International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Comparative Study - Big Five Factors of Personality Among Kathak Dancers and Non-Dancers

Ms. Gaurangi Soral[1], Dr. Ratna Dixit Sharma[2]

[1]Research Scholar, Psychology, Banasthali Vidyapith
[2]Associate Professor, Psychology, Banasthali Vidyapith

Abstract

Personality refers to individual differences in patterns of thinking (cognition), feeling (affection), and behaving. Personality research primarily focuses on two areas: first, understanding individual differences in specific personality traits; and second, examining how the various components of personality integrate to form a cohesive whole.

In this study, a purposive sample of 150 female college students from Banasthali Vidyapith was selected. Among them, 75 were trained classical Kathak dancers, while the remaining 75 were non-dancers. Participants ranged in age from 18 to 24 years. The NEO Five-Factor Inventory (NEO-FFI), comprising 60 items, was employed to assess five key personality traits: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Responses were recorded on a 5-point Likert scale, ranging from Strongly Disagree to Strongly Agree.

The primary aim of the study was to examine differences in personality traits between classical dancers and non-dancers. Results indicated slight differences in the mean scores between the two groups; however, no statistically significant differences were found in the trait of Neuroticism. This suggests that while there may be minimal variation, overall, the two groups do not significantly differ in this personality domain.

Keywords: Personality, Big five factors, NEO-FFI, Kathak Dancers and Non- dancers

Introduction

Dance

India is home to a millennia-old cultural heritage rich in magnificent artwork, traditional music, and classical dance forms. A unifying element among these dance forms is the use of *mudras*, or symbolic hand gestures, which were originally performed in temples to entertain and honour various deities. These gestures not only served as a medium of entertainment but also played a vital role in transmitting ancient stories and mythologies across generations.

Indian classical dance is widely recognized as a form of spiritual practice and was formally codified in the ancient treatise *Natya Shastra*. According to Eckmann (2007), engagement in classical dance can enhance social skills, improve mental health, boost psychological well-being, and foster greater self-confidence and self-esteem. Thus, classical dance serves not only as an artistic expression but also as a transformative pathway toward holistic personal development.

Factors Affecting Engagement in Classical Dance:

Engagement in classical dance is influenced by a variety of interconnected factors. One of the primary determinants is the **socio-economic background** of individuals, which can affect access to training, exposure, and resources required for sustained practice. Additionally, a dancer's **personal interests** and intrinsic motivation play a significant role in their continued involvement in the art form. **Individual views and opinions**—shaped by family, community, and cultural narratives—also contribute to attitudes toward classical dance as a viable pursuit. Moreover, many dancers report experiencing substantial **personal benefits**, including improved emotional regulation, physical fitness, and a deeper sense of identity and self-expression. Finally, the **present and future of classical dance** and its practitioners are shaped by societal recognition, institutional support, and the ability to adapt to modern platforms while preserving traditional roots. Understanding these factors provides a more comprehensive view of what drives or hinders participation in Indian classical dance today.

Personality

Since each individual is inherently unique, personality psychology focuses on the traits that distinguish people across various contexts and life domains. The Big Five Personality Traits—**Neuroticism, Extraversion, Openness, Agreeableness**, and **Conscientiousness**—represent broad domains that encapsulate key dimensions of human personality. Each of these five traits comprises a range of more specific characteristics, known as **facets**, and the **NEO PI-R** instrument developed by Costa and McCrae measures six facets for each domain.

McCrae and his colleagues found that the Big Five traits are universally applicable across cultures. Their cross-cultural research involving participants from over 50 countries revealed that these traits are not only consistent but also deeply rooted in human evolution. From an **evolutionary psychology perspective**, these traits are believed to have developed as adaptive mechanisms that influence how individuals navigate and interact with their social environment, thereby supporting survival and social cohesion.

Literature Review

Individual differences are a significant factor in the Seven Dancers' style choices, according to **Carmen Amador Barreiro1, Adrian Furnham2*.** The topics of discussion include dancing motivation, the Big Five personality qualities, and the demographic conditions of the Seven Style dancers. Six out of the seven dance types have Mood Enhancement as the best predictor of dancing. A person in a good mood will typically dance in such situation.

(Alter, 1984; Bakker, 1991; Haller, 2010; Marchant-Haycox & Wilson, 1992; Rubinstein & Strul, 2006), dancers are more likely to be introverted, creative, and have high neuroticism and receptive to new experiences. The study's restricted dance style and exclusively female sample are highlighted here.

Another study by **Bettina Weege, Lena Barges, Michael N. Pham, Todd K. Shackelford, and Bernhard Fink** was titled **Women's Attractiveness Perception of Men's Dance Movements in Relation to Self-Reported and Perceived Personality**. The present study posited that there would be a positive correlation between women's assessments of men's dances and their perceptions of men's traits such as extraversion, agreeableness, conscientiousness, and openness, and a negative correlation between women's assessments and men's neuroticism.

Another research by **Preeti Joshi** and **Prashant Das** investigated **Personality difference between Male Classical India Dancers and Western Male Dancers** in **2015.** Sample size were ten dancers, five Indian Classical Dancers and five Western Dancers, Results showed that neuroticism dimensions were same in both the group where openness was found to be significantly different. Extraversions show major differences and western dancers were significantly low on extraversions than Indian Classical Dancers.

Due to the fact that dancing and singing include the use of one's body for expression—a circumstance that is far more socially exposed than, say, playing an instrument—dancers and singers exhibit a high degree of extraversion in their personalities. The results of the study published in the journal Personality and Individual Differences. More thorough research is required to investigate this further, according to **MPIEA** (Max Planck Institute for Empirical Aesthetics**)** main author **Julia F. Christensen.**

The term "extraversion" describes a person's level of cheerfulness, communication, energy, and social interaction. The degree of someone's warmth, compassion, cooperation, support, and ability to get along with others is reflected in their level of agreeableness. Conscientiousness is the degree to which an individual is accountable, responsible, on time, goal-oriented, and trustworthy. The degree to which a person exhibits worry, anxiety, impulsivity, and insecurity is known as neuroticism. One's level of creativity, imagination, curiosity, and open-mindedness are all reflected in their level of openness **(Barrick et al., 2001; Funder and Fast, 2010).**

Sharmishtha Mitra et al., researched on **Nature of Personality Patterns and Coping Strategies among Female Indian Classical Dancers (Bharatanatyam Dancers) and Contemporary Dancers** in **2022.** There were 90 subjects, bifurcated to 3 groups Indian Classical Dancers, Contemporary Dancers and Non-Dancers. Results revealed that Indian Classical Dancers and Contemporary Dancers differ notably or significantly on Extraversions, where Contemporary dancers are outgoing and social and Indian Classical Dancers are reserved and are selectively social and there is a notable difference in terms of personality among three groups.

Objective

To explore the relationship of big five factors of personality among classical dancers and non-dancers.

To assess the predictive value of big five factors among Kathak dancers and non-dancers.

Hypotheses

There would be a significant difference among big five factors among classical Kathak dancers and non-dancers.

There would be a significant difference of neuroticism among classical Kathak dancers and non-dancers.

There would be a significant difference of extraversion among classical Kathak dancers and non-dancers.

There would be a significant difference of openness among classical Kathak dancers and non-dancers.

There would be a significant difference of agreeableness among classical kathak dancers and non-dancers.

Research Methodology

Sample

A purposive sample of 150 female college students, aged between 18 and 24 years, was drawn from Banasthali Vidyapith, a renowned women's university in India. The sample was divided into two equal groups: 75 participants who were trained classical Kathak dancers with a consistent practice history, and 75 participants who had no formal dance training or involvement in regular dance activities, categorized as non-dancers. The purposive sampling method was employed to ensure that the participants represented distinct categories relevant to the study's objectives, facilitating a comparative analysis between the two groups.

Variables

In the context of psychological research, **variables** refer to the attributes or characteristics that can change or vary among individuals or across conditions. These are fundamental components of experimental studies, as they enable researchers to examine causal relationships, correlations, or the effects of interventions. Variables are crucial in formulating hypotheses and testing theoretical frameworks within psychology.

Two primary types of variables are commonly distinguished: **independent variables** and **dependent variables**.

- The **independent variable** (IV) is the factor that the researcher deliberately manipulates or controls to observe its potential impact. It is considered the presumed cause in an experimental setup. For example, the amount of sleep participants receive before a cognitive test could be an independent variable.
- The **dependent variable** (DV), on the other hand, is the outcome that the researcher measures. It reflects the effect or response that may change as a result of variations in the independent variable. In the previous example, the participants' performance on the cognitive test would be the dependent variable.

In essence, the independent variable influences, or is hypothesized to influence, the dependent variable. By systematically controlling the independent variable and observing changes in the dependent variable, researchers aim to determine whether a causal relationship exists between the two.

Tools

For any empirical study, the use of standardized research instruments is essential for the systematic collection of data from the sample population. These instruments ensure the reliability and validity of the findings, making them a critical component of any research design. In the present study, the **NEO Five-Factor Inventory (NEO-FFI)** developed by **Costa and McCrae** was employed to assess the personality traits of classical Kathak dancers and non-dancers.

The NEO inventory exists in multiple versions, including those with 240, 180, 96, and 60 items. Among these, the **60-item version (NEO-FFI)** is the most commonly used due to its brevity and efficiency, while still maintaining robust psychometric properties. This version was used in the current study. It measures five core dimensions of personality—**Neuroticism, Extraversion, Openness to Experience, Agreeableness,** and **Conscientiousness**—using a **5-point Likert scale**.

Participants are required to respond to each of the 60 statements by indicating their level of agreement, ranging from **"Strongly Disagree"** to **"Strongly Agree."** This format enables the quantification of

personality traits in a structured manner, allowing for comparative analysis between the two groups under study.

SD	Strongly Disagree
D	Disagree
N	Neutral
A	Agree
SA	Strongly Agree

Reliability

Cronbach's alpha reliability coefficients were used to evaluate the internal consistency of the NEO-FFI inventory. The coefficients for the five personality dimensions are as follows: Neuroticism (0.90), Extraversion (0.78), Openness (0.76), Agreeableness (0.86), and Conscientiousness (0.90). These values are considered acceptable to excellent, indicating a high level of reliability for the inventory in measuring these traits.

Research design

Any research project must have an effective research framework in order to yield the findings from the data we have gathered for our analysis or investigation. In the absence of a research design, the study will be regarded as ambiguous and fraudulent, and no findings, analysis, or conclusion will be provided. It also affects the validity and reliability of the research in its own way.

Two research designs are used in this study: the correlation design, which shows the value in relation to the NEO big five variables, and the T test, which is used to compare the means of two groups—classical dancers and non-dancers.

Procedure

The students of Banasthali Vidyapith were given the NEO FFI questionnaire. As a result, 75 were given to classical dancers and the remaining 75 to non-dancers. They were instructed that no question has to be left unanswered. On a five-point rating system that goes from strongly disagree to strongly agree, each sentence should have a response. Participants are asked to circle the answers that best suit their own understandings.

Results

Correlations

Correlations

		NeuroticismNonDancers	NeuroticismDancers
NeuroticismNonDancers	Pearson Correlation	1	-.106
	Sig. (2-tailed)		.366
	N	75	75
NeuroticismDancers	Pearson Correlation	-.106	1
	Sig. (2-tailed)	.366	
	N	75	75

Correlations

		ExtraversionNonDancers	ExtraversionClssicalDancers
ExtraversionNonDancers	Pearson Correlation	1	.057
	Sig. (2-tailed)		.628
	N	75	75
ExtraversionClssicalDancers	Pearson Correlation	.057	1
	Sig. (2-tailed)	.628	
	N	75	75

Correlations

		OpenessNonDancer	OpenessClassicalDancers
OpenessNonDancer	Pearson Correlation	1	.014
	Sig. (2-tailed)		.903
	N	75	75
OpenessClassicalDancers	Pearson Correlation	.014	1
	Sig. (2-tailed)	.903	
	N	75	75

Correlations

		AgreeablenessNonDancers	AgreeablenessClassicalDancers
AgreeablenessNonDancers	Pearson Correlation	1	.094
	Sig. (2-tailed)		.422
	N	75	75
AgreeablenessClassicalDancers	Pearson Correlation	.094	1
	Sig. (2-tailed)	.422	
	N	75	75

Correlations

		ConscientiousnessNonDancers	ConscientiousnessClassicalDancers
ConscientiousnessNonDancers	Pearson Correlation	1	-.217
	Sig. (2-tailed)		.061
	N	75	75
ConscientiousnessClassicalDancers	Pearson Correlation	-.217	1
	Sig. (2-tailed)	.061	
	N	75	75

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Class (Binned)	150	1	2	1.50	.502
Valid N (listwise)	150				

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	75	36.9	50.0	50.0
	2	75	36.9	50.0	100.0
	Total	150	73.9	100.0	
Missing	System	53	26.1		
Total		203	100.0		

Regarding the hypothesis, two groups of people—classical dancers and non-dancers—were studied. The T-test was used. And these are the final results:

According to the results presented in the table, **neuroticism does not show a statistically significant difference** between classical dancers and non-dancers. The **p-value (p = 0.715)** from the independent samples t-test exceeds the standard threshold of 0.05, indicating that the observed difference in mean neuroticism scores between the two groups is not statistically significant. While there may be a slight numerical difference in the mean values, it is not large enough to support the conclusion that classical dancers and non-dancers differ meaningfully in terms of neuroticism. Therefore, we can infer that **neuroticism is not associated with participation in classical dance**.

The table further reveals that **extraversion does not differ significantly** between classical dancers and non-dancers. The **two-tailed p-value of 0.485** is well above the conventional significance threshold of 0.05, indicating no statistically significant difference in extraversion levels across the two groups. Although a minor difference in mean scores exists, it is not substantial enough to warrant statistical or practical significance.

In contrast, the results for **openness** show a **two-tailed p-value of 0.00**, which is **statistically significant** under standard p-value interpretation criteria ($p < 0.05$). This suggests a **meaningful difference in openness** between classical dancers and non-dancers. The comparison of mean scores confirms this finding, as classical dancers exhibit higher levels of openness than their non-dancing counterparts. Therefore, it can be inferred that **classical dancers tend to be more open to new experiences**, possibly reflecting the creative and expressive nature of their art form.

The analysis of **agreeableness** reveals a **two-tailed p-value of 0.00**, which is **statistically insignificant**, as it falls below the conventional threshold of 0.05. This indicates a **significant difference in agreeableness levels** between classical dancers and non-dancers. A comparison of mean scores further supports this result, showing that **classical dancers have a higher mean agreeableness score** than non-dancers. This suggests that individuals engaged in classical dance may exhibit greater levels of empathy, cooperation, and social harmony—traits commonly associated with agreeableness.

When comparing **conscientiousness** between classical dancers and non-dancers, the **two-tailed p-value exceeds the 0.05 significance thresholds**, indicating that the difference is **not statistically significant**. In other words, there is insufficient evidence to conclude a meaningful difference in conscientiousness between the two groups. However, a comparison of the mean scores reveals a slight variation, with **classical dancers showing a higher average level of conscientiousness**. While this difference is not statistically supported, it may suggest a potential trend that could warrant further investigation with a larger sample size.

Limitations

- The study was conducted within a **limited geographical scope**, focusing solely on a specific region, which restricts the **generalizability of the findings** to the broader population.
- The **sample size was relatively small (n = 150)**, limiting the statistical power and representativeness of the results. Consequently, the findings cannot be confidently extrapolated to a larger population.
- The research sample consisted **exclusively of female participants from Banasthali Vidyapith**, omitting the gender variable. This gender homogeneity limits the ability to generalize findings across different gender groups.
- **Age was not controlled for**, although it can significantly influence personality traits. Since personality may vary with age, gender, and other demographic factors, the absence of age-based analysis may impact the depth of interpretation.
- The study adopted **only a quantitative research approach**. Incorporating **both quantitative and qualitative methods** could have provided a more holistic understanding of the research problem, including deeper insights into participant experiences and motivations

According to the studies reviewed in the literature, variations in outcomes may arise due to factors such as dance style, gender, and cultural context**,** which interact with various psychological and social elements. The present study, however, was limited to a sample of 150 female participants from Banasthali Vidyapith**,** which restricts the diversity and generalizability of the findings. These constraints underscore the need for further research that includes more diverse populations**,** encompassing different dance forms, genders, and cultural backgrounds. Such areas for future exploration are outlined in the recommendations section**,** highlighting the scope for more comprehensive and inclusive investigations.

Suggestions

- **Future research should incorporate gender diversity and consider age-related variations**, as both factors can significantly influence personality traits and may lead to different outcomes across demographic groups.
- **A larger and more diverse sample size** is recommended to enhance the reliability, validity, and generalizability of the findings.
- Studies should **not be restricted to a single geographic location**. Broader sampling across different regions and cultural backgrounds would allow for more generalizable and representative conclusions.
- To strengthen the study's analytical depth, researchers should consider **using advanced statistical techniques and incorporating graphical representations** for better visualization and interpretation of the data.
- Future investigations may **integrate additional variables** beyond those already examined, in order to gain a more comprehensive understanding of the impact of classical dance versus non-dance participation on personality traits.

References

1. Altun, I., Cevik, U., & Yilmaz, M. (2014). Subjective well-being in university students. *Iranian Journal of Public Health*, *43*(12), 1585–1586.
2. Barrett-Lennard, G. T. (1997). The recovery of empathy—Towards other and self. In A. C. Bohart & L. S. Greenberg (Eds.), *Empathy reconsidered: New directions in psychotherapy* (pp. xx–xx). American Psychological Association.
3. Beard, J. G., & Ragheb, M. G. (1980). Measuring leisure satisfaction. *Journal of Leisure Research*, *12*(1), 20–33.
4. Clift, S., & Camic, P. M. (Eds.). (2015). *Oxford textbook of creative arts, health and wellbeing: International perspectives on practice, policy and research*. Oxford University Press.
5. Coke, J. S., Batson, C. D., & McDavis, K. (1978). Reinterpreting the empathy–altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, *73*, 481–494.
6. Damasio, A. R. (1999). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology*, *36*, 752–766.
7. Kleiber, D. A., & Rickards, W. H. (1985). Leisure and recreation in adolescence: Limitation and potential. In M. G. Wade (Ed.), *Constraints on leisure* (pp. 289–317).
8. Kleiber, D. A., Walker, G. J., & Mannell, R. C. (2011). *A social psychology of leisure*. Venture Publishing.