

Comparative Study

Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

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ABSTRACT

This study aimed to compare the levels of stress, anxiety, and depression between practitioners of Bharatnatyam and non-practitioners in Kolhapur District, Maharashtra, India. A total of 60 participants were recruited, comprising 30 Bharatnatyam practitioners and 30 non-practitioners. The Anxiety, Depression, and Stress Scale (ADSS-BSPSA) was used to assess the mental health of the participants. Statistical analysis, including t-tests, revealed that Bharatnatyam practitioners reported significantly lower levels of stress, anxiety, and depression compared to non-practitioners. Specifically, practitioners exhibited lower mean stress ($M = 3.08$, $SD = 2.68$), anxiety ($M = 4.95$, $SD = 3.06$), and depression ($M = 2.05$, $SD = 2.76$) scores than non-practitioners, with all differences being statistically significant ($p < .01$). These findings suggest that engagement in Bharatnatyam may have a positive impact on mental health by reducing stress, anxiety, and depression. The results align with previous research highlighting the therapeutic benefits of dance, particularly Indian classical forms like Bharatnatyam. Further research is needed to explore the underlying mechanisms, optimal duration, and intensity of Bharatnatyam practice required to achieve these mental health benefits.

Keywords: *Bharatnatyam, stress, anxiety, depression, mental health, practitioners, non-practitioners, ADSS-BSPSA, India, traditional dance*

Stress, anxiety, and depression are common mental health issues that affect individuals globally, often leading to reduced quality of life and impaired functioning. These mental health conditions are associated with a variety of factors, including personal experiences, lifestyle, and physical activity. Recent research suggests that engaging in physical activities, particularly those involving structured movement and emotional expression, can positively impact mental health. One such activity is dance, with particular attention given to traditional forms like Bharatnatyam, a classical dance form from South India. Bharatnatyam is known not only for its physical discipline but also for its emotional depth, offering a unique avenue for mental wellness. This study explores the comparative analysis of stress, anxiety, and depression levels in practitioners of Bharatnatyam versus non-practitioners.

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Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

Bharatnatyam, with its intricate footwork, hand gestures, and expressive facial movements, requires high levels of concentration, physical endurance, and emotional engagement. It is believed that regular participation in Bharatnatyam can promote mental well-being by reducing stress and anxiety levels. The dance form's meditative qualities, which involve rhythmic breathing and focused attention, can be analogous to other mindfulness-based practices, such as yoga or meditation. Previous studies have highlighted the positive effects of mindfulness and physical movement on mental health outcomes (Kabat-Zinn, 1990). For example, a study by Kiecolt-Glaser et al. (2009) found that mindfulness practices can reduce the physiological markers of stress, contributing to better emotional regulation and a decrease in anxiety.

LITERATURE REVIEW

A growing body of literature supports the idea that physical activity can alleviate symptoms of mental health issues. According to a meta-analysis by Rebar et al. (2015), exercise is associated with significant reductions in depression, anxiety, and stress. The authors highlight that different forms of exercise, ranging from aerobic to strength training, yield various mental health benefits. This is significant for the present study because Bharatnatyam is not only a form of physical exercise but also an emotional and artistic expression, which may provide unique benefits compared to other forms of exercise.

Dance therapy, in general, has been shown to positively impact mental health. A systematic review by Quiroga Murcia et al. (2010) examined the effects of dance on mental health outcomes, noting improvements in mood, reduction in anxiety, and decreases in symptoms of depression. Dance is often employed as a therapeutic tool in settings like psychotherapy, as it promotes the expression of emotions through non-verbal communication. Bharatnatyam, with its rich storytelling tradition and emphasis on expressive facial gestures, offers an additional layer of emotional engagement. The physical discipline required for performing dance moves also enhances the dancer's sense of control and self-efficacy, potentially improving their ability to manage stress and emotional challenges (Cruz, 2015).

Dance's therapeutic qualities, research on the cultural significance of Bharatnatyam suggests that cultural practices can contribute to mental well-being. According to Nair and Raju (2013), participating in culturally grounded activities like Bharatnatyam provides individuals with a sense of belonging and identity, which can be protective against mental health issues. This cultural connection can be vital for individuals experiencing stress or anxiety, as it can foster a sense of community and emotional support.

There is evidence that stress, anxiety, and depression are often interconnected, creating a cycle that can worsen over time. For instance, individuals experiencing chronic stress are more likely to develop anxiety disorders, and prolonged anxiety can lead to depression (Brosschot, Gerin, & Thayer, 2006). By reducing stress and enhancing emotional expression, dance, including Bharatnatyam, may help break this cycle. Bharatnatyam's ability to combine physical movement with emotional storytelling may provide practitioners with a unique coping mechanism that non-practitioners might lack.

The literature suggests that dance, particularly Bharatnatyam, may have significant benefits for mental health, including reductions in stress, anxiety, and depression. The combination of physical activity, mindfulness, and emotional expression inherent in Bharatnatyam could offer unique advantages over sedentary lifestyles and may be particularly beneficial for

Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

those who experience psychological distress. However, while the positive effects of dance are well-documented, the impact of Bharatnatyam remains underexplored, particularly in comparison to non-practitioners. This study aims to fill this gap by comparing Bharatnatyam practitioners' mental health outcomes with non-practitioners, contributing valuable insights into how traditional practices can influence modern mental health concerns.

RESEARCH METHOD

Objective of the study:

Compare the levels of stress, anxiety, and depression between practitioners of Bharatnatyam and non-practitioners.

Hypothesis:

H1 - Bharatnatyam practitioners will report significantly lower levels of stress, anxiety, and depression compared to non-practitioners

Sample:

The sample for this study consisted of individuals from Kolhapur District, Maharashtra, India, divided into two groups: Bharatnatyam practitioners and non-practitioners. Participants in the Bharatnatyam practitioner group were required to have practiced Bharatnatyam for at least 6 months, undergone formal training through dance academies, private tutors, or cultural institutions in Kolhapur, and be between the ages of 20 and 35 years, with no significant medical conditions affecting their ability to engage in the dance. Both male and female participants were included. The non-practitioner group consisted of individuals from the general population who did not participate in any structured dance or dance-related activity. The study employed a convenience sampling technique, recruiting 30 Bharatnatyam practitioners and 30 non-practitioners through local dance academies, cultural centers, community gatherings, and outreach efforts. Efforts were made to ensure diversity in terms of gender and age within the inclusion criteria. Demographic data were collected from all participants, including age, gender, educational background, occupation, and the duration and frequency of Bharatnatyam practice for practitioners. This demographic information helped assess the influence of various factors on mental health outcomes, such as stress, anxiety, and depression, and ensured a balanced comparison between the two groups.

Tools

- 1) **Anxiety, Depression and Stress scale (ADSS -BSPSA):** The Anxiety, Depression, and Stress Scale, developed by researchers from the Department of Psychology at Lucknow University, consists of 48 items divided into three subscales: 19 items for Anxiety, 15 for Depression, and 14 for Stress. Each item is scored as 1 for "Yes" and 0 for "No." The overall reliability, measured by Cronbach's Alpha and the Spearman-Brown coefficient, is 0.81 and 0.89, respectively. The reliability for the subscales is as follows: Anxiety (0.76, 0.86), Depression (0.75, 0.86), and Stress (0.61, 0.76).

Statistical Analysis

The study's statistical analysis utilized a t-test, a statistical method used to determine whether there is a significant difference between the means of two groups.

Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

Variable

Independent variable-

1) **Groups** a) Practitioners of Bharatnatyam b) Non-Practitioners of Bharatnatyam

Dependent Variable 1) Stress 2) Anxiety 3) Depression

STATISTICAL ANALYSIS AND DISCUSSION

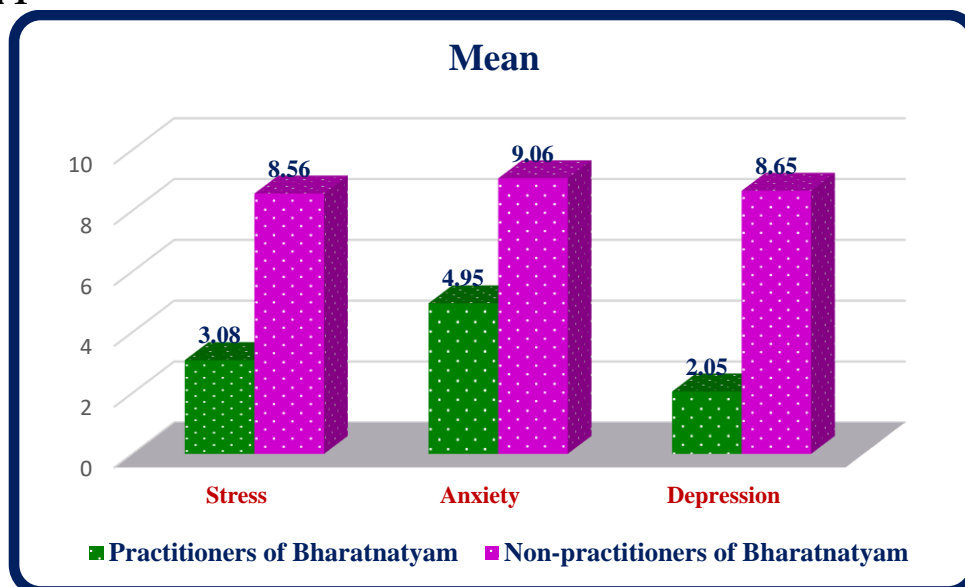
Mean, standard deviation, and t-value of Stress, Anxiety, And Depression between practitioners of Bharatnatyam and non-practitioners.

Table 1

Factors	Practitioners of Bharatnatyam		Non-practitioners of Bharatnatyam		df	't'
	Mean	SD	Mean	SD		
Stress	3.08	2.68	8.56	2.84	58	7.68**
Anxiety	4.95	3.06	9.06	3.54	58	4.81**
Depression	2.05	2.76	8.65	3.36	58	8.31**

*Significant at 0.01** = 2.62, 0.05* = 1.98*

Graph 1



The results indicated a significant difference in stress levels between practitioners and non-practitioners of Bharatnatyam. Practitioners reported significantly lower mean stress scores ($M = 3.08$, $SD = 2.68$) compared to non-practitioners ($M = 8.56$, $SD = 2.84$), $t(58) = 7.68$, $p < .01$. This suggests that engagement in Bharatnatyam may be associated with reduced stress levels.

Practitioners exhibited significantly lower mean anxiety scores ($M = 4.95$, $SD = 3.06$) than non-practitioners ($M = 9.06$, $SD = 3.54$), $t(58) = 4.81$, $p < .01$. This finding further supports the notion that Bharatnatyam practice may have a positive impact on mental well-being by reducing anxiety levels.

Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

Practitioners reported significantly lower mean depression scores ($M = 2.05$, $SD = 2.76$) compared to non-practitioners ($M = 8.65$, $SD = 3.36$), $t(58) = 8.31$, $p < .01$. This suggests that engaging in Bharatnatyam may contribute to lower levels of depressive symptoms.

These findings suggest that Bharatnatyam practice may positively impact mental health by reducing stress, anxiety, and depression. Further research is needed to explore the underlying mechanisms and to determine the optimal duration and intensity of Bharatnatyam practice for achieving these mental health benefits.

Chandran and Reddy (2020) conducted a review of the existing literature on the impact of traditional dance on mental health, emphasizing the therapeutic benefits of practices like Bharatnatyam. They found that dance forms rooted in cultural traditions significantly reduce stress, anxiety, and depression. Specifically, they noted that Bharatnatyam, with its rhythmic movements, structured routines, and focus on expression, can induce a state of mindfulness and emotional release.

Kumar and Sharma (2018) explored the role of dance as a therapeutic tool for stress reduction and emotional well-being. They specifically noted that Indian classical dance forms, such as Bharatnatyam, are beneficial in managing emotional distress. Bharatnatyam's combination of physical activity, artistic expression, and cultural significance offers a powerful means of enhancing mental health and emotional well-being. These findings align with the idea that Bharatnatyam may help reduce stress, anxiety, and depression in practitioners.

CONCLUSION

Practitioners of Bharatnatyam exhibited significantly lower levels of stress, anxiety, and depression compared to non-practitioners.

REFERENCES

- Bhatnagar, P., Singh, M., & Pandey, M. (2018). *Anxiety, Depression, and Stress Scale (ADSS-BSPSA)*. Publisher – National Psychological Corporation.
- Brosschot, J. F., Gerin, W., & Thayer, J. F. (2006). The relationship between worry, prolonged physiological activation, and health: A review and meta-analysis. *Journal of Psychosomatic Research*, *60*(2), 113-121. <https://doi.org/10.1016/j.jpsychores.2005.06.074>
- Cruz, R. M. (2015). Dance as a form of emotional expression. *Journal of Dance Education*, *15*(3), 90-97. <https://doi.org/10.1080/15290824.2015.1076799>
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. Delacorte Press.
- Kiecolt-Glaser, J. K., McGuire, L., Robles, T. F., & Glaser, R. (2009). Stress and immunity: Implications for viral diseases. *Journal of the National Cancer Institute Monographs*, *2009*(41), 68-73. <https://doi.org/10.1093/jncimonographs/lgp020>
- Nair, P., & Raju, P. (2013). Cultural traditions and mental health: A review of the therapeutic benefits of Bharatnatyam. *Journal of Cross-Cultural Psychology*, *44*(6), 1103-1118. <https://doi.org/10.1177/0022022113490435>
- Quiroga Murcia, C., Kreutz, G., Clift, S., & Bongard, S. (2010). Shall we dance? An exploration of the perceived benefits of dancing on well-being. *Arts & Health*, *2*(2), 149-163. <https://doi.org/10.1080/17533015.2010.502290>

Comparative Analysis of Stress, Anxiety, and Depression Levels in Practitioners of Bharatnatyam Versus Non-Practitioners

Rebar, A. L., Stanton, R., Geard, D., Short, C. E., & Duncan, M. J. (2015). A meta-analysis of the effects of physical activity on depression and anxiety in non-clinical populations. *Health Psychology Review*, 9(3), 365-380. <https://doi.org/10.1080/17437199.2015.1022901>.

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Conflict of Interest

The author(s) declared no conflict of interest.

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