

# Infusing Mindfulness Practices in University Pilates and Yoga Courses

Svetlanna Joan Vicente  
and  
Paul T. Stuhr

California State University San Marcos

Authors: Ms. Svetlanna Joan Vicente is a graduate of the Master of Science in Kinesiology at California State University San Marcos. Dr. Paul T. Stuhr is a professor in the Department of Kinesiology at California State University San Marcos and research fellow of SHAPE America.

## Abstract

**Background:** Mindful self-compassion practices (MSCP) are a type of contemplative exercise akin to mindful meditation. Yoga and Pilates are two movement-based mindfulness activities that have been linked to an assortment of desired mental and physical outcomes. However, there is a dearth of empirical inquiry for which MSCP has been combined with yoga or Pilates in an effort to promote stress reduction. Even less is known about using MSCP with yoga or Pilates in higher education settings, as most of the previous research using these meditation techniques has been conducted in clinical settings.

**Purpose:** The aim of this qualitative case study was to determine the perceived benefits from combining MSCP with a yoga and Pilates course at a university.

**Methods:** Two college courses served as the bounded case for this exploratory, qualitative study. Two instructors and 26 college students volunteered to participate. Data were collected and triangulated through semi-structured interviews, questionnaires, and written essay assignments. Analysis of the data consisted of constant comparative method, open coding, axial coding, and selective coding. Trustworthiness was established through prolonged engagement, data triangulation, peer debriefing, thick and rich description, and an audit trail.

**Findings:** Four major themes emerged from the data corpus and a metaphor of a tree created: 1) Roots—trial and error: discovering pedagogical implications for delivering MSCP; 2) Trunk—students define self-compassion; 3) Flowers—tools for self-compassion; & 4) Fruits—benefits of MSCP.

**Implications:** Combined, the emerging themes illustrate that students utilized MSCP, breathing techniques, and yoga/Pilates to relax, reduce stress, and cultivate self-compassionate thoughts and feelings toward self and others. Outcomes from these types of courses and mindfulness practices may prove beneficial in similar educational settings or even K-12 schools.

## Introduction

Daily life typically consists of a multitude of stressors that can often lead to responses of negative affect. Maladaptive responses to stress, if accumulated over time, can adversely affect the ability to carry out activities of daily life and result in chronic illnesses (Leger et al., 2018). Stress plays a major role in health-related illnesses for college students (Garett et al., 2017). In fact, some evidence suggests a majority of undergraduate students feel moderate to high levels stress during their academic pursuits (Pierceall & Keim, 2007). Yoga and mindfulness continue to be well received within the K-16 education system, positing the notion that these two practices may provide an assortment of mind and body benefits.

Yoga, Pilates, and mindfulness captivate many individuals due to the feel-good nature they illicit (Luu & Hall, 2017; Kim et al., 2019). Health benefits from mindfulness, Pilates, and yoga span across the physical, mental, and emotional components of well-being. For instance, individuals can improve attention, minimize hyperactivity, and enhance mental health with the practice of mindful yoga (Jarraya et al., 2019; Tulloch et al., 2018). What also makes yoga, Pilates, and mindfulness alluring is the accessibility, neutrality of cost, versatility, and simplicity in using these practices (Mohanty et al., 2020). Mindfulness, Pilates, and yoga can be accessible in a variety of venues such as the internet, libraries, yoga/Pilates studios, mindfulness programs, some physical education programs, senior living communities, hospitals, and colleges. These health-enhancing practices do not require much equipment, can be practiced in many different locations, and can be performed by beginners through advanced practitioners.

As yoga, Pilates, and mindfulness continue to expand in popularity within the United States, more colleges and universities are anecdotally seeing student benefit from the use of these contemplative practices (Roeser, 2016). Although substantial amounts of research can be found using these practices in clinical settings, there is a need to study these tools with college students in an effort to promote resiliency and minimize stress.

This study explored the impact that mindful self-compassion practices (MSCP) have on college students enrolled in physical activity courses. Additionally, this inquiry looked at participant perception involving MSCP as it pertains to stress associated with the responsibilities unique to being a college student. Specifically, the purpose of this study was three-fold: 1) to examine the instructors' perceptions of a mindful self-compassion training workshop; 2) to discover the instructors' perceptions on delivering the MSCP to their students; 3) to explore the students' perceived benefits from receiving MSCP during a one-unit mindfulness-infused yoga/Pilates course.

## Methods

This qualitative study utilized an exploratory design to examine the impact of a mindful self-compassion training workshop on college instructors and students. The research comprised of two bounded cases: one college course in yoga and one in Pilates.

### Study Design

This study occurred in two phases. The first phase of the study prepared the two instructors to administer MSCP through their attendance of a mindfulness workshop (i.e., a self-compassion training). The second phase involved the two instructors delivering the MSCP to the students in their 16-week college courses. The mindfulness practices varied in length (2 to 10 minutes) and were conducted at various times during the class sessions. However, most of the mindfulness practices were conducted at the start of the class session. Purposeful selection of the instructors occurred to ensure data were collected from two different types of classes. Collecting data from two different types of kinesiology courses enabled comparisons to be made with delivery of different content. Data collection occurred towards the end of the school semester using multiple sources (i.e., interviews, questionnaires, and written assignments).

### Setting and Participants

The study occurred at a four-year public university in Southern California. Participants included

two kinesiology instructors. Pauline Wentworth (pseudonym) taught the Pilates course, while Evelyn Jones (pseudonym) taught the yoga course. Both instructors were White and middle-aged. Wentworth had been teaching the Pilates course for three years while Jones had been teaching yoga for over 20 years. Both instructors had heard of mindfulness and had tried meditation on and off for several years in their lives as a personal practice. Neither instructor had used MSCP in their teaching.

There was a total of 26 students (18 years or older) from these classes who also participated in the study. Consent forms were administered after class instruction and filled out by the student and instructor one week prior to data collection. Participation in the interview and survey questionnaire was voluntary. The third component of data collection was a four-question written assignment that was offered for extra credit in the yoga class but was a requirement for the Pilates class.

## Mindfulness Self-Compassion Workshop Training

The primary researcher created a mindfulness self-compassion workshop to provide further professional development for the two instructors on how to deliver the MSCP to their students and to learn more about mindfulness and self-compassion. Prior to the workshop, the researcher and the two instructors attended an annual mindfulness conference to better understand mindfulness concepts and prepare for the mindfulness workshop that was held two weeks prior to the Fall 2021 semester. The workshop included learning key terminology associated with self-compassion, the science of self-compassion, tips on administering MSCP, provided different techniques, and taught how to administer MSCP to others. The workshop was two hours in length.

## Data Collection

*Interviews.* Both instructors and 12 students were involved in 1-on-1 interviews. The interviews were semi-structured in format and conducted over the Zoom platform with participant consent. Interviews ranged from 15-30 minutes in length. Interviews began during the 10th week of the semester to ensure that students and instructors developed a relationship and were able to embody the MSCP. Sample instructor questions included, what was something new you learned in the workshop that benefitted your ability to lead the MSCPs? And what are your perceptions on how the students felt about the MSCPs?

Sample student questions included, what thoughts or feelings did you have after going through a mindfulness practice? And what were some benefits of doing MSCP?

*Written Assignment.* A written assignment was administered to both classes but was optional as an extra credit opportunity for the yoga class. 16 of the 26 participants completed the written assignment. A sample question from this written assignment was, what are three concepts you learned in class that you can practice as part of your morning routine or evening routine to help with rest and self-care?

*Written Questionnaire.* A series of questions were sent to students during week 10. The questions pertained to student demographics and supporting questions that consisted of details and specifics related to the research questions. This questionnaire was administered online through the platform, Qualtrics. 17 students completed the written questionnaire.

## Data Analysis

Data were analyzed using open and selective coding, along with the constant comparative method (Strauss & Corbin, 1990). The questionnaires, written assignments and both student and instructor interviews began with open coding: data within these modalities were broken down, compared, contrasted, and categorized. Data were analyzed line by line to distinguish key words and phrases that produced distinct similarities with one another. Afterwards, groups of data were labeled as themes and sub-themes. Then selective coding was used to add data to emerging themes. Data was analyzed early in the data collection process using constant comparison method.



## Trustworthiness

Establishing trustworthiness is a necessary component toward sound qualitative research (Lincoln & Guba, 1985). In order to ensure trustworthiness various techniques were used to establish credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The aforementioned criteria for trustworthiness were demonstrated through the following techniques: prolonged engagement, peer debriefing, thick description, inquiry audit, audit trail, and triangulation (Lincoln & Guba, 1985).

*Prolonged Engagement.* Relationships and rapport were established early on with the yoga and Pilates instructors by the primary investigator during a pilot study conducted in the Fall of 2020. Classroom observations also helped establish prolonged engagement. Joining the classes helped students feel more at ease with the primary investigator. This immersion led to a developed sense of social connection and trust among the participants.

*Peer Debriefing.* The primary investigator met with another qualitative researcher to analyze and interpret the data through a process called peer debriefing. Peer debriefing allowed the primary investigator to expose any researcher bias and assumptions (Lincoln & Guba, 1985). These discussions helped to scrutinize emergent themes revealed by the primary researcher.

*Thick Description.* The experiences of the participants were described in great detail, providing extensive context of the emerging phenomenon. To instill confirmability the primary investigator kept an audit trail through two methods: logged field notes into a research journal and wrote details involving the research design and implementation of the study. The two approaches were continually updated to complement the ongoing research.

*Triangulation.* To triangulate the data four sources were utilized: instructor interviews, student interviews, written assignments, and written questionnaires. Another aspect to enrich confirmability and credibility via triangulation was employing two different classes with two different contents (Pilates and yoga), and two different instructors. This strategic system of data collection led to a substantial, robust, and comprehensive triangulation of the data corpus.

## Findings

The purpose of the study was threefold: to examine the instructors' perceptions on the mindfulness workshop; to discover the instructors' perceptions on delivering the MSCP to their students; and to explore the students' perceived benefits from receiving MSCP. The follow themes and sub-themes emerged (see table 1):

**Table 1. Research Data Organized within Four Themes and Thirteen Sub-Themes**

Theme	Sub-Theme
1. Trial and error: discovering pedagogical implications for delivering mindful self-compassion practices	1.1. Discovering what worked 1.2. Acknowledging what didn't work 1.3. Receptivity coming from students
2. Students define self-compassion	2.1. Mistakes are a part of life and that's OK 2.2. Self-kindness 2.3. Self-care
3. Tools for self-compassion	3.1. Yoga/Pilates 3.2. Mindfulness 3.3. Breath work 3.4. Limiting the amount of screen time on electronic devices
4. Benefits of mindful self-compassion practices	4.1. Higher sense of self-awareness 4.2. Reduction of stress 4.3. Relaxation response

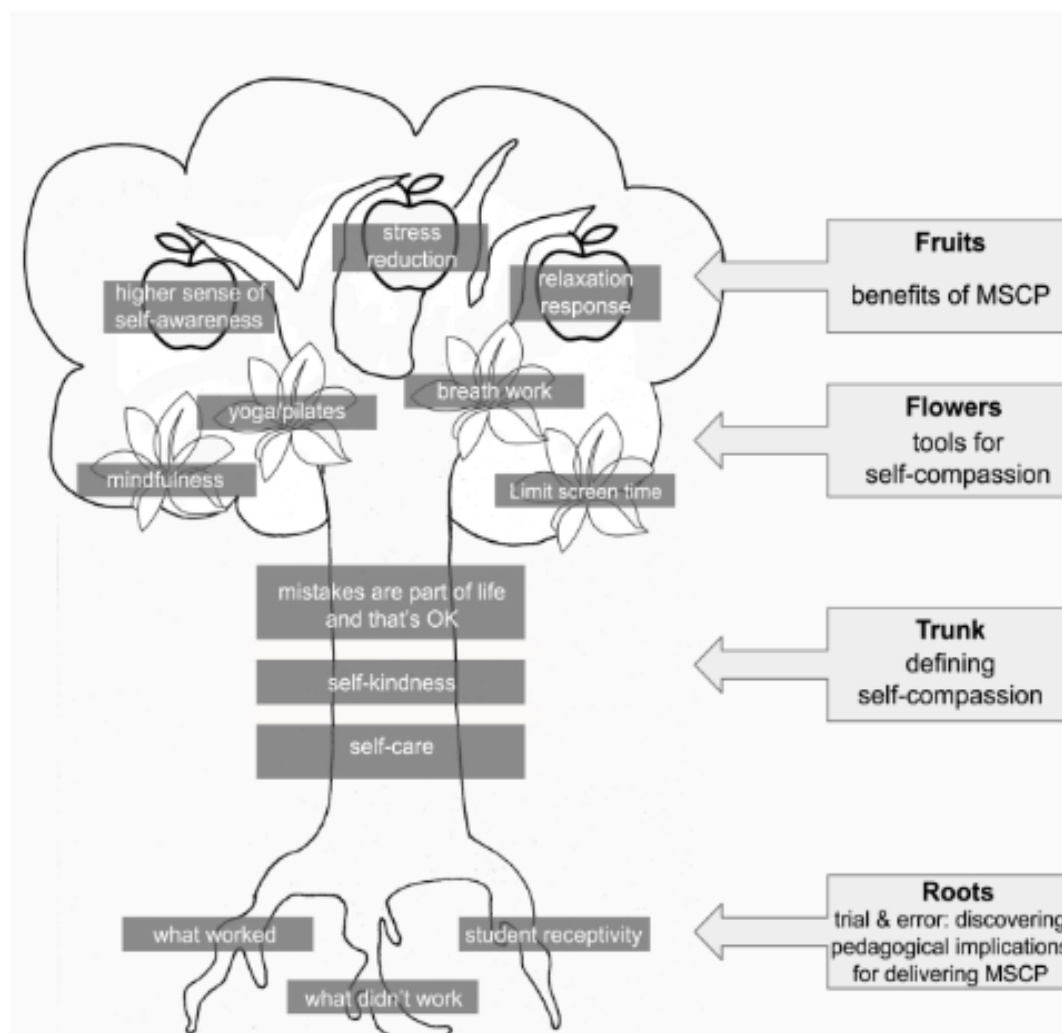
The findings have been organized through creating a metaphor of a tree and its components: roots, trunk, flowers, and fruits. Roots are the foundation of a tree, anchoring the tree into the earth for stability and to transfer nutrients to the entire organism. Like roots, the first theme (trial and error: discovering pedagogical implications for delivering MSCP) is about foundational concepts regarding instructor competency. Without basic pedagogy and comprehension of the

MSCP, proper delivery of this content would be difficult. Thus, the roots represent a base of support (i.e., the acquisition of the MSCP) for the teachers to effectively deliver this content to their students.

The second theme (students define self-compassion) represents the trunk of the tree and is based on the students' perspectives of the MSCP. The trunk is the core that provides further support for the crown of the tree which bears the fruits and flowers. Without the basic understanding of what self-compassion is, participants may not be able to identify the tools and benefits of self-compassion. With an enduring knowledge of self-compassion, students can recognize their thoughts and feelings with their experiences in order to better express how self-compassion affects their lives. Therefore, having a core definition of self-compassion creates a pathway to valuing the tools and benefits related to mindfulness and self-compassion.

The third theme (tools for self-compassion) represents the flowers of a tree. Tools of self-compassion help students bear the fruits (theme 4). Students discovered that the self-compassion tools can be used daily to manage their stress. As the fruit is the final component of the tree that contains the seeds, practicing MSCP helps students cultivate seeds of change within their lives (i.e., perceived benefits). The seed-bearing fruits (theme 4) represent the benefits of practicing MSCP on a regular basis (higher sense of self-awareness, stress reduction, and relaxation response). Figure 1 is a visual representation of the tree metaphor for further organization of the findings.

Figure 1. Findings of Themes and Subthemes Structured into a Metaphor of a Tree



The following provenances were used to track the data: instructor interviews (INST); Fall 2020 student interviews and questionnaires (IN20) (QU20), respectively; Fall 2021 student interviews and questionnaires (IN21) (QU21), respectively; and the Fall 2021 written assignment (WR). Questions that were used in the data collection and the participant the data came from are listed as "Q" and "P" respectively. An example to illustrate data from participant 7 from question 8 of the Fall 2020 interview would be listed as IN20Q8P7.

## Theme 1 Roots: Trial and Error

The mindfulness workshop was seen to be beneficial for the instructors, as they were able to explore how to deliver MSCP and discover appropriate pedagogies that would be suitable for their students. The workshop gave the instructors the opportunities to receive and practice delivering MSCP. Instructors were also able to practice and fine-tune their abilities in delivering mindfulness practices in a constructive environment that encouraged feedback from the researcher and other instructor.

### *1.1. Discovering What Worked*

Pauline Wentworth (pseudonym) discovered that the workshop worked well in helping her deliver mindfulness practices, “It was helpful for us to go through [the workshop], to walk through it and listen and be a participant—also to be the instructor and get feedback from everyone [in the workshop]” (INSTQ2P1). When asked what elements of the workshop were beneficial, Ms. Wentworth stated, “I think just walking through a few of them and listening to each other...the experiential part of it...that was the best part” (INSTQ2P1). Evelyn Jones (pseudonym) also discovered that experiential nature of the workshop helped acquire a new knowledge set indicating, “I learned different practices, like different meditation practices and how to word the prompts” (INSTQ2P2). Both instructors gained confidence in delivering the mindfulness practices from their participation in the workshop.

### *1.2. Acknowledging What Didn't Work*

Both instructors found the mindfulness workshop helped them to determine which practices might not be suitable for their classes. Ms. Wentworth said, “When we tried one particular mindfulness practice it evoked some emotions that we weren't prepared for, [so] we decided not to use that script... it was a great learning experience” (INSTQ1P1). Ms. Wentworth realized that this practice may be too emotionally intense for students. “That one we practiced where everybody got teary-eyed. I did not do that one with the students...you learn refined techniques and get to practice on your own as well” (INSTQ1P2). Ms. Wentworth understood the impact the practice might have on students who are not prepared to be vulnerable and experience a practice that may induce intense emotions. Teachers using mindfulness need to take into consideration the emotional safety of students. Starting from simple practices and progressing to more difficult or intense techniques once students are ready is pedagogically important.

### *1.3. Receptivity Coming from Students*

Both instructors acknowledged that students were receptive to the MSCP. The instructors noticed students were eager to participate in the mindfulness practices. Each instructor believed that the practices helped students with stressful life situations. Ms. Wentworth found that the MSCP that utilized affirmations had been well received by students, “We did the affirmations, ‘may I be happy; may I be healthy; may I be safe.’ [The affirmations] are really helpful for the students to stay grounded, help them focus, and improve their academics” (INSTP1). Ms. Wentworth indicated, “From what I'm seeing [in my semester evaluations], almost everyone enjoys it, and they feel that [MSCP] helped their grades. They feel that it's helped them just do better in life. They're feeling more relaxed” (INSTP1). This led her to say, “I felt [the students] were very receptive” (INSTP1). Ms. Wentworth continued to state, “I think they like [MSCP]. Ms. Jones indicated a similar sentiment, “[Students] are open to experiencing it. I didn't sense any negativity” (INSTP2). She further stated, “I think [yoga and mindfulness] together, help students cope with their stress” (INSTP2). Ms. Jones noted on several occurrences that the yoga coupled with the mindfulness practices helped students to cope with the stressors they were experiencing and bringing into class with them.

The instructors felt they were able to effectively deliver MSCP. They also acknowledged certain practices may not be appropriate for their students. Overall, the mindfulness practices seemed to be a positive experience for both instructors and their students.

## Theme 2 Trunk: Students Define Self-Compassion

An important aspect of this research was to ensure that students could conceptualize self-compassion. If students could accurately define and understand self-compassion, then a framework

would be established toward the value and identification of corresponding tools and benefits of self-compassion. Without knowing what self-compassion is as a core structure (trunk of the tree), the tools (flowers) and benefits (fruits) are more difficult to identify and become useful. Students were asked to define self-compassion in their own words. The students' responses emerged as the following themes: 1) mistakes are a part of life and that's OK, 2) self-kindness, and 3) self-care.

### *2.1. Mistakes are a Part of Life and that's OK*

Accepting mistakes or situations in life that are beyond one's control can be considered a pathway toward inner peace and self-compassion. Acknowledging that pain, failure, and feelings of inadequacy are part of the human experience allows one to move toward self-compassion. Students voiced that it's okay to make mistakes and be imperfect as part of being human. They realized it's not the end of the world; there tends to be silver linings or even solutions to their mistakes, and they almost always can move past them. Non-judgmentally confronting these difficult feelings or situations with a gentle perspective can be helpful in understanding how to be self-compassionate toward oneself. One student embodied self-compassion with the following:

One of the ways that I practice self-compassion is to realize that [unfortunate] things do happen to all of us and to realize that it's not always your fault and to realize that things are not always in your control. Do the best you can do and let that be enough. (IN21Q1P10)

Acknowledgement that mistakes and uncontrollable events are a part of life is an expressed form of self-compassion. Another student pointed out an example of herself practicing self-compassion:

I think [self-compassion] is not [being] so hard on myself. For instance, if I did not do that great on a quiz, I don't beat myself up for it. I just say that I'll try to do better next time by trying to study more or understand the topic more. (IN21Q2P7)

This student acknowledged that receiving a low score could be handled in a positive manner, and that positive self-talk could be considered self-compassion. Another participant mentioned, "I think being self-compassionate would be me telling myself, it's okay. This is part of life. You got this and just keep moving forward" (IN21Q1P1). Lingered on mistakes or events outside one's control will only perpetuate feelings of inadequacy and make one feel discouraged. Rephrasing or reframing our thoughts about an unfortunate circumstance can help with establishing equanimity, which is a proactive or healthy way to react to a difficult situation (i.e., self-compassion). By acknowledging that human beings are imperfect and make mistakes we let go of the pain and suffering associated with these life events toward a kinder gentler self.

### *2.2. Self-Kindness*

Self-kindness is "actively opening up our hearts to ourselves," where we respond to our suffering with nurturing thoughts, support and encouraging words to put an end to self-criticism (Germer & Neff, 2019, p. 17). Students can learn to be gentle and kind to themselves despite going through difficult or challenging circumstances. This sub-theme was a discovery that the participants acknowledged the practice of self-kindness through loving themselves and telling themselves soothing and affirming phrases. A common response to failure or shortcomings is to condemn, punish, or belittle self. Whereas self-kindness is an action tendency used by the participants as a way to minimize their shortcomings when facing a situation that incites self-defeating or self-limiting thoughts. Students in this study were able to recognize how negative responses could be replaced with kind thoughts (i.e., acknowledging the embodiment of self-compassion). One student defined self-compassion as it related to self-kindness:

It's being kind to yourself; it's recognizing that you do have shortcomings. You do have insecurities and things that you're working on. Self-compassion is a practice or a mindset where you recognize these shortcomings, but instead of feeling defeated you take it as a learning moment, as room to grow. (IN21Q1P10)

Students who fall short or feel insecure can be encouraged to reframe their negative views on themselves with more of a positive mindset. In regard to body image and self-criticism, students accepted their imperfections by practicing self-kindness:

If you're unable to love who you are, you're going to have issues of your self-image. You might



feel like, oh, one of my ears is too big, or little, tiny details have been blown out of proportion. But if you sit back, be like, hey, no one's perfect. You're not perfect. They're not perfect, and be like, it's okay. You don't have to be perfect. You are you, and you should love yourself for being you. (IN21Q1P8)

Students who can love themselves despite their flaws demonstrate self-compassionate thinking. One student said, "Self-compassion can be just being patient with yourself, being kind to yourself, and acknowledging that you might not be where you imagine you would be" (IN21Q2P10). By giving themselves the space for forgiveness and patience in certain circumstances, students are able to practice self-kindness. Instead of judging themselves for not being where they want to be at that moment, students practice self-compassion and give themselves grace. Another student mentioned:

When I know I've messed up like it's not necessarily like, oh I messed up and I need to move on. Instead, it is, why was it hard for me? And what can I do to get past it and not necessarily getting frustrated with myself. (IN21Q1P3)

This acknowledgement of making a mistake is not necessarily dismissing the mistake. Instead, this student dives into self-reflection as a way to break down the scenario to reframe the situation in order to be more compassionate toward herself. Through this period of self-reflection, students are able to be more cognizant and aware of what they need. This is further explained by the following participant:

Being aware of myself, my needs, and making sure I am on top of my stuff. Acknowledging that I can't be in a million places, I can't do a million things at once. I have to take a break. Being gentle with myself and my feelings, and my time. (IN21Q1P4)

By giving themselves a break or timeout, students are able to be gentle with themselves and not push themselves too hard or past their limits. They're practicing self-compassion by noticing what they need to take care of themselves.

### 2.3. Self-Care

Learning to carve out time to utilize self-care techniques, even if it means just taking a quick break, can be a form of self-compassion. Taking actions and making decisions that promote and cultivate health is a broad definition of self-care (Bilodeau, 2021). For example, physical fitness and sound mental health can be improved with exercise, while having a healthy diet, practicing good hygiene, and preventing injury can also be forms of self-care (World Health Organization, 2009). This means that self-care can be any activity or ritual that nourishes and nurtures the mind and restores and rejuvenates the body. This sense of balance and alignment defines a state of equilibrium where one is able to effectively manage life with calmness and ease. Life's stressors become more manageable when utilizing self-care techniques that can invite clarity of mind and relaxation in the body. The students in this study indicated that self-care is a form of self-compassion. One participant's interpretation of self-care involved doing activities that nourish her, "Self-compassion is really taking care of myself—self-care, and just doing things that soothe me and help with how I'm feeling" (IN21Q2P4). Another individual went a step further and mentioned that self-care techniques are necessary to be able to take care of his body, "Self-compassionate means caring for myself, trying to think of ways to de-stress or take care of my body, physically, mentally, emotionally, physically" (IN21Q1P9). An important aspect for self-care is finding the time to practice healthy habits:

It's okay to work on myself.... I love helping people, but I do think that I need to set my time apart and be like, this is my time. This is time for me to mentally, physically, emotionally, gather myself, regroup, and take a deep breath. (IN21Q1P2)

Self-care requires setting aside the time to focus on nurturing behavior and giving oneself the necessary space to restore and regroup as a way to practice self-compassion. "Doing nice things for yourself every now and then and making that a habit" (IN21Q2P5). Self-compassion through self-care can be viewed as a restorative health strategy for students. As stated by one participant, "When I take a break from school and just do things that I enjoy, I can get back on track... ..taking time out to refresh and restore" (IN21Q2P7).

Overall, theme 2 illustrated that students were able to define self-compassion as a conscious realization that making mistakes is ok and part of life. Students also defined self-compassion as practicing forms of self-kindness (through thoughts and affirmations) and self-care (through action and



behavioral practice).

### Theme 3 Flowers: Tools for Self-Compassion

The students in this study believed that their yoga/Pilates course provided an assortment of skills to practice self-compassion. Specifically, four sub-themes emerged as tools in helping students become self-compassionate: 1) elements of yoga/Pilates activity, 2) mindfulness, 3) breath work, and 4) limiting screen time and use of devices. Additionally, these tools made an impact on their ability to handle stress. Many students decided that they would like to continue implementing these tools in their lives once the course ended.

#### 3.1. *Yoga/Pilates as a Tool*

Students understood the stress-reducing benefit of participating in a yoga/Pilates course. The following participant used yoga as a means to elicit equanimity, "When I am running to work, I am stressed and anxious and I'm trying to get there. The days when I have yoga, my whole day is just calm" (IN20Q6P2). While this student mentioned stress from work, another student mentioned using yoga to reduce stress from school, "I tend to get stressed and anxious very easily, especially in school. By participating in yoga, I felt myself able to relieve stress and... ..do something for my mental health and well-being" (QU20Q9P17). Regardless of the stressor present in the students' lives, yoga/Pilates helped them find peace and calmness within their busy schedules. One student realized that she could apply what she learned in class to her life outside of the classroom, "If I'm ever stressed and don't know how to handle it, I can just roll out my Pilates mat and do some of the exercises that I learned in class. [This] will help lower my stress levels" (WRQ3P18). A student from the yoga class explored postures that helped her when she felt stressed, "I can do yoga for a couple of minutes every day or when I feel stressed..." (WRQ3P19). One student acknowledged the benefits of the activity course when it came to stressful situations, "Pilates allows you to feel at peace and relieves you of any stressful thoughts intruding on your mind" (WRQ4P18). Overall, students did develop a positive affinity toward the yoga/Pilates course content as well as the mindfulness practices. As indicated by one student, "Pilates and mindfulness are a match made in heaven and something I want to continue doing it even if it's just for the mental break" (WRQ4P11).

#### 3.2. *Mindfulness as a Tool*

Students learned that they could use mindfulness practices to help them lead healthier lives. One participant described the desire to use self-compassion practices as a method to manage stress, "I would likely use self-compassion techniques every day. Stressors from work and life are always present, so having techniques at hand to help manage [stress] is very much beneficial to my wellness" (QU21Q15P10). Another student also realized the importance of effectively managing stress through mindfulness, "It is very helpful when you have a lot going on. For me my main troubles are school, and a few family issues but I learned to de stress all of that with mindfulness" (QU21Q14P7). The following student developed a better sense of how to manage daily stress by participating in the mindfulness practices:

In the last 10 weeks I have seen the reflection on my mind and my body as a positive with mindfulness. Although I still have the same stress, I seem to manage it a lot better without even recognizing the habits I have developed. And because the habits have been so productive... ..it makes me productive and the best version of myself. (QU21Q15P2)

This student was able to build better habits from learning about mindfulness, which she believed would improve her daily life. One participant said, "I think [mindfulness practices] were beneficial. Times are stressful for many people right now and having time to dedicate to relaxation can be something that can have a substantial impact on wellbeing" (QU20Q13P8). The simplicity of mindfulness makes it easier for students to integrate self-compassion at any time of the day, "This class has shown me how to incorporate a little bit of mindful self-compassion into my day. This doesn't have to be a full blown 30-minute meditation and can be as simple as speaking kindly towards yourself" (WRQ3P12). The accessible nature of mindfulness makes it a great tool for students to utilize during stressful situations outside the classroom.

### *3.3. Breath Work as a Tool*

Breathing techniques helped students take a moment to calm themselves down from the stressful they were bringing into the class. Students were able to pause, remain still, and focus on their breathing to help with feelings of being overwhelmed. The quick accessibility of utilizing breathing as a way to manage stress makes it an accessible tool for students to incorporate in their daily lives. As one student mentioned, "One of the concepts that I learned in class that I can try to incorporate into my daily routine is breathing. ...[breathing] has helped me find calmness and re-center myself" (WRQ1P20). She was able to reframe perceived stress and create a peaceful mindset by incorporating the breath in yoga class. As one student added, "If I start to feel like I am getting too stressed I can take a step back and take a few breaths to calm myself and then I can better think about what is going on" (WRQ3P15). The breath work brought mental clarity to this student. Another student indicated, "The breathing exercises... ...can be done at any time, and it has really helped me understand where my feelings of stress are coming from instead of simply freaking out and allowing my emotions to get in the way" (WRQ1P12). This student emphasized the simplicity and accessibility of using the breath at any moment when discomfort arose in her life. She used the breath as a tool to regain her bearings from recognizing being in a stressful state. The following student also acknowledged how breathing could be used to self-regulate, and felt compelled to use this tool beyond the course:

I know I can potentially be stressed, unmotivated, and angry. I know that those moments need for us to self-regulate, so I will be using breathing techniques in my daily life to better manage some bad situations I may run into. (WRQ3P3)

The students recognized the power of breath work. When asked by the researcher, "What did you learn to effectively manage stress," the participant responded by saying, "Breath, breath, and again breath, not enough importance on how one's breath can do wonders" (QU21Q14P8). Students benefited from the tool of breath work, as it was an important element for them to handle stressful situations. The breath was seen as an essential mental health tool.

### *3.4. Limiting the Amount of Screen Time on Electronic Devices as a Tool*

Many students felt they spent too much time on electronic devices. The students believed that the time on their devices seemed to diminish their well-being and felt that it had little benefit to their day. They realized that screen time can be a distraction that could be minimized to make space for something socially and emotionally healthier. Most students acknowledged that the skills they learned in the yoga/Pilates class could replace the screen time and be a healthier alternative. One student said:

If I were to remove one thing from my everyday schedule for rest and self-care it would be being on my phone. At times I find myself scrolling for too long and realize that it has not benefited me in any way, shape, or form. (WRQ1P13)

This student realized that she spent a significant amount of time doing an activity that doesn't serve her. The student believed that the act of mindlessly scrolling through social media feeds took away from her well-being. She acknowledged that removing this from her day could create more space for using skills from her course. Another student mentioned how distracting social media platforms are:

I find myself picking up my phone more often than I would like to admit. There are so many platforms to use, and they are all so distracting. Whenever I remove them from my day, I find myself feeling happier and fulfilled. (WRQ1P21)

When these distractions are removed, well-being is perceived to improve for students. The following student adds that removing social media from her day could be replaced with meditation, "Instead [of checking my phone], I should meditate or start off my morning reflecting on the day and my feelings" (WRQ1P7). Students acknowledged the fact that time spent on social media and other electronic devices can be omitted from their day and be replaced with self-care practices. Another student said, "I do tend to spend a lot of time scrolling on my social media and I can definitely exchange some of that time for meditation" (WRQ1P16).

The yoga/Pilates class provided students with tools to promote self-compassion. Mindfulness practices and breath work help students to embody self-compassionate thinking and follow healthier behavior. With the knowledge and acquisition of these four tools (elements of yoga/Pilates, mindful-

ness, breath work, and reduction of screen time), these students believed they could lower stress and create healthier lifestyles.

## Theme 4 Fruits: Benefits of Mindful Self-Compassion Practices

Students were receptive and perceived authentic benefit from participating in the MSCP during the semester. Students seemed to describe the mindfulness portion of class as a positive experience that added value to their lives. Benefits from practicing MSCP ranged from taking time out to focus on 1) themselves and not on anyone else (i.e., acknowledging higher sense of self-awareness), 2) reducing stress, and 3) initiating relaxation.

### 4.1. Higher Sense of Self-Awareness

Students practicing MSCP felt more connected to themselves and developed a higher sense of self-awareness. Through mindfulness, students were able to reflect on their current situation and began to notice bodily sensations and mental chatter going on in the present moment. For example, one participant mentioned the awareness of their negative thoughts:

There's a knee-jerk reaction to have stress and anxiety coming in versus slowing down. You breathe and then you say, it's not that bad or there are ways to fix this. Don't be too hard on yourself. Keep moving forward. (IN21Q6P1)

Upon realizing the thoughts of negativity, the student was able to utilize mindfulness to shift into self-compassionate thinking. Likewise, the following student was able to transform what he was thinking with mindfulness. In doing so, he cultivated self-compassion for the situations he was fixating on, thus, reducing his stress levels:

The mindfulness helps you acknowledge your thoughts and emotions in the moment... ...and begin to do self-compassion. The mindfulness practice helped me realize I'm feeling very stressed out today.... Now, I can begin a process... ...I can take steps to help reduce that stress. (IN21Q6P10)

Another student was able to acknowledge that the time spent doing MSCP was a moment to focus on herself, understanding that she only has to be aware of this moment, "It's just me: I don't have anybody else surrounding me. It's my time... it's those 15 minutes where it's for myself...I need this. I need to reload, reset, restart" (IN21Q6P2). Another student similarly pointed out, "[mindfulness] helped me focus on my breathing and focus on me, totally on me, because I feel like I don't think of myself at all, but for others. That really helps me get in tune with myself" (IN21Q6P4). Students benefitted from generating a better sense of present moment awareness because they were able to nonjudgmentally observe what they were thinking and stay more grounded in the here and now, rather than getting caught up in something that had happened in the past or an item going to occur the future.

### 4.2. Reduction of Stress

*Many students found the MSCP as a tool to reduce stress. The act of mindfulness allowed students to be more compassionate toward themselves and their situations, which ultimately led to the reduction of stress, "I think the mindfulness made me feel more compassionate towards myself because it helped me de-stress with schoolwork. ...it allowed me to give me some time to myself" (IN21Q6P7). Another student discussed the multitude of work she must deal with, but slowing down through mindfulness has helped her get through the day with less stress:*

*I still have the same amount of work to do but the class just made me realize that it's okay to slow down; it's okay to take a minute and just breathe and think about things. I don't need to be so stressed about some things. I learned how to slow down. I still have a lot on my plate, but I feel like I deal with it better. I know how to manage better now. (IN21Q8P4)*

*Engaging in mindfulness helped her reframe her situation, to not move so fast, and to become more present by taking time to breathe and pause for a moment. The participants in this study discovered that MSCP helped them become calmer, which improved their perception in tackling the rest of the day. The students felt that utilizing mindfulness reduced stress and added more positivity into living life.*

### 4.3. Relaxation Response

Through mindfulness, students could relax their minds and bodies and let go of control. The mindfulness practices helped them become relaxed and loosen the grip of incessant thoughts or the effect that other people had on them. For the following student, she was able to reach a peaceful state of mind by relaxing herself through mindfulness, "I felt fully relaxed. I felt like I was finally in a peaceful state so you can take your mind off of what's been going on..." (IN21Q6P11). This participant was able to let go of over-thinking and focus on a calm, clear mind. Another student also felt at peace and was able to focus on his breath during mindfulness in order to relax:

I learned that I enjoyed [mindfulness] and that it is necessary for me to take the time and just relax. It is good for everyone to just take time, and just be at peace. It did benefit me to take that time away and focus and meditate on my breath. (IN21Q7P5)

Taking time out to practice mindfulness, even for just a few minutes, was beneficial for students to reach a state of equanimity. Mindfulness helped students focus on relaxing, instead of other situations and people:

I was able to relax for a minute, and I walked out of class and felt very calm, which is really nice.

I feel like it let me focus on just myself and what I'm doing. I just check in with only myself, and I don't care about everything around me. (IN21Q8P11)

Mindfulness helped this student focus on the present moment, empowering her to feel calmer and more relaxed. The MSCP helped create opportunity for students to enter into a state of relaxation, and for them to realize how important it was to experience this state of mind.

Students in this study were aware of the rejuvenating benefits that the MSCP produced. Students cultivated a higher sense of self-awareness, were able to reduce their stress, and became more relaxed. Students felt that MSCP were a crucial component toward their quality of life and overall well-being.

## Discussion

One purpose of the study was to examine instructor perception on the mindfulness workshop and to discover the instructors' perceptions on delivering the MSCP to their students. Additionally, the aim was to explore the students' perceived benefits from receiving MSCP. The four themes that emerged from this study represent a metaphor of a tree, which includes the roots, trunk, flowers, and fruits (figure 1). The students in this study perceived the MSCP as impacting their sense of self-awareness, reduction of stress, and experiencing relaxation.

### Mindful Self-compassion Training Workshop

There was evidence that the instructors benefitted from attending a workshop led by the primary researcher. Both instructors in our study (Wentworth and Jones) found the workshop to be highly useful and relevant, as they learned what worked and what didn't in regard to teaching MSCP. This finding aligns with other types of studies where professional development training on mindfulness was advantageous for teachers using these practices (Crane et al., 2020; Marx & Burroughes, 2019). Going through the workshop helped the instructors become more confident in delivering MSCP because they had the chance to practice and reflect on the content and their pedagogical decisions for delivery to their students.

Through participating in the mindfulness workshop, both professors received feedback after they each delivered a MSCP to the group. Being trained in leading mindfulness practices was found to be advantageous for both instructors in helping them develop stronger content knowledge and pedagogical delivery. Wentworth and Jones utilized the feedback at the workshop to adjust their delivery of the MSCP to their students. After practicing their delivery of one MSCP during the workshop, Wentworth and Jones eliminated a practice from the curriculum, as they realized a potential emotional safety concern (i.e., potential to elicit an intense emotional or traumatic experience).



## Reaction to the Mindful Self-compassion Practices

Practicing self-compassion alone may not necessarily reduce stress (Kroshus et al., 2021). However, the combination of yoga/Pilates and MSCP in this current research did help induce an overall feeling of relaxation and stress reduction. Infusion MSCP with yoga/Pilates may be an intriguing strategy to help students develop self-compassion towards stress reduction and improved relaxation. Students also indicated they would utilize other tools, such as MSCP, for stress management in situations outside the class. Our study aligns with other findings which indicate that students who practice mindfulness would be able to lower stress levels (Kanchibhotla et al., 2021).

Self-compassion involves acknowledgement that being human comes with being flawed and imperfect, and that we can learn from our mistakes (Neff & Germer, 2013; Neff & Vonk, 2009). Our study illustrates that students understand that mistakes are a part of life, and that's okay. Consistent with other empirical research, the participants in this study related the use of MSCP as a way to cultivate self-compassionate thoughts and feelings (Dariotis et al., 2016a; 2016b; Thomas & Centeio, 2020; Villate, 2015). The participants in our study perceived a higher sense of self-awareness from the MSCP and lower perceived stress.

One interesting finding pertained to the idea that students would like to continue to practice mindfulness and other elements of the yoga/Pilates class by minimizing screen time on electronic devices. Many students voiced their opinions that they spent too much of their time using electronic devices and scrolling through social media platforms and planned to be more conscious in reducing and monitoring their time.

## Limitations

Using case study methods does create some limitation, as these findings lack generalizability. Thus, the benefits from the use of MSCP may not extend outside and beyond the scope of these particular participants. However, "some of the best and most famous case studies have been explanatory case studies" that do serve to illuminate what and how best practice could be in similar contexts (Yin, 2014, p. 7). Another limitation with transferability toward similar populations was the lack of specific demographic information collected about the university students (e.g., age, race, gender).

Access to a skilled and experienced mindfulness instructor to lead the instructors through the mindfulness workshop presented as a limitation. Although instructors benefitted from the workshop, the researcher who led the workshop had some experience teaching mindful self-compassion practices but was not considered an expert on this topic. Another limitation is that data were only collected for a one-semester course in which the classes were only offered once or twice a week. The low number of classes and low frequency in completing the self-compassion practices may have limited the potential of these techniques. Finally, the offering of the written assignment as voluntary extra credit versus a required assignment may have also impacted the responses obtained from this data collection method.

## Implications and Final Remarks

Further research and replication studies should be conducted to address the limitations of this study. Recruiting an instructor who is highly experienced in MSCP to lead the mindfulness training workshop is also suggested. The mindfulness workshop for the instructors was an excellent opportunity for these teachers to practice their delivery of the mindful self-compassion practices. Instructor training on how to deliver MSCP helped the participants practice and acquire self-care techniques toward better health and well-being. We recommend other yoga/Pilates instructors receive similar professional development as a means to introduce MSCP and as a potential way to create or modify instructional tasks for students. Implementing MSCP for other subject areas outside of yoga/Pilates should also be considered. This study sought to explore the benefits of self-compassion within the lens of mindfulness and yoga. Students found the MSCP helpful for managing stress while acknowledging self-compassion and use of self-care techniques. The findings add to the body of

research pertaining to the link between self-compassion and stress-relief through mindfulness while participating in yoga/Pilates.

## REFERENCES

- Bilodeau, J.G.M. (2021, October 21). Self-care and health care. Health Canada. <https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2021/10/self-care-and-health-care.html>
- Crane, C., Ganguli, P., Ball, S., Taylor, L., Blakemore, S.J., Byford, S., Dalgleish, T., Ford, T., Greenberg, M., Kuyken, W., Lord, L. Montero-Marin, J., Sonley, A., Ukoumunne, O.C., & Williams, M.G. (2020). Training school teachers to deliver a mindfulness program: Exploring scalability, acceptability, effectiveness, and cost-effectiveness. *Global Advances in Health and Medicine*, 9, 1-15. <https://doi.org/10.1177/2164956120964738>
- Dariotis, J.K., Cluxton-Keller, F., Mirabal-Beltran, R., Gould, L.F., Greenberg, M.T., & Mendelson, T. (2016a). The program affects me 'cause it gives away stress": Urban students' perspectives on stress and a school-based mindful yoga intervention. *Explore*, 12(6), 443-450. <https://doi.org/10.1016/j.explore.2016.08.002>
- Dariotis, J. K., Mirabal-Beltran, R., Cluxton-Keller, F., Gould, L. F., Greenberg, M. T., & Mendelson, T. (2016b). A qualitative evaluation of student learning and skills used in a school-based mindfulness and yoga program. *Mindfulness*, 7(1), 76–89. <https://doi.org/10.1007/s12671-015-0463-y>
- Garett, R., Liu, S., & Young, S. (2017). A longitudinal analysis of stress among incoming college freshmen. *Journal of American College Health*, 65(5), 331–338. <https://doi.org/10.1080/07448481.2017.1312413>
- Germer, C., & Neff, K. (2019). Teaching the mindful self-compassion program: A guide for professionals. The Guilford Press.
- Jarraya, S., Wagner, M., Jarraya, M., & Engel, F.A. (2019). 12 weeks of kindergarten-based yoga practice increases visual attention, visual-motor precision and decreases behavior of inattention and hyperactivity in 5-year-old children, 10, 796-806. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2019.00796>
- Kanchibhotla, D., Subramanian, S., & Kaushik, B. (2021). Association of yogic breathing with perceived stress and conception of strengths and difficulties in teenagers. *Clinical Child Psychology and Psychiatry*, 26(2), 406–417. <https://doi.org/10.1177/1359104521994633>
- Kim, S., Shim, J., & Han, G. (2019). The effect of mind-body exercise on sustainable psychological wellbeing focusing on pilates. *Sustainability*, 11, 1977. <https://doi.org/10.3390/su11071977>.
- Kroshus, E., Hawrilenko, M., & Browning, A. (2021). Stress, self-compassion, and well-being during the transition to college. *Social Science & Medicine*, 269. <https://doi.org/10.1016/j.socscimed.2020.113514>
- Leger, K. A., Charles, S. T., & Almeida, D. M. (2018). Let it go: Lingering negative affect in response to daily stressors is associated with physical health years later. *Psychological Science*, 29(8), 1283–1290. <https://doi.org/10.1177/0956797618763097>
- Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic Inquiry*. Sage Publications.

- Luu, K. & Hall, P.A. (2017). Examining the acute effects of hatha yoga and mindfulness meditation on executive function and mood. *Mindfulness*, 8, 873–880. <https://doi.org/10.1007/s12671-016-0661-2>
- Marx, R. & Burroughes, L. (2019). An evaluation of a new programme training mindfulness teachers to deliver non-eight week adapted mindfulness-based interventions. *OBM Integrative and Complementary Medicine*, 4(1), 1-19, <https://doi.org/10.21926/obm.icm.1901009>
- Mohanty, S., Sharma, P., & Sharma, G. (2020). Yoga for infirmity in geriatric population amidst COVID-19 pandemic: Comment on "Age and Ageism in COVID-19: Elderly mental health-care vulnerabilities and needs". *Asian Journal of Psychiatry*, 53, 102199. <https://doi.org/10.1016/j.ajp.2020.102199>
- Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of Clinical Psychology*, 69(1), 28–44. <https://doi.org/10.1002/jclp.21923>
- Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: two different ways of relating to oneself. *Journal of Personality*, 77(1), 23–50. <https://doi.org/10.1111/j.1467-6494.2008.00537.x>
- Pierceall, E.A. & Keim, M.C. (2007). Stress and coping strategies among community college students. *Community College Journal of Research and Practice*, 31(9), 703-712, <https://doi.org/10.1080/10668920600866579>
- Roeser, R. W. (2016). Mindfulness in students' motivation and learning in school. In *Handbook of Motivation at School: Second Edition* (pp. 385-407). Taylor and Francis Inc.. <https://doi.org/10.4324/9781315773384>
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications, Inc.
- Thomas E.M. & Centeio, E.E. (2020). The benefits of yoga in the classroom: A mixed-methods approach to the effects of poses and breathing and relaxation techniques. *International Journal of Yoga*, 12, 250-254. [https://doi.org/10.4103/ijoy.IJOY\\_76\\_19](https://doi.org/10.4103/ijoy.IJOY_76_19)
- Tulloch, A., Bombell, H., Dean, C., & Tiedemann, A. (2018). Yoga-based exercise improves health-related quality of life and mental well-being in older people: a systematic review of randomised controlled trials. *Age and Ageing*, 47(4), 537–544. <https://doi.org/10.1093/ageing/afy044>
- Villate, V. (2015). Yoga for college students: An empowering form of movement and connection. *Physical Educator*, 72(1), 44-66.
- World Health Organization (2009). *Self-care in the Context of Primary Health Care: Report of the Regional Consultation, Bangkok*. World Health Organization.
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage Publications.