

Original Article

Impact of Mindfulness-Based Stress Reduction Techniques on General Well-Being of Employees Working on a Behavioral Health Unit

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ABSTRACT

Background: Mindful-based Stress Reduction (MBSR) interventions have become a breakthrough treatment modality in reducing stress and improving overall general well-being. MBSR practiced by individuals gets impacted on a physical, social, mental, emotional, and spiritual level. MBSR approaches have been studied and support to improve the general wellbeing of individuals and enhance the quality of life. **Methods:** Behavioral Health employees participated in daily independent mindful-based stress reduction sessions over six weeks. The mindfulness audio files are recorded specifically for this research project. Employees completed a demographic form, Perceived Stress Scale (PSS), and Subjective Happiness Scale (SHS) pre-and-post six-week period. The PSS and SHS were used to complete and collect qualitative data on the effectiveness of MBSR. **Results:** This study reported the following results. A total of 22 behavioral health employees volunteered to participate in the study. The average score pre-study on SHS was (16.41+2.45). Post mindfulness intervention, the average score on SHS increased to (18.71+2.49). The average score pre-study on PSS was (20.18+3.17) post mindfulness intervention the average score in PSS came down to (10+4.29). The results were highly significant. **Conclusion:** The results suggest a high correlation with a reduction in behavioral health employees' perceived stress and physical response to stress in their personal and professional life when individuals practice MBSR techniques. Reduction in perceived stress of mental health workers results in the improved general wellbeing of the employee and improve capabilities for the employee to handle stress at work, therefore, improving patient care outcomes.

Keywords: *mindfulness, stress reduction, behavioral health employee, MBSR*

Passmore and Amit defined mindfulness (2017) [9] as the active conscious decision to be open to being present in the moment, being curious about the moment, accepting what is happening at the moment, and learning from that moment. It becomes the active decision to live life to the fullest and the opposite of “autopilot”. Individuals focusing on improving work/life balance tend to be more motivated to participate in self-improvement and awareness. These activities help improve one's mental health, improve overall well-being and assist one to live life to the fullest. Mental health care over the past few decades transformed from the beige straight-jacket of dark and gloomy asylums to a beautiful prosperous approach to understanding one's self-care. An important component to mental health has become one's ability to influence and successfully train their body's physical, emotional, and

mental response to external environmental impacts, particularly stress, and for this study, stress-induced work environments.

Burn-out is a common problem in the field of healthcare. Leaders are encouraged to analyze ways to reduce stress at work. Individual metrics are used across the healthcare industry to determine employee satisfaction and well-being. More specific negative factors related to mental health employees include increased exposure to violent patients episodes includes situations like behavioral health codes (conditions) attempted suicide on the unit. These types of events impact the staff's emotional, mental, and spiritual wellbeing. Mental-health employees process with patients each shift exposed to traumatic personal stories and conversations from patients. This study seeks to identify the

need for mindfulness-based practices to be incorporated into the employee day to assist in reducing stress. The mindfulness-based approach can include time for staff to debrief and process with others to improve the overall mental health of the behavioral health staff, hoping it will improve the overall care provided to the patients.

The Theory of Human Caring (2018) [12] is a Middle-Range Theory that focuses on healing the entire person (mind, body, and spirit) that is critical to implementing mindfulness practices. The theory emphasizes that individuals are unique to their design, and it promotes a holistic approach. The middle-range theory of the healthcare providers encompasses the necessary components for the provider to create an individually unique healing interaction every time the provider delivers care. The theory suggests that our thoughts and actions should be guided by love and kindness while understanding the connection between mind, body, and spirit. The core values of the theory cultivate sensitivity to one's self with the promotion of the acceptance of the expression of feelings and the enhancement of interpersonal teaching and learning [12].

Maintaining a supportive and protective environment is key for healing the mental, physical, socio-cultural, and spiritual self at our core. Conscious and unconscious awareness is important when working with sensitive populations like patients with mental health diagnoses. The theory is grounded in changing the focus from a treatment approach to a caring approach and acknowledging that people cannot be fixed and healed. Kindness and love are the guiding force behind the theory [12]. The Theory of Human Caring proposes that the interaction between the patient and the environment, nurse included, should be of value and love.

METHODS

This study was conducted at a Behavioral Health Unit at UPMC Northwest, a small rural inpatient healthcare setting in Western Pennsylvania (Venango County). The overall organization is a 126-bed inpatient acute and extended acute hospital that is one-story including inpatient and outpatient medical and surgical services, emergency services with highly specialized diagnostic and treatment procedures, and contains two behavioral health units (UPMC Northwest, 2018) [13]. The department of focus contains a potential sample size of 52 participants. The Behavioral Health Department is comprised of two units, one acute inpatient psychiatric 16-bed unit, and one extended acute inpatient psychiatric 12-bed unit. The study used a convenience sample of healthcare employees working on a Behavioral

Health Unit at the University of Pittsburgh Medical Center (UPMC).

Inclusion Criteria: Employees working on the Behavioral Health Unit at UPMC Northwest (social services, nurses, care managers, therapists, administrative, and clerical supports), employed 40 or more hours per bi-weekly pay period, minimum one year of employment with UPMC Northwest, general interest in reducing stress at work, and must be age 18 years of age and older.

Exclusion Criteria: Employees working less than 40 hours per bi-weekly pay period, individuals working outside UPMC Northwest Behavioral Health Unit, employees with less than one year at UPMC Northwest, and individuals with an active leave status or active resignation.

Withdrawal Criteria included participants who did not complete the study. Participants were informed before the initiation of the study that they can withdraw from the study at any time. Data did not utilize for analysis from any participant that chose to withdraw from the study. A convenient sampling of five to possibly 52 healthcare employees working on the Behavioral Health Unit was considered for the study. It is understood that the sample size and population are small however, it reflects the needs of the study and continued research. No control group was required for this study design.

Pre-Intervention: There was a voluntary one-hour informational session to include an introduction to mindfulness, acknowledgment of an informational informed consent letter, completion of a demographics questionnaire, and two brief surveys (pre-test scales). Time was allotted for answering questions from participants. The pre-study implementation phase included administering the Perceived Stress Scale (PSS) and the Subjective Happiness Scale (SHS), and a pre-study demographic questionnaire. An informational letter discussing basic mindfulness directions on how to access the pre-recorded mindfulness audio tracks provided. Mindfulness audio tracks are distributed by email. The mindful-based training audio recordings obtained permission from Avianna Castro, co-author and trained mindfulness instructor from Flushing, Michigan. Participants were asked to develop a routine for the daily two to ten - minute sessions. The goal was to have participants independently practice self-administered mindfulness via audio recording for six weeks and develop a routine for the daily two to ten - minute sessions.

Intervention: The approximate time required to participate was no longer than two to ten minutes daily for six weeks.

Follow-up emails are sent out throughout the six weeks after the study began to remind and encourage continuation in the study.

Post-Intervention: A post-study PSS and SHS assessment, Demographic Form, were collected after the six weeks. Approximately 15 minutes were available to complete two brief surveys (post-test scales).

Data-Analysis Plan: The study is a Quasi-experimental, group pre-test, post-test design utilizing a convenience sample from the Behavioral Health Unit at UPMC Northwest. Sample characteristics were examined using descriptive statistics and normality of the distribution of outcome measures. Happiness Scale scores, the Perceived Stress Scale scores were examined by plotting their frequency distributions. Further (pre-and post-intervention) group scores for the Happiness Scale and the Perceived Stress scale were examined using paired and independent group t-tests.

RESULTS

This study reported the following results. A total of 22 behavioral health employees volunteered to participate in the study. Out of 22 volunteers, 17 participants completed the study. Fifteen females and two males participated in the study. The age of participants who completed the study ranged from 17 to 65 years mean (+SD) of 44.06 + 12.53 years. All the participants were Caucasian. The mindfulness intervention resulted in a significant improvement in Happiness Scale score (Pre: 16.41 + 2.45, Post: 18.71 + 2.49; Paired $t = 5.49$, $df = 16$, $p < 0.001$) and a significant reduction on the Perceived Stress Scale score (Pre: 20.18 + 3.17, Post: 10.XX + XX.XX; Paired $t = 9.23$, $df = 16$, $p < 0.001$).

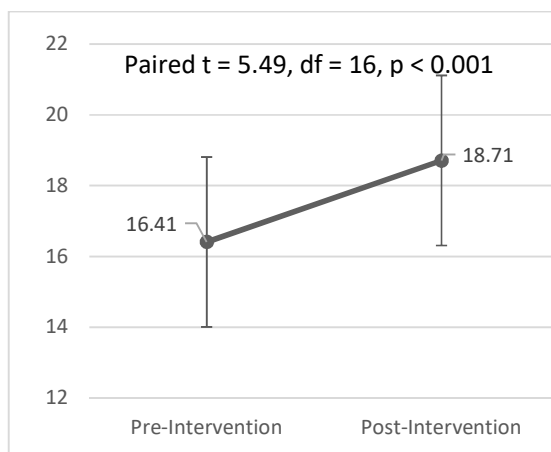


Figure 1. Pre- & Post-Mindfulness Subjective Happiness Scale Score (Mean + SD)

Implications for Practice: Implications for practice include improving the overall well-being of the individual employees and examining ways to changing one's physical response to stress. The study's focus assisted in providing a platform to assess an individual's control over one's body to respond rather than react to stress. Focus on improving the overall well-being of employees will increase employee satisfaction and assist the employee to have a better physical response to stress. Additional research can be focused on several used "sick" days and improved overall health of the individual. An individual working in the mental health field become overwhelmed. Maintaining a safe environment is the expectation of the entire healthcare team and emphasizes the required teamwork to resolve safety issues and establish a safe environment. Simple de-escalation techniques and therapeutic approach modalities will assist in achieving a safe environment for patients. Stress reduction interventions related to mindfulness will assist employees to get better in the everyday work environment that will enhance outcome measures and improve patient care.

DISCUSSION

Mindfulness research is still in its initial stages of infancy in the academic world. Passmore and Amit (2017) [9] suggest as more and more researchers explore the testing of mindfulness and the strong connection to the human physical, emotional, and mental health, the interest in studying mindfulness will grow. In the past year alone, research focused on mindfulness has broadened to include mindfulness-based intervention as a factor in organizational success and personal productivity. Stress can cause significant prolonged physical and emotional problems (Penprase, Johnson, Pittiglio, & Pittiglio, 2015) [10]. Mindfulness-Based Stress Reduction (MBSR) training studied for the past decade, and evidence suggests that the self-care process of mindfulness only takes 30 minutes or less daily. In a study carried out by Penprase, Johnson, Pittiglio, and Pittiglio (2015) [10], the researchers questioned if mindfulness-based stress reduction training would decrease stress in nurses. The authors initially sampled two groups of nursing students pursuing their BSN at a hospital-based program. Unfortunately, none of the students completed the program because of reports of coursework being their primary focus. The authors decided to apply their study to a group of 14 nurses that would participate in one-hour sessions about practicing mindfulness. Only four participants completed the eight-week program. The authors acknowledged their small sample size but are confident their research showcases the need for MBSR training interventions. The participants reported that the MBSR exercises assisted with the ability

to respond appropriately to stress. Penprase et al. [10] found that all 14 nurses who participated in the program using guided instruction in mindfulness meditation practices over an 8-week program reported a decreased stress level, more focus, less anxiety, and increased emotional awareness.

Gawrysiak, Leong, Grasseti, Wai, Shorey, and Baime (2016) [4] sought to examine the relationship between one's stress tolerance levels pre-and-post MBSR intervention implementation. A convenience sample (n=372) with a quasi-experimental design was utilized. The authors found empirical evidence that MBSR improves the ability to tolerate stress and can be used as an adjunct in treating mental illnesses like anxiety and mood disorders. Self-reported measurements were used to determine stress tolerance pre-and-post program implementation. The researchers reported that the participants displayed favorable changes in perceived stress, stress tolerance, and mood states. Though the researchers found that MBSR self-motivated interventions assisted in reducing one's stress they also noted that implementing moderators to assist with the execution of the MBSR interventions may potentially prove to be a significant factor for effectiveness. Emotional regulation is also an important component when understanding mindfulness.

Alkoby, Pliskin, Halperin, and Levit-Binnun (2018) [1] studied emotional regulation (ER) and suggested that individuals with the higher emotional regulatory ability also are associated with greater mental health, well-being, and resilience. The authors hypothesized that individuals who participate in MBSR interventions would demonstrate a greater magnitude of regulatory choice flexibility as compared to a control group. The researchers tested their hypothesis with 111 participants over an eight-week MBSR session. A group of subjects on the waiting list for the MBSR workshop served as the control group. The authors explored the difference between individuals in their flexibility to adapt to engaging and disengaging to contextual behavior. Results suggested that individuals displayed a higher level of regulatory choice flexibility and emotional regulation that participated in the MBSR intervention programs.

Behavioral health employees in today's healthcare arena have an abundant amount of additional stress, and responsibility-inducing stress, that causes some nurses to feel overwhelmed and "stressed out". Perceptions of being short-staffed, scheduling conflicts, discussions about union, compassion fatigue, long work hours, and general relationship discord leave the behavioral health employee feeling burnout. It has also been documented that healthcare

workers suffer from compassion fatigue. Compassion fatigue not managed correctly can lead to burnout and decreased mental health well-being. The research focused on nurses and their response to compassion fatigue by Kinser, Braun, Deeb, Carrico, and Dow (2016) [6] concluded that 70% of the nurses surveyed in their study experienced burnout compassion fatigue. The authors also noted that nursing burnout correlates to low patient satisfaction, poor quality, and unsafe care.

Montanari, Bowe, Chesak, and Cuthall (2018) [8] completed a quantitative study on mindfulness interventions on 52 registered nurses at a midwest teaching hospital. The authors offered staff five choices of mindful interventions includes guided mindfulness CD, the sound machine with a breathing technique, mindfulness prompts, journaling, and water/snacks during six weeks. The study suggests that individuals who participate in mindfulness exercises display decreased burnout and stress reduction. Mindfulness training is a cost-effective intervention for healthcare organizations that creates healthy work environments, increases retention, and reduces the turnover of HCPs (Deible, Fioravanti, Tarantino, & Cohen, 2015) [2].

Janssen, Heerkens, Kuijter, van der Heijden, and Engels (2018) [5] reviewed published academic work on MBSR training and the impact on employee's mental health. The research had an organizational behavior focus determined that happy employees are more productive, work harder, and have a better work/life balance. Mindfulness interventions within the work environment focus to improve decision-making capabilities, improve communication, reduce work-related stress, increase productivity, improves organizational relationships, and improve self-care that is beneficial to the organization as a whole. Kuhlmann, Bürger, Esser, and Hammerle (2015) [7] also studied MBSR and completed a random controlled trial (RCT).

In the longitudinal studies, data collection is from four assessment points that include, post-intervention, baseline, one-year follow-up, and five years follow-up. The authors emphasized the importance of the participant being self-motivated enough to complete the mindfulness exercises. Everyone's sense can be mindful throughout one's life however, focused training on techniques like breathing, relaxation, and mind-clearing will ensure successful repeatable mindful-based interventions. Schultz (as cited in Kuhlmann, Bürger, Esser, and Hammerle, 2015) [7] identified autogenic training as a means of mindfulness practice initially taught by a qualified staff member and the individual practiced on their own before the start of their shift.

Shapiro, Brown, and Biegel (2007) [11] completed research on mindfulness with graduate-level students in counseling programs pre-and-post 9-week mindful-based stress reduction sessions. The researchers used the Mindful Attention Awareness Scale (MAAS), a 15-item scale that assesses the individuals' attention, awareness, perception to present events and experiences. Interestingly, MBSR instructions received at the beginning of the study suggest that intentional training and instructions on MBSR interventions before initiation can be beneficial and influence the participants to be successfully mindful.

Galantino, Baime, Maguire, Szapary, and Farrar (2005) [3] studied healthcare professionals' self-reported stress symptoms in response to mindful meditation during an 8-week program. The researcher was interested in work stress, burnout, and diminished empathy. The study utilized the Maslach Burnout Inventory (MBI) and Interpersonal Reactivity Index (IRI) to measured mood, burnout, and empathy.

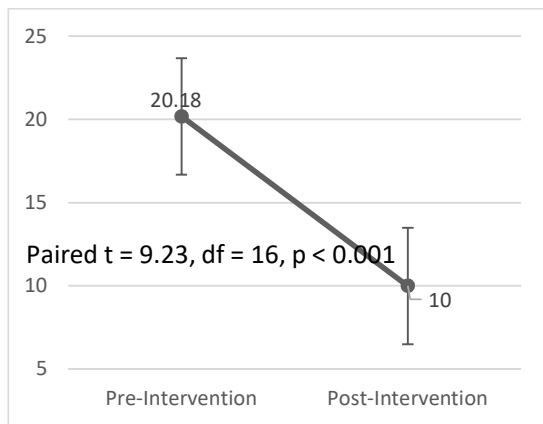


Figure 2. Pre- & Post-Mindfulness Perceived Stress Scale Score (Mean + SD)

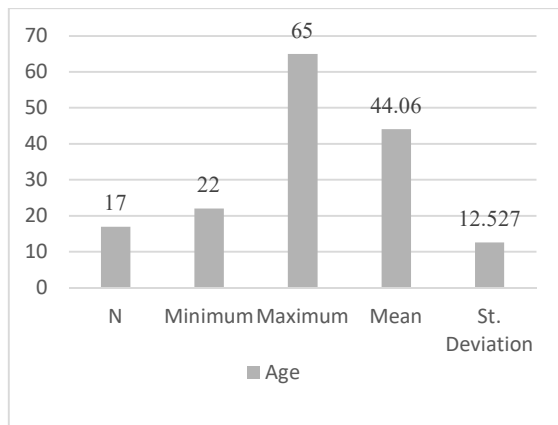


Figure 3. Age of Participants that Completed

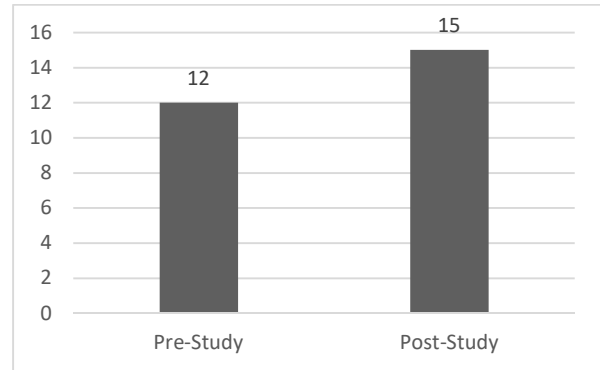


Figure 4. Demographic Question -Do you feel like getting up and coming to work each day? Answered: "Yes"

CONCLUSION

In summary, mindfulness awareness has proven to be an effective way to reduce the impact of stress and improve the overall well-being of the individuals completing mindfulness interventions. Individuals working with clinically compromised populations have increased burnout and emotional exhaustion. This research study would permit staff to voluntarily participate in mindfulness intervention practices and strengthen their understanding of the importance of practicing self-care techniques with the hope that it will assist with improving their quality of life. Employees with an improved quality of life will have more stability with their mental health, experience a stress reduction, reduce absences and reduce staff burnout and potentially improve patient outcomes.

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