

Exploring The Physical Benefits: A Study On The Role Of Bharatanatyam In Enhancing Human Fitness

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This study explores the physical benefits of Bharatanatyam practice among its practitioners through a quantitative survey-based approach. Likert scale questions were utilized to assess participants' perceptions regarding Bharatanatyam's impact on various aspects of physical fitness, including flexibility, muscular strength, posture, and cardiovascular health. A sample of 100 Bharatanatyam practitioners from different dance academies participated in the study. The analysis of Likert scale responses revealed overwhelmingly positive perceptions of Bharatanatyam's physical benefits, highlighting its role in enhancing overall physical fitness, flexibility, muscular strength, posture, and cardiovascular health. These findings emphasize Bharatanatyam's potential as a holistic practice that promotes physical vitality and well-being.

Keywords: Bharatanatyam, physical fitness, flexibility, muscular strength, posture, cardiovascular health. Human fitness, Physical Benefits.

1.0 Introduction

Bharatanatyam is an ancient classical dance forms which originates from South India, is renowned for its intricate footwork, expressive gestures, and rhythmic movements (Juhi, T. 2021). While traditionally recognized for its cultural and artistic significance, there exists a growing curiosity regarding its potential impact on physical fitness. This investigation aims to delve into the multifaceted relationship between Bharatanatyam and human physical well-being. By scrutinizing its techniques, patterns, and rigorous training regimen, this study endeavors to shed light on the holistic benefits this dance form offers beyond its artistic realm.

Bharatanatyam, deeply rooted in Indian tradition and mythology, encompasses a diverse range of movements, each meticulously designed to convey emotions, narratives, and spiritual concepts. Originating in the temples of Tamil Nadu, Bharatanatyam underwent a transformation from a devotional ritual to a highly stylized art form under the patronage of various dynasties and kingdoms throughout history (Coorlawala, U. A. 2005).

Historically, Bharatanatyam has been perceived primarily as an art form meant for entertainment, religious expression, and cultural preservation. However, recent research has begun to explore its potential implications for physical fitness and well-being. Traditional

training in Bharatanatyam involves rigorous practice sessions comprising a combination of rhythmic footwork (adavus), intricate hand gestures (mudras), dynamic body movements, and expressive facial expressions. Physiologically, Bharatanatyam demands significant cardiovascular endurance, muscular strength, flexibility, and coordination. The continuous movement sequences, executed with precision and grace, require dancers to engage various muscle groups throughout their bodies. The intricate footwork and rapid changes in tempo necessitate exceptional agility, balance, and neuromuscular control (Pattnaik, S., & Samantaray, S. P. 2017).

Moreover, Bharatanatyam involves deep rhythmic breathing synchronized with movements, promoting respiratory efficiency and enhancing pulmonary function. The disciplined practice routines not only improve physical stamina but also cultivate mental focus, discipline, and emotional expression (Sabaananth, S., & Thevanthy, T. 2015).

While anecdotal evidence suggests that regular participation in Bharatanatyam may confer numerous health benefits, empirical research on this topic remains scarce. Therefore, this investigation seeks to bridge this gap by conducting a comprehensive analysis of Bharatanatyam's impact on human physical fitness. By examining its physiological effects, biomechanical demands, and potential therapeutic applications, this study aims to provide valuable insights into the significance of Bharatanatyam beyond its cultural and artistic dimensions.

Objectives

1. To evaluate the physiological impact of Bharatanatyam dance practice on muscular strength, flexibility, and overall physical fitness.
2. To investigate the potential therapeutic benefits of Bharatanatyam as a form of exercise for improving posture, balance, coordination, and mental well-being.

2.0 Literature Review

(Sharma, M. et al. 2018) conducted a study examining the flexibility of lower extremity muscles in amateur and trained female Bharatanatyam dancers compared to nondancers. The research included 105 healthy female volunteers, comprising 70 Bharatanatyam dancers (35 trained, 35 amateurs) and 35 controls. Using a standardized goniometer, participants underwent assessments for range of motion (ROM) in various lower limb movements. The findings revealed that trained dancers demonstrated significantly higher ROM in hip flexion, extension, abduction, and external rotation compared to both amateurs and nondancers. However, their ROM in internal rotation and adduction was lower. Trained dancers also exhibited increased ROM in knee flexion, extension, and ankle dorsiflexion (DF), but decreased ROM in ankle plantar flexion (PF). These results emphasize the necessity of flexibility training in Bharatanatyam dancers to enhance performance and reduce the risk of injuries.

In a study by (Jothi, K. et al. (2011), the impact of Bharathanatyam and yoga asana on college students' flexibility was investigated. Forty-five women aged 18-22 were divided into three groups. Both the Bharathanatyam and yoga groups demonstrated significant enhancements in

flexibility compared to the control group. The discussion highlighted the potential of incorporating these practices into college physical education programs to improve students' flexibility, acknowledging Bharathanatyam's effectiveness alongside traditional yoga practices.

(Jyothi, S., & Sujaya, B. 2018) evaluated and compared the muscle strength of upper and lower limbs in female Bharatanatyam dancers and nondancers. Thirty-two dancers and 33 nondancers took part in the study. Bharatanatyam dancers exhibited superior lower limb muscle strength, as evidenced by their quicker performance in the 6-meter hop test, longer duration in the wall sit test, and greater number of push-ups. These findings emphasize the significance of optimal muscle strength for proficient Bharatanatyam performance, suggesting that regular practice enhances strength in both upper and lower limbs.

Jagadeeswari, S. (2017) aimed to compare flexibility between Yoga and Bharatanatyam practicing students. Twenty students from each discipline participated, aged 10 to 15 years. The 'V' sit reach test and a 50-meter dash measured flexibility and speed, respectively. Results revealed significantly better flexibility among Yoga practicing students compared to Bharatanatyam practitioners, emphasizing Yoga's superiority in fostering flexibility over Bharatanatyam practice.

3.0 Research Methodology

The study utilized a quantitative survey-based approach to investigate the perceptions and experiences of Bharatanatyam practitioners concerning the physical benefits associated with this classical dance form. A purposive sampling technique was employed to select 100 respondents from various dance academies specializing in Bharatanatyam. Participants were required to meet specific criteria, including current enrolment in a registered dance academy, a minimum of one year of Bharatanatyam training, and willingness to participate in the survey. The survey instrument consisted of Likert scale questions, offering five response options ranging from "Strongly Disagree" to "Strongly Agree," allowing participants to express their opinions on Bharatanatyam's impact on physical fitness. Data collection was carried out through electronic formats, with participants given ample time to complete the survey independently to ensure privacy and confidentiality. Quantitative data obtained from the Likert scale responses were analyzed using descriptive statistics.

4.0 Data Analysis

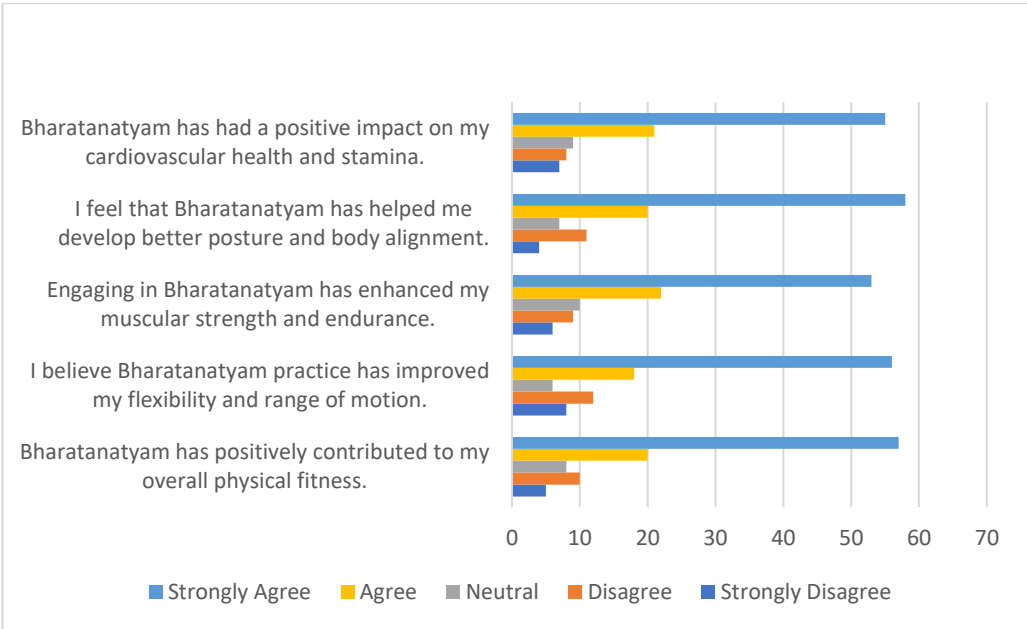


Fig. 1 Summary of the Responses

Table 1. Frequency Distribution of the Responses

Likert Scale Response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Bharatanatyam has positively contributed to my overall physical fitness.	5	10	8	20	57
I believe Bharatanatyam practice has improved my flexibility and range of motion.	8	12	6	18	56
Engaging in Bharatanatyam has enhanced my muscular strength and endurance.	6	9	10	22	53
I feel that Bharatanatyam has helped me develop better posture and body alignment.	4	11	7	20	58
Bharatanatyam has had a positive impact on my cardiovascular health and stamina.	7	8	9	21	55

The responses reveal a consistent pattern of strong positive perceptions regarding the physical benefits of Bharatanatyam practice among the respondents. A significant majority expressed strong agreement that Bharatanatyam positively contributed to their overall physical fitness, improved their flexibility and range of motion, enhanced their muscular strength and endurance, helped them develop better posture and body alignment, and had a positive impact on their cardiovascular health and stamina. These findings suggest that Bharatanatyam is widely regarded as an effective form of exercise that not only promotes physical fitness but also contributes to various aspects of bodily health and well-being. The overwhelming endorsement of Bharatanatyam's physical benefits underscores its potential as a holistic practice that nurtures both the body and the mind, aligning with the traditional understanding of this classical dance form as not only an art form but also a discipline that fosters physical vitality and wellness.

5.0 Conclusion

The findings of this study underscore the significant positive impact of Bharatanatyam practice on various aspects of physical fitness and well-being among its practitioners. Through the analysis of Likert scale responses, it is evident that Bharatanatyam is widely perceived as a beneficial form of exercise that contributes to improved overall physical fitness, enhanced flexibility and range of motion, increased muscular strength and endurance, better posture and body alignment, and enhanced cardiovascular health and stamina. These results reaffirm Bharatanatyam's status not only as a classical art form but also as a holistic practice with profound implications for physical health and wellness. The consistent endorsement of Bharatanatyam's physical benefits highlights its potential as a comprehensive approach to nurturing both the body and the mind, aligning with its traditional roots as a discipline that promotes holistic well-being.

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