
Mindfulness Meditation for Adolescent Stress and Well-Being: A Systematic Review of the Literature with Implications for School Health Programs

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Abstract

Stress poses one of the biggest threats to the health and well-being of young people. Adolescents are especially vulnerable to the negative effects of stress due to developmental factors. Recently, Mindfulness Meditation (MM) programs have been implemented into both clinical and school-based settings to reduce stress and promote the health of adolescents. This article reviews the current literature that reports on the effect of MM to reduce adolescent stress and enhance well-being. Results appear promising for MM to positively affect the identified outcomes in both clinical and school settings. Recommendations for schools to implement MM within the framework of a Coordinated School Health Program are included.

Introduction

Stress continues to be a major threat to health and learning outcomes for adolescents. According to a recent study conducted by the American Psychological Association (APA), adolescents experience stress at levels comparable to adults, yet report having minimal healthy coping strategies (APA, 2014). This is especially alarming because during the adolescent period, young people undergo massive developmental changes especially in regions of the brain that are integral to successfully navigating stressful situations. Due to the neurological changes experienced during adolescence, youth are uniquely susceptible to the effects of stress. Specifically, research suggests that this vulnerability exists because regions of the teenage brain including the hippocampus, amygdala, and prefrontal cortex are sensitive to the stress hormone (McEwen, 2005), and are not fully mature until well into adulthood (Crews, He, & Hodge, 2007). As a result of these factors the convergence of stress and the developing brain may present a particularly vulnerable time period with respect to dysfunctional emotional maturation

(Romeo, 2010). Other research suggests that greater stress experienced during the adolescent time period is associated with more incidences of anxiety and depressive disorders in young adulthood (Turner & Lloyd, 2004). Finding healthy stress reduction practices acceptable to adolescents and helping them develop these skills is imperative.

As researchers continue to reveal the detrimental effects of stress, particularly to teenagers, the field of investigating meditation as a stress reduction and health promotion tool for young people has emerged (Greenberg & Harris, 2012). Developing effective stress reduction techniques in adolescence appears to be a critical need with respect to mental health, well-being, and academic performance. The effects of meditation have been well investigated in adult populations (Goyal et al., 2014), and studies are beginning to emerge in the adolescent population with specific attention on school-based programs (Meiklejohn et al., 2012; Rempel, 2012; Wisner, Jones, & Gwin, 2010).

Mindfulness Meditation Description

Mindfulness Meditation (MM) is described as “paying attention in a particular way, on purpose, in the present moment non-judgmentally” (Kabat-Zinn, 1994), and has its roots in Buddhism (National Center for Complementary and Integrative Health [NCCIH], 2016). MM was introduced in the United States by Jon Kabat-Zinn in the form of Mindfulness Based Stress Reduction (MBSR). Though other forms of meditation exist, including Christian Meditation, Zen Meditation, Transcendental Meditation (TM) and others, MM appears to be one of the most researched forms in the United States (NCCIH, 2016).

Although adolescence represents a particularly vulnerable time with respect to the effects of stress, this time period may also present an opportune time for interventions aimed at preventing the detrimental effects of stress (Romeo, 2010). MM has the potential to be an essential tool in an adolescent’s struggle against stress, and also may have positive developmental effects (Roeser & Pinela, 2014). If MM does indeed prove to be an effective weapon against stress, and because adolescence is an opportune time to develop this skill, then school health programs could play a critical role in influencing the process of skill acquisition.

Methods

The purpose of this review was to investigate what is known about the effects of MM on adolescent stress and well-being. A literature search was conducted in the fall of 2014 using PubMed, Google Scholar, ERIC, PsychCentral, and reference list searches. Inclusion criteria for the review included the following: Studies published in peer-reviewed journals, population (teenagers in middle school and high

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school), 10 or more subjects, MM (vs. other meditation forms), and outcomes related to mental health and well-being. Search terms included: Adolescents, teenagers, meditation, mindfulness, stress, health, and schools. Studies are organized in chronological order according to publication year and grouped into non-school based interventions vs. school-based programs.

Results

Non-School Based Interventions

Bögels and colleagues (2008) studied youth ages 11-18 who were referred to a community mental health center with a primary diagnosis of ADHD, Oppositional Defiant Disorder/Conduct Disorder, Autism Spectrum Disorder, or suffering from externalizing symptoms. Fourteen families (parents and children) agreed to participate in the study. The mean age of the participating children, including 8 boys and 6 girls, was 14.4 years. Eleven parents had mental disorder themselves. Participants (child and parents in parallel groups) received eight weeks of Mindfulness-Based Cognitive Therapy, which included a body scan, mindful breathing, breathing space, mindfulness of thoughts and sounds, and sitting meditation. Resources were provided to encourage practice at home. Reported findings included improvements with adolescent and parent goals, externalizing, internalizing, social, thinking, and attention problems along with subjective happiness, objective sustained attention, self-control and quality of life. Authors reported the effect sizes as 'remarkable' considering children being severe in terms of number and types of diagnoses, long treatment histories, family functioning problems, and considering that psychosocial treatments for these disorders are generally modest. These results were also impressive considering children's problems were heterogeneous. Some children with long histories reported that this was the first treatment that addressed their core problems, namely attention deficits (Bogels, Hoogstad, van Dun, de Schutter, & Restifo, 2008).

One of the first Randomized Control Trials investigating MM within an adolescent population was conducted by Biegel and associates (2009). Researchers examined 39 high school students ages 14-18 as part of a mental health outpatient program. These patients participated in eight weekly class sessions of MBSR that focused on walking, sitting, and body scan meditations and were compared to a Treatment As Usual (TAU) only group. The MBSR group showed significant improvements over time in state and trait anxiety, perceived stress, self-esteem, depressive symptoms, sleep quality, interpersonal problems, and greater mental health changes. Sitting meditation frequency and duration showed the most effect on mental health change. Authors noted that at home practice is central to the program and the more that students practiced at home, including duration, the greater the positive outcomes (Biegel, Brown, Shapiro, & Schubert, 2009).

Sibinga and associates (2011) studied MBSR for youth in an urban and under-served setting. Participants were recruited from a pediatric and adolescent outpatient clinic of a large, urban tertiary care academic hospital. A total of 26 patients completed the study and were part of one of four MBSR groups, two of which were for HIV-infected subjects only. All

of the program completers were African-American, 77% were female and 11 were HIV positive. The MBSR eight-week program consisted of teaching, experiential practice of MM, mindful yoga, and body scans, encouragement of at home practice, and group discussions. A convenience sample of participants was recruited to participate in in-depth interviews. Quantitative results revealed significant reductions in hostility, general discomfort, and emotional discomfort. Qualitative data revealed positive feedback regarding the program and an interest in continued practice of MBSR techniques. General findings included participants stating that the MBSR course helped them to feel more calm and relaxed, better able to manage their anger and conflicts, better able to handle everyday interactions, better able to get along with family and friends, more aware of their stress, in turn reducing their reactivity and hostility towards others, doing better in school, increased concentration, and greater confidence. Finally, several of the HIV-positive participants stated that taking their anti-retroviral medication increased as a result of the MBSR course (Sibinga et al., 2011).

Weijer-Bergsma and colleagues (2011) investigated the effectiveness of a program developed from the Mindfulness in Schools Project with students diagnosed with ADHD and their parents. Participants included five boys and five girls with ADHD who had been referred to an academic treatment center for ADHD. Ages ranged from 11-15 years with a mean age of 13. The program was administered for eight weeks and lasted for 1.5 hours each session, one-day per week. Approximately eight weeks after the final session parents and children had a booster session. Adolescents were taught sitting meditation along with other forms of meditation. Sessions were highly structured and always began and ended with a 3-minute breathing meditation. Parents received a separate mindfulness based program, 'Mindful Parent Training'. Directly after training, improvements were found in externalizing, internalizing, attention problems, and executive function for students. At eight-week follow up, reduction in behavior problems and improvement in executive function were maintained and became stronger, along with a significant drop in attention problems as reported by adolescents and fathers while enhanced improvement in attention was verified by the computerized attention tests. Fathers reported a significant reduction in meta-cognitive problems and a significant improvement in behavior regulation. A significant reduction in parenting stress was reported by fathers immediately after training and again at eight-week follow up (Weijer-Bergsma, Formsma, Bruin, & Bogels, 2011).

Zoogman and colleagues (2014) conducted a meta-analysis focusing on MM in youth, regardless of whether the program was school based. The meta-analysis included all the published studies through July 2011 of MM with youth under the age of 18. Approximately 20 studies were included and most of the studies were conducted in schools. The analysis revealed that on average, mindfulness groups showed significantly greater improvement on outcome measures than did groups in active control conditions. The effect size overall was small while clinical effect size was moderate but three times the size of the effect found in non-clinical samples. The researchers found universal non-specific effect size for mindfulness interventions consistently outperforming active control groups. Psychological symptoms showed a greater

effect than any other outcome type. Mindfulness interventions were shown to directly increase attention. The authors suggest that mindfulness has a large positive effect on adolescents with symptoms of psychopathology. To date, most of the studies of mindfulness have been conducted in school-based settings providing evidence for mindfulness to increase attention and positive psychological and academic outcomes. The authors speculate that attention may be the internal psychological mechanism that drives the effects of mindfulness interventions and that it most likely engages a form of Executive Functioning (EF) (Zoogman, Goldberg, Hoyt, & Miller, 2014).

School Based Programs

Beauchemin and associates (2008) investigated the effects of MM in an adolescent population with Learning Disabilities (LD). Participants were recruited from four high school classes within a school that serves students with LD. Thirty-four students participated in the study with ages ranging from 13-18. The pilot study used a pre-post test with no control group. The initial meditation training was 45-minutes lead by the principal investigator and a teacher. After the initial training, sessions were lead for 5-10 minutes at the beginning of class each day, five days per week, for five weeks. Results indicated improvements for state and trait anxiety levels, self-reported social skills, teacher reported student social skills, problem behaviors, and academic performance. Students reported that the training was enjoyable, it helped them focus more in class, and they planned to continue meditation. Open-ended questions revealed that many students felt positive about the program, and reported that it led to feelings of calm, quiet, relaxation peacefulness, or better overall feelings. Teachers reported anecdotal evidence that there were no issues with the training resulting and no problems with boredom from students (Beauchemin, Hutchins, & Patterson, 2008).

Broderick and Metz (2009) tested the 'Learning to BREATHE' program, a mindfulness-based intervention developed for high school students. Program objectives were linked to standards of various curricular areas including school health education. Learning to BREATHE includes six lessons each ending with time to practice MM. Resources were provided for at home meditation practice. The entire senior class of a private catholic girls school (N=120) participated in the study with 105 completing both pre and post-test. The intervention group was part of a health class and the program was delivered twice per week. The Learning to BREATHE group experienced significant reductions versus the control group in negative affect and enhanced level of calm, feeling relaxed, and self-accepting. The program group displayed significant decline in difficulty regulating emotions, lack of emotional awareness, lack of emotional clarity, feeling overtired, and complaints of aches and pains. A majority of students were satisfied or very satisfied with the program and meditation practice was rated as one of the most useful activities. Also, many students reported practicing mindfulness techniques outside of class (Broderick & Metz, 2009).

Huppert and Johnson (2010) report on a study involving 14 and 15 year old boys from two private schools. Approximately 173 boys were recruited as part of their religion classes to participate in the study. Six classes received the mindfulness

intervention while five classes served as the control group. The intervention (Mindfulness in Schools Project) was based on the MBSR program developed by Kabat-Zinn and included four 40-minute classes once per week. Participants were provided with resources to be used outside the classroom. The control group attended their normal religion classes. Following the study no significant difference was found between the groups. However, the authors did note that more MM practice outside of the program was associated with greater resilience and well-being. Approximately 33% of the mindfulness group practiced at least 3 times per week. Following the program many students found the training helpful and said they would continue to practice on their own. The authors noted that the lack of significant group differences may have been due to limited time versus other studies (Huppert & Johnson, 2010).

The first study of the Mindfulness Education (ME) program was conducted by Schonert-Reichel and Lawlor (2010). The ME program focuses on developing students' social and emotional competence through a series of lessons involving MM as a key component. A total of 246 4th-7th grade students (mean age 11 years old) participated in the study (n=139 ME program group, and n=107 control group). Teachers received a one-day training of the ME curriculum. The program was implemented one day per week over a nine-week period with the final lesson (week 10) being optional. The program lessons lasted 40-50 minutes and the daily core mindfulness attention exercises were completed three times each day for approximately three minutes each session. Teachers perceived the program to be effective and beneficial to their students and also reported that the ME program helped students social and emotional skills. Students' self-reported more optimism and positive affect after the ME program versus students in the comparison group. Teachers reported students in the intervention as more attentive, emotionally regulated, and socially and emotionally competent. Teachers were easily able to implement the program and practiced the mindful attention training as recommended. Teachers noted positive effects immediately after doing the exercises with respect to attention and behavior (Schonert-Reichel & Lawlor, 2010).

Lau and Hue (2011) examined the effects of a pilot study using a mindfulness-based program for students in Hong Kong. Two schools in Hong Kong were used for recruitment purposes. Twenty-four students between the ages of 14-16 participated in the mindfulness intervention group. The mindfulness group participated in 6 weeks of mindfulness training, which included two hours during one session each week at school followed by a one-day retreat. Students in the mindfulness group were also encouraged to practice at home. Overall, the feedback from students regarding mindfulness was positive. Mindful awareness improved for the mindfulness group as compared to the control group from baseline to post intervention. The experimental group reported a higher level of personal growth in relation to well-being as compared to the control group. The control group reported a higher level of depression at post-intervention versus the experimental group, which reported no increase in depression. Thus, the mindfulness program was significantly related to the reduction in depressive levels of the intervention group (Lau & Hue, 2011).

In a study conducted by Kuyken and associates (2013) the Mindfulness in Schools Program (MiSP) was examined

for effectiveness. The program is designed for either those struggling with mental health issues or those who are flourishing. The MiSP was offered in schools in place of religious studies or personal, social, and health education. Schools in the UK were invited to participate and some schools were selected as controls (12 schools and a total of 522 adolescents ages 12-16). Six schools received the MiSP with a total of 256 adolescents. The intervention was completed during a potentially high stress time of the summer exam period. The program consists of nine scripted lessons with the intention of helping participants develop new skills. The purpose of this study was to measure acceptability and efficacy (well-being and mental health) and mindfulness practice. Results revealed a high acceptability with enjoyment being strong along with students suggesting they would continue the practice in the future. At 2-3 month follow-up, 80% had said they used the skills learned at varying levels. Two months after the course, teachers rated student engagement as high. Strong evidence of lower depression in the intervention group was found after the program concluded and at three-month follow-up. At three-month follow-up there was evidence of increased well-being, lower stress, and lower depression scores in the intervention versus the control group. Researchers reported that young people who engage more with the practices reported better outcomes including higher well-being, lower depression, and lower stress (Kuyken et al., 2013).

A second study by Metz and colleagues (2013) evaluated the effectiveness of the Learning to BREATHE program on emotion regulation within an adolescent population. This program involves MM practices and was reviewed previously as a pilot study (Broderick & Metz, 2009). The current study involved 216 public high school students who were divided into two groups: Those that experienced the Learning to BREATHE program and an instruction-as-usual group. The treatment group experienced significant lower levels of stress, psychosomatic complaints, higher levels of efficacy in affective regulation, and larger gains in emotion regulation skills, including emotional awareness, access to regulation strategies, and emotional clarity. Program participants reported a high level of satisfaction with the program and found the body-scan, sitting MM, mindful breathing, and mindful movement practices to be the most useful. Findings from this study provided evidence for MM to aid the development of social-emotional learning skills (Metz et al., 2013).

Raes and associates (2013) investigated the effects of mindfulness on adolescents from Belgium (N=408; mindfulness n=201; control n=207; mean age 15.4 years). Students attended the mindfulness program instead of religious studies for eight weeks with each session lasting 100 minutes. Other students followed their regular school program. Mindfulness practices included body-scan, MM, breathing exercises, and others. Resources were provided, as participants were encouraged to practice 15 minutes per day. It was noted that while the control group saw no decline in levels of depression, the mindfulness group experienced significant declines at post-intervention and six month follow-up. When comparing the groups, there was a significant difference between the levels of depression for the mindfulness group versus the control group at both post-intervention and six-month follow-up. At post intervention and six-month follow-up a significantly smaller number of

students in the mindfulness group scored above the cutoff for depression suggesting a curative effect of the intervention (Raes, Griffith, Van der Gucht, & Williams, 2013).

Zenner and associates (2014) systematically conducted a meta-analysis of school-based mindfulness programs on psychological outcomes in August of 2012. Criteria included school-based, mindfulness programs, students in grades 1-12, and included studies in the U.S., Canada, Australia, Spain, Germany, and China. The analysis included a total of 1,348 students with eight studies at elementary school, two studies in middle school, one in grades 7-12, and fourteen in high school. Overall there seemed to be a high level of acceptability by both students and teachers. The reviewed studies noted that many students practiced at home on their own. Effect sizes for each domain included the following: Cognitive performance was moderate to high (strong and significant, which means increasing capacity for attending and learning, thus increased learning skills), stress and resilience was small to moderate, emotional problems and third person ratings were small. The authors noted that overall, mindfulness-based training in a school context has effects that are seen mostly in the cognitive domain, but also in psychological measures of stress, coping, and resilience. The effect sizes were in the same range as in other school-based prevention programs such as social and emotional learning programs. An analysis was conducted measuring time in mindfulness (in-program and practice at home) and showed a substantial effect between effect size and minutes in mindfulness. The authors noted that one of the most significant and remarkable findings, accounting for more than half of the variance, suggests that a critical factor is the amount of practice a mindfulness program facilitates. They recommend training teachers in mindfulness so they can deliver the intervention, so they can model the behavior, and that this also may help prevent teacher burnout while promoting resilience (Zenner, Hermleben-Kurz, & Walach, 2014).

Discussion

Results from the identified studies appear to be promising for MM to reduce stress and positively affect well-being amongst adolescents. Although initial studies suffered from small sample sizes and lack of Randomized Control Trials, a few more recent studies, including two meta-analyses, have included larger sample sizes and a Randomized Control Trial (Kuyken et al., 2013; Metz et al., 2013; Raes et al., 2013; Schonert-Reichl & Lawlor, 2010; Zenner et al., 2014; Zoogman et al., 2014). MM appears to have positive effects on adolescent psychological health including reduced depression, anxiety, and stress, increased overall well-being, self and emotion regulation, positive affect, and resilience. Academic related outcomes include increased attention, cognitive, and academic performance. Results also point to feasibility, acceptability, and efficacy throughout a broad range of adolescent groups including males and females, learning disabled, those with ADHD and other psychological disorders, along with those in diverse cultural settings.

Attention could possibly be the driving force behind the positive effects of MM (Zoogman et al., 2014). It's possible that this factor enhances Executive Function (EF), which has been reported in studies focusing on college undergraduates (Tang,

Yang, Leve, & Harold, 2012). This has major implications for adolescents whose brain EF center, the prefrontal cortex, is not fully developed making them vulnerable to the effects of stress. It is possible that because MM improves attention and therefore EF, it may promote positive development in the prefrontal cortex, thereby enabling young people to effectively deal with stress and promote well-being. In his book *'Brainstorm: The Power and Purpose of the Teenage Brain'*, author Dr. Daniel Siegel suggests that mindful awareness enables the adolescent brain to grow more integrative fibers between the EF center and limbic system (emotional brain) enhancing a young person's ability to regulate attention, behavior, emotions, and thinking all while improving their sense of well-being and connections to others (Siegel, 2013). Based on research with undergraduate college students (Tang et al., 2012), this assertion looks to be quite promising for adolescents, although more research in this area is needed.

Three studies and one meta-analysis found that the more time spent in MM practice, the greater benefits experienced (Biegel et al., 2009; Huppert & Johnson, 2010; Kuyken et al., 2013; Zenner et al., 2014). It will be important moving forward that MM programs are designed in such a way as to promote at-home practice. No studies to date have explored the determinants of meditation practice for adolescents. Although this has been explored in undergraduate and adult populations (Lederer & Middlestadt, 2014; Sharma, 2013; Williams, Van Ness, Dixon, & McCorkle, 2012) and a validated inventory exists (Williams, Dixon, McCorkle, & Van Ness, 2011), researchers have yet to explore the determinants of meditation practice for adolescents. The valuable information gained from studies exploring the determinants of meditation practice for adolescents will provide school health programs with critical knowledge when developing and implementing future programs to promote at-home practice, thus optimizing the effects of MM programs.

Translation to School Health Programs

The reviewed studies provide evidence that youth can benefit both academically and psychologically from developing the practice of MM. The main implication for a school health program is that by helping students acquire the behavior of MM, this could have a substantive impact on students' health and learning. Specific implications and recommendations will be discussed through the framework of a Coordinated School Health Program as described in *Health is Academic: A Guide to Coordinated School Health Programs* (Marx, Wooley, & Daphne, 1998).

Health education offers a natural fit for MM implementation because the behavior has been shown to be a health-enhancing practice. Three of the reviewed studies demonstrating MM's efficacy in reducing stress and promoting well-being were conducted in classroom settings (Metz et al., 2013; Raes et al., 2013; Schonert-Reichl & Lawlor, 2010) and two were implement in health education classes (Broderick & Metz, 2009; Kuyken et al., 2013). National Health Education Standard (NHES) 7, specifically Performance Indicators 7.8.3, 7.12.2, and 7.12.3, all deal with demonstrating and practicing health-enhancing behaviors (CDC, 2013). The reviewed studies have clearly shown that MM is such a practice. As of late, there has been much emphasis on Social-Emotional

Learning (SEL) and development within school settings and researchers have identified MM as a skill useful for enhancing SEL within an adolescent population (Lawlor, 2014; Meiklejohn et al., 2012; Metz et al., 2013; Rempel, 2012; Schonert-Reichl & Lawlor, 2010).

Learning to BREATHE is a curriculum that incorporates MM into six ready to implement lessons and was created with the NHES in mind (Broderick, 2013). Two of the reviewed studies demonstrated the curriculum's effectiveness in reducing stress and increasing the participants' ability to regulate their emotions and were implemented into classroom settings (Broderick & Metz, 2009; Metz et al., 2013). Health educators working in schools can easily incorporate the lessons into a unit on stress management or mental and emotional health. Lessons can either be taught during 40-minute sessions or brief 5-minute MM breaks within various units. *The Mindful Teen* is a book written for teenagers aimed at helping them acquire mindfulness skills and can be used as a resource for students' when developing their MM practices (Vo, 2015). A sample MM lesson has been included in this article (Figure 1).

A healthy school environment involves both the physical and social-emotional environment (Marx et al., 1998). MM has been shown to reduce stress along with other negative psychological outcomes while enhancing a number of positive health-related outcomes. As students develop this skill within a school setting, it is likely to lead to a healthier school climate, specifically impacting the social-emotional climate (Lawlor, 2014). Schools can promote MM at a school-wide level through promoting the behavior using signs and posters throughout the school along with providing physical spaces for students to meditate during lunch or free periods.

MM can easily be incorporated into Physical Education programs through fitness related practices such as yoga. The Holistic Life Foundation, a Baltimore based group, developed a mindfulness-based program incorporating yoga and tai chi for 4th and 5th graders and was shown to be feasible and acceptable while also having a positive effect on psychological health (Mendelson et al., 2010). Physical educators can develop flexibility units and incorporate MM into lessons focusing on yoga. Brief MM and yoga sessions can easily be integrated into lessons focusing on other fitness components at the beginning or end of physical education classes.

Mental health and psychological services could benefit greatly from incorporating MM into its practice and work mentoring youth struggling with stress and other-related issues. Two studies in this review demonstrated the effectiveness of MM to reduce symptoms and promote well-being in adolescent groups with various mental disorders (Bogels et al., 2008; Weijer-Bergsma et al., 2011). Care and consideration on a case-by-case basis would certainly be essential when determining if MM is an appropriate intervention for such students. School mental health professionals could help their students develop mindfulness skills and equip them with resources such as *The Mindful Teen* which provides resources for young people to help practice MM on their own (Vo, 2015). Specific suggestions for school social workers and other mental health related professionals can also be found elsewhere (Wisner et al., 2010).

Although it was beyond the scope of this paper to review and discuss the research on MM for teachers and school staff,

Mindfulness Meditation: Breath Awareness

Learning Experience Plan

Teacher: Mr. Erbe Unit: Mental and Emotional Health/Stress Management Grade: 9-12 Title of Lesson: Breath Awareness Date: 3/9/16	Materials: Music, Mindfulness Meditation Checklist Modifications: Incorporate movement and shorter time frame for meditation with a younger students
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Objectives

1. Students will be able to compare and contrast the benefits and barriers of practicing Mindfulness Meditation (MM).
2. Students will be able to practice a MM of breath awareness.

National Health Education Standards	NHES Performance Indicator
Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health. Standard 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.	1.12.7-Compare and contrast the benefits of and barriers to practicing a variety of healthy behaviors. 7.12.2-Demonstrate a variety of healthy practices and behaviors that will maintain or improve the health of self and others.

Learning Experience

1. Entrance Task: As students enter the classroom and get settled instruct them to find a comfortable position in their chair. With light music playing in the background, have students place one hand on their chest and one hand on their belly. They will breath normally for 1 minute paying close attention to the breath as it enters and exits the body. Ask students to describe where they felt the breath going (either into their chest or their belly). Explain to students that when people become stressed or anxious, they become shallow breathers pulling the breath only into their chest. When we take a few moments to use our diaphragm to breathe, it feels as though we are pulling the breath all the way into our belly and can help us to calm down during stressful situations.	Time: 7 minutes
2. Lesson Procedures:	
a. Students will repeat the breathing activity for 1 minute paying close attention to the breath as they pull the breath all the way into their belly using their diaphragm. Discuss student reactions to the experience.	Time: 3 minutes
b. Ask students to write down words that come to mind when they hear the word ‘Meditation’. Students will then share their list with a partner. Discuss and list ideas on the board. Explain that Mindfulness Meditation is a focus of attention on the present moment without judgment and typically involves a quiet location and comfortable position.	10 minutes
c. Students will create a T-Chart in groups of 4 comparing and contrasting the benefits and barriers of practicing Mindfulness Meditation. Facilitate a class discussion on the benefits that students come up with and also what research suggests along with barriers and ways to overcome the listed barriers.	10 minutes
d. Hand students a checklist with the important components of Mindfulness Meditation: 1. Quiet location, 2. Comfortable position, 3. Focus of attention, 4. Non-judgmental attitude. Explain to students that they will be given 3 minutes to practice Mindfulness Meditation by focusing on their breath and a word or phrase such as ‘peace’ or ‘relax’ if they choose. Play light music in the background.	5 minutes
3. Closure: Students will complete the Mindfulness Meditation checklist and a brief reflection at the bottom about their experience with Mindfulness Meditation.	Time: 5 minutes

Assessment

1. Group T-chart comparing and contrasting the benefits and barriers of practicing Mindfulness Meditation.
2. Mindfulness Meditation checklist and reflection.

Figure 1

such work is being done and has been reviewed elsewhere (Meiklejohn et al., 2012). A recent meta-analysis provides support for MM to be beneficial for adult psychological health, especially for multiple dimensions of stress (Goyal et al., 2014). It has been suggested that MM can help to foster the resilience of teachers and help to prevent teacher burnout (Zenner et al., 2014). Findings also suggest that MM for teachers may help to promote self and emotion-regulation, along with enhancing empathy and the student-teacher relationship (Meiklejohn et al., 2012). Schools can provide MM workshops for teachers during staff development days or after school. Providing quiet spaces in schools for teachers may help to promote the practice during the school day.

Finally, involving the family, specifically parents, in mindfulness training for students has shown to be feasible, acceptable, and effective (Bogels et al., 2008; Weijer-Bergsma et al., 2011). After school MM programs for adolescents and their parents could possibly affect not only the student while at school, but also the home life of the entire family. School health professionals should also provide parents and students with resources to promote MM at home. Incorporating the parents in these programs has the potential to increase practice at home, which leads to better health-related outcomes (Biegel et al., 2009; Huppert & Johnson, 2010; Kuyken et al., 2013; Zenner et al., 2014). MM could be beneficial for parents and their own battle against stress as meditation practice has shown to reduce adult stress (Goyal et al., 2014).

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**This article may provide one
Continuing Education Contact Hour Opportunity for CHES (Approval Pending)
Instructions and self-study questions may be found on page 30**

From the Editor:

Thank you to Drs. Helen Bland, Tammy James, Laurette Taylor and Regina Galer Unti. on completing your three year terms as Editorial Associates. Your expertise and willingness to serve in this capacity are truly appreciated. I and the Honorary are fortunate that we have these Gammans helping us deliver quality publications. If any of you would like to be considered in this role, please email s.m.patterson@csuohio.edu for further information. In this issue, we also introduce our new Continuing Education Editor, of Texas A & M University, Dr. Sara Fehr. To make our continuing education process more efficient, we have partnered with the Texas A & M Department of Health and Kinesiology. Thank you Sara for your willingness to step in and facilitate the CECH process. We also send our best wishes and appreciation to four colleagues who will complete their service on the ESG Board of Directors but remain life-long ESG ambassadors (Drs. Richard Eberst, Jodi Brookins Fisher, Liliana Rojas-Guyler and Irene O'Boyle).

This issue of *The Health Educator* provides descriptions of a content analysis of a popular TV show (see Hall, West and Herbert on page 2) and the article by Erbe and Lohrman (see page 12) explains how mindfulness meditation practices could be used in the school health setting. Please mark your calendars for the ESG Annual Meeting (in conjunction with SOPHE) which will be March 30th-April 1st 2017. It also will be Eta Sigma Gamma's 50th Anniversary! Please watch for details in future emails and on the ESG webpage.

Sheila M. Patterson, Editor