

Impact of Music on Mindfulness in Employees

Ms. Satarupa Deka, **Prof(Dr.) Roopali Sharma & *Dr. Priyanka Tiwari*

*Ph.D Scholar, Amity Institute of Psychology and Allied Sciences, Amity University Uttar Pradesh, Noida.

**Professor, Amity Institute of Psychology and Allied Sciences, Amity University Uttar Pradesh, Noida.

***Associate Professor, Department of Applied Psychology, Manav Rachna International Institute of Research and Studies, Faridabad, Haryana.

Abstract

With the increase in various techniques of developing and increasing mindfulness, less has been tapped onto the role of music in increasing mindfulness. The purpose of the study was to compare music to the level of mindfulness among employees of both government and corporate sector. Using Mindfulness Attention and Awareness Scale data was collected from 15 employees who practice some form of music and 15 employees who do not know to perform any form of music. Findings suggest significant positive correlation between mindfulness and music practice among employees. Future studies could use various forms of music to see its effects on mindfulness among employees to increase their performances and also use robust research design and methodology for effect of music on mindfulness in longitudinal studies.

Keywords: mindfulness, music, employees, practice, performance.

Introduction

Music is an artistic expression of emotions through tune, pitch and rhythm (Widdess, 2012). It is a composition of sound waves that are soothing and pleasant to the auditory perception (Widdess, 2012; Kumar et. al., 2016). The creation of music originated from the Mother Nature through various soothing sounds like the chirping of birds, flow of water, howling of the wind, cry of the animals etc. (Gray et. al., 2001; Montagu, 2017). Later on, these sounds were used consciously by humans to celebrate, pray and chant to seek blessings which gave birth to today's form of music and musical instruments used across the world in different types (Montagu, 2017). These sound waves are found to have significant impact on brain waves and other neuro-psychological aspects (Habe, 2010). The neurological implications of music therapy was seen in many psychological domains including emotion (Arjmand et. al., 2017), motivation, mood (Bowles et. al., 2019), thought, feelings (Schaefer, 2017), sleep (Cordi, Ackermann & Rasch, 2019) etc. along with many major psychological disorders like depression, anxiety (Laura, Sylvie & Aurore, 2015), childhood disorders and disabilities (Srinivasan et al., 2016; Bharathi et al., 2019) etc.

Mindfulness is a concept that originated from the practice of Buddhism and it defines the state of conscious awareness (Keng, Smoski & Robins, 2011). Mindfulness is found to be significantly correlated to various mental health domains like positive wellbeing, life satisfaction, resilience, etc. (Keng, Smoski & Robins, 2011). It also works tremendously in the management of severe mental illnesses depression, anxiety and hypertension (Conversano et. al., 2021). Based on its basic premises, Kabat and Zinn in 1979 developed a stress reduction technique call Mindfulness Based Stress Reduction (MBSR) which is found to have positive impact on not only stress reduction but also chronic pain, cancer (Mehta et. al., 2019), diabetes (Mason et. al., 2018) and other such chronic illness (Merkes, 2010). Segal, Williams and Teasdale developed another technique of mindfulness from MBSR to aid cognitive therapy in 2000 and named it as the Mindfulness Based Cognitive Therapy (MBCT) (Mason et. al., 2018; Williams, Russell & Russell, 2008).

Mindfulness based therapeutic approaches are also experimented with music. Mindfulness based music therapy is one of the therapeutic approaches of mindfulness which has been administered on cancer patients (Lesiuk, 2016). Mindfulness based therapies are also widely used with music learners and musicians (Czajkowski, Greasley & Allis, 2020; Carlson, 2019). But very few studies are found probing music practice on enhancing mindfulness among different population. The current study tries to investigate on the relationship of music practice and mindfulness among working population.

Methodology

Aim: To assess the effect of music practice on mindfulness level among employees.

Objective: To compare the level of mindfulness among employees practicing music to those not learning music.

Hypothesis: There would be a significant difference on the level of mindfulness among employees practicing music and not learning music.

Variables: Mindfulness scores were considered as the dependent variable while musician employees and non musician employees were considered as the independent variable.

Participants: Purposive plus random sampling was used among employees of both government and private organization of Assam, India. 15 employees with knowledge or practice of music and 15 employees not learning music was considered for the study. Both males and females were considered for the study with age range 20years to 35years.

Research design: Ex-post facto research was conducted with purposive plus random sampling technique for collecting the samples.

Tools used: Mindfulness Attention and Awareness Scale (MAAS) Trait was used developed by Brown and Ryan in 2003. It is a 15 item questionnaire with 6 point likert scale ranging from 1(almost always) to 6 (almost never). Its test-retest reliability is found to be 0.82 and validity with Freiburg Mindfulness Inventory is 0.31.

Procedure: MAAS was administered on a total of 30 employees aged 20 to 35 years of age from both government and private organizations which included 15 participants who knew and played some form of music and 15 participants not knowing or learning any form of music, after a consent form was duly signed by the participants. The scoring of each employee's response was done which was then analyzed for appropriate results.

Statistical analysis used: Independent t-test was used to identify the significance between the two groups and Spearman's rho was used to assess the correlation between music practice and mindfulness level.

Results

Table 1 Descriptive Statistics of Mindfulness Attention and Awareness Scale Score

Group	N	Mean	Std. Deviation
Non Musicians	15	50.60	3.924
Musicians	15	63.27	5.599

Table 1 explains the mean and standard deviation of Mindfulness Attention and Awareness Scale score of the two groups namely non musicians and musicians where mean score of non musician group is 50.60 and standard deviation is 3.924. Whereas the mean score of the musician group is 63.27 and the standard deviation is 5.599.

Table 2 Independent sample t-test of Mindfulness Attention and Awareness Scale Score

	T value	Df	Sig. (2-tailed)	Mean Difference
MAAS	-7.175	28	0.000	12.667

Table 2 depicts the description of independent samples t-test of the score of Mindfulness Attention and awareness scale, where $t(28) = -7.175$, $P < 0.01$ level of significance which states that the MAAS scores are consistent with mean difference of 12.667.

Table 3 Spearman's Correlation

		MAASTrait	Group
Spearman's rho	Correlation Coefficient	1.000	.837**
	Sig. (2-tailed)	.	.000
	N	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 depicts the spearman's correlation between the scores of MAAS and employees who are musicians and non musicians and it shows a positive correlation at 0.01 level of significance between the two variables thus accepting the hypothesis stated above.

Discussion

The correlation between music and mindfulness level among employees is found to be positively correlated which means that presence of music or practicing music will increase the mindfulness level among employees. Hence, the alternative hypothesis stating "There would be a significant difference on the level of mindfulness among employees practicing music and not learning music" is accepted.

In most of the studies conducted earlier, it was seen that increased mindfulness is strongly correlated to better work performance and job satisfaction among employees (Moore, 2013). As organizations look forward for better performance of employees for the firm to flourish, employees seek for better recognition and satisfaction at their job to function optimally (Uhl-Bien, Schermerhorn, & Osborn, 2014). As music increases mindfulness, hence it can be used as a therapy to not only increase mindfulness among employees but also to increase their level of efficiency and promote mental wellbeing among the employees.

Mindfulness is also evident in boosting concentration and promoting self confidence (Moore, 2013; Kumar et. al., 2016) along with enhancing positive emotion and resilience in general population (Kwok, 2019). Hence music could be used to enhance the same as mentioned above to attain a more positive self among common people.

Not only practicing music boosts mental health and wellbeing, listening to music also helps in the change of neural pattern in the brain resulting in positive outcomes of various mental health domains (Mahmood et al., 2022; Johansson, 2006). It is evident that listening to music helps in decreasing depression and anxiety (Laura, Sylvie & Aurore, 2015) while promoting better physical health (Sarkar & Biswas, 2015) along with increase in life satisfaction, quality of life, happiness, resilience, self confidence, and positive self image (Kwok, 2019). Music could also be used for relationship building, enhancing communication skills, understanding gestures and other non verbal communications (Panksepp & Bernatzky, 2002).

Conclusion

As it is evident from the discussion mentioned above that music have many benefits in our daily life. The use of music is not only restricted to the patients with clinical disorder or organization employees but across different age group and cultural group for a healthy living. In the study conducted in this paper a positive implication of music is found among employees who practiced some form of music in their daily life by enhancing mindfulness. Hence, music needs to be used and felt in daily life in some form, be it instrumental, or humming, or singing or even through dance. One can also listen to music to have better results in their daily life. Listening to music also impacts the brain and behavior of a person.

Limitations: There were many limitations to the study. Firstly, the trait scale of Mindfulness Attention and Awareness Scale was used and state scale was not considered. Secondly, employees of educational institutions, hospitals and corporate sector were excluded from the sample. Thirdly, effect of age and sex ratio on mindfulness level was not analyzed in the study. Fourthly, all forms of music practice were included in the study and specific attention towards the effect of any single form of music was considered.

Further recommendation: Future studies needs to focus on the effect of music on work efficiency, job satisfaction, burnout, quality of life of employees along with mindfulness level. Specific music types and forms needs to be investigated for its unique impact on various domains of organization behavior. And lastly, training in music or music listening could to be used as a therapeutic approach for dealing with organization behavior.

References

- Arjmand, H. A., Hohagen, J., Paton, B., & Rickard, N. S. (2017). Emotional Responses to Music: Shifts in Frontal Brain Asymmetry Mark Periods of Musical Change. *Frontiers in Psychology*, 8, 2044.
- Bharathi, G., Venugopal, A., & Vellingiri, B. (2019). Music therapy as a therapeutic tool in improving the social skills of autistic children. *Egyptian Journal of Neurology, Psychiatry and Neurosurgery*, 55(1).
- Bowles, L., Curtis, J., Davies, C., Lengerich, A., & Bugajsky, A. (2019). The effect of music on mood, motivation, and exercise among patients in a cardiac rehabilitation program: A pilot study. *Nursing Forum*, 54(3), 340-344.
- Brown, K. W., Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*. 84, 822-848.
- Carlson. L. H. (2019). Mindfulness for optimal performance for musicians. *Mindfulness Studies Theses*, 19.

- Conversano, C., Orru, G., Pozza, A., Miccoli, M., Ciacchini, R., Marchi, L., & Gemignani, A. (2021). Is mindfulness-based stress reduction effective for people with hypertension? A systematic review and meta-analysis of 30 years of evidence. *International Journal of Environmental Research and Public Health*, 18(6), 2882.
- Cordi, M. J., Ackermann, S., & Rasch, B. (2019). Effects of relaxing music on healthy sleep. *Scientific Reports*, 9, 9079.
- Czajkowsk, A. M. L., Greasley, A. E., & Allis, M. (2020). Mindfulness for musicians: A mixed methods study investigating the effects of 8-week mindfulness courses on music students at a leading conservatoire. *Musicae Scientiae*, 1-21.
- Gray, P. M., Krause, B., Atema, J., Payne, R., Krumhansl, C., & Baptista, L. (2001). Enhanced: The music of nature and the nature of music. *Science*, 291(5501), 52-54.
- Habe, K. (2010). Neuropsychology of music- A rapidly growing branch of psychology. *Horizons of Psychology*, 19(1), 79-98.
- Johansson, B. (2006). Music and brain plasticity. *European Review*, 14(1), 49-64.
- Keng, S. L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, 31(6), 1041-1056.
- Kumar, N., Wajidi, M. A., Chian, Y. T., & Vishroothi, S. (2016). The effect of listening to music on concentration and academic performance of the student: Cross-sectional study on medical undergraduate students. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 7(6), 1190-1195.
- Kwok, S. Y. C. L. (2019). Integrating positive psychology and elements of music therapy to alleviate adolescent anxiety. *Research on Social Work Practice*, 29(6), 663-676.
- Kumar, S. (2022). A quest for sustainium (sustainability Premium): review of sustainable bonds. *Academy of Accounting and Financial Studies Journal*, Vol. 26, no.2, pp. 1-18
- Allugunti V.R (2022). A machine learning model for skin disease classification using convolution neural network. *International Journal of Computing, Programming and Database Management* 3(1), 141-147
- Laura, D., Sylvie, J., & Aurore, S. (2015). The effects of music therapy on anxiety and depression. *ANNALS of Depression and Anxiety*, 2(4), 1057.
- Lesiuk, T. (2016). The development of a mindfulness-based music therapy (MBMT) program for women receiving adjuvant chemotherapy for breast cancer. *Healthcare*, 4(3), 53.
- Mahmood, D., Nisar, H., Yap, V. V., & Tsai, C. Y. (2022). The Effect of Music Listening on EEG Functional Connectivity of Brain: A Short-Duration and Long-Duration Study. *Mathematics*, 10, 349.
- Mason, J., Meal, A., Shaw, I., & Adams, G. G. (2018). Outcomes of mindfulness-based stress reduction and mindfulness-based cognitive therapy in adult with diabetes: A systematic review. *Journal of Diabetes and Treatment*, 149.
- Mehta, R., Sharma, K., Potters, L., Wernicke, A. G., & Parashar, B. (2019). Evidence for the role of mindfulness in cancer: Benefits and techniques. *Cureus*, 11(5), e4629.
- Merkes, M. (2010). Mindfulness based stress reduction for people with chronic diseases. *Australian Journal of Primary Health*, 16(3), 200-210.
- Montagu, J. (2017). How Music and Instruments Began: A Brief Overview of the Origin and Entire Development of Music, from Its Earliest Stages. *Frontiers in Sociology*, 2, 8.
- Moore, B. A. (2013). Propensity for experiencing flow: The roles of cognitive flexibility and mindfulness. *Humanistic Psychologist*, 41(4), 319-332.
- Panksepp, J., & Bernatzky, G. (2002). Emotional sounds and the brain: the neuro-affective foundations of musical appreciation. *Behavioural Processes*, 60(2), 133-155.
- Sarkar, J., & Biswas, U. (2015). Indian classical ragas to cure diseases. *International Journal of Advanced Science and Research*, 1(1), 9-13.
- Schaefer, H. E. (2017). Music evoked emotions- current studies. *Frontiers in Neuroscience*, 11, 600.
- Srinivasan, S.M., Eigsti, I.M., Neelly, L., & Bhat, A.N. (2016). The effects of embodied rhythm and robotic interventions on the spontaneous and responsive social attention patterns of children with autism spectrum disorder (ASD): A pilot randomized controlled trial. *Research in Autism Spectrum Disorder*, 54-72.
- Uhl-Bien, M., Schermerhorn, J. R., & Osborn, R. N. (2014). *Organizational Behavior, 13th Edition*. John Wiley & Sons, Inc.
- Widdess, R. (2012). Music, Meaning and Culture. *Empirical Musicology Review*, 7, 1-2.

Williams, J. M. G., Russell, I., & Russell, D. (2008). Mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*, 76(3), 524-529.