraw at any time. There are no penalties or consequences if they decide that they do not want to participate.

In addition, you do not have to allow that this research be conducted in your school. If you agree to allow the research to occur in your school building and later change your mind, you may withdraw it at any time. There are no penalties or consequences of any kind if you decide not to allow this research in your school.

Whom do I contact if I have questions about the research?

We will be happy to answer any question you have about this study. If you have further questions about this study or if you have a research-related problem, you may contact the principal investigator, Melissa Bray at (860) 486-0167 or the student researcher Emily DeBiase at (860) 916-4186. If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

How do I submit the permission form?

If you decide to allow the study to take place at your school, you will have one week to complete the permission form. Once you have completed the form, please contact Emily DeBiase by email (Emily.debiase@uconn.edu) and she will pick up the form.

Administrator Permission Form for Participation in a Research Study

University of Connecticut

Return Slip

Principal Investigator: Melissa Bray, Ph.D., Professor of School Psychology

Student Researcher: Emily DeBiase, MS, 6th Year, Doctoral Candidate in School Psychology **Study Title:** Improving Well-being and Behavior in Adolescents Utilizing a School-based

Positive Psychology Intervention **Sponsor:** University of Connecticut

Documentation of Permission:

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this permission form.

Participant Signature:	Print Name:	Date:		
Signature of Person Obtaining Permission	Print Name:	Date:		

APPENDIX C

School-based Mental Health Professional Recruitment Script

Step 1: Initial Contact

Hello. Thank you for taking the time to speak with me. I am Emily DeBiase and I am a PhD student working under the supervision of Dr. Melissa Bray from the School Psychology Program at the University of Connecticut. My advisor and I are investigating ways to improve social-emotional and behavioral outcomes for at risk students. This research study is for high school students aged 14-18 years who are in need of Tier 2 or 3 social-emotional intervention due to academic disengagement and/or behavioral difficulty in school. The goal of our research is to see if student participation in a Positive Psychology Intervention (PPI), the core sessions of the Wellbeing Promotion Program, can lead to improvement in their daily happiness and classroom behavior. The idea is that these improvements may open the door to other positive experiences and outcomes for these students over time, like improved academic performance.

If you are interested in this idea, I'd like to give you an overview of the study procedures and describe the risks and benefits associated with this research. This will give you a chance to learn more about the study and ask any questions you may have.

Step 2: Describe Procedures

If you agree to be involved in this study, you would be delivering this intervention to 3-5 students in individual counseling sessions.

The student researcher will schedule a time that is convenient for you to review the intervention materials and timeline. You will be provided with a copy of the intervention manual to keep. A brief description of the intervention is as follows. It is called the Well-being Promotion Program (Suldo, 2016). It is a multi-component, multi-target Positive Psychology Intervention (PPI). Only the 10 session student component of this PPI will be implemented over the course of five to seven school weeks in individual counseling sessions. Each of the 10 sessions includes activities and homework assignments that are designed to enhance students' gratitude, acts of kindness, identification and use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. These session activities are divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session.

If you are interested in delivering this intervention, you will be asked to identify (10 - 20) students who may be good candidates for the intervention. Student participants will be nominated on the basis of the following criteria: (1) The student demonstrates a low level of academic engagement as measured by teacher reports and/or a loss of academic credit and/or (2) The student has a history of school behavioral/discipline problems which may include: disruptive classroom behavior, negative interpersonal interactions, office discipline referrals, as measured by school staff reports and/or review of school records.

After students who meet these criteria are nominated, you would be asked to approach them to determine their interest in participating in the intervention. If they are willing to participate, the

student researcher will provide you with consent for study participation to send to their parents and/or to the student if the student is 18 years of age. For students under 18, study assent will be obtained. You will be provided with an assent form for the students as well. These forms will be collected by the student researcher.

Next, interested students who have consent to participate will meet with the student researcher to complete two additional brief screening measures to ensure they have potential to benefit from this type of intervention. Students who may benefit would be (1) students with lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and (2) students who report being less than totally happy as measured by a score of 6 or less on the General Happiness Scale (AuthenticHappiness,org). Of the students who meet these screening criteria, 3-5 students will be selected to be in the study.

Classroom teachers of those selected students will also be approached by the student researcher in order to identify one teacher per student who is willing and able to complete the Daily Behavior Rating (DBR) form for each student for one class period a day, to track their classroom behavior before and during the intervention. The DBR form and completion instructions will be reviewed with the teacher by the student researcher.

Concurrently, you will be asked to work with the student and his/her teachers to identify times to schedule the intervention sessions, which will occur once to twice weekly for 30-45 minutes in your office for a period of 5-7 weeks, during which the content of 10 sessions will be completed.

Before starting the intervention, baseline data will be gathered on each student. The two variables we will be looking at are students' daily self-reports of happiness and teacher reports of classroom behavior. Students will respond to a one question survey which they will receive via text or email once daily asking them how they are feeling. Teachers will complete the DBR following one class period per day for the student. Students will also meet with the student researcher for about 5 minutes to complete the Student Life Satisfaction Scale (SLSS), a brief scale which will be used as a pre- and post-test measure of intervention effects.

Students will not all start the intervention at the same time, rather the intervention start times will be staggered such that each student starts one week after the previous student. Students will be randomly assigned to their intervention order. Baseline data collection will last one week for the first student, two weeks for the second, and so on.

Data will also be collected daily on the students' happiness and classroom behavior while they are participating in the intervention. Following completion of the intervention, students will meet with you and/or the student researcher to take the SLSS again. Six to eight weeks after the intervention is completed for each student, the student will take the daily happiness survey and the teacher will complete the DBR to see if intervention effects are maintained.

Step 3: Describe Risks and Benefits

The potential risks to you are inconveniences. These include taking the time to learn and deliver a new intervention program, and taking the time at the end of the study to complete the Usage Rating Profile- Intervention Revised (about 15 minutes) to provide your feedback on the intervention program. A potential benefit for you is that you will learn a new, research-based intervention and be provided with the materials at no cost, which you may use in future work with students. You will also be given a \$25.00 Amazon gift card at the conclusion of the study.

Step 4: Ending the Meeting

I have given you a lot of information today. Do you have any questions that would help you decide whether or not you would like to participate?

If you are still interested in being in the study, I would like to give you a permission form which includes all of the information we have discussed today. Please complete the form within one week if you plan on participating in the study. If you decide to participate, please contact me through email (Emily.debiase@uconn.edu) and I will collect the consent form. If you have any questions or concerns after considering and reviewing this information, please call me at (860) 916-41861503. Thank you for your time today. **End meeting.**

APPENDIX D

Teacher Recruitment Script

Step 1: Initial Contact

Hello. Thank you for taking the time to speak with me. I am Emily DeBiase and I am a PhD student working under the supervision of Dr. Melissa Bray from the School Psychology Program at the University of Connecticut. My advisor and I are investigating ways to improve social-emotional and behavioral outcomes for at risk students. This research study is for high school students aged 14-18 years who are in need of Tier 2 or 3 social-emotional intervention due to academic disengagement and/or behavioral difficulty in school. The goal of our research is to see if student participation in a Positive Psychology Intervention (PPI), the core sessions of the Wellbeing Promotion Program, can lead to improvement in their daily happiness and classroom behavior. The idea is that these improvements may open the door to other positive experiences and outcomes for these students over time, like improved academic performance.

Your principal and school social worker/psychologist have agreed to participate in this study and I have worked with them to select a few students who may benefit from this intervention. One of these students is in a class that you teach. We are looking for a teacher who is willing to complete a daily behavior rating form (DBR) after one class period each day for the identified student. The form should take less than 5 minutes to complete. If you are interested in this idea, I'd like to give you an overview of the study procedures and describe the risks and benefits associated with this research. This will give you a chance to learn more about the study and ask any questions you may have.

Step 2: Describe Procedures

If you agree to participate in this study, you will be asked to complete the Daily Behavior Rating (DBR) form following one class period a day, to track the identified students' behavior. You will asked to do this for the duration of the study, a period of about 8 to 12 school weeks. This time frame includes both the baseline (pre-invention) and intervention phases of this study. Should you agree to participate, I will meet with you at a mutually convenient time to review the DBR form and completion instructions. I will also provide you with a folder in which to store the DBR forms in a secure location within your classroom, until I can pick them up at the end of each week. You will be asked to keep these ratings confidential and not share them with the student during the course of the study. A brief timeline for this study is as follows.

Before starting the intervention, baseline data will be gathered on each student. The two variables we will be looking at are students' daily self-reports of happiness and teacher reports of classroom behavior. Students will respond to a one question survey which they will receive via text or email once daily asking them how they are feeling. Teachers will complete the DBR following one class period per day for the student.

During the intervention phase, each student will meet individually with the mental health professional to receive the intervention. The intervention is called, the Well-being Promotion Program (Suldo, 2016). It is a multi-component, multi-target PPI. Only the 10 session student component of this PPI will be implemented over the course of five to seven school weeks in

individual counseling sessions with a school-based mental health professional. Each of the 10 sessions includes activities and homework assignments that are designed to enhance students' gratitude, acts of kindness, use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. These session activities are divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session.

Data will be collected daily on the students' happiness and classroom behavior while they are participating in the intervention. Six to eight weeks after the intervention is completed for each student, the student will take the daily happiness survey and the teacher will complete the DBR to see if intervention effects are maintained.

Step 3: Describe Risks and Benefits

Potential risks for you include the inconvenience of completing a daily behavior rating for one class period per day for the duration of the study. The DBR form is brief, which should minimize the inconvenience, however it will still take time each day to complete it. The student in your class may not directly benefit from this research; which is another potential risk of this study. However, we hope that their participation in the study helps us to determine the potential benefits of this intervention for students who are in need of additional social-emotional support. There are also some potential benefits of your participation in this research. For one, the intervention may improve the identified student's daily classroom behavior, contributing to a greater availability for learning. You will also be given a \$25 Amazon gift card at the completion of the study to thank you for your participation.

Step 4: Ending the Meeting

I have given you a lot of information today. Do you have any questions that would help you decide whether or not you would like to participate?

If you are still interested in participating, I would like to give you a permission form which includes all of the information we have discussed today. Please complete the form within one week if you plan on participating in the study. If you decide to participate, please contact me through email (Emily.debiase@uconn.edu) and I will collect the consent form. If you have any questions or concerns after considering and reviewing this information, please call me at (860) 916-41861503. Thank you for your time today. **End meeting.**

APPENDIX E

Parent Information Script

This script may be used in a phone call with a parent or in a parent meeting.

Begin by saying: I'd like to tell you about a research study that is taking place at our school.

Emily DeBiase, a school psychology Ph.D. student from UConn, is going to be doing a research study to see whether a Positive Psychology Intervention (PPI) can help improve student's daily mood and behavior. A PPI is an intervention focused on building student strengths, rather than just focusing on fixing problems. Students who would be good candidates for participating in the PPI are students who are less then totally happy and who may also demonstrate some behavioral difficulty in school.

Participation would involve your (son/daughter) meeting with me for five to seven weeks in individual sessions to complete the ten sessions of the intervention program. In addition, your son/daughter would complete some pre- and post-intervention measures to ensure they meet the inclusion criteria for the study, and to see if the intervention had an effect on their life satisfaction. Last, your (son/daughter) would be asked to complete a daily happiness rating and one of their classroom teachers would be asked to complete a daily behavior rating during the course of the study to look for improvements in mood and behavior.

I will be sending home a permission form that has a lot more information about the study. Please read over the form, sign-it, and return it if you would like your child to participate.

Do you have any questions that would help you decide whether or not you would like to have your child take part?

If the parent has questions that the teacher cannot answer, contact information for Emily DeBiase will be provided. Phone: (860) 916-4186 Email: Emily.debiase@uconn.edu

APPENDIX F

Parental Permission Form University of Connecticut

Principal Investigator: Melissa Bray, Ph.D., Professor of School Psychology

Student Researcher: Emily DeBiase, MS, Doctoral Candidate in School Psychology **Study Title:** Improving Well-being and Behavior in Adolescents Utilizing a School-based

Positive Psychology Intervention **Sponsor:** University of Connecticut

Introduction

Thank you for taking the time to read this form. We would like to invite your child to participate in a research study that is being done through the University of Connecticut.

Why is this research study being done?

The purpose of this research study is to investigate whether a school-based Positive Psychology Intervention (PPI) will lead to improved daily mood and behavior among at-risk high school students. At-risk students are defined as students who have demonstrated some lack of academic engagement and/or behavioral difficulty in the school setting. The primary research questions are: 1.) Will students report increased happiness as measured by a daily happiness survey while participating in this intervention? 2.) Will students demonstrate positive changes in classroom behavior as measured by daily teacher ratings during the course of the intervention?

Students considered to be at risk due to academic and/or behavioral challenges are in need of evidence-based interventions to help them attain more positive outcomes. PPIs are designed to build skills and strengths and to enhance positive emotions and experiences. PPIs have increasingly been used in school settings to enhance student well-being and to foster a number of other behaviors important to student success, such as a positive attitude towards learning, increased school satisfaction, improved social skills, and increased academic engagement. PPIs have also been used with children and adolescents to reduce symptoms of anxiety and depression and to increase positive affect. Additionally, there is some preliminary evidence of the efficacy of PPIs in preventing the development of externalizing behaviors in children and adolescents.

What is the Positive Psychology Intervention?

The PPI which we will be using is called the Well-being Promotion (Suldo, 2016), which was developed as a school-based program by researchers out of the University of South Florida. Only the 10 session student component of this program will be implemented with your child in individual counseling sessions with a school-based mental health professional. Each of the 10 sessions includes activities and homework assignments that are designed to enhance students' gratitude, acts of kindness, use of signature character strengths, savoring of positive experiences, optimism, and hopeful thinking. These session activities are divided into three phases to encourage positive emotions about the past, present, and future. The intervention manual outlines specific activities for each student session. Additionally, it includes several handouts for both parents and students.

What are the research procedures? What will my child be asked to do?

If you give permission for your child to take part in this research, he or she will be asked to complete a Participant Intake Questionnaire to provide basic demographic information (e.g. age, sex, language spoken at home, and medical/psychological conditions). The form will also include questions about any current in-school services and private intervention services that they have received (i.e. speech services, occupational therapy, physical therapy, behavioral intervention services, counseling). It will take approximately 10 minutes to complete.

Your child will be invited to participate in the positive psychology intervention if he/she has been identified by the school as in need of intervention due to the presence of academic and/or behavioral challenges. Students will be selected for inclusion in the study based upon the following criteria: a) the student demonstrates a low level of academic engagement and/or b) the student has a history of school behavioral/discipline problems. After students who meet these criteria are nominated by school staff and consent for study participation is obtained, students must also meet the following criteria to be included in the intervention a) the student has lower than optimal life satisfaction as measured by a score of 6 or less on the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) and (b) The student reports being less than totally happy as measured by a score of 6 or less on the General Happiness Scale (AuthenticHappiness,org).

While some of the criteria will be evaluated through teacher reports, your child will also be asked to complete a few screening tests before the start of the study, which are listed above. The screening measures will take about 10-minutes to complete and will be administered by the school psychologist or social worker in his/her office during a convenient time for your child (i.e. before or after school, between classes, during a study hall).

During the course of the study, your child will also be asked to complete a daily happiness rating for which s/he will respond to the question: "How do you feel today?" on a 1-11 point scale, with one representing "very unhappy" and eleven representing "very happy". In order to complete the scale, your child will be asked to provide his or her phone or email address so that the survey can be sent electronically each day and so that responses can be recorded and monitored throughout the study to see if the intervention is improving your child's daily mood. Throughout the study, one of your child's classroom teachers will also be asked to complete a daily rating of your child's classroom behavior during one class period per day. This information will help us to see if the intervention is effective in improving classroom behavior and academic engagement.

The next phase of the study will take one to four weeks and this is considered the "baseline" phase of the study. During this time, the data described above will be collected but otherwise, it will be "business as usual" for your child. They will not be participating in the intervention yet and nothing else will be changed in their daily routine. This phase allows us to get a baseline of your child's mood and behavior before the intervention is started.

Next, the intervention phase will begin. During this phase, the intervention (as described above) will be implemented with your child in individual counseling sessions with the school-based mental health professional. Your child will meet once to twice per week with the counselor in

his/her office to complete the session components. This will take approximately 5-7 school weeks. The counseling sessions will be scheduled with input from your child and his/her teachers in order to be minimally disruptive to the school day. During this intervention phase we will continue to gather the daily happiness survey responses and the daily behavior ratings.

Once the intervention is complete, your child will be asked to complete a post-intervention measure to assess his/her life satisfaction after having participated in this intervention. Additionally, he/she will be asked to complete a short survey to describe how they felt about the intervention (i.e. if they liked it, if they thought it helped, etc.). Once the intervention is done, we will stop collecting the daily data on happiness and behavior. However six to eight weeks following completion of the intervention, we will resume collecting data for one week's time only. The purpose of this one week of follow-up data collection is to see if any intervention effects are maintained once the intervention is over.

Below is an estimated timeline of when everything is going to take place.

	TIMELINE
Weeks 1-2 Weeks 3-7	 Students are nominated to participate based upon inclusion criteria Nominated students are screened for inclusion using screening measures Students are selected to participate (3-5students) Selected students take the pre-intervention measures Intervention sessions Teachers are selected to gather daily behavior data Daily happiness survey is set up Gather baseline data (daily happiness and behavior ratings)
Weeks 8 – 15 Week 15	 Implement intervention in 1-1 counseling sessions Continue gathering daily happiness and behavior ratings Intervention is complete
	- Post-intervention measures are administered
6-8 weeks later	 Follow-up data will be gathered for one week to see if intervention effects are maintained

What are the risks or inconveniences of the research?

A potential risk to your child involves missing class activities, however every effort will be made to schedule the intervention sessions during the least intrusive times of the day (such as study hall times) to minimize the impact of missed class time. Your child may also find completing the daily happiness rating for the duration of the study to be a minor inconvenience. Last, it is possible that the intervention will not improve your child's daily happiness or behavior, which may cause disappointment for you or your child.

What are the benefits of the research?

Your child may not directly benefit from this research; however, we hope that your participation in the study may help us find out if this intervention is effective for improving the daily happiness and behavior of students who experience academic disengagement and behavioral

challenges. There are also some potential benefits of your child's participation in this research study. For one, the intervention may improve your child's daily happiness levels and/or their classroom behavior. These improvements alone would be of value, however improvements in these areas may also have a positive impact on other areas, such as your child's availability for instruction. Moreover, through participation in the intervention, your child may learn "happiness skills" that they can apply after the study to help them overcome future challenges they may face.

Will my child receive payment for participation? Are there costs to participate?

There are no payments or costs for you or your child associated with this research study.

How will my child's information be protected?

The following procedures will be used to protect the confidentiality of the data collected from you. The researchers will keep all study records (including any codes to your data) locked in a secure location. Research records will be labeled with a code. The code will be derived from the student's first and last initial followed by a number to reflect how many people have enrolled in the study. All electronic files (e.g., database, spreadsheet, etc.) containing identifiable information will be password protected. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the primary investigator and student researcher will have access to the passwords. Data that will be shared with others will be coded as described above to help protect students' identities. At the conclusion of this study, the researchers may publish their findings. Information will be presented in summary format and you will not be identified in any publications or presentations. We will do our best to protect the confidentiality of the information we gather from you but we cannot guarantee 100% confidentiality. In certain situations, such as when abuse or neglect is suspected, the student researcher will have to break confidentiality.

You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Can my child stop being in the study and what are my and my child's rights?

Your child does not have to be in this study if he/she does not want to be or if you do not want him/her to participate. If you give permission for your child to be in the study, but later change your mind, you may withdraw your child at any time. There are no penalties or consequences of any kind if you decide that you do not want your child to participate.

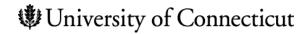
Whom do I contact if I have questions about the research study?

We encourage you to take the time to think over your decision and we will be happy to answer any question you have about this study. If you have further questions about this study or if you have a research-related problem, you may contact the principal investigator, Melissa Bray at (860) 486-0167 or the student researcher Emily DeBiase at (860) 916-4186. If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

How do I submit the permission form?

If you want your child to participate in this research study, please sign the return slip and return in the enclosed envelop to the school-based mental health professional.

Parental Permission Form



Return Slip

Principal Investigator: Melissa Bray, Ph.D., Professor of School Psychology

Student Researcher: Emily DeBiase, MS, 6th Year, Doctoral Candidate in School Psychology **Study Title:** Improving Well-being and Behavior in Adolescents Utilizing a School-based

Positive Psychology Intervention **Sponsor:** University of Connecticut

Documentation of Permission:

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this permission form.

Participant Signature:	Print Name:	Date:	
Signature of Person	 Print Name:		

APPENDIX G

Student Assent Form

Principal Investigator: Melissa Bray, Ph.D., Professor of School Psychology

Student Researcher: Emily DeBiase, MS, 6 th Year, Doctoral Can- Study Title: Improving Well-being and Behavior in Adolescents	
Psychology Intervention	9
Sponsor: University of Connecticut	
(school-based mental health profession participating in a counseling intervention and being in a research about it too, and they have provided permission for you to participate because your teachers have noticed that you don't The purpose of this intervention is to help you feel happier, has and be better able to demonstrate your strengths and positive	ch study. You and your family have talked ticipate. You've been selected to seem to be at your best in school lately. ve a more positive outlook on your life,
Before we start the intervention, you will be asked to fill out a During the study, you will be asked to complete a daily happine be sent to you via text or email, whatever your preference. You information in order to set up the survey.	ess survey. The daily happiness survey will
Next, you will be in a "baseline" phase where we will gather da happiness survey, but we won't start the intervention yet. This will start the intervention phase. During the intervention, you week. You will continue to complete the happiness survey. You about 5-7 weeks.	s phase will last for 1-4 weeks. Then, we will be meeting with nal) for one-to-one sessions, once to twice
After the intervention is done, you will complete a few short polynomyou are feeling and what you thought of the intervention. you can ask me or (school-based mental heathave.	As you participate in the intervention,
During and after the study, we will protect your privacy. No informanyone who is not working on this study. You should also know you don't want to; there is no penalty for not participating. If a mind, you should let us know, and you won't have to be in the (860.916.4186) any time if you have more questions about the agreeing to participate in the study as described above. A copy to you to keep in case you have any questions or want to contain	v that you don't have to be in this study if at first you say yes, but later change your study any more. You may call me study. By signing below, you are v of this information sheet will be provided
Student Signature	Date

APPENDIX H

Stud	lent	Code

Student Information Sheet

Age:	Grade:			
Ethnicity:	Gender:			
Do you currently have any identified disabilitie list:	s or mental health conditions? If yes, please			
Do you currently receive any in-school support	services? If yes, please list:			
Do you currently receive any support services of	outside of the school? If yes, please list:			
Have you received any school-based or commulist:	unity support services in the past? If yes, please			

APPENDIX I

Qualtrics Survey Example

1. How happy or unhappy do you feel?

Check the one statement below that best describes your average happiness today.

10. Extremely happy (feeling ecstatic, joyous, fantastic!)

9. Very happy (feeling really good, elated!)

8. Pretty happy (spirits high, feeling good.)

7. Mildly happy (feeling fairly good and somewhat cheerful.)

6. Slightly happy (just a bit above neutral.)

5. Neutral (not particularly happy or unhappy.)

4. Slightly unhappy (just a bit below neutral.)

3. Mildly unhappy (just a little low.)

2. Pretty unhappy (somewhat "blue", spirits down.)

1. Very unhappy (depressed, spirits very low.)

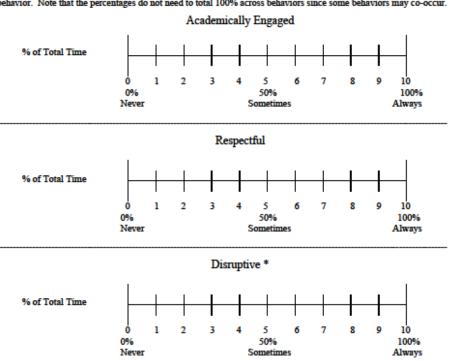
0. Extremely unhappy (utterly depressed, completely down.)

APPENDIX J

Direct Behavior Rating (DBR) Form: 3 Standard Behaviors

		Activity Description:
M T W Th F	Rater:	
Start: Ac End: ex		passively participating in the classroom activity. For ring a question, talking about a lesson, listening to the instructional materials.
Check if no observation today	nteractions with peers and adults. For nteraction with peers, positive respon- negative tone/connotation. Disruptive is student action that intern	d polite behavior in response to adult direction and/or rexample: follows teacher direction, pro-social se to adult request, verbal or physical disruption without a supers regular school or classroom activity. For example: ects, acting aggressively, talking/yelling about things that

<u>Directions</u>: Place a mark along the line that best reflects the percentage of total time the student exhibited each target behavior. Note that the percentages do not need to total 100% across behaviors since some behaviors may co-occur.



^{*} Remember that a lower score for "Disruptive" is more desirable.

V1.4 DBR Standard Form was created by Sandra M. Chafouleas, T. Chris Riley-Tillman, Theodore J. Christ, and Dr. George Sugai.
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Downloadable from www.directhechaviornatings.org.

Page 1



URP-Intervention

<u>Directions</u>: Consider the described intervention when answering the following statements. Circle the number that best reflects your agreement with the statement, using the scale provided below.

		Strongly Disagnee	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	This intervention is an effective choice for addressing a variety of problems.	1	2	3	4	5	6
2.	I would need additional resources to carry out this intervention.	1	2	3	4	5	6
3.	I would be able to allocate my time to implement this intervention.	1	2	3	4	5	6
4.	I understand how to use this intervention.	1	2	3	4	5	6
5.	A positive home-school relationship is needed to implement this intervention.	1	2	3	4	5	6
6.	I am knowledgeable about the intervention procedures.	1	2	3	4	5	6
7.	The intervention is a fair way to handle the child's behavior problem.	1	2	3	4	5	6
8.	The total time required to implement the intervention procedures would be manageable.	1	2	3	4	5	6
9.	I would not be interested in implementing this intervention.	1	2	3	4	5	6
10.	My administrator would be supportive of my use of this intervention.	1	2	3	4	5	6
11.	I would have positive attitudes about implementing this intervention.	1	2	3	4	5	6
12.	This intervention is a good way to handle the child's behavior problem.	1	2	3	4	5	6
13.	Preparation of materials needed for this intervention would be minimal.	1	2	3	4	5	6

URP-IR was created by Sandra M. Chafouleas, Amy M. Briesch, Sabina Rak Neugebauer, & T. Chris Riley-Tillman.

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APPENDIX L

Subjective Happiness Scale

For each of the following statements and/or questions, please read each one and then click on the dropdown list below it to see the scale.

Select the point on the scale that you feel is most appropriate in describing you.

All questions must be completed for this questionnaire to be scored.

- 1. In general, I consider myself:
- 1 Not a very happy person 2 3 4 5 6 7 A very happy person
- 2. Compared to most of my peers, I consider myself:
- 1- Less Happy 2 3 4 5 6 7 More Happy
- 3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?
- 1 Not At All 2 3 4 5 6 7 A Great Deal
- 4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?
- 1 A Great Deal 2 3 4 5 6 7 Not At All

APPENDIX M

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson, Huebner, & Valois, 2003)

Instructions :	We would like to know	what thoughts abou	ıt life you've had	during the past se

Student Name: _____

Instructions: We would like to know what thoughts about life you've had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. In answering each statement, circle a number from (1) to (7) where (1) indicates you feel terrible about that area of life and (7) indicates you are delighted with that area of life.

	Terrible	Unhappy	Mostly Dissatisfied	Mixed (About Equally Satisfied and Dissatisfied)	Mostly Satisfied	Pleased	Delighted
1.I would describe my satisfaction with my family as:	1	2	3	4	5	6	7
2. I would describe my satisfaction with my friendships as:	1	2	3	4	5	6	7
3. I would describe my satisfaction with my school experience as:	1	2	3	4	5	6	7
4. I would describe my satisfaction with myself as:	1	2	3	4	5	6	7
5. I would describe my satisfaction with where I live as:	1	2	3	4	5	6	7
6. I would describe my satisfaction with my overall life as:	1	2	3	4	5	6	7

APPENDIX N

Students' Life Satisfaction Scale (Huebner, 1991)

We would like to know what thoughts about life you've had <u>during the past several weeks</u>. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. In answering each statement, circle a number from (1) to (6) where (1) indicates you **strongly disagree** with the statement and (6) indicates you **strongly agree** with the statement.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. My life is going well	1	2	3	4	5	6
2. My life is just right	1	2	3	4	5	6
3. I would like to change many things in my life *	1	2	3	4	5	6
4. I wish I had a different kind of life *	1	2	3	4	5	6
5. I have a good life	1	2	3	4	5	6
6. I have what I want in life	1	2	3	4	5	6
7. My life is better than most kids'	1	2	3	4	5	6

^{*} Reverse scored items