The Pilates Method and Its Relationship to Physical and Mental Awareness: A Phenomenological Study

by

Alison Shane Bird

Honors Thesis

Appalachian State University

Submitted to the Department of Theatre and Dance in partial fulfillment of the requirements for the degree of Bachelor of Arts

May, 2018

Approved by:

Marianne Adams, M.F.A., Thesis Director

Carolyn Edy, Ph. D., Second Reader

Marianne Adams, M.F.A., Departmental Honors Director
Abstract

This is a phenomenological study based on a daily practice of the Pilates method. The Pilates method, originally known as Contrology, was created by Joseph H. Pilates in the 1920s. The research question, “Will a daily practice of the Pilates method and journaling before and after each daily practice increase my awareness of my physical and mental body?” To record my experiences with the Pilates method, I journaled before and after each daily practice. I also kept track of my mindfulness using the Mindful Attention Awareness Scale, which showed a gradual increase throughout the process. The analysis of my journal led to four main themes, a decrease in lower back pain, an increase in body awareness that, in turn, led to a change in body image, an increase mindfulness and an increase in maintaining a present state of mind.

Keywords: Pilates, Mindfulness, Lower Back Pain, Present Mind, Body Awareness and Phenomenological Study.
The Pilates Method and its Relationship to Physical and Mental Awareness: A Phenomenological Study

The Pilates method, originally called "Contrology," or the art of control was created by Joseph Hubertus Pilates in the 1920s for the purpose of rehabilitation (Adams, Caldwell, Atkins & Quin, 2012). The Pilates method focuses on trying to attain a complete coordination of body, mind and spirit (Adams, Caldwell, Atkins & Quin, 2012). The Pilates method stipulates that as a participant, you must "concentrate on the correct movements each time you exercise, lest you do them improperly and thus lose all the vital benefits of their value" (Pilates & Miller, 1945/1998).

In order for participants to be able to concentrate on the correct movements, they need to have a sense of awareness of what the body and mind are doing. This study revolves around the research question, "Will a daily practice of the Pilates method and journaling before and after each daily practice increase my awareness of my physical and mental body?" This research is a phenomenological study based on personal experience with a daily practice of the Pilates method and journaling to track realizations and awareness that occurred in regard to my mental and physical body. A phenomenological study is the focus on a person’s experience in regard to some subject and on their interpretation of those experiences. It attempts to understand people’s perceptions, perspectives and understandings of a particular situation, in this case, my experience practicing the Pilates method and journaling before and after each practice.

I chose to research the Pilates method because of my interest in the subject matter and my goals as a dance major. I decided to use a journal as a means of collecting data because I wanted to incorporate my writing skills from my second major, journalism. I am interested to learn more about myself because I feel as though in school there is a focus on learning about life but not a
focus on learning about ourselves. All of these factors led me to my focus of the Pilates method and its possible relationship to increasing physical and mental awareness.
Review of Literature

The Pilates Method

In order to understand what the Pilates method was I had to first understand Pilates’ beliefs and philosophies which I learned through his books, “Your Health,” and “Return to Life.”

In “Return to Life,” Joseph Pilates introduces his method which he first referred to as Contrology.

Contrology is the complete coordination of body, mind and spirit. Through Contrology you first purposefully acquire complete control of your own body and then, through proper repetition of its exercises, you gradually and progressively acquire that natural rhythm and coordination associated with all your subconscious activities. ... Contrology develops the body uniformly, corrects wrong postures, restores physical vitality, invigorates the mind, and elevates the spirit. (Pilates, 1945/1998).

One of the twenty statements that Pilates said represented his method is, “Only through the attainment of perfect balance of mind and body can one appreciate what really constitutes normal health” (Pilates, 1934/1998). He also described what a balance of body and mind was and why he believes it is vital to us.

It is the conscious control of all muscular movements of the body. It is the correct utilization and application of the leverage principles afforded by the bones comprising the skeletal framework of the body. It is a complete knowledge of the mechanism of the body and a full understanding of the principles of equilibrium and gravity as applied to the movements of the body in motion, at rest and in sleep. (Pilates, 1934/1998).

Pilates’ book, “Return to Life,” ends with descriptions of all of the Pilates mat exercises and images of Pilates doing each movement. This is important because it gave me new perspectives and information from the original creator for each movement that I had previously learned from other Pilates’ instructors.
The next portion of the literature review will discuss research related to the major themes that appeared a multitude of times throughout my journal entries. The major themes included lower back pain, body awareness, mindfulness and the ability to stay present.

**Lower Back Pain and its Relation to the Pilates Method**

A decrease in lower back pain has been anecdotally connected to the Pilates method because of its ability to increase stability in the abdominal muscles. In his study, “Epidemiology of Low Back Pain,” Manchikanti estimated that Lower Back Pain (LBP) “can be found in between 8 percent and 56 percent of the population in the United States” (2000). He also estimated that “28 percent experience disabling low back pain sometime during their lives, 14 percent experience episodes lasting at least two weeks, 8 percent of the entire working population will be disabled in any given year, and the lifetime prevalence of low back pain is 65 percent to 80 percent” (Manchikanti, 2000).

In their quantitative study, Hodges and Richardson researched the inefficient muscular stabilization of the lumbar spine associated with LBP and how that relates to the transversus abdominis, the abdominal muscle that is engaged during the Pilates method. They found that LBP is caused by dysfunction and weakness in the deep abdominal muscles (1996). Hodges and Richardson later discovered that exercises that focus on the stabilization of low back muscles reduce pain in LBP patients (1999).

La Touche, Escalante and Linares’ qualitative study, “Treating non-specific chronic low back pain through the Pilates Method,” also showed positive effects of those exercises, including “improved general function and reduction in pain when applying the Pilates Method” (2007). In another study, Leger, Rydeard and Smith, found “significant improvements in mean average pain intensity,” in regard to LBP (2006). The study showed that by “addressing neuromuscular control
mechanisms is effective in decreasing pain and improving function in an identified group with nonspecific chronic LBP” (Leger, Rydeard & Smith, 2006).

**Future-Oriented Thinking and Present State of Mind**

I was curious whether the Pilates method would increase my ability to maintain a present state of mind by focusing on the movements and how it related to future-oriented thinking. In the study, “Goal constructs in psychology: Structure, process and content,” Austin and Vancouver discussed goals and how they change the way we think. “Goals are defined as internal representations of desired states” (Austin & Vancouver, 1996). Goals are a part of the definition of future-oriented thinking, which is “our plans, goals, daydreams, aspirations, hopes, worries, predictions, expectations and various scenarios through which these potential outcomes may or may not be realized” (Aspinwall, 2006).

One definition of mindfulness is, “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally,” (Kabat-Zinn 1994). A present state of mind is only possible if there is active mindfulness while practicing the Pilates method.

**Mindfulness**

Mindfulness is described by Germer as, “a deceptively simple way of relating to experience” (Germer, 2005). Germer also stated that the benefits “are a greater understanding of the conditioning of our mind and an awareness of our current surroundings so that we may experience it in an alert and relaxed way (2005). In their study, Kennedy and Resnick noted that, “physical activity associated with mindfulness may also help with behavior change along with the activity in and of itself helping to increase physical activity (2015).

The Mindful Attention Awareness Scale (MAAS) was created by Brown and Richard in their study on mindfulness. It is a “15-item scale designed to assess a core characteristic of
dispositional mindfulness, namely, open or receptive awareness of and attention to what is taking place in the present” (Brown & Richard, 2003). In order for the questionnaire to be accurate, the authors state that the questions should be answered to reflect your actual experience “rather than what you think your experience should be.” The scale is 1 to 6 and these numbers represent how frequently or infrequently an experience occurs (Brown & Richard, 2003). In order to get the results, the score must be added up and divided by 15 to get the mean.

In a study done by Connolly, the results showed that “levels of mindfulness did indeed go up significantly in those who participate in Pilates programmes in comparison with those who didn’t” (2012). Those that did not participate in Pilates had an average mean of 2.77 on the MAAS scale, while those that did practice Pilates once a week or more had an average mean of 3.12 on the MAAS scale (Connolly, 2012). This was a 0.35 average mean difference.

In another paper that notes the relationship between the Pilates method and mindfulness, Caldwell, Harrison, Adams, Quin and Greeson researched whether “mindfulness increased through participation in movement-based courses and whether changes in self-regulatory self-efficacy, mood and perceived stress mediated the relationship between increased mindfulness and better sleep,” (2010). Their results concluded that movement-based courses, such as Pilates, did increase mindfulness.
Method

To answer the research question, “Will a daily practice of the Pilates method and journaling before and after each daily practice increase my awareness of my physical and mental body,” I utilized personal experience and various readings. To collect data, I practiced the Pilates mat work from June through the third week in August every day for 25 to 45 minutes. Using the mat work I started off with the basic level and then started adding exercises up to the advanced exercises. Once I had a solid month of data to use as my base line, I started to experiment with going back and forth between the beginner, intermediate and advanced mat work levels.

For the remainder of August and September, I went through a mixture of mat work and apparatus work. For the apparatus work, I started with the basic level reformer then continued to the advanced level and added various other pieces of equipment I was knowledgeable on, such as the Cadillac and the Reformer. The Cadillac consists of a bed and other elements connected along the bar frame such as, leg springs, arm springs, a push-through bar and a trapeze. The Reformer consists of a carriage that moves back and forth along tracks within a frame; the resistance is created by four springs attached to the frame and the carriage.

Once I had three weeks of solid data I started to experiment, just as I had done with the mat work. Because school also started up at this point I decided to add another element of going through the work with a friend to see how my focus and self-awareness would change. I also added a few “skip” days to see if these had any effect on my awareness of my body and how they affected my body. The eight skip days were random and I took these either once or twice a week but never more than that.

To keep track of data I used a journal and wrote entries prior to the daily practice and after the daily practice. The journal entries, totaling 228, were on average a page in length and
described how I was feeling and what I was aware of regarding my physical, mental and spiritual state. I waited until the daily practice portion of my study ended to go through my journals and track what I had experienced. To track what was happening in my journal I underlined and highlighted similarities or key words that appeared multiple times, and these became the major themes.

To gauge how my mindfulness would change during this process I used the Mindful Attention Awareness Scale. I discovered this scale at the beginning of my research process and decided to use it as a way to track my mindfulness. I took this questionnaire at the beginning of each month and recorded my scores in a chart. In order to get the results, the total score must be divided by 15 to get the mean.

Once all of the data were collected, I then began to research articles and studies revolving around the major themes that appeared in my study.
Results

When analyzing my journal entries, I found four underlying themes that appeared a multitude of times: a reduction in lower back pain, an increase in body awareness that led to a more positive body image, an increase in mindfulness and an increase in the ability to stay in the present moment. The reduction in lower back pain was a physical change, while the increase in positive body image, mindfulness and the ability to stay present were mental changes. In regard to the research question “Will a daily practice of the Pilates method and journaling before and after each daily practice increase my awareness of my physical and mental body?” these themes showed that a daily practice of the Pilates method did increase my awareness of my physical and mental body.

Lower Back Pain Reduced

The physical common thread that I found was the difference in the pain of my lower back before and after each daily practice of the Pilates method. I constantly struggle with lower back pain but after each daily practice of the Pilates method, I noticed the pain reduced. Lower back pain (LBP) is defined as pain that is centered between the twelfth rib and the inferior gluteal folds (Egle and Nickel, 2008). In his study, “Epidemiology of Low Back Pain,” Manchikanti estimated that Lower Back Pain (LBP) can be found in up to 56 percent of the U.S. population (2000). I am included in this percentage because for almost eight years I have had LBP that has escalated in frequency and intensity.

The Pilates method has a variety of exercises that target the trunk extensor muscles, restoring the function of the lumbar spine and preventing the onset of LBP (Marés, Batista de Oliveria, Piazza, Preis and Neto, 2012). The strengthening of the abdominal muscles also stabilizes the muscles of the spine and the lumbosacral region (Curi, 2009). Along with the
abdominal muscles the other muscles that make the power house, the gluteal muscles and the quadriceps, are responsible for the static and dynamic stabilization of the body as well (Curi, 2009). The different exercises contributed to the reduction of LBP and helped relax the surrounding muscles.

The main Pilates exercises for me that reduced pain were the ones that elongated and massaged the spine, such as spine stretch forward, rolling like a ball, open leg rocker, and roll up (figures 1, 2, 3, 4). All of these exercises require articulation of the entire spine. When I lay on my back before each daily session of the Pilates method, I could feel my back clench up and feel uncomfortable and tense. Before I went through the Pilates method, my journal entries contained common threads, such as this excerpt:

It feels like someone is grabbing my muscles in a tight fist and they will not relax. Today seems to be a bit worse than normal and I am not sure if that is because I have had to sit on a bus for four hours or because I had to carry a heavy book bag or maybe even both. Regardless this is not pleasant and I think I am going to spend more time on the massage or lengthening exercises and hopefully that helps.

Once the daily practice ended, my lower back would feel a sense of tension release, almost as if it could melt into the ground. At the end of the daily practice, my journal entries contained common threads, such as this one:

Well, I can actually lay down and not feel pain so that is a major positive. I feel a sense of release and a sense of length. There is no longer that feeling of my spine crunching or a gripping feeling which I usually feel on a daily basis. I did notice that during the exercises I would feel pain but afterwards I felt great. The pain was not necessarily a bad pain but more of like a pain you get when you roll out, or massage, muscles. Just like in this way afterwards it feels great.

This is important because it was the start of my realization that there were changes in my pain levels before and after each daily practice, and that the longer that this study lasted, the more my LBP decreased. If I skipped a day the pain would feel worse the next day because there was no lengthening or massaging done so my muscles stayed tense for a longer period of time. I
concluded that this was a physical response rather than one out of guilt for skipping a day. The reason why I think this is the case is because I have gone days without going through the Pilates method prior to this study and the pain has been present. Whenever I would go through the Pilates method prior to this study, the pain would always be decreased but would not make a notable difference compared with this study where there has been a constant decrease in my LBP due to a constant daily practice over a span of four months.

**Body Awareness Led to a Sense of Change in Attitude toward Body Image**

Another theme that reappeared multiple times after the completion of the Pilates method was related to my mental state regarding my body image. As a woman, I feel surrounded by media images of the “ideal body” or what “beauty” is in the media. Today’s media surrounds me with the idea that women should be thin and that exercise, and that we need contour style makeup and diets to give us that ideal body. I do not consider myself someone with low self-esteem but I do have days where I have a negative body image for myself.

Days where I look at myself and do not see how I actually look, but instead just see the “imperfections.” In my journal I drew a couple of images of how I felt pre-Pilates and post-Pilates.

In the pre-Pilates image, I drew myself as a pudgy individual with a variety of numbers and words that expressed how I felt.
Before the method, I had a negative body image of myself and I felt like this is how people saw me. Along with the image, I wrote a couple of sentences that represented what I thought in that particular moment:

Is this really how people see me or is this how I feel? I feel like a giant even though I know inside I am not, even if it is deep inside. I keep thinking of everything I can do to lose weight or become the ideal “beauty.” I think I am beautiful so why do I feel like I am not?

As an extreme contrast, after the daily practice the image I had of myself was as a skinny stick figure, wearing a dress, (which to me symbolizes confidence and beauty), along with musical notes to express happiness and encouraging quotes.
I noticed that the way I saw myself still was not who I was but how I felt in terms of society's ideal body. "I drew myself much smaller than I was, but I felt happy so did it matter?"

This was the start of the shift of my mentality regarding my body image. I changed from thinking of looks to health. My body is my body regardless of the body image I have, but what matters most is my health. Pilates allowed me to stay fit and keep my body in shape even if it meant toning muscles rather than losing 10 pounds. This shift in mentality changed the way I felt during daily activities. I felt lightness and I felt happiness. A coworker of mine said I looked great and she enjoyed how confident I acted. This compliment made me realize that if I felt great this translated to my body. I was healthy and happy. Toward the end of my journal, I confirmed that my mentality had shifted when I saw that I had a section where I included a picture of myself with the words, "This is who you are, embrace it, love it, and live," attached to it.

Mindfulness Increased

Part of the Pilates method involves body and mind connection, and that connects to staying mindful. I found that the further into the process I got, my mindfulness increased. At the
beginning of the research process, my journal entries were vague when talking about what I noticed about my physical and mental states. An entry on my physical state read,

The area around my shoulders and neck are sore and stiff, which I am guessing is caused by stress. My lower back is also in a lot of pain, but that is nothing new. Although, the pain is increased more than normal.

In the same entry, regarding my mental state, I found a section that appeared to be full of anxiety:

I fly out to my job in a couple weeks and I do not feel prepared at all. I am stressed, what if I forget something? What if I don’t get along with my fellow coworkers? What if something happens on my flight? It is my first time flying by myself, and the last time I flew was in 9th grade. I do not really remember the process and I am nervous to go by myself. I know I will be fine but I keep thinking of the “what if’s” and it is not helping.

These thoughts took me out of the present, which is not a part of the Pilates method. By not staying present I could not be mindful of what was going on physically or mentally with myself. When going through the practice, I would find myself focusing on how I have LBP, something I already knew, and closed the awareness of what else was happening within my body. As my mindfulness increased, I noticed a shift in my ability to be aware and open to receiving the information and being receptive to it. Throughout the study, I started to discover a natural pattern that occurs for my mental and physical state. When I am stressed my neck and shoulders are stiff; when I am happy I feel a sense of lightness and a “bounce in my step;” when I am angry I feel my facial muscles tense up, especially my jaw and teeth; and when I am sad my shoulders drop more and I do not feel like conversing. These are just a few things that I noticed throughout the process along with my journal entries becoming more specific.

My scapula and cervical spine are tense. I am assuming it is because I have a multitude of assignments due by the end of the week and there are not enough hours in the day. I have also noticed that during the practice that my mindset changes from stressed to a place where I can put things into perspective and refocus on what I need to do. A new pain or discomfort that has been occurring is
that I feel a catching in my right talus, almost like it needs to pop but can’t. It only occurs when I put pressure on my phalanges and in a planter motion.

Along with the specificity of my journaling I also noticed a change in my score on the Mindful Attention Awareness Scale (MAAS). The higher the scores the higher levels of dispositional mindfulness they reflect (Brown & Richard, 2003). My scores increased which showed that I was becoming more mindful.

<table>
<thead>
<tr>
<th>Date</th>
<th>Score</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1, 2017</td>
<td>29</td>
<td>1.93</td>
</tr>
<tr>
<td>July 1, 2017</td>
<td>40</td>
<td>2.66</td>
</tr>
<tr>
<td>August 1, 2017</td>
<td>44</td>
<td>2.93</td>
</tr>
<tr>
<td>September 1, 2017</td>
<td>52</td>
<td>3.46</td>
</tr>
<tr>
<td>October 1, 2017</td>
<td>63</td>
<td>4.20</td>
</tr>
</tbody>
</table>

The largest score I could receive was a 90. I was still very far from being at my maximum ability with a score of 63, but from June to October there was a 2.27 mean jump and a 34 score jump. There were two questions that consistently stayed low in the score range: “I find myself preoccupied with the future or the past” and “I find it difficult to stay focused on what’s happening in the present.” While exercising using the Pilates method I am able to stay present but once the practice ends I stay in my future-oriented mindset. There was one question that had the largest jump from a 1 to a 6 on the scale: “I tend to not notice feelings of physical tension or discomfort until they really grab my attention.” As shown above in my journal entry examples, my mindfulness shifted from general to specific in recognizing my mental and physical state, which is what my MAAS scores reflect.

**Shift in Ability to Stay Present**
The MAAS questionnaire helped me realize that I tend to focus on the future and rarely stay in the moment. Both questions I scored low on were in regard to staying present during each daily practice. There was a positive shift in this as the mean did rise which meant there was an increase in mindfulness, thus being in present. I tended to think of things that I needed to get done while I was going through the daily practice at the beginning of this study; my mind would wander and I would start creating mental lists of things I needed to do after my practice.

I have so much homework to do and I do not even know if I can handle using 30 minutes or more of my time and do Pilates. I think ideally, if I focused I would get more out of it but every time I lay down and start my mind starts to drift off. I start thinking of everything I need to do or that needs to get done. I am not sure why I cannot just let myself go and focus but I think I need to focus and make an effort of focusing on what my body is saying.

One thing that helped my present state of mind was being mindful to what my physical and mental states were saying. When this happened I found myself not focusing on what needed to be done but what as occurring in the “now.”

I feel really good this time after I did the apparatus. I actually focused on myself and even though it only lasted 30 minutes it felt really therapeutic in a way to be in the present. I found a lot of unnecessary tension in my body, especially around my shoulders, which is somewhere I hold tension when I am stressed. I assume this is what caused it but I cannot be sure, but one thing I can be sure of is, is that they feel loose and relaxed now. Sometimes I forget that I cannot live fully if I keep focusing on the future so I think it is time to make a change outside of the method as well.

A challenge that occurred was that at the start of September until the end of the month, every Monday, Wednesday and Friday a friend and I would go through the basic and intermediate Pilates method on the reformer, a piece of the apparatus. This created a challenge because we would start to talk at the beginning of each session of Pilates which would take away from my ability to stay present.

Today Alex and I talked the whole time while we went through the reformer work. I usually feel a change in my state of mind or a physical release,
but I did not even pay attention to my body. I am not sure what my body was
telling me and I know for a fact that I did not get anything out of this method,
other than getting my body moving even more than it already does from dance
classes. I am sure the more we do this, the better we will get at focusing on
ourselves. It is fun to have a friend to do the method [Pilates] with but I kept
getting distracted. We would start talking about the future and that is exactly what
I am trying to avoid.

The challenge was not easy to overcome because we still talked; however, the amount we
talked changed throughout the month. By the end of the study, we would have a conversation
before the daily practice, go through a cycle of the Pilates method on the reformer and after the
daily practice we would talk again.

Throughout this study, I noticed that my ability to stay present has translated into my life
outside of the daily practice as well. Before when I am in class, I tend to mentally wander and
think about what I need to do and I start to write it down before I forget, regardless if the
professor is talking or not. I have also noticed that while I am talking to friends I multitask in
order to get things done, which means that my friends are not getting my full attention. Toward
the end of the daily practice portion of the study, as my scores on the MAAS scale increased I
saw that the results translated into my life as well. I give my friends and professors my full
attention. Instead of dwelling on everything I need to do, I write a singular to do list and then
after that I focus on living in the present rather than thinking of the future.

Thinking of the future took me away from the present and stopped me from being
mindful during my daily practice of the Pilates method.

**Conclusion**

Within the phenomenological study, four important themes appeared in my journal entries
related to my experiences before and after each daily practice of the Pilates method. I
experienced a reduction in LBP, a shift in personal body image, an increase in mindfulness and
an increase in my ability to stay present. Even though each of these four themes are different they all connect with one common thread, mindfulness.

The Pilates method helped me to recognize physical sensations and make mental connections within my body. Once I recognized what I experienced, I then translated that into words in my journal. This presented a challenge at times because sometimes I experienced things that could not quite be captured in words. Translating my findings from my journal into a research study also presented problems. How do I transcribe my experiences formally; how do I translate what I felt and found into words for others to understand? These were questions that I kept asking myself throughout this process. This study was a learning process on practice-based research, journal entries and translation of data into a research thesis.

It is also important to note that my mindfulness was influenced by the Somatics course I was taking for the second half of the study. This class taught me about my anatomy, which prior to August I was not all that knowledgeable on, and only knew layman’s terms for muscles and bones. This new vocabulary allowed me to better articulate what I felt and it helped me become aware of different muscles and bones I had not previously thought about. The class also taught me more ways we listen to ourselves and know what our bodies are telling us.

My circumstances as a senior in college may also have influenced my results in regard to future oriented thinking. My results suggested that I was a future-oriented thinker and that I have decreased this type of thinking since the beginning of the study. These results may have been influenced by the fact that at the start of the study I felt that I had to think of my future after graduation and everything in between. These thoughts have decreased throughout the duration of this study, because along the way, I have been completing major things that I need to do before I graduate such as my graduate school applications, and my thesis and graduation application.
A negative aspect of phenomenological studies, including this one, is subjectivity, or how my judgement is shaped by my personal opinions and feelings in addition to outside influences. I was surrounded by this subject matter for a long period of time and had previous experiences in the Pilates method, which could have influenced my results.

The MAAS survey could have influenced my results as well. The survey is made with the idea that mindfulness could increase. With this in mind, unconsciously my results in the survey could have been influenced to show a positive increase.

Through my personal experience of a daily practice every day for the months of June, July, August and September the study did show that a daily practice of the Pilates method brought an awareness to my physical and mental body, which led to the major themes that appeared in my journal entries. The themes showed that lower back pain can decrease, body awareness can increase and lead to a positive body image, mindfulness can increase and the ability to maintain a present state of mind can increase.
References


Figures

*Figure 1. Spine Stretch Forward*

*Figure 2. Rolling Like a Ball*
Figure 3. Open Leg Rocker
Figure 4. Roll Up
APPENDIX: Mindful Attention Awareness Scale (MAAS)

Scale: Almost Always (1) Very Frequently (2) Somewhat Frequently (3) Somewhat Infrequently (4) Very Infrequently (5) Almost Never (6)

Questions:

1. I could be experiencing some emotion and not be conscious of it until sometime later. 1 2 3 4 5 6
2. I break or spill things because of carelessness, not paying attention, or thinking of something else. 1 2 3 4 5 6
3. I find it difficult to stay focused on what’s happening in the present. 1 2 3 4 5 6
4. I tend to walk quickly to get where I’m going without paying attention to what I experience along the way. 1 2 3 4 5 6
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention. 1 2 3 4 5 6
6. I forget a person’s name almost as soon as I’ve been told it for the first time. 1 2 3 4 5 6
7. It seems I am “running on automatic,” without much awareness of what I’m doing. 1 2 3 4 5 6
8. I rush through activities without being really attentive to them. 1 2 3 4 5 6
9. I get so focused on the goal I want to achieve that I lose touch with what I’m doing right now to get there. 1 2 3 4 5 6
10. I do jobs or tasks automatically, without being aware of what I’m doing. 1 2 3 4 5 6
11. I find myself listening to someone with one ear, doing something else at the same time
12. I drive places on ‘automatic pilot’ and then wonder why I went there. 1 2 3 4 5 6
13. I find myself preoccupied with the future or the past. 1 2 3 4 5 6
14. I find myself doing things without paying attention. 1 2 3 4 5 6

15. I snack without being aware that I’m eating. 1 2 3 4 5 6