Group Mindfulness Programs for Adolescent Emotional Regulation and Stress Management

A Literature Review

Presented to

The Faculty of the Adler Graduate School

In Partial Fulfillment of the Requirement for

The Degree of Master of Arts in

Adlerian Counseling and Psychotherapy

By

Michelle M. Ashmun

Chair: Meg Whiston, Ph.D

Reader: Nikki Marchand, MLIS

May 2019
Group Mindfulness Programs for Adolescent Emotional Regulation and Stress Management

Copyright © 2019
Michelle M. Ashmun
All rights reserved
Abstract

Adolescence is a time of several cognitive developmental changes and new life experiences that increase the potential for stress, negative emotions, and emotional dysregulation. Research on changes in brain structure and function during adolescence offers insight into reasons for increased risks for stress and emotional challenges. Experiencing stress and recurrent negative emotions can have wide-ranging consequences in adolescents’ lives and mental health. Teaching adolescents how to manage emotions and stress can improve their academic performance, health, and overall functioning. Research has demonstrated that mindfulness and mindful breathing are effective methods for managing stress and emotions, and teaching mindfulness to adolescents in classroom lessons and school-based groups is similarly effective. Adolescents who have participated in these programs reported they enjoyed the programs, found them useful, and noted beneficial mental, emotional, and behavioral results. Research for how these programs address diversity is still in early stages of development.

Keywords: adolescence, mindfulness, emotion regulation, stress management
Acknowledgments

With great respect, honor, and gratitude, I thank Sifu Ray Hayward, Grandmaster Wai Lun Choi, and Paul Magee for their inspiration, wisdom, expertise, role modeling, encouragement, support, effort, generosity, and kindness.

With relief and gratitude, I thank Meg Whiston for stepping in to serve as chair for my master’s project committee, Nikki Marchand to serve as my reader, and Michael Grohs to serve as writing consultant. I appreciate your willingness to provide your time, expertise, understanding, and support in completing this project.
Dedication

I dedicate this effort and outcome to Marty: consummate gentleman, punk fan, opera appreciator, pun slinger, port connoisseur, stellar friend, caring listener, steadfast supporter, deeply generous giver, heron lover, wisdom seeker, tai chi student, dedicated Northwest. He is profoundly missed.
# Table of Contents

Stress, Emotions, and Adolescents ................................................................................. 8  
  Prevalence and Reasons for Stress ........................................................................... 8  
  Emotion Regulation ................................................................................................... 12  
Mindfulness, Meditation, and Mindful Breathing ................................................................. 13  
  Mindfulness and Meditation Definitions .................................................................... 13  
  Breathing and Emotions ............................................................................................. 13  
    Diaphragmatic breathing .......................................................................................... 14  
    Potential counterproductive effect of breathing patterns ........................................... 15  
    Sighing .................................................................................................................... 15  
Beneficial Aspects of Mindfulness Meditation ................................................................. 16  
  Improved attention and awareness ............................................................................. 16  
  Reduced reactivity and negative behaviors ................................................................. 17  
Mindfulness Programs .................................................................................................... 19  
  Modifications for the Adolescent Developmental Stage .............................................. 19  
  Trauma-Informed Approach ....................................................................................... 20  
  Mindfulness Training for Emotional Regulation ......................................................... 21  
  Mindfulness Meditation Group in Alternative High School .......................................... 23  
  Peer-Led Mindfulness Training with Adolescents ......................................................... 24  
  Mindfulness Groups for Latino Adolescents ................................................................. 26  
  Mindfulness Program at Park Middle School ............................................................... 28  
  Mindfulness for Children from Lower Socioeconomic Backgrounds .......................... 30  
The Adlerian Individual Psychology Perspective ........................................................... 34  
  The Nature and Purpose of Emotions ......................................................................... 34  
  Adlerian View of Confidence ..................................................................................... 35  
    Adolescence, inferiority feelings, safeguarding, and striving ...................................... 37  
    Mindfulness within the Context of Individual Psychology .......................................... 38  
Discussion ....................................................................................................................... 40  
  Implications for Practice ............................................................................................. 40  
  Recommendations for Future Research ....................................................................... 42  
Conclusion ..................................................................................................................... 43  
References ...................................................................................................................... 45
Group Mindfulness Programs for Adolescent Emotional Regulation and Stress Management

Adolescence may be a time of increased stress and negative moods. The American Psychological Association (APA; 2013) conducted a survey of 1,018 adolescents who reported an average stress level of about 6 on a ten-point scale. Likewise, Larson and Lampman-Petrakis (1989) demonstrated that adolescents experienced an increase in negative emotions from fifth grade to ninth grade. Neurological and physiological developments are a contributing factor to adolescent stress and emotional challenges. Mezulis, Abramson, Hyde, and Hankin reported the sympathetic and parasympathetic nervous systems have a decreased capacity to support adolescents’ coping mechanisms and emotional regulation (as cited in Lanteigne, Flynn, Eastabrook, & Hollenstein, 2014).

Given the emotional variability adolescents can experience, emotion regulation and stress management become important assets for coping during adolescence. Research by Greene and Walker and by Gross (1998) illustrated emotion regulation can help prevent or mitigate negative emotions, stress, and problematic behavior (as cited in Metz et al., 2013). Mindfulness, and especially mindful breathing, have been demonstrated to be effective methods for stress management and emotion regulation because of its overall calming effect on the brain, heart, and other systems that can suppress negative emotions and stress (Jerath, Crawford, Barnes, & Harden, 2015). An exploration of Adlerian concepts can further illuminate how mindfulness can be useful for adolescent emotion regulation and stress management. According to Adlerian concepts, adolescents can choose how they perceive and respond to situations; their perceptions then determine their stress levels and emotions, which can be beneficial or detrimental (as cited in Dewey, 1984). Mindfulness can be used to objectively consider whether or not one’s responses are constructive, to cope with uncomfortable feelings, and deliberately choose more
constructive responses; however, Apsche and Jennings found mindfulness meditation instruction to be more effective for adolescents if it has been modified to accommodate their developmental needs and interests (as cited in Jennings & Jennings, 2013). Six programs will be reviewed to explore how group mindfulness training has been modified for adolescent participants and implemented in a school setting. These programs vary according to the mode of instructional delivery, the qualifications of the instructor, the length of the program, and the communities in which they are situated. By reviewing these programs, one can also see implications for training, research, and practice. Furthermore, one can see a gap in addressing issues in diversity such as modifying needs to fit participants from a variety of cultural groups and tending to the needs of participants who have experienced trauma.

**Stress, Emotions, and Adolescents**

**Prevalence and Reasons for Stress**

Stress, worry, and negative moods are commonplace in adolescents’ lives. The APA (2013) conducted a survey of 1,018 adolescents between the ages of 13 and 17. On a ten-point scale, adolescents reported an average stress level of 5.8, with 31% stating they felt overwhelmed as a result of stress, and their amount of stress has grown within the last year. In addition, 51% reported they have been told they seemed stressed, 26% relayed they were curt with their peers, 40% experienced irritability or anger, and 36% experienced nervousness or anxiousness. The results also indicated that adolescents value stress management, as 51% expressed that stress management was a highly important practice (APA, 2013). The APA’s survey illustrated adolescents experience stress that negatively affects their emotions and interactions with others, and they consider stress management to be a worthwhile pursuit.
Adolescents experience stress for a number of reasons. Neff and McGehee noted “academic performance, fitting in, body image issues, dating, and sex” as reasons for stress (as cited in Edwards, Adams, Walkdo, Hadfield, & Biegel, 2014). The APA (2014) survey results listed expectations for achievement, college admissions, and career planning as top reasons for stress for adolescents. Several researchers have found additional reasons for stress, including homework, tests, deadlines, interactions with teachers, conflicts with parents, and the stress of balancing school, work, and friends (Gutman, Sameroff, & Cole; Jacobshagen, Rigotti, Semmer & Mohr; Melman, Little, & Akin-Little; as cited in Broderick & Jennings, 2012). Moreover, many of these stressors are new life experiences with adolescents undergoing many changes during this time (Petersen & Taylor; Simmons, Burgeson, Carlton-Ford, & Blyth; as cited in Larson & Ham, 1993). Indeed, the considerable number of changes alone can account for stress during adolescence (Brooks-Gunn, Warren, & Rosso; Petersen & Hamburg; as cited in Larson & Ham, 1993).

A study conducted by Larson and Lampman-Petratis (1989) further illustrated the negative emotions experienced during adolescence. Specifically, Larson and Lampman-Petratis were interested in determining if children’s average affect became more negative as they grew into adolescents. They collaborated with 473 students between the ages of 9 and 15 to document their daily emotional states (Larson & Lampman-Petratis, 1989). The subjects were predominantly European-American from lower-middle, middle, and upper-middle socioeconomic classes. The students provided a rating of their emotions seven times a day over the course of a week. They used rating scales provided by the researchers that conveyed their levels of affects such as happiness, irritability, friendliness, alertness, and boredom. Larson and Lampman-Petratis (1989) found that the ninth graders used the most positive rating level only
half as frequently as the fifth graders. They also found that the older students used the “moderately negative” rating levels more frequently. Larson and Lampman-Petratis (1989) concluded the older students had a lower, less positive emotional baseline in comparison to the younger participants. This finding underscores the importance of teaching emotion regulation to adolescent students.

In addition to change and stressors, neurological and physiological developments can contribute to challenges during adolescence. For example, Hoffman, Cole, Martin, Tram, and Seroczynski found the limbic part of the brain becomes more sensitive and reactive to perceived threats, more negatively interprets facial expressions, and increases criticism of both self and others (as cited in Lanteigne et al., 2014). According to Spear, adolescents tend to have an “overexpression of and increased sensitivity to cortisol, the major stress hormone” (as cited in Broderick & Jennings, 2012, p. 114). This cortisol sensitivity can cause adolescents to be more prone to stress. Furthermore, researchers have noted particular sources of stress to which adolescents are especially vulnerable. More specifically, Sumter, Bokhorsta, Miersa, Van Pelt, and Westenberg found “perceived stress, mental anticipation of a stressor, and memories about past stressors and peer rejection have particularly strong associations with cardiac and cortisol reactivity among adolescents” (as cited in Broderick & Jennings, 2012, p. 114). These stressors occur not only in the present reality but in the past, future, and in the imagination. These sources of stress can add to the present real-life stressors with which adolescents must already cope. Meanwhile, Mezulis, Abramson, Hyde, and Hankin depicted systems that mitigate heightened stressed emotional states and support emotional regulation, such as the sympathetic and parasympathetic nervous systems and hypothalamic-pituitary-adrenal axis, may not mature in a coordinated manner to effectively support adolescents’ coping mechanisms, stress management,
and emotional regulation (as cited in Lanteigne et al., 2014). Overall, these varied physiological changes can make coping with stress, change, and new experiences significantly more difficult for adolescents.

Experiencing stress and recurrent negative emotions can have wide-ranging consequences in adolescents’ lives. As McEwen asserted, “prolonged stress or dysregulated responsiveness can have a negative effect on health, learning, and productivity” (as cited in Broderick & Jennings, 2012, p. 114). For example, Edwards et al. (2014) cited the work of Feindler; Neff & McGehee; Ommundsen & Vaglum; Prins & Hanewald, “Children feel the negative impacts of stress, resulting in test anxiety, generalized anxiety, anger, and violent behavior, and conduct disorders ()” (p. 245). Similarly, Arnsten and Shansky found that, “Executive functions such as the ability to direct attention and solve problems efficiently show clear stress-induced disruptions, particularly when there is a perceived lack of control over stressors” (as cited in Broderick & Jennings, 2012, p. 114). The aspect of control is pertinent to the developmental stage of adolescence, which simultaneously requires adults to control some aspects of adolescents’ lives while adolescents strive to gain control over more aspects of their own lives. In addition, stress can have a detrimental physiological effect on the brain, as there is “ample evidence linking high levels of cortisol to reductions in brain volume and cell number, particularly in the hippocampus. This structure is critical for learning new things” (Grisel, Rasmussen, & Sperry, 2006, p. 409). Furthermore, Arnsten demonstrated “chronic emotional stress has been shown to impair prefrontal cortex functions by reducing creativity, efficiency of working memory, attentional control, and problem-solving capacities—precisely those functions most necessary for effective learning” (as cited in Metz et al., 2013, p. 253). Stress and negative
emotions can physically impede adolescents’ capacity to learn, ability to function, and create risks to adolescents’ health.

**Emotion Regulation**

Given the emotional variability adolescents can experience, emotion regulation becomes an important tool for coping during adolescence. Best, Miller, and Jones defined emotion regulation as “skills used to moderate affective experiences” (as cited in Metz et al., 2013, p. 253) while Eisenberg, Spinrad, and Eggum described emotion regulation as “strategies to manage distress in order to meet the demands of different situations or achieve certain goals, such as those involved in learning, and is…a foundation for well-being, academic achievement, and positive adjustment” (as cited in Metz et al., 2013, p. 253). Emotion regulation is important for adolescents’ academic performance, health, and overall functioning. Research by Greene and Walker and by Gross (1998) illustrated emotion regulation can “serve as protective factors against the emergence of psychosomatic symptoms and emotion and behavioral difficulties” (as cited in Metz et al., 2013, p. 253). Furthermore, Wolff and Ollendick specified conditions mitigated by emotion regulation to include anxiety, depression, self-injury, and substance abuse (as cited in Metz et al. 2013). Emotion regulation is useful for both reacting to current situations as well as proactively caring for one’s mental health. Rothbart and Sheese have further described emotion regulation as including skills for “monitor[ing] attention” (as cited in Metz et al., 2013, p. 253) and “identification and acceptance of emotional experiences, management of distress and modulation of excitement, sustaining motivation, prioritizing among competing goals, and adaptive adjustment of behavioral responses” (Broderick & Jennings, 2012, p. 114). These aspects of emotion regulation make it especially pertinent to adolescents’ academic performance and positive school engagement.
Mindfulness, Meditation, and Mindful Breathing

Mindfulness and Meditation Definitions

Mindfulness can be defined as “the practice of being with our experience, moment to moment, without reflexively changing or dismissing it” (Kabat-Zinn, as cited in Broderick & Frank, 2014, p. 31). In mindfulness, one chooses to pay attention to the present moment with an attitude of acceptance. It is a mindset that can be cultivated and strengthened through practice. A common way to practice mindfulness is through the method of mindfulness meditation, which Miller, Fletcher, and Kabat-Zinn defined as “the effort to intentionally pay attention, non-judgmentally, to present-moment experience and sustain this attention over time” (as cited in Wisner & Norton, 2013, p. 211). During mindfulness meditation, one sets aside time to deliberately and repeatedly refocus one’s mind on the current experience, avoiding becoming captivated (or limiting the captivations) in thoughts of the past or future and refraining from placing positive or negative values on it. A common technique to maintain attention on the present experience is to focus on one’s experience of breathing. When the mind strays to the past or future, one redirects the attention back to the breath. As a result, one strengthens the ability to be mindful.

Breathing and Emotions

There is ample research that supports the connection between emotions and breathing. Jerath et al. (2015) found that breathing has an overall calming effect on the brain, heart, and hormones, such that it can physiologically influence these internal systems to suppress negative emotions. More specifically, breathing influences processes such as attention, memory, emotional appraisal and arousal, emotion regulation and expression, and empathetic communication (Argyropoulos et al.; Beauchaine; Clow et al.; Pariante & Lightman; Porges;
Furthermore, Jerath et al. (2015) shared studies that demonstrated breathing techniques help manage stress, support emotion regulation, and decrease both anxiety and depression. From these studies, Jerath et al. (2015) found verification of the interconnection between breath and emotion, which led them to conclude people have the capability to use breathing techniques to modify their emotions and manage their stress. One way people can harness the breath to support emotional regulation is by using calming breathing patterns, such as diaphragmatic breathing.

**Diaphragmatic breathing.** Diaphragmatic breathing or “belly breathing” is a valuable breathing method for stress management and emotional regulation. This method involves deliberately expanding the abdomen during inhalation to breathe more deeply and slowly (Ma et al., 2017). Specifically, people take an average of four breaths a minute while doing diaphragmatic breathing as compared to 17 breaths a minute when breathing in a normal manner while at rest (Ma et al., 2017). Correspondingly, physiological markers that indicate a well-balanced, relaxed state coincides with a breathing rate of about 4.5–5.5 breaths per minute (Ma et al., 2017). Multiple studies have explored the effects of diaphragmatic breathing. Chen et al. conducted a study that measured anxiety before and after an 8-week program with adult subjects using diaphragmatic breathing (as cited in Ma et al., 2017). Anxiety scores had decreased significantly after the program. A different study conducted by Khng provided similar results with elementary students who reported feeling less generalized and test anxiety than the control group at the program’s conclusion (as cited in Ma et al., 2017). Another study compared subjects’ experiences of several breath patterns that varied in depth and speed (Conrad et al., 2007). Conrad et al. (2007) discovered that shallow breathing, whether fast or slow, increased
tension and anxious feelings in all subjects. Conversely, slow and diaphragmatic breathing yielded increased relaxation in all subjects. These studies demonstrate the value of using diaphragmatic breathing to reduce stress, tension, and anxiety.

**Potential counterproductive effect of breathing patterns.** While doing breathing techniques is typically beneficial, many people experience it as challenging, and some may experience it as counterproductive to relaxation. Multiple studies have explored subjects’ experiences of following prescribed breathing patterns. Subjects reported they experienced it as challenging, uncomfortable, requiring additional effort, and increased their level of tension (Conrad et al., 2007; Vlemincx, Van Diest, & Van den Bergh, 2012). Furthermore, some individuals experienced their modified breathing as a hazard and became anxious (Conrad et al.; von Leupoldt et al., as cited in Paulus, 2013; Vlemincx et al., 2012). Klein hypothesized the cause of this anxiety was that the altered breathing pattern generated a message to the brain that the person was suffocating (as cited in Conrad et al., 2007). As a result, it is crucial to be aware that some mindfulness meditation participants may experience mindful breathing as oppositional to relaxation goals. In this case, it would be fitting to instruct the student to forego the pattern and breathe naturally.

**Sighing.** When utilizing breathing patterns, it can be helpful to investigate anomalies, such as sighing. Researchers have connected sighing to three main circumstances. First, Hirose found sighing correlated with participants’ feelings of tension, discomfort, and expending effort while following imposed breathing patterns (as cited in Vlemincx et al., 2012). Vlemincx et al. (2012) theorized these feelings may relate to participants’ lack of experience with following prescribed breathing patterns. Their theory raises the question: would participants’ discomfort, effort, and related sighing decrease as they gained further practice while participating in
ADOLESCENT MINDFULNESS GROUPS

additional sessions? The second circumstance correlated sighing with negative thoughts or emotions. More specifically, Vlemincx et al. cited previous studies that found these emotions included restlessness, unpleasant thoughts, negative affectivity, stress, and anxiety disorders. According to Stevenson and Ripley, the third circumstance that corresponded to increased sighing was when participants with anxiety were instructed to relax after experiencing tension (as cited in Vlemincx et al., 2012). Sighing can therefore be an important indicator that participants are experiencing the breathing pattern as effortful or experiencing negative thoughts or emotions. While this last point may be more mundane, it is helpful to know that participants’ sighing may have a more neutral rather than negative cause. It may be interesting to note if participants’ sighing decreases once they have relaxed from their previous tension and settled into their mindful breathing session.

Beneficial Aspects of Mindfulness Meditation

There are aspects within the mindfulness meditation practice that can use further elaboration, especially in how they support stress management and emotional regulation. These benefits include improved awareness and attention and reduced negative behaviors.

**Improved attention and awareness.** Through mindfulness meditation, students learn to pay attention to their thoughts, emotions, and breath in a new way. Learning to observe thoughts and discern whether or not they are about the present moment creates a perspective of objectivity. This is referred to as “decentered” awareness, where students become aware of the nature of their thoughts but in a disengaged manner (Broderick & Frank, 2014, p. 33; Broderick & Jennings, 2012). From this disconnected stance, students see that they have a choice of where to place their attention and can choose to disengage from the current thought. In addition, they realize just how many thoughts they have as well as how quickly thoughts pass and move on to
ADOLESCENT MINDFULNESS GROUPS

another thought. Students identify the transitory, fleeting nature of their thoughts. As a result, uncomfortable thoughts and emotions may become more bearable because people come to understand the thought will end soon, and they can turn attention away from the thought and back to the breath. Similarly, “Uncomfortable thoughts and feelings are viewed as temporary mental events that are allowed to exist without the need to challenge, change, or be captured by them” (Metz et al., 2013, p. 255). Miller, Fletcher, and Kabat-Zinn found decentered awareness can serve to “cultivate a stable and nonreactive present moment awareness” (as cited in Wisner & Norton, 2013, p. 211). With mindfulness meditation practice, students can train their attention, increase their awareness about their thoughts, and strengthen their resilience against negative thoughts and emotions.

**Reduced reactivity and negative behaviors.** With a decentered awareness, skill in shifting focus to the breath, and knowledge of the transitory nature of thoughts, students can see they have choices in how they react to external events as well. Just as they have a choice whether to continue thinking a thought, they can choose whether or not to act on it. Boyce asserted “the practice of an attentive and nonreactive attitude toward one’s impulses may ‘increase the gap between impulse and action’” (as cited in Broderick & Jennings, 2012, p. 116) and decrease reactivity (Sibinga et al., 2011). Decentering reduces the influence of the thought and the urgency to act on that thought. Peterson further explained that by students noticing the state of their breath, it gives them insight into their current emotional state, to notice if they are upset, and take that into account before they automatically react (as cited in Coetsee, 2017). In addition, the act of turning the attention to the breath, which is a neutral event, enables students to interrupt their emotional reaction. As Carmody explained, by removing attention from the event causing an emotional reaction, the student’s tension and other physical stress responses
Mindfulness meditation can have a cumulative beneficial influence over students’ thoughts, behaviors, and academic performance. For example, students can develop detrimental patterns as coping mechanisms for stress, anger, anxiety, and boredom such as aggression, procrastination, avoidance, or becoming excessively focused on stressful or emotionally-laden events (Broderick & Jennings, 2012); however, mindfulness can help break these habitual responses because it improves students’ insights into their thoughts and reactions to events (Broderick & Jennings, 2012). Some studies have demonstrated that mindfulness training offers students “increased well-being, decreased anxiety and worry, and decreased reactivity” (Sibinga et al., 2011, p. 214). In addition, reductions in students’ reactivity can be observed through behavioral data. Specifically, researchers have found that “meditation helps adolescents to decrease rule violations, class absences, and days suspended from school” (Wisner & Norton, 2013, p. 211). By compiling behavioral data, schools can determine the effectiveness of mindful meditation for the students.

Mindfulness training has also helped improve academic performance. As part of a post-mindfulness training survey, students indicated they found it improved their ability to concentrate on their homework and “explicitly mentioned meditating or doing breathing exercises right before doing their homework or taking a test in order to reduce their stress” (Sibinga et al., 2011, p. 216). As research has illustrated, mindfulness meditation increases students’ ability to form more beneficial ways to respond to stress and challenging emotions.
**Mindfulness Programs**

Mindfulness meditation instruction was found by Apsche and Jennings to be more effective for adolescents if it had been modified to accommodate their developmental needs (as cited in Jennings & Jennings, 2013). In addition, each program has distinct characteristics, such as their demographics, qualifications of instructors, or delivery methods. Each program will be described according to its goal, the intervention used, the data-measurement tools, the subjects, and the outcomes. These characteristics will be given further consideration in the final section.

**Modifications for the Adolescent Developmental Stage**

Apsche and Jennings have identified it is necessary to modify mindfulness training with youth to accommodate their interests and developmental needs (as cited in Jennings & Jennings, 2013). Lee et al. and Semple et al. identified such developmental factors to include information input, memory, and attention span (as cited in Tadlock-Marlo, 2011). More specifically, it is helpful to reduce the session time and the session components such as lecture and meditation practice time (Jennings & Jennings, 2013). In addition, session leaders may provide meditation explanation and instruction in simplified terms and more concrete language (Sibinga et al., 2011). For example, leading students in guided meditation instruction that relies heavily on sensory imagination, such as guided imagery or tactile components, has been effective (Jennings & Jennings, 2013; Tan & Martin, 2015). Additionally, Jennings and Jennings (2013) advised instructors to “make mindfulness more fun and engaging by offering a variety of mindfulness exercises and activities that have an innate appeal to youth, such as sports, nature, adventure, and discovery” (p. 23). For example, students have responded positively to a guided meditation focused on a trip to the beach and the sensory input that could be experienced there (Jennings &
Jennings, 2013). With these modifications, meditation instruction for youth is likely to be more engaging and effective.

**Trauma-Informed Approach**

Of the six programs to be reviewed, only one acknowledged the potential counterproductive effects of mindfulness meditation for some students; however, none of the programs’ researchers mentioned whether or not mindfulness meditations may be inappropriate for students who had experienced trauma. It is important to be conscientious about the potential for mindfulness meditation to be challenging or triggering for students who have experienced trauma. Furthermore, according to Himelstien, teachers can use a trauma-informed approach, which recognizes a student’s behavior can be due to trauma and a need for self-protection (as cited in Schwartz, 2019). These behaviors can include avoiding the activity, making noise unnecessarily, making jokes, and not taking the activity seriously. Himelstein explained, “It’s also important to realize that some of the ways mindfulness is practiced -- sitting still, eyes closed, in silence -- can also be triggers for students who have experienced trauma” (as cited in Schwartz, 2019, para. 1). He advised against enforcing compliance with students, especially around specific components such as closing one’s eyes. In addition, using more sensory-based activities may be more helpful, such as counting breaths. Himelstein also explained that building trust and forming a relationship with students are foundational to establishing a mindfulness meditation program and practice. Himelstein stated, “Once those relationships are formed and students trust their teachers, it’s more likely that mindfulness will be an effective tool for them” (as cited in Schwartz, 2019, Trauma Sensitive Mindfulness section, para. 10). With such trust in place, students may be more comfortable with attempting mindfulness meditations. When students do act out during mindfulness meditation, it would be beneficial for the instructor to use
a trauma-informed approach to consider the source of such behaviors and adjust instruction by removing triggering elements or increasing sensory components.

**Mindfulness Training for Emotional Regulation**

*Learning to BREATHE* is a program for middle and high school students to learn about mindfulness topics and practices (Broderick & Frank, 2014). It is based on the *Mindfulness-based Stress Reduction* (MBSR) program and modified to fit within the school day (Metz et al., 2013). The BREATHE acronym in the program’s name spells out body, reflections, emotions, attention, take it as it is, healthy habits of mind, emotional balance (Broderick & Jennings, 2012). The program’s sessions include lecture, discussion, group activities, and mindfulness practices centered around thinking, emotions, movement, and compassion (Metz et al., 2013). Students are given workbooks and CDs for practice outside of class time. This study assessed the program’s ability to improve students’ emotion regulation, levels of stress, and psychosomatic symptoms (Metz et al., 2013).

The program consisted of students from two predominantly-Caucasian (90%) public high schools within a middle-to-upper class suburb (Metz et al., 2013). All students from a choir class participated with 129 in the training group, 87 in the control group, and an average of 25 students in each class (Metz et al., 2013). Training was led by the choir director, who received eight weeks of training in the MBSR program along with a 2-day training prior to program start. The trainer was observed and evaluated for program “fidelity” (p. 260) in every session. Trainings were conducted for 15-25 minutes during choir class once a week such that there were 18 sessions in the span of 16 weeks (Metz et al., 2013).

The students were given a self-report survey to assess psychosomatic symptoms, stress, and the ability to regulate emotions (Metz et al., 2013). They were also given a survey on their
opinion of the program with both closed rating questions and open-ended questions (Metz et al., 2013). The pretest depicted moderate ratings for stress, emotional regulation challenges, and psychosomatic symptoms. The post-test depicted an increased ability to regulate emotions, greater emotional awareness, improved concentration, fewer psychosomatic symptoms, and less irritability. When rating the program, 89% of the participants would recommend it, 7% were uncertain or would conditionally recommend it to certain students, and 4% would not recommend it. The most valued parts of the program were the body scan, sitting mindfulness practice, mindful breathing practice, and mindful movement practice. Students rated other program parts as moderately valuable: in-class presentation, group discussion, practice CDs, and handouts (Metz et al., 2013).

In response to open-ended questions about what they found valuable about the program, students answered as follows: 66% wrote that it taught ways to calm oneself, relax, relieve stress, and breathe; 19% wrote that it taught ways to identify and accept emotions and ways for emotional, cognitive, and behavioral regulation; 14% wrote that it taught them to be mindful of the present moment, and 12% wrote about learning to concentrate (Metz et al., 2013). For the open-ended question, one student wrote, “Before getting too upset or angry about a situation, I am more able to see all sides of it and accept that it is okay” (Metz et al., 2013, p. 266). Another student mentioned that “just closing your eyes, taking breaths, and listening to your body can help you to relieve stress” (Metz et al., 2013, p. 266). Students provided insight into what they found valuable about the program and how they used the material for stress management and emotion regulation in their daily lives.
Mindfulness Meditation Group in Alternative High School

This program was conducted at an alternative learning center (ALC) for high school students in a rural area of the United States (Wisner & Norton, 2013). In contrast to the previous Learning to BREATHE program where a subset of the school was included in the program, all 36 students at the school were invited to participate in the program. One student declined, and seven did not provide the full data needed, so there were 28 students who fully participated in the program and data collection. Of the 28 participants, 27 were Caucasian and one was biracial. Being predominantly Caucasian, this program’s demographic is similar to the Learning to BREATHE program.

The program was conducted for eight weeks and led by a licensed mental health practitioner experienced in meditation while the teacher sat in on the sessions (Wisner & Norton, 2013). The sessions included information on the benefits and challenges regarding meditation, training in meditation techniques (i.e. posture, breath), as well as time for questions and discussion. Students were led in two 4-minute meditations during the first two weeks and progressed to one 10-minute meditation in the remaining five weeks (Wisner & Norton, 2013). The students were also offered two additional 10-minute silent meditation sessions with staff supervision, such that students had time to meditate in school four times each week. This program offered sessions at a significantly greater frequency than the Learning to BREATHE program.

Wisner and Norton (2013) used a pre-posttest method with a scale for teachers to rate the emotional, social, and behavioral strengths of students. Using teacher input contrasts with the Learning to BREATHE data which utilized student input. There post-test results depicted significant improvements in all areas (Wisner & Norton, 2013). Wisner and Norton (2013)
concluded “the findings offer support for utilizing mindfulness meditation as an important school-based group counseling intervention with the potential for improvements in psychosocial, cognitive, and behavioral strengths for adolescents” (p. 218). Wisner and Norton (2013) found these groups were beneficial for the alternative school population specifically, noting “mindfulness meditation has the potential to be an effective and efficient intervention to use with at-risk students, and can show positive results in a relatively short amount of time, in this case only 8 weeks” (p. 219). This study demonstrated the usefulness and relevance of mindfulness training within an alternative school.

Peer-Led Mindfulness Training with Adolescents

*Peer-directed, Brief Mindfulness Training with Adolescents: A Pilot Study* was intended to evaluate the effectiveness of mindfulness training modified for adolescents (Jennings & Jennings, 2013). It included eight European-American adolescents aged 17 to 18 years, as well as a peer facilitator who led the sessions. None of the participants had previous mindfulness training. Additional demographics or socioeconomic aspects were not specified. The predominantly-Caucasian demographic is consistent with the two variations of the Learning to BREATHE program. Jennings and Jennings (2013) described the peer facilitator’s preparation to lead this program as the “peer facilitator received several hours of individual training in mindfulness meditation with an experienced adult meditator to achieve basic competency” (p. 23). The researchers did not specify the number of hours of training or provide criteria for the peer instructor’s competency in mindfulness meditation. The sessions were conducted during a span of three weeks with each session lasting 50 minutes, making this the shortest of all programs reviewed. Each session included a “counting breaths” practice and a guided sensory meditation technique, all of which were obtained from the mindfulness training manual designed
by Apsche and Jennings for youth (as cited in Jennings & Jennings, 2013, p. 23). The practice of following a manual is consistent with the Learning to BREATHE programs. Manuals support the ability for a program’s practices to be implemented correctly and consistently despite having differing instructors (Malik, Beutler, Alimohamed, & Gallagher-Thompson, 2003). Manuals also help create a reliable structure and reasons for activities that can foster adolescent participants’ acceptance and trust (Langer, McLeod, & Weisz, 2011).

Outcome measures utilized evidence-based pre-posttests for anxiety and social anxiety (Jennings & Jennings, 2013). Using evidence-based scales is consistent with the Learning to BREATHE program. Jennings and Jennings (2013) also collected unstructured written qualitative data from participants at the last session. Results included anxiety scores that were reduced by 30% and a 9% reduction in social anxiety scores. Qualitative data indicated several participants appreciated the sensory guided meditations within settings such as the beach, the mountains, and a rainstorm, and believed it was effective in engaging them in a meditative, relaxing experience (Jennings & Jennings, 2013). One participant wrote, “I like mindfulness because it’s a good way to relax and I feel like I have a completely different outlook on everything afterwards. It makes me want to do different things than before the meditation” (Jennings & Jennings, 2013, p. 24). This student’s answer demonstrated that mindfulness can be useful for stress reduction and changing perspective and behavior. Another participant wrote, “I really like mindful meditation. I like how it relaxes me and slows down my breathing and my heart rate. It’s incredibly refreshing and I’ve looked forward to every meditation” (Jennings & Jennings, 2013, p. 24). Obtaining qualitative data from program participants is valuable to mitigate the potential for adults imposing their values, assumptions, interpretations on
participants’ experiences. In addition, researchers can use feedback to improve and further tailor programs to the needs and interests of adolescent participants.

**Mindfulness Groups for Latino Adolescents**

The purpose of *Effects of a Mindfulness Group on Latino Adolescent Students* study was to expand the multicultural perspective on mindfulness training for adolescents by focusing on Latino adolescents aged 12-17 years old (Edwards et al., 2014). Edwards et al. (2014) cited research studies comprised of a majority of Caucasian suburban adolescents to demonstrate there is a significant under-representation of Latino students. Furthermore, Edwards et al. asserted Latino youth face distinct stressors in addition to developmental challenges for their age. These stressors can include complications to communication resulting from language barriers, cultural disagreements among family members, additional responsibilities in caregiving for younger siblings, and experiencing feelings of discrimination (Edwards et al., 2014). Cervantes and Cordova reported Latino adolescents also face stresses from peers stemming from “drugs, gangs and neighborhood violence” (as cited in Edwards et al., 2014, p. 146). Edwards et al. added “financial, geographic, and cultural influences may limit many Latino students’ access to psychological services” (p. 160). In response to Latino adolescents’ many challenges, Edwards et al. (2014) proposed schools lead mindfulness groups as a way to mitigate these circumstances.

Participants were recruited for a stress reduction group from four schools from a rural southwestern part of the U.S. (Edwards et al., 2014). Twenty Latino students completed the study. Edwards et al. (2014) formed seven different groups over 15 months. Each group had eight 50-minute sessions comprised of between two and six students. This program shared the traits of being a separate group and having a small group size with the peer-led program. Similar to the Learning to BREATHE and alternative high school programs, the groups were led by
psychologists, counselors, and a doctoral student, all experienced meditators and yoga practitioners. Similar to other programs, this program followed a manual. In this case, the sessions were based on the Biegel’s Mindfulness-Based Stress Reduction for Teens…MBSR–T program (as cited in Edwards et al., 2014). Each session included “mindfulness practices such as body scan meditation, sitting meditation, hatha yoga, and walking meditation” as well as “didactic presentations, group sharing of related experience, and instruction in at-home mindfulness practice assignments” (Edwards et al., 2014, p. 154). Participants were provided written and audio instructional materials and instructed to practice mindful techniques outside of group sessions for 25-30 minutes every day. Participants’ amount of meditation practice outside of class was not described.

The program’s effectiveness was gauged by administering surveys to the participants that measured mindfulness, stress, self-compassion, and psychological distress, such as anxiety, depression, or hostility (Edwards et al., 2014). These surveys were administered two weeks before the program began, at the beginning of the program, and eight weeks after the pretest during the last session. Because these surveys were grounded in evidence-based scales, the outcome measure methods share similarities with Learning to BREATHE and peer-led programs. The results showed significant increases in mindfulness and self-compassion along with decreases in stress and depression (Edwards et al., 2014). There were not significant levels of reduction in participants’ anxiety and hostility scores. Edwards et al. (2014) concluded the program’s instruction methods were effective and participants’ mindfulness increased from the training, which may have led to reducing their feelings of stress. Consequently, Edwards et al. (2014) concluded the program was successful and provided several reasons why a school-based group mindfulness meditation is effective for Latino adolescents. Reasons included that it was
familiar, comfortable, and non-stigmatizing to be with peers at school and that it was congruent with a collectivistic worldview (Edwards et al., 2014). Edwards et al. (2014) demonstrated a knowledge of Latino culture and an ability to apply this knowledge to implement a successful mindfulness meditation program.

**Mindfulness Program at Park Middle School**

Park Middle School in Antioch, California partnered with the Niroga Institute to create a multi-faceted mindfulness program for the purposes of improving student emotional regulation and decreasing teacher burnout (Coetsee, 2017). The principal stated,

Park Middle School had logged 255 suspensions by March 31 of the 2015-16 school year -- a statistic that equates to 522 missed days of classes. By the same date in this academic year there were 120 suspensions that accounted for 197 days of lost instruction (Jimno, as cited by Coetsee, 2017, para. 24)

That change equated to a 53% reduction in suspensions in only one year. Furthermore, the school board viewed the program as a success and approved funding to extend training and implementation of this program to the elementary school level (Coetsee, 2014). This program was the only one within this literature review to utilize behavioral data to contribute to outcome measures. This program demonstrated how the use of behavioral data can illustrate success and provide district leaders with a rationale for program expansion.

The mindfulness curriculum was delivered to the school’s student body of over 1,000 students through multiple channels, making this the largest program (Coetsee, 2014). This is also the longest-running program since it is ongoing rather than finite (Coetsee, 2014). Unlike other programs, the demographics were not specified. The principal used the announcement system and enlisted the help of a student to ring a chime while he led the students through
breathing exercises (Coetsee, 2014). In addition, students spent “15 minutes in class twice a week learning how to regulate their breathing, perform yoga movements and focus on the present” (Coetsee, 2014, para. 7). This program is similar to the Learning to BREATHE program, which also relied on classroom teachers to lead meditation instruction. The school staff cited several applications and benefits for mindfulness training, including emotion regulation, classroom behavior, academic performance, test anxiety, and calming down after gym class (Petersen, as cited in Coetsee, 2014). The school cited both qualitative and behavioral data to gauge the program’s effectiveness.

Using breathing techniques has been a core practice within this program. Petersen, who is a teacher at Park Middle School, asserted this can help students learn much-needed coping skills because “middle-schoolers often don't even fully understand why they're upset, much less how to cope with their emotions” (as cited in Coetsee, 2014, para. 11). Petersen explained, “By counting as they breathe in and out, they slow their heart rate and regain the focus needed to figure out what triggered an outburst and how to avoid getting so worked up in the future” (as cited in Coetsee, 2014, para. 12). Focusing on their breathing can help students relax, gain self-understanding, and problem solve in a constructive manner. Bose, Niroga Institute’s Executive Director, elaborated.

People breathe in different ways depending on their mood, and can change how they feel by altering the way they inhale and exhale…By slowing his or her breathing, a person can shift from anger to a more tranquil state of mind (as cited in Coetsee, 2014, para. 10) In this way, students can use mindful breathing to manage their physical, emotional, and behavioral symptoms of stress.
Mindfulness for Children from Lower Socioeconomic Backgrounds

The goal of this program was to offer mindfulness-based tools for children to cope with stress and avoid detrimental mental habits that could “worsen stress and interfere with effective problem solving” (Costello & Lawler, 2014, p. 26). In addition, Costello and Lawler intended to gain insight into how children perceive and cope with stress. The program included 63 6th grade students from two schools within lower socio-economic areas of Dublin, Ireland (Costello & Lawler, 2014). The researchers focused on this demographic because Dore demonstrated “children from families who experience greater levels of poverty are at increased risk of stress and mental health problems compared with those in the general population” (as cited in Costello & Lawler, 2014, p. 34).

Costello and Lawler (2014) met with the teachers who were selected to teach mindfulness to explain the program and distribute the lessons to the teachers in a written script and a CD, so they had a choice of lesson delivery format. The program included daily mindfulness meditation lessons and practice for five weeks. The mindfulness meditation instruction focused on breathing awareness and techniques, visualizations, awareness of the five senses, and body scans. Practice started with a length of three minutes and increased gradually to 12 minutes during lessons in the last week. While this program’s meditation practices were based on the MBSR manual, it also incorporated other methods from unspecified sources (Costello & Lawler, 2014).

Costello and Lawler (2014) utilized both quantitative and qualitative data for the program. For quantitative data, the students were administered surveys regarding their stress before and after the program. The surveys were founded on evidence-based scales and included 10 questions on a 5-point Likert scale that measured the amount that participants perceived their lives as stressful in terms of it being “unpredictable, uncontrollable, and overloaded within the
last month” (p. 26). Cohen et al. found those who scored 13 points had an average amount of stress and those who scored 20 points or higher experienced a high amount of stress (as cited in Costello & Lawler, 2014). The students in this program started with an average score of 18.12 and had an average score of 14.4 at the end of the program. For qualitative data, the children wrote or drew about their experience after each mindfulness lesson. After the program, the researchers conducted interviews with two teachers and 16 students (Costello & Lawler, 2014).

After reading the students’ post-training reflections, Costello and Lawler (2014) found “the majority of pupils commented that they looked forward to the daily mindfulness practices, which increased feelings of calmness and relaxation and consequently reduced perceived levels of stress” (p. 34). Students also wrote about how they gained awareness of when they were distracted by stress-related thoughts and responded by refocusing on their breath. Several students wrote about how the program helped them with emotional regulation (Costello & Lawler, 2014). Students described being happier, calmer, more relaxed, less irritable, and recovered from angry feelings faster (Costello & Lawler, 2014). For example, participants wrote: “I felt irritated at first, but now I feel calmer,” “I like doing breathing when I feel nervous, irritated and angry,” “I felt cool and collected when I was breathing,” and “the breathing exercise really calms you if you’re feeling down” (Costello & Lawler, 2014, p. 29). Students also realized they experienced an increased awareness and objectivity towards their negative thought patterns. As one student explained, “things have become much clearer and before getting too upset or angry about a situation, I am more able to see all sides of it and accept that it is okay” (Metz et al., 2013, p. 266). Another student stated, “I learned that I can control the way I react to things and that nothing is too overwhelming for me to handle” (Broderick & Frank, 2014, p. 33). Furthermore, nearly 40% of students stated they used mindfulness-based
techniques to detach from their stressful thoughts and increase relaxation (Costello & Lawler, 2014). The participants’ journals depicted students’ improved awareness, emotion regulation, and stress management as a result of mindfulness meditation lessons.

After interviewing students and teachers, Costello and Lawler (2014) also realized that the mindfulness meditation program helped several students with stress management and behavior at school. Costello and Lawler (2014) stated “many gave recounts, which illustrate abilities to pause and be more reflective about how they react in certain stressful situations” (p. 33). Participants’ increased relaxation and reduced tension improved their capacity for learning. For example, a student explained, “I think mindfulness is very helpful. It helps me feel calmer and concentrate better” and another student said mindfulness “helps me calm down and do my work” (Lamb, 2017, p. 4). Students stated they used mindfulness meditations to cope with test anxiety and the frustration they experienced after getting an answer wrong (Costello & Lawler, 2014). Other students anticipated they would use mindfulness to cope with stress of transitioning to secondary school. Students noticed that mindfulness positively influenced their behavior and helped them to “stay out of trouble” (Costello & Lawler, 2014, p. 31). One student provided a situation in which mindful breathing was useful, “I’ve actually practiced it the other day. I was about to get in an argument….I took three breaths ...and took three more breaths. And I was actually calm and left the argument” (Sibinga et al., 2011, p. 216). Teachers also noticed improved behavior. Costello and Lawler (2014) relayed, “One of the teachers also observed a reduction in reactivity and disruptive behavior following the mindfulness intervention” (p. 31). According to both students and teachers, the mindfulness program helped students react to stress in more constructive ways.
Despite the significant positive results, Costello and Lawler (2014) provided a cautious conclusion. While the mindfulness meditation program had beneficial effects for most of the participants, Costello and Lawler (2014) noticed that it could have a detrimental effect for some students. Some participants felt that mindfulness was ineffective for stress management, stimulated stress, or instigated feelings of sadness (Costello & Lawler, 2014). For example, one student stated, “I tried to clear my mind but I’m still worried… my head is filled with lots of things. It’s like I’m holding two big pots filled with hundreds of heavy things” (Costello & Lawler, 2014, p. 30). Another student “was sometimes upset by thoughts and feeling which arose during mindfulness, she felt she gained awareness and understanding of her sad feelings” (Costello & Lawler, 2014, p. 34). Costello and Lawler hypothesized these students were “experiencing initially greater levels of stress and subsequently reacted more negatively” (p. 34).

Despite these challenges, all participants continued with the program. This finding led researchers to two conclusions. First, it “demonstrates the need for caution when introducing mindfulness, as it may not be suitable for all children” and “further consideration is therefore needed regarding possible resistance to mindfulness and maladaptive feelings following mindfulness practices” (Costello & Lawler, 2014, p. 34). Second, that “further research is needed to examine why some children may respond differently to mindfulness” (Costello & Lawler, 2014, p. 33) has not been addressed in previous studies. Overall, Costello and Lawler (2014) suggested mindfulness meditation programs could be implemented to help teach “social and emotional skills, including self-awareness, the ability to manage emotions, optimism, persistence and resilience, all of which are outcomes of mindfulness” (p. 35). Overall, Costello and Lawler (2014) saw that teaching mindfulness meditation to students was an effective method for stress management and emotional regulation.
The Nature and Purpose of Emotions

Adler stressed the subjective nature of emotions when he stated, “Our emotions do not stem from events, but from our interpretation of these events” (as cited in Dewey, 1984, p. 194). Placing the cause of emotions intrinsically with our interpretations enables us to be in control of our experiences of them. Furthermore, “Adlerians view both feelings and actions as subservient to thoughts” (Dewey, 1984, p. 185). Consequently, we can change our emotions by changing our thoughts. This capability is demonstrated by a classic Adlerian tool known as the pushbutton technique, whereby the therapist instructs the client to relive a pleasant experience and notice the corresponding pleasant feelings that arise (Mosak, 1985). Next, the client is instructed to relive an unpleasant experience and notice the corresponding negative feelings. Finally, the client is prompted to relive the first pleasant experience again along with the corresponding feelings. According to Mosak, the therapist can use this technique to illustrate that the client “can create whatever feelings he wishes merely by deciding what he will think…he is the creator, not the victim, of his emotions” (as cited in Dewey, 1984, p. 194). The dominance of thoughts over emotions can empower people to deliberately choose more constructive thoughts to foster emotion regulation.

Adler believed emotions served a purpose, and their purpose could be generally categorized as either beneficial or detrimental (as cited in Dewey, 1984). On the beneficial side, Adler categorized emotions as “socially conjunctive” such that they brought people closer together (as cited in Manaster, Cleland, & Brooks, 2003, p. 244). Adler distinguished “joy, sympathy, and modesty” as being conjunctive (as cited in Dewey, 1984, p. 185). Adler also believed emotions served several beneficial purposes. For example, nervousness could inspire us
to be better prepared for a performance, fear could cause us to flee from a dangerous situation, anger could inspire us to overcome obstacles, hurt could inspire us to volunteer for a cause or deepen our empathy for others (as cited in Dewey, 1984). In these ways, emotions are beneficial because they are an impetus to positive, healthy actions. On the detrimental side, Adler categorized emotions as being “socially disjunctive” such that they served the purpose of creating further distance between people (as cited in Manaster et al., 2003, p. 244). Adler distinguished “anger, sadness, disgust, fear, and anxiety” as being disjunctive (as cited in Dewey, 1984, p. 185). Adler believed people tended to misuse emotions when they were denied something or when the dominance of their personality was threatened (as cited in Dewey, 1984, p. 185). Adler asserted that emotions are “misused to get special service, to control or overwhelm others, to excuse us from functioning normally, to provide an excuse to retaliate against others, or to serve as a license for poor behavior” (as cited in Dewey, 1984, p. 184). These are examples of emotions being used for non-constructive ends, such as gaining power or avoiding responsibility.

**Adlerian View of Confidence**

Preventive medicine, especially for children, was an important topic for Adler (Ansbacher, 1992). He advocated for a proactive approach to fostering positive mental health in children and believed that developing self-confidence and self-sufficiency were the keys. Adler described a self-confident person as one who “feels at home in the world and confident to be able to cope with the life tasks” (as cited in Ansbacher, 1992, p. 12). Self-confidence supports the capability to manage one’s responsibilities and challenges. Adler (as cited in Williams, 1990) asserted the primary foundation for a child’s development is trusting his or her own capability because “the self-confidence of the child and his personal courage are his greatest fortune.
Courageous children will later in life not expect their fate to be directed by some outside force, but from their own power” (pp. 62-63). Adler believed a child’s most important asset was confidence and self-sufficiency so she can define and forge her own life path rather than feeling a victim of external circumstance and using them as excuses to avoid responsibilities.

As Adler viewed confidence as foundational to mental health, he viewed the lack of confidence as foundational to dysfunctional mental processes and mental illness. Adler asserted “mental disorder is characterized by strong inferiority feelings” (as cited in Ansbacher, 1992, p. 12). Inferiority feelings can be defined as “feelings of incompleteness, smallness, weakness, ignorance, and dependency” (Griffith & Powers, 2007, p. 60). Another term commonly used in Adlerian Individual Psychology is felt minus, which is defined as “universally-experienced inferiority feelings of incompleteness, of being below, of being in a position of ‘less than’ the others, or less than what life requires or allows” (Griffith & Powers, 2007, p. 39). Adler believed these feelings to be universal because they originated from the experience of being a helpless infant (and continued as a child) who was incompetent in comparison to his or her parents (as cited in Griffith & Powers, 2007). Just like all other emotions, inferiority feelings can be beneficial because they can “serve as spurs to effort and as a source of motivation to overcome obstacles, to grow, to improve oneself and the community” (Griffith & Powers, 2007, p. 60). Adlerians say that the person is “striving for superiority” over their inferiority feelings and that “inferiority mobilizes the patient's inner push to go from a minus to a plus” (Smith, 2009, p. 241). A felt plus can be defined as an “image of maturity, mastery, completion, fulfillment, or perfection which the individual strives to attain in his or her struggle to move away from the felt minus situation toward the fictional plus personality ideal” (Griffith & Powers, 2007, p. 39).
While Adlerians recognize the potential for inferiority feelings to be detrimental, they also see these feelings as universal and having the potential to be a beneficial motivating force.

Inferiority feelings and striving for superiority can also be detrimental. Adler (1928) realized the feeling of inferiority was generally regarded as a sign of weakness and as something shameful; therefore, there is a strong tendency to conceal it. Adler believed people often try to eliminate feelings of inferiority through a stance of “safeguarding,” which can be defined as “hidden or unacknowledged…cowardice or retreat of the unprepared person, whose confidence in the face of an imperative task is shaken by thoughts of possible failure…the safeguard protects a pretense of superiority…in addressing life’s ordinary challenges” (as cited in Griffith & Powers, 2007, p. 89). One method of safeguarding is striving for superiority, including “striving for superiority through power over others” (Smith, 2009, p. 245). This approach to striving for superiority is a detrimental way to assuage feelings of inferiority.

**Adolescence, inferiority feelings, safeguarding, and striving.** According to Adlerian concepts, adolescents can choose how they perceive and respond to situations. Their perceptions then determine their emotions and stress levels. Furthermore, “the particular manner in which the individual student creates her perspective and proclivities is mediated by the types of regulatory mechanisms that that student uses to navigate within the schooling environment” (Lemberger & Krauss, 2013, p. 87); therefore, how a student perceives events and self-regulates is considered an aspect of his or her approach to striving. Lemberger and Krauss (2013) asserted, “In a school setting, striving might include how a student experiences new information, responds to internal and external obstacles, or develops stratagems to pursue goal completion” (p. 86). For example, striving occurs when learning new material, preparing for and taking tests or working on projects, relating with staff and peers, and participating in extra-curricular
activities. A student feeling challenged and stressed in school could “lead to inferiority feelings and compensation in detrimental ways” (Ansbacher, 1992, p. 13) such as “striving for superiority through power over others” (Smith, 2009, p. 242). For example, a student’s striving for superiority could manifest through bullying or engaging in power struggles with teachers (Mosak & Maniaci, 2006; Rasmussens & Dover, 2006; Waller, Carlson & Englar-Carlson, 2006). Furthermore, Hoffman, Cole, Martin, Tram, and Seroczynski explained adolescents’ natural tendency towards negative self-appraisal and heightened threat sensitivity could easily lead to lowered self-confidence, a fear of failure, and feelings of inferiority (as cited in Lanteigne et al., 2014).

Similarly, there are aspects of safeguarding that are pertinent to adolescents and their developmental stage. Adler referred to safeguarding when “addressing life’s ordinary challenges,” which, in fact, are not ordinary when encountering them for the first time and learning how to address them (as cited in Griffith & Powers, 2007, p. 89). Likewise, Adler stated that safeguarding was used by the “unprepared person” (as cited in Griffith & Powers, 2007, p. 89). Again, adolescents are encountering such a large number of new events and issues during this time that it would be natural for them to be “unprepared.” Furthermore, learning through school, friends, or family may not be adequate preparation when a student experiences the issue or situation for him or herself. For example, experiencing puberty or beginning to drive a car are likely to create potential confusion and follow-up questions even after health education classes and training to prepare for a driver’s permit.

**Mindfulness Within the Context of Individual Psychology**

Mindfulness can be used in conjunction with Adlerian concepts to support emotion regulation and stress management. Mindfulness can be used to objectively view and identify
one’s thoughts and emotions in response to events, consider whether or not the responses are constructive, and deliberately choose more constructive responses. One can identify if his or her feelings are having a conjunctive or disjunctive effect. Furthermore, mindfulness can be used to pause before acting on one’s feelings. This pause can be especially useful if one is considering striving for superiority in a detrimental way and consider how to strive in a more constructive manner. Mindfulness is also supportive of building what Adler referred to as psychological tolerance, which Ansbacher and Ansbacher defined as “the amount of subjective threat a person will bear without safeguarding himself or herself in a situation” (as cited in Slavik & Croake, 2006, p. 420). Psychological tolerance is an indication of one's willingness to stay with and work with changes in life as they present themselves. Ansbacher and Ansbacher noted how Adler identified psychological tolerance as a mitigating force against unhealthy striving for superiority (as cited in Slavik & Croake, 2006). Conversely, “an individual with low psychological tolerance becomes wary of expected events and sees threat to esteem where others may not” (Slavik & Croake, 2006, p. 420). Low psychological tolerance can lead to one assuming that an event will create feelings of inferiority. Consequently, “in exaggerated responses to anticipated occurrences, one may aid in creating negative and aversive events” (Slavik & Croake, 2006, p. 420). Furthermore, these assumptions can lead one to react in detrimental ways; however, mindfulness can help build one’s psychological tolerance for feelings of inferiority and mitigate the tendency to strive for superiority in an unhealthy manner (Waller et al., 2006). For example, mindfulness can be a tool to cope with the uncomfortable feelings of inferiority by remembering their transient nature. One could also use mindfulness to realize that he or she is experiencing negative emotions and use the pushbutton technique to bring oneself back into a more positive state. In these ways, adolescents could use mindfulness
to cope with feelings of inferiority and build psychological tolerance, which, in turn, builds feelings of confidence and independence. Adolescents realize that they can regulate their own emotions without being helped or soothed by adults. Building adolescents’ self-sufficiency is congruent with their developmental stage and needs for increasing independence.

**Discussion**

**Implications for Practice**

The research findings offer implications for practice in three main areas: mindfulness instructor training, conducting a mindfulness program, and data. To begin, consider the contents of the mindfulness instructor training and potential topics in which to expand content. For example, information could be added to increase awareness of how mindfulness meditation can affect students with a history of trauma, including signs that a student is being triggered (e.g. avoidance, making jokes, or disruptiveness), and ways to avoid and mitigate triggering effects for students with trauma. Training could also be augmented with information about the breath, such as sighing, diaphragmatic breathing, and how it is closely related to emotions. Another topic to include is multicultural awareness of how different cultures perceive, value, and participate in meditation. With this knowledge, the leader can explore ways to modify program content and activities to be more inclusive of the participants’ cultures.

There are implications for conducting the group mindfulness program as well. First, the programs that were reviewed demonstrated there are several viable options for delivering the program, such as through a loudspeaker, teachers, peers, recordings, or a mixture of these delivery methods. Second, adapt mindfulness instruction and content to fit adolescents’ developmental stage, such as using shorter, more sense-oriented mindfulness instructions and exercises. Third, the instructor should watch for signs that a student with trauma is being
triggered and be able to work with him or her. Fourth, include instruction on belly breathing, breathing pace, and the connection between breath and emotions. Furthermore, during the breathing practices, the instructor should observe students’ breathing, such as watching for belly breathing, sighing, and an appropriate pace. If there is a significant amount of sighing, the instructor may need to clarify instructions or simplify or shorten the practice, or switch to a different practice. The instructor could observe the overall sighing frequency both within each session and over the program. Ideally, the sighing would reduce during both of these timeframes.

The research also highlights the importance of collecting data. Ideally, mindfulness instructors would adopt a more scientific, methodical, research-oriented approach to collecting data. For example, it is informative to conduct surveys and inventories before and after the individual sessions and overall program. Furthermore, it is useful to collect multiple types of data such as self-report inventories and surveys, behavioral data and teacher feedback because they can be used to verify one against the other (Edwards et al., 2014). Likewise, it is edifying to collect both qualitative data, including open-ended questions, and quantitative data, especially evidence-based inventories for stress, emotional state, or mental health, such as the Beck Anxiety Inventory. In addition, research rarely includes detailed information about the breathing techniques used by the subjects; therefore, researchers would be making important contributions by collecting specific information such as details of the breathing patterns the students used, how closely the students adhered to instructions, and the perceived effectiveness and effort of the techniques.
Recommendations for Future Research

This literature review illustrated insufficiently-researched topics and populations that could be addressed through future research. For example, researchers could learn more about how various cultures view mindfulness, meditation, and the breath, then adapt the mindfulness program to accommodate those cultures and conduct programs with a majority of participants from those cultures. Similarly, researchers could learn more about which mindfulness meditation practices would best serve students with trauma, and conversely, which practices to avoid, and how to soothe students who have been triggered during the program. In addition, researchers could explore the effectiveness of various mindfulness instructor qualifications and characteristics. They could also publish more information about the instructor training curriculum and gather feedback on the training program from instructor trainees.

This literature review also highlighted gaps in research about breathing. Programs commonly mix multiple mindfulness methods such as guided meditation, breathing practices, and yoga. This makes it difficult to determine the effectiveness of any single practice. As noted by Paulus (2013), there is still much to learn about the connection between breath and emotions; therefore, research is needed to create and conduct programs that focus on breathing practices to the exclusion of other practices to better determine the true benefits of breathing practices. Furthermore, researchers rarely included specific details on the breathing techniques used such as diaphragmic breathing, breathing rate, and use of the nose or mouth to inhale or exhale. While there is research that includes these details about breathing, it is written for an audience of highly specialized professionals such as neurophysiologists. This research includes a level of detail and assumes a level of knowledge far beyond what would be accessible to a more pragmatically-oriented reader; therefore, this research needs to be disseminated to practitioners.
in a more simplified manner. Likewise, educators and mindfulness instructors should disseminate their findings both to other practitioners and to researchers to further both pragmatic and scientific knowledge and cross-disciplinary collaboration. Finally, considering Adler’s understanding of the interconnection between mind, emotions, and body, it was surprising to find database searches for the Adlerian Individual Psychology view of the breath yielded nothing. Individual Psychology scholars and practitioners should contribute publications on their understanding of the connection between breath, emotions, and Adlerian concepts.

Conclusion

Adolescence is typically a time of greater responsibility, stress, and negativity, which is exacerbated by inconsistent physiological developments that can lead to difficulty managing emotions. Experiencing stress and recurrent negative emotions can detrimentally affect adolescents’ health and academic performance. Given the mercurial emotions adolescents can experience, emotion regulation and stress management become important assets for coping, health, and functioning during adolescence. Mindfulness and mindful breathing have been demonstrated to be effective methods for stress management and emotion regulation.

An exploration of Adlerian concepts can help explain how mindfulness may be useful for adolescent emotion regulation and stress management. Adlerian theorists asserted adolescents can choose how they perceive and respond to situations. Since these perceptions then determine adolescents’ stress levels and emotions, mindfulness can be used to cope with uncomfortable feelings and to deliberately choose more constructive responses. Adolescents discover they can regulate their own emotions without being helped or soothed by adults. This capability builds adolescents’ self-sufficiency and confidence, which aligns with Adler’s belief that these traits were crucial elements for mental health, resilience, and responsibility.
Group mindfulness training programs for adolescents have been successfully implemented in a school setting in a variety of formats. These programs differed according to the instructional delivery mode, level of mindfulness instructors’ qualifications, amount of program participants, program length, and the socioeconomic qualities of the communities in which they resided. By reviewing these programs, one can see two points. First, group mindfulness training is an effective method for teaching adolescents skills to help them manage their emotions, behavior, and stress. Second, school administrators and staff have options for how to implement a group mindfulness program so that it is fitting for the school schedule, staff qualifications, and community.
References


ADOLESCENT MINDFULNESS GROUPS

surveys/rb/16.38RB_Mindfulness_STRategies_in_the_Austin_Independent_School_District_AISD.pdf


ADOLESCENT MINDFULNESS GROUPS


