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Evidence-based Intervention that Decreases Stress Levels in Teens Who Are Missing School Due to Outside Stressors

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ABSTRACT

The purpose of this thesis is to test the effectiveness of an intervention designed to reduce stress in adolescents. StressOFF Strategies program is the intervention used to educate students about stress and how to effectively manage it. A group of 8-10 students from Abilene High School was recruited to participate in the study during their one-hour lunch period. The tools used for the intervention included the StressOFF Strategies PowerPoint, the My Personal Stress Profile, and the Perceived Stress Scale. The findings are presented on individual graphs that show increases and decreases in stress levels for each student. Implications suggested are to apply the StressOFF program in high schools over multiple group sessions, create a policy that accounts for a stress management course in high schools, and complete further research on teen stress and the ways in which they handle stress.

Evidence-based Intervention that Decreases Stress Levels in Teens Who Are Missing
School Due to Outside Stressors

A Thesis

Presented to

The Faculty of the Graduate School

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

Social Work

By

Madysen Pennington

May 2017

This thesis, directed and approved by the candidate's committee, has been accepted by the Graduate Council of Abilene Christian University in partial fulfillment of the requirements for the degree.

Master of Science in Social Work

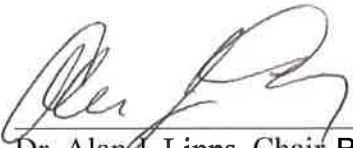


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1 Peter 5:10

And the God of all grace, who called you to His eternal glory in Christ, will Himself restore you and make you strong, firm and steadfast.

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CHAPTER 1

INTRODUCTION

Communities in Schools (CIS) is an organization that helps students increase school attendance through one-on-one goal directed meetings that occur at a minimum of twice a month. This allows the student to have a person to confide in and help them reduce absences, improve grades and social skills, and manage any struggles that are occurring in their lives. The first goal of CIS is to increase attendance, while secondary goals are to improve social skills and facilitate academic improvement.

Because students served by CIS are at-risk, it is assumed that they are experiencing outside stressors that could become overwhelming at times (Brown University, 2014). Communities in Schools defines an at-risk student as an adolescent who is experiencing outside barriers that increase the chances for dropping out (Communities in Schools, n.d.). CIS aims to surround the student with community resources and remove barriers to success (Communities in Schools, n.d.) It has been shown that adolescents experience high levels of stress, which leads to other problems (e.g., absences, interpersonal problems, poor academic performance, etc.). It is hopeful that implementing a stress reduction program will decrease student stress and increase the wellbeing and performance in life and in school. Therefore, the research question that was examined is as follows: how does the StressOFF Strategies program increase stress management skills and decrease stress levels of teens at the high school level?

The following literature review covers research over managing stress, causes of stress in teens, stress levels, cultural differences, and interventions appropriate for adolescent stress. A plan for educating and managing teen stress with high school students is developed and explained in detail throughout the literature review and methodology chapters. A group of students at Abilene High School received the intervention of StressOFF Strategies and the results are presented in the results chapter. Finally, results, implications and limitations are discussed in the final chapter of this thesis.

CHAPTER II
REVIEW OF LITERATURE

Introduction

Throughout the literature, it is shown that teens are taking on large amounts of stress and pressures from the world around them and are not always utilizing productive and positive ways of coping with their stress. Researchers (e.g., Roy, Kamath, Kamath, Hedge, Alex and Ashok, 2016) report that adults underestimate the amount of stress that teenagers' experience, believing instead that teenagers should be relatively stress-free. Because of this belief, outsiders perceive that teens should be doing well in school, at their job, and at home. However, the busy lifestyle of modern teenagers in the United States can lead to them becoming overwhelmed with the challenges of keeping up with their over-booked schedules. In reality, many teenagers are forced to drop out of high school prematurely because of life stressors (Staff, VanEseltine, Woolnough, Silver, & Burrington, 2012). Many teenagers do not achieve their educational potential because of psychosocial stressors (Staff, VanEseltine, Woolnough, Silver, & Burrington, 2012). Almost all teenagers struggle, to some extent, to meet the social and academic demands of school-related challenges (Staff, VanEseltine, Woolnough, Silver, & Burrington, 2012). Stress is experienced differently depending on culture, personality, life experiences, and coping (Roy, Kamath, Kamath, Hedge, Alex, & Ashok, 2016).

Teenagers define stress in different ways depending on their gender. Many teens experience stress but do not realize it; it is often described as physical and emotional

pain. Males typically view stress in the physical sense as pain inside the body and mind, and females tend to view it in the physical and emotional sense as anger, frustration, sadness, and physical irritation (Chandra and Batada, 2006). These feelings of discomfort can become difficult to handle. Therefore, to be effective, those working with teenagers in school settings should understand what types of stress teens experience; how stress impacts teenagers' behavior and mental abilities; and how to help teenagers cope with stress in positive and beneficial ways.

Table 1 shows methods by which males and females cope with stress (Chandra and Batada, 2006).

Table 1.

Coping with Stress

Type of Coping Strategy	Percentage of Teens	
	Males	Females
Active	33.3	44.4
Support seeking	17.2	22.2
Distraction	25.3	13.5
Avoidance	24.3	19.9

The Lazarus theory gives insight into psychological stress. The theory describes stress as the relationship between a person and their environment. Lazarus describes stress in three different fields: harm, threat, and challenge. Harm is the psychological discomfort or loss that has happened; threat is the expectancy of harm coming into play; and challenge is the “demands that a person feels confident about mastering.” (Lazarus, 1990). Moreover, coping includes pulling different mechanisms into one act of dealing with the situation. Two methods of this include problem-focused coping and emotion-focused coping. Problem-focused coping involves improving the person in environment

aspect behind the stress, while emotion-focused coping deals with changing the negative emotional responses to stress (Krohne, 2002).

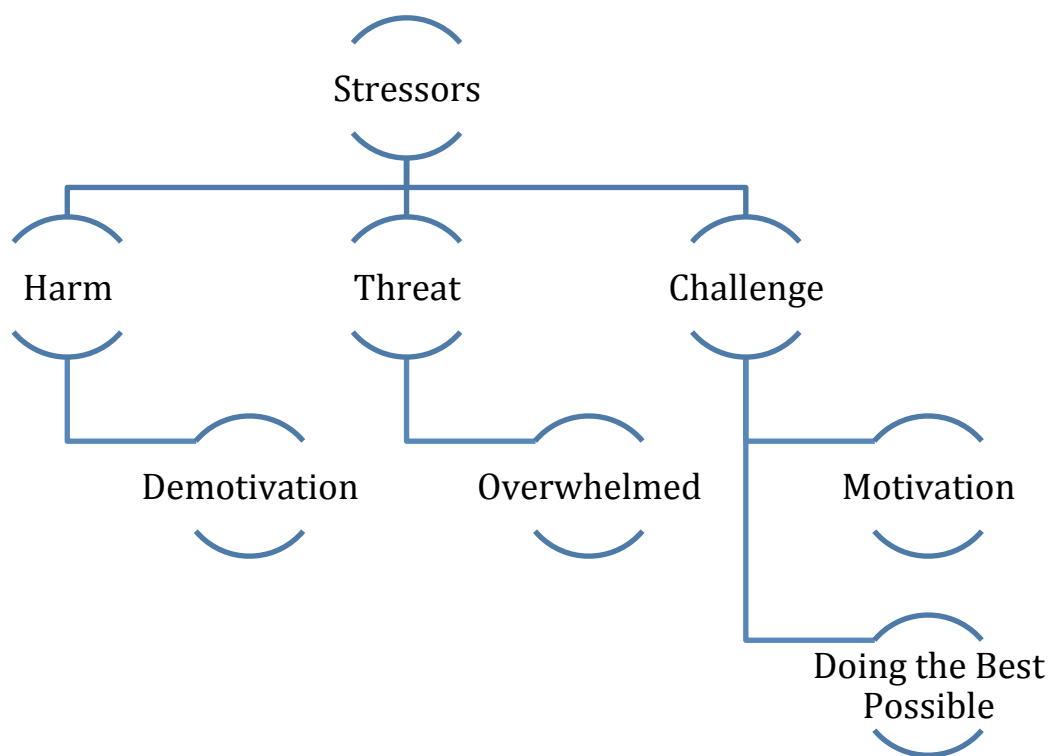


Figure 1. Lazarus Theory Stressors

These forms of stress (i.e., harm, threat, and challenge) provide insight into ways to better help adolescents in high school manage their stress. The Lazarus theory provides a framework for discussions about situations in which students have experienced harm, threat, and challenges. By examining threats, students can learn to prevent those threats from being harmful. By discussing challenges, students can learn to distinguish between what they can and cannot handle. Such discussions can also lead to discovery of sources of support for coping with stress. The last step is to understand whether problem-focused or emotion-focused coping is suitable for the student. This will allow for the interventionist and the student to work on a plan to manage the stress by dealing with the stressors or with the emotional state behind the stress.

Managing Stress

Realizing what activities and pressures cause stress in teens is crucial to understanding what skills need to be taught to them. According to the article *Managing Stress in Teens and Adolescents*, there is good and bad stress; good stress motivates a person to do their best while bad stress overwhelms the person (Brown University, 2014). Therefore, teaching adolescents how to manage the good and bad stress early in life allows for a healthier and more balanced future. Brain development is crucial in the early life stages where education and learning are most beneficial. Early difficult experiences are associated with increased chances for developing anxiety, cognitive deficiencies and other disorders (Yam, Naninck, Schmidt, Lucassen, & Korosi, 2015). These experiences can be detrimental if the teen does not have the skills to cope and overcome these negative emotions and stressors.

In order to keep stress under control, it is important to identify when stress is becoming overwhelming and begin practicing self-care. There is a relationship between experiences of early-life stress (ELS) and psychopathology in adulthood (Yam et al., 2015). Therefore, it is crucial to provide stress management techniques to teens in order to decrease the chances of negative stress from appearing. Some tips include taking care of one-self, not dwelling on the worst situation possible, and completing acts of kindness for others (Brown University, 2009). Jayson (2014) states that 37% of teens use exercise to manage stress; 28% play sports; and, 46% play video games. Additionally, helping others, especially loved ones, increases psychological wellness and decreases stress, depression, and morbidity; though, it is shown that caregiving only works when taking care of someone in need or a loved one (Poulin and Holman, 2013).

An example of negative stress includes stress-related eating which is 42% more common in girls than in boys (15%) (Jääskeläinen, Nevanperä, Remes, Rahkonen, Järvelin, & Laitinen, 2014). The teens that use eating to manage stress have overall higher body mass index (BMI) than those who do not over eat due to stress (Jääskeläinen et al., 2014). Boys who partake in stress driven eating consume more foods such as hamburgers, pizza, chocolate, sausages, and sweets than non-stress related eaters (Jääskeläinen et al., 2014). Girls who use this negative stress technique consume chocolate, sweets, and sugar-free soda (Jääskeläinen et al., 2014). Typically, teens who eat due to stress also drink more alcohol, use tobacco, experience shorter sleep patterns, partake in more binge-eating, and eat fewer meals with family members compared to non stress-related eaters (Jääskeläinen et al., 2014).

Moreover, teens often use other coping mechanisms to help them through the struggles of stress. For example, the Partnership Attitude Tracking Study (PATs) stated that 73% of teens in their study expressed that the primary reason they use drugs was to cope with stressors from school (Brown University, 2008; Wiley Periodicals, 2008). Shapiro and Heath (2014) indicated that 7% of their target population of seventh grade students used drugs, unprotected sex, or hurting themselves to cope with stress. Furthermore, 50% of teens that return home after 10:00 p.m. are said to be around or using drugs (Wiley Periodicals, 2008). As reported in the CASA 2008 teen survey, 25% of students state that they have friends or peers that abuse prescription drugs (Wiley Periodicals, 2008). All in all, many teens are looking to negative sources to help them cope with stress and it is important for parents be positive examples and be aware of what

their child is doing and where they are going. These parents and the school system need to educate students on how to manage their stress in different and effective ways.

Causes of Stress

Stress in teens can be harmful in setting the path to a positive and stress-managed future. Learning to manage stress is important because stress can cause intense symptoms such as anxiety, nervousness, anger, and depression (Jayson, 2014). Stress often leads to negative outcomes such as heart disease and high blood pressure (Brown University, 2014). Research shows that teen stress during the school year is much higher than what is considered to be healthy and is also higher than the average adult level of stress (Brown University, 2014; Jayson, 2014). Within the Stress in America survey completed by the American Psychological Association, students rate their stress at 5.8 out of 10, while adults rate theirs as 5.1 out of 10 (Jayson, 2014). The survey suggests that teens develop unhealthy stress behaviors early on and these can continue throughout adulthood (Jayson, 2014). Moreover, certain relationships, job hours, family life, and school pressures can become negative stressors that could overwhelm and demotivate a teen (Brown University, 2014; Chandra and Batada, 2006; Jayson, 2014; LeRue & Herrman, 2008).

According to Jayson (2014), teens mirror adults' stressful lives at a young age, which possibly influences their future in a negative way. Within the *Shifting the Lens* study, researchers looked at perceptions of stress, sources of social support, and coping mechanisms among ninth graders in an urban African American community (Chandra and Batada, 2006). The participants in this study stated that adults did not recognize their stress or understand the problems they face at school or in their relationships (Chandra and Batada, 2006). This act of an adult ignoring the teens problem is harmful to the teen

and inadvertently teaches them not to reach out to others seeing that they could be rejected. Authority figures can be positive sources of guidance for a teenager by showing them how to relieve and manage stress. Although, when an adult does not embrace the teen's pain, it can lead to negative outcomes.

Stress can also be caused by family context, such as puberty or transitioning into high school, and abnormal factors, such as major life events that cannot be controlled (e.g., death of family member or job loss) (Chappel, Suldo, & Ogg, 2014). Examples of acute and chronic stressors in adolescents include low socioeconomic status, multiple major life events, parental divorce, and family conflict (Chappel et al., 2014). Table 2 discusses the types of stressors that teens are experiencing and how often they worry about these specific sources of stress (Chandra and Batada, 2006).

Stress Linked to External Outcomes

Physical

It is shown that people undergoing discrimination experience accelerated aging due to stress and hardship (Keyes, Barnes, & Bates, 2011). Generally, persons who experience discrimination tend to have lower socio-economic status, disadvantaged living conditions, and higher levels of stress and adversity due to their social status; these factors can lead to increased chances of depression (Keyes, Barnes, & Bates, 2011).

Furthermore, self-harm continues to be an issue among adolescents and is easily hidden from school professionals (Evans and Hurrell, 2016). The signs of self-harm go unnoticed because people do not typically talk about these issues and many people are too busy to notice and pick up on the signs (2016). When students are using self-harm as a stress reliever, they are at a point in their pain where they do not want people to know

and they try to keep their injuries hidden. Therefore, it is crucial that school professionals are trained to notice signs and behaviors in order to better serve the student population.

Table 2.

Sources and Impact of Stress

Source of Stress	Approximate Percentage of Teens	
	Experience Stress Sometimes or Often	Worry About Stress Sometimes or Often
School work	68	75
Parents	57	68
Friends' problems	52	64
Boy-girl relationships	48	64
Drugs in neighborhood	48	60
Nosy neighbors	40	57
Pressure to fight	40	37
Teacher respect	40	48
Younger siblings	40	63
Litter in neighborhood	37	48
Pressure from within to have sex	32	20
Opposite sex issues	32	43
Pressure from friends to have sex	32	23
School	31	16
Older siblings	28	28
Body changes	26	48

Mental

In early life, brain development is influenced by external stimulation and by nutrition (Schore, 2016; Yam et al., 2015). During postnatal development, the brain is susceptible to external stimuli and environmental conditions. If these external circumstances exceed normal ranges, the probability of impaired brain development is increased (Schore, 2016; Yam et al., 2015). One consequence of impaired brain development is hypothesized to hinder the brains stress-coping mechanisms. In essence, the result may be a neurologically based impairment in the ability to regulate stress (Yam et al., 2015).

Children who witness ongoing family or peer conflict, economic hardship, and frequent changing of schools are at higher than normal rates of developing psychopathology; poverty is shown to be a chronic stressor related to developing internal and external behavioral problems (Chappel et al., 2014). In addition, children who experience prolonged family discord, as compared to children who do not experience prolonged familial discord, experience decreased happiness later in life (Chappel et al., 2014). Though, the structure of a family—if parents are divorced or not— and the level of socioeconomic status do not significantly affect the happiness and overall life satisfaction of adolescents (Chappel et al., 2014). It is shown that individuals who undergo more stress, than their peers, experience increased mental and physical ailments compared to individuals encountering less stress. Ethnic minorities typically experience more chronic and acute stress than White Caucasians (Cardoso, Goldbach, Cervantes, and Swank, 2016).

Substance abuse and violence

Stress is related to numerous social problems including substance abuse, violence, gang membership, depression, and risk-taking behavior. Because relationships also exist between poverty and stress, and between poverty and ethnicity, it seems reasonable to assume that ethnic minorities experience stress, and stress-related problems, at higher rates than financially stable white persons. Hispanic individuals tend to experience stress in the realms of education, finances, substance use, community, and gang violence (Cardoso et al., 2016). Within a particular Hispanic population, 61% developed a disease pertaining to substance abuse, violence, risky behavior, and depression (Maria, McCabe, Leblanc, De Santis, & Provencio-Vasquez, 2016). This percentage is abnormally high for

a single community, but the leading cause of these disorders derives from stress (Maria et al., 2016).

Family stress, cultural gaps when teens acculturate at different rates than their parents, and drug stress impacted the use of poly-substance and alcohol use in Hispanic teens (Cardoso et al., 2016). Overall, cannabis is linked to negative attitudes towards school, decreased educational scores, and lower levels of satisfaction; adolescent males have higher cannabis usage rates than females (Walburg, Moncla, & Mialhes, 2015). Additionally, when students have cynical attitudes toward school, cannabis use and abuse levels increase (Walburg et al., 2015).

On the violent side, an aggressive stress outcome in males is Masculine Gender Role Stress (MGRS). This is when a male experiences distress when his masculine role is threatened; this explains why some men are violent towards women and gay men (Baugher and Gazmararian, 2015). In young adults, MGRS has been shown to predict anger, violence, and aggression (Baugher and Gazmararian, 2015). Stress is found when these men are unable to manage the idea of behaving in a more effeminate way (Baugher and Gazmararian, 2015). The traditional dominant male role that is taken on by these men who experience MGRS is rooted in their status, toughness, and anti-femininity (Baugher and Gazmararian, 2015). Anger in adolescents shows up in the different areas of physical, verbal, and indirect aggression when it is combined with aggression, though, the negative consequences can multiply (Fives, Kong, Fuller, and DiGiuseppe, 2011). Difficulties include immediate harm, problems with peers, early dropout, future lack of social skills, and substance abuse (Fives et al., 2011).

It has been found that hostile attribution bias—the belief that others have hostile intent—increases difficulties with problem solving, and social cognitive learning perceptions are related to aggression in teens (Fives et al., 2011). There are thoughts of aggression leading to hostility, irrational beliefs, and anger—men are more likely to use physical aggression, weapons, and become homicidal while women typically use indirect methods (Fives et al., 2011).

Job and School Stress

The tasks of carrying on an after-school job and successfully completing high school can bring high amounts of stress to a teen. Depending on the number of job hours the teen takes on, combining work and school can be overwhelming. For example, it has been shown that some cases of adding work to the teens schedule can lower grades and increase drug use (Elias, 2002). Moreover, students who take on longer hours than their peers who work less hours or do not work at all, do worse in school and are less engaged, do not participate as frequently in extracurricular activities, and are less likely to finish high school, go on to college, or graduate with a bachelor's degree (Staff, VanEseltine, Woolnough, Silver, & Burrington, 2012).

On the other hand, parents see their child learning time management and other life skills in the process (Elias, 2002). In turn, these students seem to handle career stress better, while the students who did not work during high school felt as if they had no control when work increased (Elias, 2002). Additionally, it has been shown that the students who take on long hours at work are more likely to participate in less adolescent behavior and more adult-like behaviors, such as smoking cigarettes and drinking alcohol (Staff et al., 2012).

International Student Acculturation Stress

Students who come to school from a different country tend to have many different stressors and barriers when acculturating to their new environment. Communities in Schools serve a large amount of student refugees from Africa and many of them experience high levels of stress for difference reasons relating to gender, support, self-image, and culture.

Gender

Females tend to have higher stress levels when acculturating, though they have higher chances of obtaining superior support resources. Both genders seek out female support because women generally are taught to have greater sensitivity to the needs of others (Hayes and Lin, 1994; Thomas and Sumathi, 2016). Additionally, it is shown that students who move to a new country after age 12 have higher difficulties with acculturative stress (Hayes and Lin, 1994).

Support

Support from parents, friends, and significant others protects against the amount of acculturative stress experienced and is important in the students' wellbeing and feelings of connectedness (Cho & Haslam, 2010; Thomas and Sumathi, 2016). An inverse relationship exists between family support and depression. Family support is also associated with increased scores on measures of emotional adjustment (Crockett, Iturbide, Torres, McGinley, Raffaelli, & Carlo, 2007; Thomas and Sumathi, 2016). On the other hand, students experience increased distress when they have low levels of social support, whereas stress is not increased among students who have high social support (Crockett et al., 2007). Acculturation, general life stress, and perceived social support of

peers and parents are associated with psychological symptoms, distress and, at times, suicidal ideation (Cho & Haslam, 2010).

Moreover, there is a sense of loss when leaving families and friends behind (Hayes and Lin, 1994; Mallinckrodt and Leong, 1992). It can be difficult for these students to find something comparable to family in America and may find it discouraging and dissatisfying. In turn, this can have a negative impact on psychological and social well being, students will feel tension, take less time off, and lose sight of how to have fun (Hayes and Lin, 1994; Mallinckrodt and Leong, 1992).

Maladaptive perfectionism

Maladaptive perfectionism has been linked to depression among students who equate their grades and performance to self-worth; when their performance is not perfect, they feel like failures and view themselves negatively (Wei, Heppner, Mallen, Ku, Liao, & Wu, 2007). For example, not being able to learn English quickly can be seen as a failure for students with maladaptive perfectionism and decreases their chances of social interaction with the new host culture (Hayes and Lin, 1994; Wei et al., 2007).

Culture

Some evidence suggests that maintaining a connection to a home culture while exploring a new host culture is associated with decreased stress and fewer difficulties adapting to the new culture (Sullivan and Kashubeck-West, 2015). Students who put “yes” in the Berry’s Modes of Acculturation table below had lower levels of acculturative stress compared to the other students who were in the Separate and Marginalized sections (Berry, 1980; Sullivan and Kashubeck-West, 2015).

Table 3.

Berry's Modes of Acculturation

		Is it considered to be of value to maintain own cultural identity and characteristics?	
		Yes	No
Is it considered to be of value to maintain relationships with the host culture?	Yes	Integration	Assimilation
	No	Separation	Marginalization

International students tend to have problems with academics and personal and social life because of difficulties trying to adjust to their new culture and their loss of old culture (Hayes and Lin, 1994). Language barriers, personal characteristics, academic worries, and perceived discrimination are all areas that increase stress. Openness to the new culture, opportunities to learn a new language, and finding similar interests decrease international student stress. However, the initial excitement of moving to America can quickly wear off and become sadness and disappointment.

The differences in cultural communication between international and American students may contribute to the lack of cross-cultural friendships (Mallinckrodt and Leong, 1992). Therefore, it is seen to be beneficial to create a cultural subgroup where international students can create new relationships that will increase their sense of belonging and provide opportunities to share similar traditional values and beliefs (Hayes and Lin, 1994).

Interventions

Managing stress in a healthy and effective way is important for each teen's future. When coping mechanisms are taught and implicated at a young age, the teen can apply those techniques in order to feel relief from their stress. StressOFF Strategies is a 45-minute program for high school students. The program consists of psychoeducation to

educate students about types of stress, stigma and mental health, cognitive behavioral therapy (CBT), and mindfulness-based stress reduction (MBSR). A follow-up pamphlet and activities are also included (Shapiro and Heath, 2014).

Mindfulness-Based Stress Reduction (MBSR) programs and Mindful-based interventions are shown to help reduce depression, anxiety, burnout, and stress. Research shows that MBSR can also improve quality of life, and increase compassion, spirituality, and empathy (Cabrera-Caban, Garden, White, & Reynoldson, 2016). This type of program is also said to decrease negative personality traits and increase wellbeing and attention (Cabrera-Caban et al., 2016). Learning to take a break in the day and devote time to meditate for a few minutes can be extremely beneficial and is a habit that should be built.

Moreover, the DEAL model is a model that is shown to decrease stress, anxiety, and depression (Muhammad Saiful Bahri, Mohd Jamil, Nyi Nyi, & Abd, 2015). Those participating in the intervention learn to use self-reflection to detect, evaluate, and learn from stressors. Participants also learn to formulate an action plan to help them better manage future stressors. Detecting the stressors consists of the person realizing what circumstances are potentially becoming stressors (2015). Evaluating the stressors is the process of evaluating and identifying the stressors (2015). The action step is figuring out how to deal with and manage the stressors (2015). Lastly, the participant learns how to better deal with and acknowledge when stress is coming on in the future (2015).

As stated in the systematic review completed by Rew, Johnson, and Young, mindfulness or awareness techniques, Transcendental Meditation (TM), relaxation

exercises, and life skills training are all beneficial interventions to use with adolescents that are experiencing stress (2014). TM is a strategy that does not redirect the mind but tells it to be aware; rather the participant is told to focus on the diaphragm or something similar (Rew et al., 2014). Relaxation exercises include stretches, visualization-based relaxation, and muscle contraction and release (2014). Lastly, life skills training involves understanding that stress is present, where the stress is coming from, what emotions are affiliated with the stress, and strategies to cope with the stress (2014).

Conclusion

High school adolescents experience high amounts of stress from multiple factors. Certain factors, such as family loss and family roles, are uncontrollable and can dramatically increase stress in students. Many adolescents feel a need to have perfect performance in school and their grades reflect their self-esteem and morale. Some students come from different cultural backgrounds and countries that create boundaries of language and social behavior that can set back academic performance and increase stress.

Many teenagers do not know how to manage these stressors and prevent negative stress from appearing in their lives. Some high school students are looking to drugs or alcohol to soothe the troubles of stress while others focus on athletics or grades. Whatever technique is used for stress management, it is always helpful to learn positive and different skills of coping in the hopes of preventing and managing stress in the future.

CHAPTER III
METHODOLOGY

Design

The study over stress in high school students includes a quantitative design to evaluate the utility of the StressOFF Strategies intervention with high school students in the Communities in Schools program. StressOFF Strategies was the chosen intervention because it is simple to implement in school settings and does not contain risky information; the assessments ask personal information related to stressors and stress management but nothing that will bring about hurtful emotions. The program includes a short presentation and two assessments that can be shown and completed in the span of 45 minutes during Mega lunch; the students' lunch period with a span of one hour.

The study compared the pretest and posttest to examine the student's ability to manage stress before and after the program was completed. The pretest was given at the beginning of the lunch group, the StressOFF Strategies presentation was given, and then the posttest was given a month later. This allowed for an understanding of how well students manage stress and if the StressOFF program increased knowledge of stress management.

Participants

Participants of this study included 5 students at Abilene High School who are part of the Communities in Schools program; the exclusion criteria included any student outside of the CIS program. The sample is specific to the CIS program and understanding

that the task supervisor serves the same students, participants were chosen through consultation with the CIS task-supervisor and through practice wisdom. Many of the students that are in the CIS program experience high stress and/or low self-esteem due to their stressful home lives and stressors related to school and outside of school; therefore, the StressOFF Strategies intervention helps to target these needs.

Data Collection

Quantitative data was completed in the use of the pretest and posttest surrounding the StressOFF Strategies program. The students took the My Personal Stress Profile and Perceived Stress Scale in roughly 10 minutes, the interactive presentation was completed in roughly 30 minutes, and finally each student took the posttest consisting of the Personal Stress score and the Perceived Stress Scale 30 days later. Once the pretest and posttests were completed, the researcher coded the students' answers in Excel and transferred them to SPSS where data was run and translated into individual graphs. The results allow for understanding of how adolescents at this age interpret and handle stress and if the StressOFF program is effective or not.

Instruments

Included in the StressOFF Strategies program is two non-intrusive personal stress tests: a 10-item Perceived Stress Scale (refer to Appendix C); and a My Personal Stress Profile (refer to Appendix D). In the Perceived Stress Scale, participants were asked to rate their level of stress in the past month by rating themselves on a five-point scale that ranged from 0 (Never) to 4 (Very Often). Secondly, the Personal Stress Profile asked participants to check boxes that contained physical, psychological, and behavioral symptoms. The Personal Stress Profile consists of the totals of the overall stress in each

category. Participants were asked to complete these measures before the intervention (pretest) and 30 days after the intervention (posttest) because the Perceived Stress Scale asks for stress ratings from the past month. Once the 45 minute intervention was completed, the researcher waited 30 days to hand out the posttest to collect the rest of the data. Once the data was collected, it was entered into Excel and SPSS in order to run and interpret the findings.

Data Analysis

The quantitative data that was collected through the study was imputed into Excel for organization and transferred into SPSS for analysis. The data was then looked over and interpreted to form results. Data was assessed and the pretest and posttests were made into individual graphs that show each student's pre and posttest totals. This allows for comparison of stress before the StressOFF Strategies intervention was implemented and after to understand if the students benefitted from the program.

CHAPTER IV

RESULTS

The results of the pre and posttests are shown below. Each group member's pretest and posttest results are presented in individual graphs to show the affects of the group session. The first two graphs include the group's average scores while the following 5 figures show the individual student's results.

Figure 2 portrays the average score of each student and of the students' combined scores in the Perceived Stress Scale. The overall average, student 3, and student 4 scores increased between the pre and posttest. On the other hand, student 1, student 2, and student 5 scores decreased.

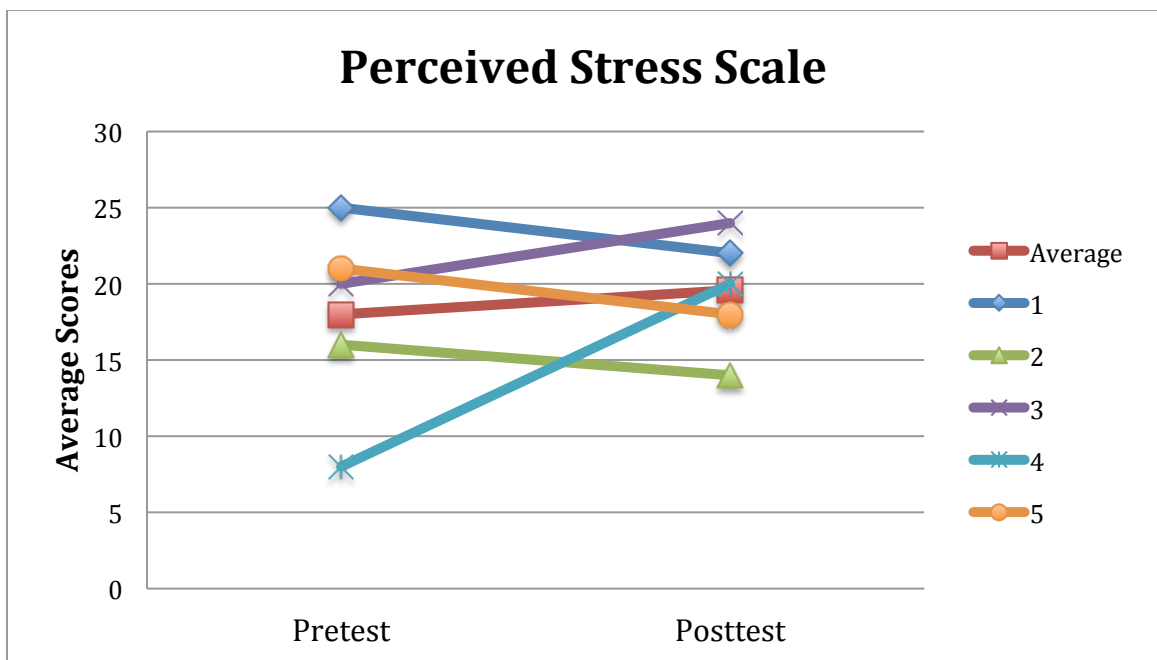


Figure 2. Combined Student Average Number of Items Marked on the Perceived Stress Scale

Figure 3 shows the average of all the client responses on the Personal Stress Profile. As the figure illustrates, results on the psychological subscale increased, the behavioral subscale did not change, and the physical subscale decreased. Figure 4 includes the pretest and posttest scores of the Personal Stress Profile. The subgroup for physical symptoms stayed the same and the subgroups for psychological and behavioral symptoms increased. Figure 5 includes the pretest and posttest scores of the Personal Stress Profile for Student 2. The subgroup scores for physical and behavioral symptoms remained the same, while the subgroup scores for psychological symptoms decreased.

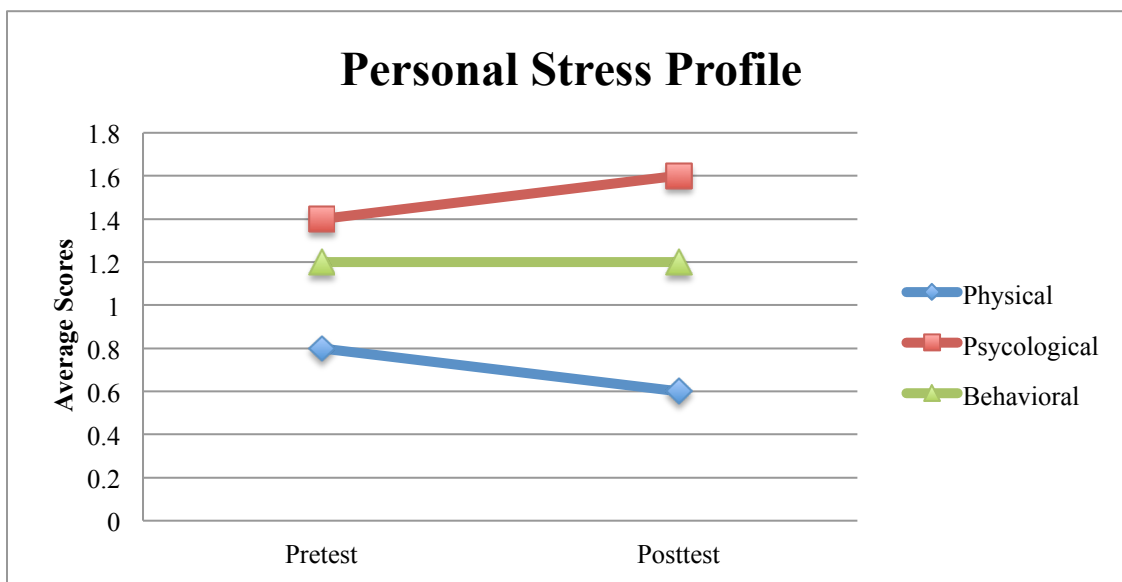


Figure 3. Combined Student Average Number of Items Marked on the Personal Stress Profile

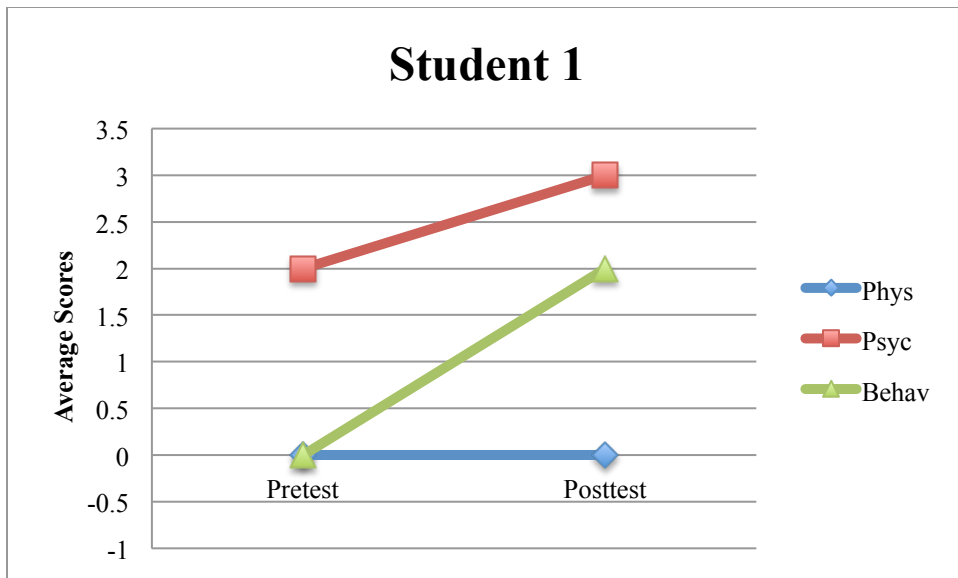


Figure 4. Individual Average Number of Items Marked on the Personal Stress Profile

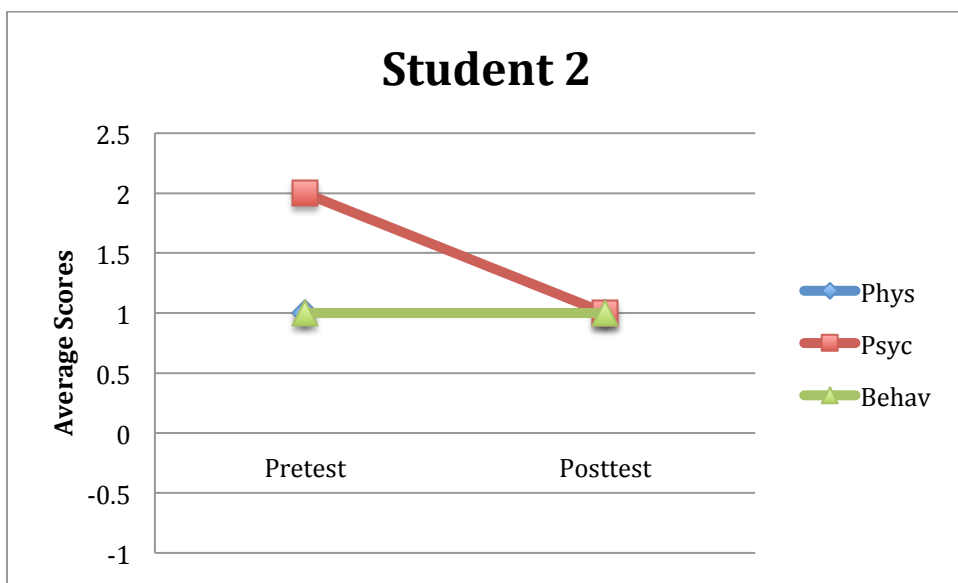


Figure 5. Individual Average Number of Items Marked on the Personal Stress Profile

Figure 6 includes the pretest and posttest scores of the Personal Stress Profile for Student 3. The subgroup score for psychological symptoms increased, the physical symptoms remained constant, and the behavioral symptoms decreased.

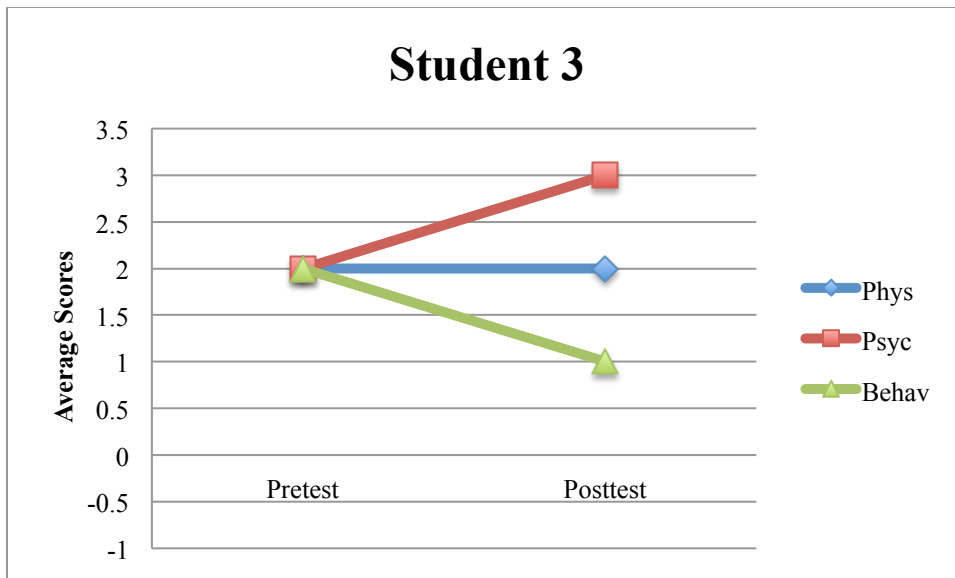


Figure 6. Individual Average Number of Items Marked on the Personal Stress Profile

Figure 7 includes the pretest and posttest scores of the Personal Stress Profile for Student 4. The subgroup scores for physical, psychological, and behavioral symptoms were the same before and after the intervention.

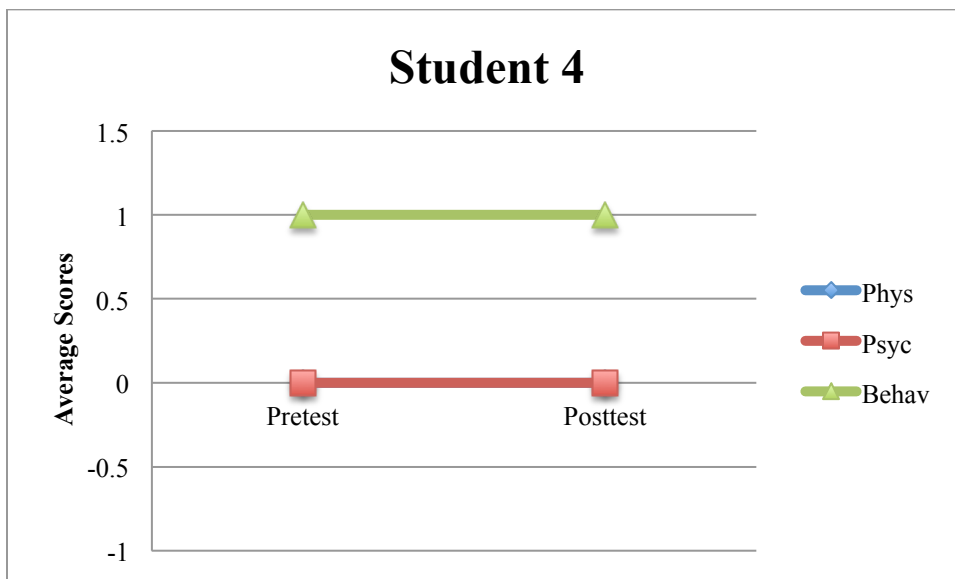


Figure 7. Individual Average Number of Items Marked on the Personal Stress Profile

Figure 8 includes the pretest and posttest scores of the Personal Stress Profile for Student 5. The subgroup scores for physical and behavioral symptoms decreased, while the subgroup scores for psychological symptoms remained the same.

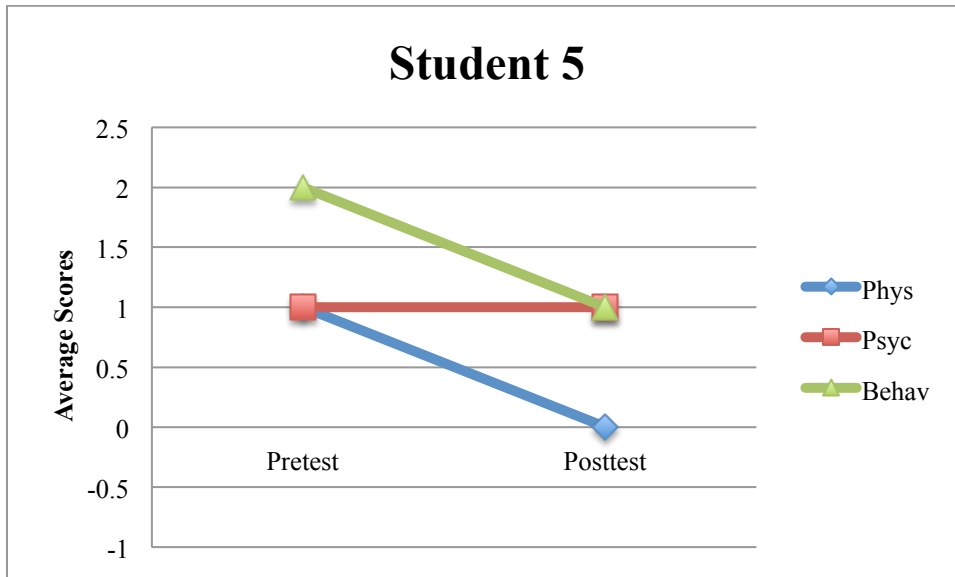


Figure 8. Individual Average Number of Items Marked on the Personal Stress Profile

CHAPTER V

DISCUSSION

The intention of this study was to understand if the StressOFF Strategies intervention decreases stress and provides students with helpful stress management tools to deal with said stress. The literature explains that sources of stress in adolescents come from a multitude of areas (e.g., schoolwork, home life, relationships, and acculturating to a new environment). Many of the participants in the study experience stress related to these characteristics and the literature was shown to be true in many of these areas.

Each student was assessed individually and their pretest and posttests were transferred into separate graphs. Each graph shows the difference between their stress levels before the intervention and their stress levels one month later. Statistical analysis was not used to test for group differences because of the small sample. Depending on the student, there were increases and decreases in the Personal Stress Profile and the Perceived Stress Scale from pre to posttest.

On average, the scores for the Perceived Stress Scale increased and the Personal Stress Profile shows that students' scores went up for physical symptoms of stress, stayed same for behavioral symptoms, and lowered for physical symptoms; although, 3 out of 5 students' overall scores decreased. Therefore, the StressOFF Strategies program, overall, did not decrease stress in this group of high school students due to various reasons. Explanations for this include a lack of understanding among students who do not speak English as their first language and did not fully understand what was being asked, there

was an extremely small sample size and many of them were seniors whose stress increases as graduation gets closer, and it is hypothesized that having a one-hour session was not beneficial to the learning and implementation of the stress management strategies.

Limitations

When completing this study with a group of high school students in the Communities in Schools program, multiple limitations come into play. It became difficult to find students that wanted to join the lunch group and spend their hour away from their friends and away from tutoring. The aim was to recruit 8-10 students who experience self-esteem and social skills complications. One of the hopes in combining these students together was to find similarities and potential friendships within the group. When inviting these students to participate, surprisingly many of them did not want to join the group due to various reasons of time constraints and new relationships. However, enough students over time decided to try out the lunch group at least one time.

A large limitation was that many of the informed consent and assent forms that came back were from students that are unaccompanied and 18 or older who can sign for themselves. The researcher handed out consent forms to a large section of the caseload of 35 students, but a majority of the first ones to be received were adult students. This does not represent the population of Abilene High School seeing that much of the group was comprised of seniors. Once the group took place, though, only 5 students showed up. Certain students did not show up because tutorials take place during this lunch hour, and friend time is important to the wellbeing and happiness of students. This is a notable limitation seeing that the study cannot be remotely representative of the population or the

StressOFF Strategies intervention. On the other hand, within the students who did participate, some students are acculturating and do not speak or read English as their first language. This is a limitation seeing that the assessment scores could be misrepresentative of the true stressors and stress management techniques experienced by these students.

Furthermore, the entire process of receiving IRB approval, handing out and receiving consent forms, and completing the lunch group study was in limited time which caused constraints. Having more time to complete the intervention and recruit more students would have been ideal.

Implications for Practice

Implications for practice include implementing the StressOFF Strategies program and furthering students' education about stress in multiple group sessions. The StressOFF program teaches students about stress and how to manage it. Although the intervention did not work in this study, it is assumed that once there is a larger group of students to participate and the techniques can be further explained over a course of multiple sessions, that the StressOFF Strategies program would bring significant change in the stress experienced in high school students. Therefore, with the increase of adolescents who do not know how to properly and positively manage their stress, educating them is important. An evidence-based system needs to be put in place that teaches adolescents how to deal with stress in order to decrease the amount of overwhelmed students who are resorting to negative stress management tools. Although, it is recommended that the program be implemented in various lunch sessions to increase understanding and implementation of stress management techniques and interpretation of the questions

being asked on the assessments. If there was more time to complete the StressOFF Strategies intervention, it would be crucial to be intentional in explaining the strategies and questions in a way for every student to understand what the intervention is saying and asking of them.

For Abilene High School, it would be beneficial to meet once a week for 30 minutes out of the hour-long lunch period to allow the students to fully learn the stress management techniques provided by the StressOFF Strategies program. Completing a 45-minute session during one sitting did not show to significantly impact the students' stress levels. It would be crucial to obtain an efficient way of receiving consent forms back from the parents. Options on how to do this include calling the parent, making a home visit to talk with the parent, or provide a small incentive to the student who brings back their form; an example of this at Abilene High School is giving out Eagle Coins that are free to the social worker and, when accumulated, the student can buy merchandise at the Eagle Store every Wednesday during lunch.

Implications for Further Research

Further research needs to be completed on teens' ability to manage stress, the techniques used, and what types of stress they experience. Obtaining more knowledge on this topic will allow for researchers to understand what adolescents are experiencing and how to better help them through these struggles. Seeing that this stage of life is filled with growth and difficulties, research is beneficial to further understanding teens.

In addition, completing the StressOFF Strategies program with a larger group of students over a longer period of time is needed. This would allow for deeper understanding of the program and its benefits to high school students. Furthermore, it is

suggested to be beneficial to collect data in future research on if students interpreted the strategies in the intervention and if they use them after the intervention is given. Once the StressOFF Strategies intervention was given at Abilene High School, some students came back the next day and explained that they found the meditation strategy to be useful for calming nerves and re-centering self. Therefore, it would be interesting to collect data relating to the usage of strategies post-intervention.

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APPENDIX A

IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885



11/10/2016

Madysen Pennington
Department of Social Work
ACU Box 27866
Abilene Christian University

Dear Ms. Pennington

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled **Evidence-based Intervention that Decreases Stress Levels in Teens Who Are Missing School Due to Outside Stressors**

was approved by expedited review (46.110(b)(1) category 7) on 11/10/2016 for a period of one year (IRB # 16-077). The expiration date for this study is 11/10/2017 . If you intend to continue the study beyond this date, please submit the [Continuing Review Form](#) at least 30 days, but no more than 45 days, prior to the expiration date. Upon completion of this study, please submit the [Inactivation Request Form](#) within 30 days of study completion.

If you wish to make any changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the [Study Amendment Request Form](#).

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the [Unanticipated Events/Noncompliance Form](#).

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

APPENDIX B

Informed Consent and Assent Form

Evidence-based Intervention that Decreases Stress Levels in Teens Who Are Missing School Due to Outside Stressors

Your child is being asked to participate in a stress management program designed to help he or she gain a better understanding of factors that contribute to stress with the goal of helping she or he to better manage stress. The evaluation is being conducted through Abilene Christian University School of Social Work Graduate program by the following undergraduate student:

Madysen Pennington

Supervised by:

ACU faculty mentor: Alan Lipps

CIS mentor: Erica Hansley

Purpose: The purpose of this study is to determine what factors contribute to lower levels of stress and increased stress management in high school students.

This phase of the study consists of a face-to-face group program that educates students on stress management and measures stress levels and stress management mechanisms.

This program consists of a 45-60 minute presentation about stress and stress management. The program will take approximately 1 hour to complete, and will include questions encompassing stress levels, stress, and stressors. Participants will be asked to: 1) complete a pretest including the My Personal Stress level and Perceived Stress Scale (roughly 10 minutes); 2) participate in an interactive presentation (roughly 30 minutes); 3) ask questions (approximately 10 minutes); and, 4) complete the My Personal Stress test and Perceived Stress Scale again (roughly 10 minutes).

Confidentiality of Data: All participants' identity will be kept **confidential** throughout the pre and posttest seeing that no names will be recorded on paper and any data that is collected will be protected on a password-protected computer.

Participants: Your child has been selected to participate in this study due to their involvement in the Communities in Schools program at Abilene High School. Your child is eligible if they are a student between the freshman and senior level. Participation is completely voluntary and identities will not be shared. Your child may withdraw at any time for any reason with absolutely no penalty or consequences.

Potential risks: Though unanticipated, possible risks that could come from the program are discomfort in the questions being asked regarding stress levels, and memories that could arise. If participants wish to discuss or are in need of counsel due to discomfort, a referral to the school counselor will be available.

Benefits: The potential benefit that could come from this study is improved stress management in high school students. There are no financial benefits to the participants in this study.

Rights as a Participant: This program is voluntary and participants may choose to opt out of the study at any time with no consequences.

Contacts

If you have additional questions, concerns, or complaints in the future, you may contact the Principal Investigator of this study. The Principal Investigator is Madysen Pennington and may be contacted at mlp11b@acu.edu, mlp11b@acu.edu, School of Social Work: 325-674-2072

If you are unable to reach the Principal Investigator or wish to speak to someone other than the Principal Investigator, you may contact the faculty advisor, Alan Lipps, 325-674-4889, ajl07a@acu.edu.

If you have concerns about this study or general questions about your rights as a research participant, you may contact ACU's Chair of the Institutional Review Board and Director of the Office of Research and Sponsored Programs, Megan Roth, Ph.D. Dr. Roth may be reached at

(325) 674-2885

megan.roth@acu.edu

320 Hardin Administration Bldg, ACU Box 29103

Abilene, TX 79699

If under 18, parent/guardian signature Date

Students,

You are being asked to participate in a study about the StressOFF program. We will teach you ways to manage your stress. You can also participate in another part of the study. In the second part we will measure your personal stress before and after you take the StressOFF program. We won't use your name if you choose to be in either study. People will not know which survey is yours. In the StressOFF program you will view an interactive presentation which will teach you different ways to manage stress. This program will take about 30 minutes. The stress surveys given before and after the program will take about 10 minutes each. This is a total of about an hour for the entire study. You don't have to participate unless you want to. You will not be punished if you choose not to participate. You also can decide to participate in the StressOFF program, but not the surveys. You can stop participating at any time.

If you decide to participate in the program, sign here:

Participant Signature Date

If you decide to participate in the study as well, sign here:

Participant Signature Date

APPENDIX C

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

3. In the last month, how often have you felt nervous and "stressed"?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

5. In the last month, how often have you felt that things were going your way?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

___ 0=never ___ 1=almost never ___ 2=sometimes ___ 3=fairly often ___ 4=very often

7. In the last month, how often have you been able to control irritations in your life?

___0=never ___1=almost never ___2=sometimes ___3=fairly often ___4=very often

8. In the last month, how often have you felt that you were on top of things?

___0=never ___1=almost never ___2=sometimes ___3=fairly often ___4=very often

9. In the last month, how often have you been angered because of things that were outside of your control?

___0=never ___1=almost never ___2=sometimes ___3=fairly often ___4=very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

___0=never ___1=almost never ___2=sometimes ___3=fairly often ___4=very often

© Cohen, S., Kamarck, T., Mermelstein, R (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.

© Cohen, S., & Williamson, G (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology*. Newbury Park, CA: Sage.

APPENDIX D

My Personal Stress Profile

Physical Symptoms

- Headache
- Stomach Pain and/or digestive problems
- Feeling tired (fatigue)
- Muscle tension
- Jaw clenching or teeth grinding
- Difficulty falling asleep due to tenseness
- Skin conditions (e.g. rash or hives)
- Neck or back pain
- Change in appetite (increased or decreased)
- Rapid heart beat or tightness in chest

Score: _____

Psychological Symptoms

- Difficulty concentrating
- Racing thoughts
- Persistent worry
- Forgetfulness
- Difficulty falling asleep due to racing thoughts
- Low self-esteem
- Difficulty making decisions
- Blowing things out of proportion (Catastrophizing)
- Confusion
- Unable to let go of thoughts (Obsessive thinking)

Score: _____

Behavioral Symptoms

- Nail biting
- Constant pacing
- Persistent foot tapping or constant fidgeting
- Angry outbursts
- Frequent crying spells

- Avoiding situations that cause stress
- Overeating or not eating enough
- Fast or abrupt speech
- Increased clumsiness
- Poor choices to manage stress (e.g., substance use)

Score: _____