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Mindfulness
in Physical Education

Yoga is more than just stretching and balancing. As stated by Khalsa, Hickey-Schultz, Cohen, Steiner and Cope (2012),

Yoga is a holistic system of multiple mind body practices for mental and physical health that include physical postures and exercises, breathing techniques, deep relaxation practices, cultivation of awareness/mindfulness, and meditation. (p. 81)

Yoga is a moving meditative process that encompasses breath work, or pranayama, as well as body awareness and a deeper kinesthetic understanding. The asana, known as the physical practice (i.e., postures) of yoga poses, should be firm and relaxed. Yoga has its history in traditional Indian culture and many elements of yoga have been practiced for 5,000 years, and it has become a regular part of over 13 million Americans’ lifestyles (Eggleston, 2015). It can generate the foundations necessary for creating a positive mind and body — hence, mindfulness. Yoga and meditation techniques have been shown to reduce perceived stress and to improve mood (Khalsa et al., 2012). The purpose of this article is (1) to extend teachers’ knowledge of the benefits of yoga lessons, and (2) to share the effects of a middle school physical education program assessment method on the mood of students.

In middle school physical education (5th–8th grade), physical educators deal with challenges such as having a set curriculum. For any individual, to include a regular weekly yoga program can have several benefits. Research has shown a drastic reduction in the levels of depression, anger, fatigue and anxiety felt by a test group that participated in yoga. For example, Hagins, Haden and Daly (2013) stated that yoga improves the ability

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of students to manage psychosocial stressors. In middle school physical education (PE) managing stressors is a very important affective component that teachers should always include in their units of instruction. Yoga can play an important role in facilitating such lessons. The authors continued by saying that controlled studies with students have demonstrated improvement in feelings of anger, depression, stress, negative affect, body dissatisfaction, self-concept and anxiety.

The asanas (i.e., physical postures in yoga) benefit the muscles, joints and tendons, as well as stimulate major organs. Each posture has specific benefits. As stated by Woolery, Myers, Sternlieb and Zeltzer (2004), the backbends and other chest-opening poses emphasized in these classes may have countered the slumped body posture associated with depression. Interestingly, a connection between open body posture and mood has been supported by several psychological studies. In yoga lessons, there is a connection between posture and mood. This is more common in the classroom than in the gymnasium. Many students will sit in their classrooms every day with the same poor posture, hunched back with closed-off chest. Typically, these are the students who do not perform well during group discussions or when completing assignments. Woolery et al. (2004) also mentioned that the potential benefits of yoga are most evident by the middle of a yoga course and continue through the end of the course. Including yoga in a PE program would be beneficial if carefully planned and applied throughout a series of progressive lessons. For the benefits of yoga to become noticeable, it must be practiced over an extended period of time with clear progressions.

Understanding Students’ Needs

Hagins et al. (2013) suggested that yoga alters the extent to which events are experienced as stressful and can alter the reactions to perceived stress. When looking at the typical middle school student’s school climate, there is a common undertone of stress, whether it be due to cliques, family, friends, grades or puberty. Eggleston (2015) observed that, regardless of whether a student comes from a lower socioeconomic home or community, all students are under more stress today than previous generations. In addition, in trying to relieve the stressors of students, physical education teachers have the ability to use lessons to focus on many factors of overall physical health.

One purpose of a quality physical education program is to encourage a physically active lifestyle, encompassing the promotion and development of self-esteem and perceptions of health (Standage & Gillison, 2007). When working on developing students’ self-esteem, it is essential to cultivate the student’s sense of self. Guided meditation centers students’ awareness on their breath and how it moves throughout the body; it also focuses students’ attention on letting go of their stressors, worries and negative self-perceptions. In the figurative sense, students are able to focus on “breathing in the positive” and “breathing out the negative.” Many factors determine the success of a student during the middle school years. As stated by Eggleston (2015),

The expectation for academic achievement on behalf of school administrators falls on teachers and then the burden is shifted to the student. The setting of schools, especially public schools, has become a rather stressful environment, which makes it challenging for students to learn in the classroom. The high stress environment in schools makes it difficult for students to concentrate and when students do not perform well in school their self-esteem decreases.

It is essential to implement a program that focuses on easing these stressors. Several studies have established that excessive worry entails reduced autonomic flexibility as a result of low cardiac vagal tone (Hofmann et al., 2015). This shows that, due to increased stress and worry, the body naturally begins to tighten up, decreasing overall physical flexibility. It is not only age and lack of stretching that decreases a person’s overall flexibility, but the stress and worry have an effect as well — and yoga can help to improve flexibility.

As a yoga instructor and student, the first author has experienced the positive benefits of yoga. As a young college student she suffered from stress and anxiety, which tremendously decreased after weeks of yoga practice. The process was so transformative that she decided to pursue a teacher-training program. Completing over 200 hours of teacher training changed her adult life. However, teachers always have the option to seek other alternatives to further expand their knowledge in yoga. For example, Yoga Journal (www.yogajournal.com) is an online magazine that offers an alternative for beginners and more experienced individuals who want to gain more knowledge about yoga.

School Climate

School climate begins with the quality and character of any given school. It is characterized by the patterns of the school’s personnel, students and parents, and it is reflected in the values, goals and norms displayed by teachers and administrative structures. A good school climate is one that would make the students and staff feel emotionally, socially and physically supported and safe. The term “school climate” was not always a token word among school districts. School climate became a greater issue after the unfortunate event that took place on April 20, 1999, now known as the Columbine High School massacre. This event sparked much debate over bullying, subcultures, cliques, and gun control laws. Due to this horrible event, the state of New Jersey developed the New Jersey Anti-Bullying Bill of Rights Act in 2011. Many anti-bullying and school-climate committee groups have identified that the key to preventing an event such as Columbine from occurring again would involve ensuring that the school climate is supportive emotionally, mentally and physically for students. This could be achieved in part by teaching students how to cope with and resolve conflicts, and by building them up and teaching them to be strong not only on the outside but on the inside as well. “When the life philosophy starts manifesting in one’s behaviour and interactions, life becomes spiritually oriented and ultimately results in a healthy and harmonious personality. Modern man is the victim of stress and stress related disorders which threaten to disrupt his life totally” (Semwall, Juyal, Kishore, & Kandpal, 2014, p. 98).

There is a dire lack of research on the idea that yoga and meditation could prove to be the missing link in creating the sound student and school climate. Many schools shy away from incorporating yoga into the curriculum due to fears that it is a spiritual or religious activity. However, “Mindfulness, defined as a flexible, present-moment awareness has drawn considerable attention over time in the fields of medicine, counseling, and psychology. While we are witnessing attempts to research this topic and its effectiveness in school settings such investigations have not kept pace with the exponential growth of mindfulness interventions” (Cleveland, 2016).
Yoga in Physical Education Class

How can educators incorporate yoga in schools? One way could be to involve the guidance department and to teach mindfulness. Another way is through the physical education staff. These professionals understand anatomy, exercise physiology, psychology and much more. Physical educators have the teaching strategies and skills to apply different curriculum models that facilitate instruction at the psychomotor, cognitive and affective levels of understanding.

Curriculum models, such as the sport education model, focus on teaching students about team sports, rules of the game, and sport-personship via the different roles applied in any given sport season. Curriculum models of that nature can keep students engaged and interested in sports. However, there are always students who are unable to perform certain sport activities due to overweight, coordination issues, and even lack of interest, who in turn will need other options for working on their individual physical, cognitive and affective abilities and interests. Other factors affecting students’ interest in physical activities include “(girls’) perceptions of teachers and boys [sic] influence on physical activity within the school, the school’s encouragement for [physical activity] and overall teacher values surrounding physical activity” (Morton, Atkin, Corder, Suhrcke, & Sluijs, 2016, p. 151). Thus, getting the guidance department to team up with the physical education staff in order to introduce yoga to students has the potential to teach students about mindfulness, as well as physical fitness and body awareness.

Unfortunately, some students may not be interested in yoga for various reasons, including religious beliefs. First, it is important to stimulate the student by highlighting the physical strength needed to perform poses, as well as the mental benefits. Students are unable to take a moment to just close their eyes in class without being questioned on their attention. Showing the students that it is okay to close their eyes and clear their mind may get them interested in participating. This simple distinction between yoga exercises and traditional class expectations of attention can provoke an interest in the exercises. Furthermore, if a religious belief is the reason for not wanting to participate, a descriptive letter can be shared with the students as well as with the parents. In this letter the teacher can emphasize the physical, cognitive and affective benefits of the exercises while assuring that beliefs in alignment and/or in discrepancy with a religion will not be part of the unit of instruction.

Sample Lesson

Daily activities can start with guided meditation and yoga (see Table 1). Students are led through five minutes of a supine guided meditation that consists of mindful breathing. Part one focuses on students becoming more mindful of their breathing and beginning to lengthen their overall breath. Center the students’ focus and train of thought on the present moment and their sense of self, removed from the stressors of daily life. Part two is the supine two-part breathing, which focuses on inhaling into the abdomen, then continuing that breath up into the chest, exhaling from the chest down into the belly. Part three is the supine position, three-part breathing, focusing the breath into the abdomen, rib cage and chest. The teacher guides the students by doing three rounds of parts two and three followed by a minute of silence. For this the students get into a comfortable seated position, grounding their ischial tuberosity or sit bones down into their yoga mat. This helps to elongate their spine, allowing the students to become aware of their posture and whether they are slumped over or not.

Chest-opening Exercises

- First move: Inhale, both arms up, exhale, left arm down, bending the left elbow, right arm reaches up and over the head palm down. Switch from side to side for five guided rounds (see Figures 1 and 2).
- Third move: Combine moves one and two.

Hip-opening Exercises

- First move: Feet together and knees apart.
- Second move: Left leg in, right leg out, reach for the left toes, keep the left foot flexed, breathe here for 30 seconds, then release (see Figures 3 and 4).

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<thead>
<tr>
<th>Breathing Exercises</th>
<th>Whole-body Exercises</th>
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<tr>
<td><strong>Supine Guided Meditation</strong></td>
<td>• Seated Position</td>
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<tr>
<td>Center the students’ focus and train of thought on the present moment and sense of self, removing the stressors of daily life.</td>
<td>Grounding the ischial tuberosity or sit bones down into the yoga mat. This helps elongate the spine.</td>
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<tr>
<td><strong>Supine Two-part Breathing</strong></td>
<td>• Chest-opening Exercises</td>
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<tr>
<td>Inhaling into the abdomen then continuing that breath up into the chest.</td>
<td>First move: Inhale, reach the arms up overhead, interlace the fingers, stretch up to the ceiling, relax shoulders down the back. Second move: Inhale, both arms up, exhale, left arm down, bending the left elbow, right arm reaches up and over the head palm down.</td>
</tr>
<tr>
<td><strong>Supine Position</strong></td>
<td>• Hip-opening Exercises</td>
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<td>Three-part breathing, focusing the breath into the abdomen, rib cage and chest.</td>
<td>First move: Feet together and knees apart. Second move: Left leg in, right leg out, reach for the left toes, keep the left foot flexed, breathe here for 30 seconds then release.</td>
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Figure 1.
Sukhasana (easy pose)

Figure 2.
Parsva Sukhasana seated side bend. Starting in easy pose, inhale with one hand up and over head. Focus on grounding down into the sit bones, stretching from hip to finger tips.
Figure 3.
Bound angle pose (baddha konasana). Starting with feet together and positioned as close to the pelvis as possible, keep back straight and lengthened as you lean forward.

Figure 4.
Head to knee pose (Janu Sirsasana). Beginning with one foot braced against the inner thigh of the opposite leg, focus on a lengthened back. Reach forward as far as possible without straining the back.
• Third move: Take the ball of the outer ankle (lateral malleolus) to the top of the right quadriceps above the knee, inhale, lengthen, exhale, fold over the left leg, repeat three more times.

• Fourth move: Repeat moves two and three on the right side, finishing with feet together and knees apart.

5 Minutes of a Supine Guided Meditation
• Part one: Focus on students becoming more mindful of their breath and beginning to lengthen it. Center the subjects’ attention on the present moment.

• Part two: In the supine position, two-part breathing, focus, inhale into the belly then continue that breath up into the chest, exhale from the chest down into the belly.

• Part three: supine position, three-part breathing, focusing the breath into the belly, rib cage and chest. Do three rounds of parts two and three, followed by a minute of silence. The students get into a comfortable seated position, grounding their sit bones down into their yoga mat. These exercises can be repeated in succession.

Conclusion
Overall, the implementation of yoga in a school’s curriculum can prove to be very beneficial for students’ academic progress, as well as their personal/physical growth. It should be the goal of physical educators to provide each one of their students an ample amount of opportunities to shine and to perform in tasks they are comfortable with. Like any other physical activity, yoga may not be for all students. If one student is not interested in the class, they can disrupt the flow of the entire group. When deciding to implement yoga in a curriculum, consider the following questions:
Is the room large enough?
Are the students interested?
Is the teacher qualified and knowledgeable enough to know proper movements and techniques? All people should learn the benefits of yoga by practicing the activities once a week for a few months.

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References


