OPEN ACCESS

GAVIN PUBLISHERS

Journal of Yoga, Physical Therapy and Rehabilitation

Research Article

Billek-Sawhney B. Yoga Phys Ther Rehabil 4: 070.

DOI: 10.29011/2577-0756.000070

Mindfulness Meditation: Effectiveness on Physical Therapy Students

Barbara Billek-Sawhney*

Graduate School of Physical Therapy, Slippery Rock University, Slippery Rock, Pennsylvania, USA

***Corresponding author:** Barbara Billek-Sawhney, Graduate School of Physical Therapy, Slippery Rock University, Slippery Rock, Pennsylvania, USA. Tel: +1 7247382759; Fax: +1 7247382113; Email: barbara.billek@sru.edu

Citation: Billek-Sawhney B (2019) Mindfulness Meditation: Effectiveness on Physical Therapy Students. Yoga Phys Ther Rehabil 4: 070. DOI: 10.29011/2577-0756.000070

Received Date: 30 January, 2019; **Accepted Date:** 22 February, 2019; **Published Date:** 04 March, 2019

Abstract

The impact of stress on the immune system is linked to many illnesses and impaired quality of life. Research shows Physical Therapy (PT) students have higher stress and anxiety levels than age and gender matched peers. Forty-nine second-year PT students were mentored in Mindfulness Meditation (MM) strategies as an initiative to minimize stress. A sample of convenience was employed; participants were invited to complete a survey on mindfulness. Reflections written following competency assessments were evaluated quantitatively and qualitatively. Forty-seven of 49 students completed the written survey. Prior to introducing MM, 63% (n=31) reported performance on competency assessments was impacted by fear, anxiety, and/or stress. Sixty-two percent believed their performance on competency assessments would be better if they employed strategies such as relaxation or meditation. Thirty-two percent (n=16) felt less stressed by employing MM prior to competencies. In addition, 37 of the 47 survey respondents stated MM was a valuable component of the stress management unit in a course in their formal education. Results suggest MM may be effective for reducing stress in PT students. Little evidence was found on the impact of MM on illness reduction. Further research is needed to determine if the findings are similar in other educational settings or in clinical settings.

Keywords: Mindfulness; Meditation; Stress; Health care students

Introduction

Psychological stress occurs when an individual perceives that environmental demands exceed their capacity. The impact of long-term stress on the body is well recognized. According to the National Institute of Mental Health. If stress is long-term, becomes chronic, constant, or if the stress response persists after the situation has resolved, health problems may result. Suppression of the immune system, digestive system, reproductive system, and sleep may occur. Manifestations of stress occur differently among people with a myriad of symptoms occurring ranging from headaches, to sleeplessness, sadness, anger, or irritability to digestive symptoms. Frequent and severe viral infections (flu or common cold) may occur in individuals with chronic stress. Routine constant stress prohibits the body from knowing when the stress resolves and when the body returns to normal and can lead to more serious health problems like heart disease, high blood pressure, diabetes, mental disorders (depression and/or anxiety) and other illnesses [1-5].

Previous literature has revealed that stress and anxiety levels are higher in first and second year entry-level DPT students than in age gender matched peers [6]. In addition, past studies have shown that Mindfulness Meditation (MM) was effective in improving stress and anxiety in HCPs. The key concept is the ability to pay purposeful attention in the present moment non-judgmentally [7]. The purpose of this research is to evaluate the effectiveness of MM in conjunction with a stress management presentation on second year DPT students. The effectiveness of MM on competency assessment, depression, and anxiety and stress levels was evaluated in this same group of students.

Materials and Methods

A sample of convenience was employed using 49 students in their second-year of PT school Mindfulness was employed at the start of class in second year of DPT classes. Participants completed reflections following a competency exam in the semester prior to the introduction of MM and again following a competency exam after 10-weeks of MM. Participants also completed a survey on the impact and use of MM as part of their didactic coursework and in

their personal lives, outside of the classroom. Reflection and survey comments were analyzed for common themes and comments to justify conclusions drawn. Reflection and survey comments were analyzed for common themes and comments. Approval for the study was attained by the host university's institutional review board. Mindfulness was introduced at the beginning of the Spring 2014 semester and this survey was completed at the end of the Spring 2014 semester.

Results

Forty-nine second year participated in the research study. The impact of stress on competency performance is shown in Table 1. Sixty-three percent of the participants agreed that anxiety and/or stress impacted their competency prior to the introduction of MM as compared to only 42% agreed that anxiety and/or stress impacted their competency after learning MM.

My performance on my competency was impacted by fear, anxiety, and/or stress	Strongly Agree	Agree	Disagree	Strongly Disagree
Semester Preceding Introduction of Mindfulness	14	17	11	6
Semester Following 10-weeks of Mindfulness	8	13	12	2

Table 1: Impact of Stress on Competency Performance.

Seventy-percent of the participants strongly agreed/agreed that MM "helped them relax and calm down." In addition, more than half of the participants, 53%, reported they strongly agreed/agreed that MM "helped them to focus prior to exams and competencies." This and the specific details on the effectiveness of mindfulness are presented in Table 2.

Mindfulness	Strongly Agree	Agree	Disagree	Strongly Disagree
helps me to relax and calm down	6	28	11	2
helped me to focus prior to exams and competencies	3	22	19	3

Table 2: Survey Results on the Effectiveness of Mindfulness.

Discussion

The impact of stress on performance has been described previously in literature. Stress in Health Care Professionals (HCP's) has been shown to reduce an individual's ability to attend to a task, concentrate and may impact an individual's ability to make decisions, decrease ability to communicate concern for a patient, and negatively impact the development of the patient clinician relationship [8]. This study demonstrates that stress and/or anxiety does impact student performance on the testing of psychomotor, cognitive, and affective behavior but that there is approximately a 20% reduction when employing MM.

The benefits of mindfulness are well documented in the literature [7,9-14]. Mindfulness meditation is a tool that can be used to effectively manage stress in HCPS's. Literature, as well as this study, has shown that as MM use increases, the degree of stress at work and home will decrease.

Conclusion

stress and anxiety are prevalent in the PT student population and may have an impact on student performance. This has been demonstrated in this study. Mindfulness is an inexpensive strategy that does not require much time and can be used to help PT students relax and focus during stressful events in and out of the classroom. Future research is needed to evaluate the long-term impact of MM and the impact of it on written examination.

Acknowledgments

Appreciation is extended to Shaina Sandrock, William Ryan, and Carol Holland for their assistance in this project.

Reference

1. National Institute of Mental Health. Five things you should know about stress. NIH Publication No. OM 16-4310.
2. Walton KG, Schneider RH, Nidich SI, Salerno JW (2005) Psychosocial stress and cardiovascular disease part 3: clinical and policy implications of research on the transcendental meditation program. Behavioral Medicine 30: 173-183.
3. Carnegie Mellon University (2012) How stress influences disease: Study reveals inflammation as the culprit. Science Daily.
4. Salleh MR (2008) Life event, stress and illness. The Malaysian journal of medical sciences: MJMS 15: 9-18.
5. Esler M (2017) Mental stress and human cardiovascular disease. Neursci Biobehav Rev 74: 269-276.

6. Frank LM, Cassady SL (2005) Health and wellness in entry-level physical therapy students: are measures of stress, anxiety, and academic performance related. Cardiopulmonary Physical Therapy Journal 16: 5-13.

7. Greeson JM (2009) Mindfulness Research Update: 2008. Complementary health practice review 14: 10-18.

8. Galantino ML, Baime M, Maguire M, Szapary PO, Farrar JT (2005) Association of psychological and physiological measures of stress in health-care professionals during an 8-week mindfulness meditation program: mindfulness in practice. Stress and Health 21: 255-261.

9. Gawrysiak MJ, Grassetti SN, Greeson JM, Shorey RC, Pohlig R, et al. (2017). The many facets of mindfulness and the prediction of change following mindfulness□based stress reduction (MBSR). J Clin Psych: 1-13.

10. Barrett B, Hayney MS, Muller D, Rakel D, Ward A, et al. (2012) Meditation or exercise for preventing acute respiratory infection: a randomized controlled trial. Annals of Family Medicine 10: 337-346.

11. Brown RP, Gerbarg PL (2005) Sudarshan kriya yogic breathing in the treatment of stress, anxiety, and depression: part II - clinical applications and guidelines. Journal of Alternative and Complementary Medicine 11: 711-717.

12. Prasad K, Wahner-Roedler DL, Cha SS, Sood A (2011) Effect of a single-session meditation training to reduce stress and improve quality of life among health care professionals: a “dose-ranging” feasibility study. Alternative Therapies 17: 46-49.

13. Bormann JE, Hurst S, Kelly A (2013) Responses to mantram repetition program from veterans with posttraumatic stress disorder: a qualitative analysis. Journal of rehabilitation Research and Development 50: 769-784.

14. Walton KG, Schneider RH, Nidich SI, Salerno JW, Nordstrom CK, et al. (2002) Psychosocial stress and cardiovascular disease part 2: effectiveness of the transcendental meditation program in treatment and prevention. Behavioral Medicine 28: 106-123.