

Sit Down and Stop Stressing: The use of Mindfulness Meditation in Reducing  
Stress in University Students

Jessica L. Bennett

Grenfell Campus, Memorial University

**Abstract**

Mindfulness Meditation has become increasingly popular in treating a number of disorders, improving mental health and well-being and enhancing quality of life. More specifically, Mindfulness Meditation is effective in reducing stress among university students. Rather than the typical eight week mindful program, sitting mindful meditation is effective in reducing stress in university students. The goal of this literature review is to raise awareness of the benefits of meditation and to provide students with a guideline on how to sit.

## Introduction

Meditation and mindfulness have become increasingly popular in the last two decades as a means of treating many disorders (Chiesa & Serretti, 2009), improving mental health and wellbeing and enhancing quality of life as a whole (Chiesa & Serretti, 2009). More specifically, and the focus of this paper, meditation has been shown to reduce stress among university students (Rosenzweig, Reibel, Greeson, Brainard & Hojat 2003).

Research shows that university students are susceptible to high levels of stress due to the many stressors they have to deal with which is often compounded by the lack of knowledge around coping with these stressors (Hamaideh, 2001). Knowing this, it is important to proliferate the understanding of the benefits meditation can have as an effective means for coping with and even reducing stress levels. Although meditation programs on post-secondary campuses are becoming more common, many institutions struggle with recruitment and attendance (Lederer & Middlestadt, 2014). This leads to fewer students reaping the benefits that meditation training can provide.

The goal of this literature view is to examine the benefits of meditation and to establish links for students between practicing meditation during university life, reducing stress levels, and improving overall wellbeing. Importantly, rather than the typical daunting and elaborate eight-week plan, I will show that simply sitting for some number of minutes per day, and prior to exams will suffice. Further, it will become apparent that meditation will produce positive effects on the psychological wellbeing of university students that will extend far beyond the time that the student is meditating (Hözel et al., 2011).

Although there are occasional mindful sessions at our institution to create awareness of meditation and mindfulness, it would be beneficial to distribute posters around the institution to show the benefits of meditation along with tips of how to meditate successfully. My aim is to increase awareness of the negative impacts of stress and the positive impacts of meditation at Grenfell Campus, Memorial University.

### **Stressors and Stress in University Students**

Stressors are pressures of the internal or external environment that disrupt balance in one's life, thus influencing physical and psychological well-being and requiring actions to restore balance (Lazarus, 1966). Furthermore, feelings of stress are produced by these stressors due to a lack of knowledge on how to appropriately restore this balance. Stress can be defined as any event in which environment demands, internal demands, or both, exceed the adaptive resources of an individual or social system (Lazarus & Cohen, 1977). A study by the Anxiety and Depression Association of America showed that seven out of ten adults claim to experience stress or anxiety on a daily basis at a moderate level (Beiter et al., 2015). In particular, university students experience high levels of stress due to the high number of stressors they experience due to their participation in academic pursuits (Hamaideh, 2011). When transitioning into university life, students are prone to a number of stressors such as academic demands and expectations, coping in a new environment, financial difficulties, and pressures relating to life stressors in general (Hamaideh, 2011). The stress that university students experience can be linked to an increase in smoking, lack of sleep, depression, and even cardiovascular disease (Cohen, Janicki-Deverts & Miller, 2007). Depressive symptoms

have been reported as high as 25% among university students (Hamaideh, 2011) and in the USA, almost 10% of university students have been diagnosed with, or treated for depression (Wolfram, 2010 as cited in Beiter et al., 2015). A study by Zivin et al., (2009) revealed that over half of the participants had at least one mental health problem, with eating disorders (18%-19%) and depression (13%-19%) being most prevalent. Evidently, stress is associated with impediments to academic success (Lederer & Middlestadt, 2014) and has actually been identified as the foremost impediment to college students (Lederer & Middlestadt, 2014).

### **Reactions to Stress**

The amount of stress that a university student experiences is heavily impacted by the way they react to, and cope with, these stressors (Romano, 1992). A reaction to stress can be defined as the way one deals with and handles problems and situations (Hamaideh, 2011). Common reactions to stressors include avoidance, religious and social support, positive appraisals, exercise (Mattlin et al., 1990), and a number of other unhealthy habits such as substance abuse and poor eating (Hamaideh, 2011). Although stress is inevitable, there are appropriate methods of reducing stress (Hamaideh, 2011). One of these methods is meditation.

### **Benefits of Meditation**

Knowing that some sort of intervention for reducing stress in university students is critical, it would be beneficial to increase the awareness of the positive benefits of meditation within the university setting. Meditation is a spiritual and introspective

practice involving elements of both concentration and analysis as part of a process of becoming aware and of training the mind (Dalai Lama, 2001). Explained more simply, meditation is simply staying with our immediate experience, moment to moment (Hagen, 1997).

Although meditation has been practiced for thousands of years, it has become increasingly popular in the West over the last two decades (Chiesa & Serretti, 2009) and there is increasing research on the effects of meditation as a strategy to improve mental and physical health and wellbeing (Lederer & Middlestadt, 2014). In a study by Hözel et al., (2011), it was found that after completing an eight week Mindfulness-Based Stress Reduction (MBSR) course, there was an increase in grey matter concentration within the left hippocampus. This is beneficial because the hippocampus contributes to the regulation of emotion (Hözel et al., 2011). In another study by van der Oord, Bögels & Peijnenburg, (2012) it was revealed that after an 8-week mindfulness training for children with ADHD and parallel mindful parenting training for their parents, there was a significant reduction of parent-rated ADHD behavior of themselves and their children. Furthermore, meditation practices are becoming very popular for their efficacy in treating or symptom reducing across a variety of disorders such as anxiety (Roemer et al., 2008), depression (Teasdale et al., 2000 as cited in Hözel et al., 2011), substance abuse (Bowen et al., 2006 as cited in Hözel et al., 2011), eating disorders (Tapper et al., 2009 as cited in Hözel et al., 2011) and chronic pain (Grossman et al., 2007 as cited in Hözel et al., 2011). Meditation has also been shown to boost resilience and one study examined whether meditation could enhance these scores and furthermore enhance hardiness (Williams & Penman, 2011). Results showed that in general, participants felt happier, more energized,

less stressed and felt that they had more control over their lives (Williams & Penman, 2011). Participants found that their lives had more meaning and they learned to view their challenges as opportunities as opposed to threats (Williams & Penman, 2011). Boosts in resilience would be very beneficial to university students as they would be aided in appropriately facing all the challenges and stressors that university students encounter.

### **Meditation and Stress Reduction**

After highlighting the high prevalence rates of stress and the disorders such as depression, anxiety and academic impediments that follow, the link between meditation as an effective means to reduce and cope with stress among university students can be made. Mindfulness meditation is hypothesized to regulate emotions by modifying cognitive and affective evaluations to sensory events using cognitive reappraisal processes (Shapiro et al., 2006; Garland et al., 2010a; Goldin & Gross, 2010 as cited in Zeidan, Martucci, Kraft, McHaffie & Coghill, 2013). Furthermore, Zeidan et al., (2013) hypothesized that mindfulness meditation would be effective in reducing anxiety through mechanisms related to cognitive control and emotion regulation. Also, that mindfulness meditation-related anxiety relief would be related to brain mechanisms associated with cognitive regulation of emotions. Results showed that twenty minutes of mindfulness meditation significantly reduced state anxiety and only four days of meditation training increased mindfulness levels (Zeidan et al., 2013). Even more importantly, a study by Linden, (1973) revealed a reduction in test anxiety resulting from an increase in mindfulness. A reduction in stress and test anxiety would almost certainly positively

impact a student's academic outcome (Beauchemin, Hutchins & Patterson, 2008; Nidich, Mjasiri, Nidich et al., 2001; Paul, Elam & Verhulst, 2007 as cited in Lederer & Middlestadt, 2014).

There are three popular approaches which originated from Buddhist spiritual practices, Mindfulness-Based Cognitive Therapy, Mindfulness-Based Stress Reduction and Zen Meditation (Marchand, 2012).

### **Mindfulness-Based Cognitive Therapy (MBCT)**

Mindfulness-Based Cognitive Therapy was developed by Zindel Segal, Mark Williams and John Teasdale (Segal & Teasdale, 2002 as cited in Marchand, 2012). It is based on Mindfulness-Based Stress Reduction and combines the principles of cognitive therapy with those of mindfulness to prevent relapse of depression (Marchand, 2012). The focus of MBCT is to teach recognition of deteriorating mood with an aim of disengaging from self-perpetuating patterns of negative thoughts that contribute to relapse (Marchand, 2012). MBCT uses mindfulness techniques such as sitting meditation and this therapy is usually limited to an 8-session intervention.

### **Mindfulness-Based Stress Reduction (MBSR)**

A popular program used to study stress reduction is Mindfulness-Based Stress Reduction. It was developed in 1979 by Dr. Jon Kabat-Zinn at the University of Massachusetts medical center (Marchand, 2012) as a means to integrate Buddhist Mindfulness meditation with clinical and psychological practice (Bishop, 2002; Proulx, 2003; Praissman, 2008 as cited in Chiesa & Serretti, 2009). MBSR is made up of three

different techniques: body scan, which involves gradually moving one's attention through their body; sitting meditation, which involves mindful attention on the breath and focusing on the recognition and releasing of thoughts; and Hatha yoga practice, which involves breathing exercises, stretching techniques and posture techniques (Kabat-Zinn, 1990). The program is completed utilizing 45 minutes a day, 6 days a week, for eight weeks, although variations may occur (Chiesa & Serretti, 2009). Although Mindfulness-Based Stress Reduction is a popular program used to study the benefits of meditation, many institutions struggle with recruitment and attendance as they have with other similar wellness programs (Robroek, van Lenthe, van Empelen & Burdorf, 2009). Therefore, my suggestion would be to focus on one part of MBSR: sitting meditation.

### **Sitting Meditation**

Studies show that although the eight-week Mindfulness Based Stress Reduction is the program most used, many institutions struggle with recruitment and attendance (Lederer & Middlestadt, 2014). Therefore, my suggestion for university students would be to focus on sitting meditation. Sitting meditation can be done anywhere and only requires the amount of time you wish to spend. Due to busy schedules and lack of spare time in university, I feel this aspect of meditation would be best suited for those studying at university.

A study by Sauer-Zavala, Walsh, Eisenlohr-Moul & Lykins, (2012) examined the effects of the three different meditation practices that are commonly used in an MBSR program. Results showed that difficulties in emotion regulation were improved more in the group who practiced sitting meditation than those who practiced the body scan

(Sauer-Zavala, Walsh, Eisenlohr-Moul & Lykins, 2012). Sitting meditation may be a more effective practice because it provides more detailed instructions for handling strong emotions (Sauer-Zavala, Walsh, Eisenlohr-Moul & Lykins, 2012).

A typical sitting meditation is about focusing your full attention on your breath as it enters and exits your body (Williams & Penman, 2011). The goal of sitting meditation is to observe your thoughts as they come into your mind and then to let go of them (Williams & Penman, 2011). It is about reaching the conclusion that thoughts and feelings are transient and that we have a choice about whether we ruminate on them or not (Williams & Penman, 2011). The important link between sitting meditation and reducing stress in university students is that learning to acknowledge our thoughts but not to act on them will help students to not pay too much attention to the stressors and to choose wise and appropriate ways to deal with the stressors, thereby reducing and coping with the stress often experienced.

### **How to sit**

It is important to know a few simple facts about meditation. Firstly, meditation is not a religion (Williams & Penman, 2011). It is simply a method of mental training (Williams & Penman, 2011) and can be viewed as a work-out for the mind. Secondly, meditation is not limited to sitting cross-legged on the floor or in a chair, one can meditate by bringing mindful awareness to whatever they are doing during the day such as walking to school or eating lunch (Williams & Penman, 2011). Lastly, meditation should not be seen as complicated and even when it seems complicated, one will still benefit psychologically (Williams & Penman, 2011). Meditation should be done open-

mindedly and be relaxing, not stressful or complicated. Williams & Penman, (2001) describe a one-minute meditation. First, the participant sits erect in a straight back chair, bringing your back a little way from the rear so that your spine is supporting itself. The eyes should either be closed or the gaze should be lowered. Secondly, attention should be focused on your breath as it flows in and out of the body, while recognizing each sensation that occurs with each breath. Thirdly, when the mind wanders, gently bring attention back to the breath, without being judgmental or critical. If the mind becomes still, or if it does not, just let it be.

### **Meditation at Grenfell**

My goal with this project is to increase awareness about the positive effects of meditation at my post-secondary institution, Grenfell Campus, Memorial University of Newfoundland, and furthermore suggest meditation as an effective means of reducing stress and anxiety. This will hopefully contribute to increasing the overall psychological wellbeing of students at Grenfell campus. There have been Mindfulness sessions at Grenfell given by Dr. Michael Newton and there is also a course on the subject matter, “Zen, Buddhist Meditation & Buddhist Psychology”. This course provides students with knowledge on the history of Buddhism, where meditation and mindfulness began, and also knowledge on how to meditate and be mindful. I plan on putting up posters around Grenfell Campus, which outline the benefits of meditation and simple tips on how to meditate (refer to appendix for poster). I would like to suggest for students to meditate anywhere from 1-5 minutes prior to an exam, and also anytime during the day that they are feeling overwhelmed or stressed with the stressors they are facing. I hope that

students will incorporate sitting meditation into their daily schedules and receive the positive benefits that meditation has to give.

### **Conclusion**

It is evident that all three approaches, Mindfulness-Based Cognitive therapy, Mindfulness-Based Stress Reduction and Zen meditation are effective in reducing stress. The focus of this literature review is to emphasize the benefits of sitting meditation, in particular to reduce stress in university students, and to further raise awareness within Grenfell campus on the positive effects of meditation. It would be ideal if students took advantage of meditating and in return had less stress, anxiety, and depressive symptoms. Meditation would improve student's wellbeing as a whole, possibly resulting in increases in academic achievement. Meditating will enhance pure awareness and allow students to avoid negative self-talk and reactive impulses and emotions, and therefore see the world with open eyes (Williams & Penman, 2011). When this happens, students will become content (Williams & Penman, 2011) and be more satisfied with their university life as a whole.

### References

- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, 173, 90-96. doi: 10.1016/j.jad.2014.10.054
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *The Journal of Alternative and Complementary Medicine*, 15(5), 593-600. doi: 10.1089/acm.2008.0495
- Cohen, S., Janicki-Deverts, D. & Miller, G. E. (2007). Psychological stress and disease. *Journal of the American Medical Association*, 298(14), 1685-1687.
- Hagen, S. (1997). *Buddhism plain and simple*. New York: Broadway Books.
- Hözel, B. K., Carmody, J., Vangel, M., Congleton, C., Yerramsetti, S. M., Gard, T., & Lazar, S. W. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research: Neuroimaging*, 191(1), 36-43. doi: 10.1016/j.pscychresns.2010.08.006
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain and illness*. New York: Dell Publishing.
- Lama, D. (2001). *Stages of meditation: Training the mind for wisdom*. London: Rider.
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York: McGraw-Hill.
- Lazarus, R. S. & Cohen, J. B. (1977). Environmental stress. *Human Behavior and Environment*, 2, 89-127. doi: 10.1007/978-1-4684-0808-9\_3

- Lederer, A. M., & Middlestadt, S. E. (2014). Beliefs about meditating among university students, faculty, and staff: A theory-based salient belief elicitation. *Journal of American College Health*, 62(6), 360-369. doi: 10.1080/07448481.2014.907296
- Hamaideh, S. H. (2011). Stressors and reactions to stressors among university students. *International Journal of Social Psychiatry*, 57(1), 69-80. doi: 10.1177/0020764010348442
- Marchand, W. R. (2012). Mindfulness-based stress reduction, mindfulness-based cognitive therapy, and zen meditation for depression, anxiety, pain, and psychological distress. *Journal of Psychiatric Practice*, 18(4), 233-252. doi: 10.1097/01.pra.0000416014.53215.86
- Mattlin, J., Wethington, E. & Kessler, R. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior*, 31(1), 103-122.
- Robroek, S., van Lenthe, F., van Empelen, P. & Burdorf, A. (2009). Determinants of participation in worksite health promotion programmes: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 6(26), 1-12. doi:10.1186/1479-5868-6-26
- Roemer, L., Orsillo, S. M. & Salters-Pedneault, K. (2008). Efficacy of an acceptance-based behavior therapy for generalized anxiety disorder: Evaluation in a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 76(7), 1083-1089. doi: 10.1037/a0012720

Romano, J. (1992). Psychoeducational interventions for stress management and well-being. *Journal of Counseling and Development, 71*(2), 199-202. doi: 10.1002/j.1556-6676.1992.tb02200.x

Rosenzweig, S., Reibel, D. K., Greeson, J. M., Brainard, G. C. & Hojat, M. (2003) Mindfulness-based stress reduction lowers psychological distress in medical students. *Teaching and Learning in Medicine: An international Journal, 15*(2), 88-92. doi: 10.1207/S15328015TLM1502\_03

Sauer-Zavala, S. E., Walsh, E. C., Eisenlohr-Moul, T. A. & Lykins, E. L. B. (2013). Comparing mindfulness-based intervention strategies: Differential effects of sitting meditation, body scan, and mindful yoga. *Mindfulness, 4*(4), 383-388. doi: 10.1007/s12671-012-0139-9

van der Oord, S., Bögels, S. M. & Peijnenburg, D. (2012). The effectiveness of mindfulness training for children with ADHD and mindful parenting for their parents. *Journal of Child and Family Studies, 21*(1), 139-147. doi: 10.1007/s10826-011-9457-0

Van Gordon, W., Shonin, E., Sumich, A., Sundin, E. C. & Griffiths, M. D. (2014). Meditation awareness training (MAT) for psychological well-being in a sub-clinical sample of university students: A controlled pilot study. *Mindfulness, 5*(4), 381-391. doi: 10.1007/s12671-012-0191-5

Williams, M. & Penman, D. (2011). *An eight-week plan for finding peace in a frantic world*. New York: Rodale.

- Zeidan, F., Martucci,, K. T., Kraft, R. A., McHaffie, J. G. & Coghill, R. C. (2014). Neural correlates of mindfulness meditation-related anxiety relief. *Social Cognitive and Affective Neuroscience*, 9(6), 751-759. doi: 10.1093/scan/nst041
- Zivin, K., Eisenberg, D., Gollust, S. E. & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders*, 117(3), 180-185. doi: 10.1016/j.jad.2009.01.001



# Sit Down and Stop Stressing!

Literally...

## Meditation Reduces Stress in University Students

### How to Sit:

- Sit erect in a straight back chair
- Eyes may be closed, or a lowered gaze
- Focus your attention on your breath as it flows in and out of your body
- Recognize each sensation
- When your mind wanders, bring your attention back to your breath
- Do not be judgmental or critical
- If your mind becomes still, or does not, **just let it be**

### When to sit:

- Prior to a test.
- Recommended: 1-5 minutes
- When feeling anxious or stressed..sit for desired time
- When wanting to just relax and clear your mind...sit for desired time

### General Benefits of Mindfulness Meditation

- Reduces Stress in University Students
- Increases grey matter concentration in the brain (Hözel et al., 2011)
- Reduces symptoms of ADHD in children and parents (van der Oord, Bögels & Peijnenburg, 2012)
- Reduces anxiety and depression
- Helps with substance abuse
- Helps improve eating disorders
- Reduces chronic pain