The Relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers

Dissertation submitted in partial fulfilment of the requirements for the award of Bachelors of Science in Psychology

By

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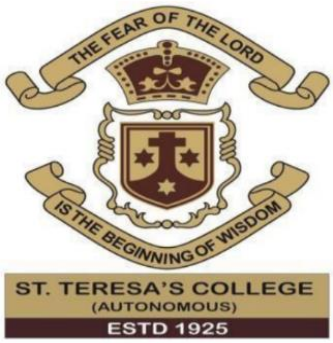

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CERTIFICATE

This is to certify that the project report entitled, "RELATION BETWEEN EMOTIONAL SENSITIVITY AND EMOTIONAL EXPRESSIVITY IN INDIAN CLASSICAL DANCERS", is a bonafide record submitted by MS. DEVIKRISHNA GIREESH PAI, Reg.no. SB21PSY011, in partial fulfilment of the requirements for the award of the Degree of Bachelor of Science in Psychology during the academic year 2021-2024.

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DECLARATION

I, DEVIKRISHNA GIREESH PAI, hereby declare that the study presented in the dissertation entitled, “Relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers”, which is submitted to the Department of Psychology, St. Teresa’s College, Ernakulam is a bonafide record of the research work carried out by me, under the supervision and guidance of Ms. Princy Thobias, Assistant Professor of the Department of Psychology, St. Teresa’s College, Ernakulam, in partial fulfilment of the requirements for the degree of Bachelor of Science in Psychology and has not previously formed the basis for the award of any degree, diploma, fellowship, title or recognition before.

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Devikrishna Gireesh Pai

Table of Contents

List of Tables:

Abstract

Classical dance represents a part of the Indian tradition, whose antiquity has been traced back to the Natyashastra, written by the sage Bharatha in the second century AD. In the realm of Indian classical dance, the expression of emotion through the body is an integral part of any social interaction and the dancer's sensitivity to the song and expressions, plays an important role on how it is interpreted. The current study investigates the relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers. Emotional expressivity is the ability to convey emotions through facial expressions, body language, and vocal cues (Paul Ekman, 1974). Emotional sensitivity refers to an individual's capacity to perceive, understand, and respond to both their own emotions and the emotions of others with depth and accuracy (Damiel Goleman, 1995). The sample consisted of 277 Indian adults. The data was collected using Emotional Expressivity Scale (Kring, et al., 1994) and Emotional Sensitivity Scale (Olason et al., 2007). Mann-Whitney U test was used for analysis and the results revealed that there is no significant difference in gender when it comes to emotional expressivity and emotional sensitivity but there is a significant difference in dancer's and non-dancer's emotional sensitivity but not their emotional expressivity.

Keywords: Emotional Expressivity, Emotional Sensitivity, Dancers, Non-dancers.

CHAPTER-I

INTRODUCTION

Classical dance is represented as a monolithic discourse on Indian tradition, whose antiquity has been traced back to the Natyashastra treatise written by the sage Bharatha in the second century AD. This hegemonic construction is pointed out by Meduri, a contemporary dance scholar and dancer. Indian classical dance has a profound and ancient history that spans diverse regions and cultural traditions. The roots of classical dance in India can be traced back to the Natya Shastra, a treatise attributed to the sage Bharata Muni, providing foundational principles for performing arts. Temple dance, a significant early practice, involved Devadas is performing dance as a form of worship and storytelling in temples. In order to receive professional training in the Indian classical arts, a Shishya, must live at the home of the teacher. As one practices in the professional ensemble and refines technique, life and art become inextricably linked. When lessons are taught and tales are exchanged between the teacher and the students during cooking, cleaning, and traveling together, studio instruction takes on equal significance. "This learning is not necessarily learned from the guru's conscious instruction, however; rather, the student realizes this through hours of practice, repetition, and personal deliberation: this is the typically Hindu ideal of revelation," dance historian Ananya Chatterjea (1996) observed. The immersive nature of training is replicated in these locales via a familial bonding between the Guru and the Shishyas, ritualization and repetitions. Dance training is an embedded practice that reflects the values, aesthetics, and philosophical principles guiding the symbolism within the expressive repertoire of the dominant culture.

The beginning of the contemporary classical styles-be it Bharatanatyam, Kathakali, Manipuri, Odissi or Kathak-can be traced back to developments in the medieval period, roughly dating from 1300 AD to 1800 AD. The different styles of classical Indian dance were practiced and perfected by creative artists in different regions even during periods of political upheaval and lack of social patronage. Family traditions grew within

these styles; the masters called were the repositories of an invaluable oral tradition, and as such preserved and nurtured it. This group of masters never performed but were essentially teachers who passed down the art forms to future performers or masters. They frequently contributed to its growth in spite of the lack of basic education or academic knowledge and unfamiliarity with the Sanskrit language. Odissi originating in Odisha, found inspiration in the sculptures of the Sun Temple at Konark, evolving into a graceful and narrative dance form. Bharatnatyam, rooted in Tamil Nadu, faced challenges during the colonial period but experienced a revival in the 20th century, thanks to figures like Rukmini Devi Arundale. Kuchipudi from, Andhra Pradesh, was traditionally male-centric but underwent changes in the 17th century with the efforts of Siddhendra Yogi. Kathak with, roots in Northern India, flourished in Mughal courts and later evolved during the Bhakti movement, incorporating Persian and Central Asian influences. Mohiniyattam, originating in Kerala, is associated with the enchanting dance of Mohini, an avatar of Lord Vishnu. The 20th century witnessed a modern revival of interest in classical dance forms, with artists and institutions playing pivotal roles in preserving and adapting these traditions to contemporary contexts. Today, Indian classical dance thrives as a dynamic and evolving art form, maintaining its cultural richness while embracing innovation and accessibility. Other relevant Indian classical dance forms include Sattriya, Kathakali and Manipuri.

The elements of Indian classical dance are concerned with the basic instrument of expression which it uses, namely the human figure. The description of bodily 4 expressivity is important in understanding how it has helped Indian classical dance to survive through history and shaped it in the process. Indian dancing seeks to depict the perfect point or moment of balance along the vertical median (brahmasutra) so much so that all movements emerge from and return to the *sama* or point of perfect balance. Except for certain aspects of Kathakali, none of the Indian dance styles use large leaps; and little

or no discussion of them appears in the treatises on Indian dance. From the division of the body, we see that every single portion of the body is used in the communication process. The face plays an extremely important part in Indian dance whereby every part of the face is used to convey meaning. In most traditional solo dance forms, one dancer is playing many roles instead of many dancers presenting a dramatic story. Gender and mood are conveyed through these gestures irrespective of the sex of the performer. The performer does not have to lose his/her identity by cross dressing in order to communicate. The stance, the gestures of the body and the hand can convey masculine or feminine character. The *hastas* (hands) are the only parts of the human body which have both *nrittahasta* (gestures that do not convey any meaning) and *abhinaya-hasta* (gestures that convey meaning). In the *angas* and *upangas* mentioned earlier, the *nritya* or *abhinaya* portion depends mostly on the gesture of the hands and face, especially the movements of the eyes, eyebrows, eyeballs, etc.

Emotional Expressivity and dance

Emotional expressivity as conceptualized by Ann. M. Kring (1994) is "Outward display of emotion in general, regardless of the content of emotion and the way it is expressed". In the realm of Indian classical dance, the expression of emotion through the body is an integral part of any social interaction, and the human brain expertly distinguishes between fake and genuine emotional expressions (McGettigan et al., 2015). Indian classical dancers meticulously convey a myriad of emotions through their intricate hand gestures, facial expressions and body movements, bringing life to the narratives embedded in the dance forms. Beyond mere choreography, dance has the capability to express emotions through physical movements, transforming a stage into a platform for emotional exploration and spiritual connections. Expressive dance movement stimuli can be created to contain fully abstract movements, or movements that clearly have no

discernible meaning (Jaffe, 1954). From the point of view of a dancer, expressivity refers to giving it some meaning, with an intention, instead of merely focusing on the technical correct execution of the dance move. In professional dance training, proper time is spent on both practice of techniques, and showcasing technically correct movements with the right expressions. With a single movement like raising an arm or turning towards the left, a dancer can express sadness, anger, joy etc. It always depends on the way the movement is executed, that is, the slight variations that dancers bring in the quality of movement. In the context of empirical aesthetics, emotional expressivity is one of the qualities inherent to an artwork that one might appreciate during an aesthetic experience (Jaffe, 1954; Mackrell, 2019). One of the main components of the aesthetic experience are the perceptual analyses that arises from the characteristics of the artistic stimulus. Expressivity is likely picked up at this stage of the aesthetic receptive process (Dutton, 2003; Gracyk, 2009).

Theories related to Emotional Expressivity and Dance

Theories used in this research include Facial Feedback Hypothesis, Cannon-Bard Theory of Emotions and James-Lang Theory of Emotions.

Facial Feedback Theory. The facial feedback hypothesis, proposed by psychologist Silvan S. Tomkins and later supported by Paul Ekman, suggests a dynamic interplay between facial expressions and emotional experiences. The idea was introduced by Darwin (1872) when he noted that the experience of an emotion seemed to be intensified when the emotion was freely expressed, but softened when repressed. James (1884) also presented ideas along the same lines, but it took almost a century before the specific facial feedback hypothesis was formulated by Tomkins (1962), Gellhorn (1964), Izard (1971), Ekman (1973) and Buck (1980). Recently, Niedenthal (2007) and (Niedenthal et al. 2009, 2010) provided the theoretical framework of embodied emotion to explain, among other things, afferent feedback from facial actions. According to this hypothesis, the act of forming facial

expressions not only reflects existing emotions but can also actively influence and modulate emotional states. In other words, the muscles involved in producing facial expressions send signals to the brain, contributing to the experience and intensity of emotions. For instance, intentionally smiling may not only indicate happiness but also potentially enhance feelings of joy. It remains unclear *how* facial feedback actually works. The most commonly held theory states that when certain facial muscles are activated, afferent feedback from muscular proprioceptive patterns activates corresponding affect programs (Adelmann and Zajonc 1989; Tomkins 1962). However, sensory feedback from the facial skin has also been proposed as a possible contributor to facial feedback (Tomkins, 1980). Another explanation offered by the vascular hypothesis of emotional efference is that facial movements can modify nasal air flow, which in turn can affect brain blood temperature and emotional state (Zajonc et al., 1989).

Conversely, adopting a frowning expression might intensify the experience of sadness. This theory underscores the bidirectional relationship between facial expressions and emotional states, emphasizing the integral role of nonverbal communication in the intricate tapestry of human emotions. While the facial feedback hypothesis has garnered support, it is essential to consider the complexity of emotional experiences and the multifaceted factors that contribute to their expression and regulation.

James-Lange Theory of Emotion. The James-Lange theory of emotion, proposed by psychologist William James and physiologist Carl Lange in the late 19th century, posits a distinctive perspective on the relationship between emotions and physiological responses. For James, “The bodily changes follow directly the perception of the exiting fact and that of feeling of the same changes as they occur is the emotion”. Only a year after James work on this topic was published, Carl Lange independently published an article stating similar views on the importance of the physiological mechanisms of emotions. Thus the hypothesis

of emotion became known as the James-Lange Theory. According to this theory, witnessing an external stimulus leads to a physiological response. Your emotional reaction depends on how you interpret those physical reactions. James argued: "*A purely disembodied human emotion is a nonentity*" (James, 1890). In accordance with this theory, emotions are not immediate reactions to external stimuli but rather emerge as a consequence of physiological changes within the body. According to James and Lange, when an individual encounters a stimulus that triggers an emotional response, the body undergoes a specific physiological reaction. The brain then perceives these bodily changes and interprets them as the corresponding emotion. In essence, emotions arise from the perception of one's own bodily responses to a stimulus. James argued that, physiological changes influence our perception and provide information about the situation and the acts, he suggested that expressvie activities elicit emotions and that these quick behaviours serve as a feedback (Barbalet, 2001). This theory suggests that different patterns of physiological arousal give rise to distinct emotions, offering a physiological basis for the diversity of emotional experiences. While the James-Lange theory has faced criticism and alternative perspectives have emerged, it represents a foundational contribution to the understanding of the intricate relationship between the body and the experience of emotions.

Cannon-bard Theory of Emotion. This theory was proposed in contrary to the findings of James-Lange theory of emotions. The Cannon-Bard Theory of Emotion, proposed by physiologist Walter Cannon and psychologist Philip Bard, offers a significant framework for understanding the relationship between physiological arousal and emotional experiences (Cannon & Bard, 1927). This theory posits that emotions and physiological responses occur simultaneously and independently, challenging earlier ideas of emotion as solely the result of bodily reactions. In the context of dance, the Cannon-Bard Theory sheds light on how dancers embody and express emotions through movement. According to this

theory, when dancers experience an emotion such as joy, sadness, or fear, their physiological responses, such as increased heart rate or changes in breathing, occur simultaneously with the emotional experience itself (Cannon & Bard, 1927). This simultaneous activation of both emotional and physiological responses in dancers is evident in their performances. When a dancer executes a powerful leap across the stage, the audience witnesses not only the physical movement but also the emotional intensity conveyed through facial expressions, body posture, and gestures. The Cannon-Bard Theory suggests that these emotional expressions are not mere reflections of the physical exertion but integral components of the emotional experience itself (Cannon & Bard, 1927). The theory highlights the autonomy of emotional experiences from physiological responses in dance. Dancers often channel a range of emotions through their movements, from exuberant joy to poignant sadness, without necessarily experiencing the corresponding physiological arousal to the same degree. This separation between the emotional and physiological aspects allows dancers to transcend physical limitations and convey nuanced emotional states through their artistry (Cannon & Bard, 1927). In the choreographic process, the Cannon-Bard Theory offers valuable insights for dance creators. Choreographers can use this understanding of the simultaneous nature of emotion and physiological responses to craft movements that authentically convey specific emotional themes or narratives. By considering how dancers' movements evoke emotional responses in viewers, choreographers can create performances that resonate deeply with audiences (Cannon & Bard, 1927). Furthermore, the theory underscores the importance of emotional authenticity in dance performances. Dancers who are able to connect with genuine emotions, whether through personal experiences or empathetic interpretation, can evoke powerful emotional responses in viewers. This aligns with the Cannon-Bard Theory's emphasis on the simultaneous activation of emotional and physiological responses, suggesting that authentic

emotional expression in dance resonates on both cognitive and physiological levels (Cannon & Bard, 1927).

Factors affecting Emotional Expressivity of Dancers

Emotional expressivity plays a central role in dance performance, allowing dancers to convey a range of emotions through movement. The level of training and technical proficiency of dancers significantly impacts their ability to express emotions on stage (Fisher, 2003). Dancers with a strong technical foundation are better equipped to execute movements with precision, allowing for clearer and more nuanced emotional expression (Fisher, 2003). Research suggests that the psychological well-being of dancers is closely tied to their emotional expressivity (Krasnow & Wilmerding, 2019). Dancers who feel mentally and emotionally balanced are more likely to access and convey authentic emotions in their performances (Krasnow & Wilmerding, 2019). The choreographic choices and intentions of the dance piece influence how emotions are expressed by dancers (Hanna, 1988). Choreographers often provide dancers with specific emotional directives, shaping the overall mood and tone of the performance (Hanna, 1988). Dancers' personal experiences and life histories can profoundly impact their emotional expressivity (Brodsky, 2011). Past traumas, joys, and struggles can inform the depth and authenticity of emotions portrayed on stage (Brodsky, 2011). The relationships and interactions between dancers and their fellow performers can influence emotional expressivity (Pavlicevic & Ansdell, 2004). Positive connections and rapport among dancers create a supportive environment for emotional exploration and expression (Pavlicevic & Ansdell, 2004). The presence and response of an audience can also impact how emotions are expressed by dancers (Shapiro & Carr, 2004). Dancers may adjust their performance based on audience reactions, aiming to evoke specific emotional responses (Shapiro & Carr, 2004). Cultural norms and values can shape the types of emotions that are deemed acceptable or desirable in dance (Dils & Albright,

2001). Dancers may adapt their emotional expressions to align with cultural expectations and traditions (Dils & Albright, 2001).

The emotional expressivity of dancers is influenced by a myriad of factors, ranging from their technical skills to personal experiences and cultural contexts. Understanding these factors is essential for dancers, choreographers, and scholars alike, as it provides insights into the nuanced and complex nature of emotion in dance performance.

Emotional Sensitivity and dance

Clinically, emotionally sensitive people have been described as “Those who experience intense emotions more frequently and for longer periods of time”, by Hall.K (2014). Emotional sensitivity refers to the way one responds to the stimuli around him or her emotionally. It provides an originality and intensity to the performance. Renowned psychologist Carl Jung once remarked, "The dance is a poem of which each movement is a word" (Jung, 1968). This sentiment underscores the profound connection between emotional sensitivity and dance, highlighting how movements in dance can express a spectrum of emotions. In agreement with Jung's perspective, Martha Graham, a pioneer of modern dance, emphasized the role of emotional authenticity in dance. Graham famously stated, "The body says what words cannot" (Graham, 1991), suggesting that dancers convey emotions through their movements with a depth that transcends verbal expression. Psychologist and author Daniel Goleman, known for his work on emotional intelligence, noted the unique capacity of dancers to tap into and convey emotions. Goleman remarked, "Dancers are the messengers of the gods" (Goleman, 1995), highlighting the profound ability of dancers to communicate and evoke emotions through their performances. Echoing this sentiment, renowned choreographer Twyla Tharp emphasized the importance of emotional sensitivity in creating impactful dance pieces. Tharp stated, "The one thing

that you have that nobody else has is you. Your voice, your mind, your story, your vision. So write and draw and build and play and dance and live as only you can" (Tharp, 2003), emphasizing the unique and deeply personal nature of each dancer's emotional expression. Psychologist Mihaly Csikszentmihalyi, known for his work on the concept of "flow," highlighted the transformative power of dance in connecting with emotions. Csikszentmihalyi observed, "Dance is not just a physical phenomenon, but also a mental one" (Csikszentmihalyi, 1990), suggesting that dance allows individuals to access and express their innermost feelings. Author and educator Judith Jamison, reflecting on the emotional depth of dance, stated, "Dance is bigger than the physical body. When you extend your arm, it doesn't stop at the end of your fingers, because you're dancing bigger than that; you're dancing spirit" (Jamison, 2012). This perspective underscores the transcendent nature of dance, where emotional sensitivity allows dancers to embody a larger, more profound essence. From Carl Jung's poetic view of dance as a language of emotions to Martha Graham's emphasis on the body's expressive power, these perspectives collectively affirm the profound impact of emotional authenticity in the art of dance.

Theories related to Emotional Sensitivity and Dance

Theories related to emotional sensitivity used in this research include the Emotion Regulation Theories and emotional contagion theory. Under the Emotion Regulation Theories, the Process Model of Emotion Regulation and the Affect Regulation Theory are the ones used in this research.

The Process Model of Emotion Regulation. The process model of emotion regulation proposed by James Gross, focuses on how individuals manage and modify their emotional experiences. The model provides a comprehensive framework for understanding the strategies individuals employ to manage their emotions (Gross, 1998). Emotional

sensitivity is crucial in recognizing when and how to regulate emotions effectively. Emotion regulation refers to the processes by which individuals influence the nature, intensity, duration, and expression of their emotions. This model delineates five key emotion regulation strategies that individuals may utilize in various situations (Gross, 2015). According to Gross (1998), the first strategy is the Situation Selection, which involves choosing situations that are likely to evoke desired emotions. This proactive approach to emotion regulation highlights the importance of actively seeking out circumstances that align with one's emotional goals (Gross, 1998). The second strategy in Gross's Model (2015) is the Situation Modification, here the individual takes steps to alter aspects of the environment that are causing emotional distress. By making changes to the external situations, individuals can directly influence their emotional experiences (Gross, 2015). Attention deployment is the third strategy which involves directing one's focus towards or away from a particular stimuli in the environment (Gross, 1998). Fourth strategy is the Cognitive Change. It involves modifying the way one thinks about a situation to alter its emotional impact on themselves (Gross, 2015). Finally, the Response Modulation Stage which is the 5th strategy and involves directly influencing the physiological, experiential or behavioral aspects of an emotional response (Gross, 1998).

Affect Regulation Theory. Another emotion regulation theory is the Affect Regulation Theory. Affect Regulation Theory, developed by psychologist Leslie S. Greenberg, offers a comprehensive understanding of how individuals manage their emotions, particularly within the context of psychotherapy. This theory posits that individuals engage in various strategies to modulate their emotions, particularly when faced with stress or challenging situations (Creswell, 2015). According to Creswell (2015), affect regulation involves the processes by which individuals manage their emotional experiences, both consciously and unconsciously. One central aspect of this theory is the idea that individuals

seek to regulate their emotions to achieve specific affective goals (Creswell, 2015). Creswell (2015) suggests that affect regulation strategies can be classified into two main categories: antecedent-focused and response-focused strategies. Antecedent-focused strategies involve efforts to alter the emotional impact of a situation before an emotional response occurs (Creswell, 2015). Within the category of antecedent-focused strategies, Creswell (2015) identifies several specific techniques like cognitive reappraisal, for instance, involves reframing the meaning of a situation to change its emotional impact. By reinterpreting events in a more positive or neutral light, individuals can regulate their emotional reactions, coping self-statements represent another antecedent-focused strategy which are internal dialogues or affirmations individuals use to regulate their emotions in stressful situations. By repeating positive self-affirmations, individuals can bolster their emotional resilience (Creswell, 2015). In contrast, response-focused strategies involve efforts to regulate emotions after they have already occurred (Creswell, 2015). One such strategy identified by Creswell (2015) is expressive suppression, where individuals inhibit the outward display of their emotions. Creswell (2015) also highlights emotional expression as a response-focused strategy. This involves actively expressing one's emotions through behaviors such as talking about feelings, writing in a journal, or engaging in artistic endeavors (Creswell, 2015).

By understanding the intricacies of affect regulation, researchers and practitioners can develop interventions to promote emotional well-being and resilience in individuals facing various stressors. Creswell's Affect Regulation Theory provides a valuable framework for exploring the dynamic processes through which individuals manage their emotions to achieve desired affective states.

Emotional Contagion Theory. Emotional Contagion Theory posits that individuals can "catch" emotions from others through nonverbal cues, leading to shared emotional experiences (Hatfield et al., 1994). In the realm of dance performance, this theory offers

valuable insights into how dancers' expressions of emotion can evoke similar feelings in their audience members. According to Hatfield et al., (1994), Emotional Contagion occurs through the mimicry of emotional expressions and body language. In dance, this phenomenon is particularly pronounced, as dancers use their bodies as a primary means of communication. When a dancer expresses joy, sorrow, passion, or despair through movement, audience members may unconsciously mirror these emotions through their own neural processes (Hatfield et al., 1994). Research by Kirsch et al., (2015) supports the notion that dance performances can evoke emotional responses in viewers through mechanisms akin to Emotional Contagion. In their study, participants who watched a dance performance reported experiencing similar emotions to those portrayed by the dancers. This suggests that the expressive movements of dancers have the potential to elicit emotional states in observers, supporting the principles of Emotional Contagion Theory. By harnessing the power of Emotional Contagion, dancers can create performances that resonate deeply with audiences on an emotional level. Choreographic choices, such as the use of specific gestures, facial expressions, and movements, can be tailored to evoke desired emotional responses in viewers.

In conclusion, Emotional Contagion Theory offers valuable insights into the profound emotional impact of dance performances. Through the expressive movements of dancers, audience members may experience a form of emotional "contagion," wherein they mirror and internalize the emotions portrayed on stage. This shared emotional experience enhances the connection between performers and viewers, highlighting the unique ability of dance to evoke powerful and lasting emotional responses.

Factors affecting Emotional Sensitivity of Dancers

The emotional sensitivity of dancers plays a crucial role in their ability to convey depth and authenticity in performances. Psychological factors include the personality traits

and emotional intelligence of dancers. Dancers' individual personality traits can significantly impact their emotional sensitivity. Research by McCrae and Costa (1999) suggests that traits such as openness to experience and neuroticism may influence the depth of emotional expression in performers. The ability to perceive, understand, and regulate emotions, known as emotional intelligence, is a key factor in dancers' emotional sensitivity (Salovey & Mayer, 1990). Dancers with higher emotional intelligence may demonstrate greater awareness and control over their emotional expressions on stage.

Environmental factors like context of the performance and response from the audience to the performance can influence a dancer in both positive and negative ways. The setting in which a dance performance takes place can influence dancers' emotional sensitivity. Research by Cross and Madson (1997) indicates that performing in intimate, smaller venues may enhance the emotional connection between dancers and audience members. The reaction of the audience can also impact dancers' emotional sensitivity. Studies by Jola et al., (2012) suggest that positive audience feedback can bolster dancers' emotional engagement and expression during performances.

The training and experience that a dancer has received is reflected in the dancer's choreographic process and during movement training. The choreographic process itself can shape dancers' emotional sensitivity. Collaborating with choreographers who emphasize emotional exploration and improvisation can deepen dancers' emotional connections to their movements (Foster & Russell, 2008). The type and intensity of movement training can influence dancers' emotional expressiveness. Techniques such as Laban Movement Analysis (LMA) focus on connecting movements to emotions, enhancing dancers' ability to convey specific feelings (Bartenieff & Lewis, 1980).

Personal experiences like their cultural and family background, their perspective about life and their experiences of different life events, is a factor that affects the dancer's

emotional sensitivity. Dancers' personal life experiences can profoundly impact their emotional sensitivity on stage. Significant life events, such as loss, love, or trauma, may inform the emotional depth of their performances (Hanna, 1987). Cultural influences play a role in shaping how dancers perceive and express emotions. Cultural norms regarding emotional expression can impact the range and intensity of emotions conveyed in dance (Thomas & Thomas, 1928).

Rationale of the study

The study is to assess the emotional expressivity and emotional sensitivity of Indian classical dancers and non-dancers. It focuses of enhancing and improving emotional expressivity and sensitivity of individuals through dance and movement therapy. Exploring these constructs can shed light on the emotional experiences of dancers, potentially leading to strategies for improving mental health and coping mechanisms within the dance community. It could also aid in increasing or motivating non- dancers to become more expressive and sensitive to their emotions through dance and movement therapy. The study can inform choreographers, dancers and directors on how to create performances that resonate deeply with audiences. The discoveries from this research can influence dance teachers, guiding the development of techniques and programs aimed at nurturing both emotional expressivity and sensitivity in dancers.

Statement of the problem

The study investigates the relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers, specifically comparing male and female dancers and also the dancers and non-dancers.

CHAPTER- II

REVIEW OF LITERATURE

The study focuses on the relation between emotional expressivity and emotional sensitivity of Indian Classical Dancers. Emotional expressivity is the ability to convey emotions through facial expressions, body language, and vocal cues (Paul Ekman, 1974). Emotional sensitivity refers to an individual's capacity to perceive, understand, and respond to both their own emotions and the emotions of others with depth and accuracy (Damiel Goleman, 1995). Understanding the psychological dynamics influencing dancer's performance is crucial for optimizing their mental wellbeing (Izountouemoi and Esteves, 2023). This study investigates the relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers. These following studies stand as a backup for the current study.

In a descriptive study by Smith and Cross (2023) on the topic 'The McNorm library: creating and validating a new library of emotionally expressive whole body dance movements' the participants recognised the emotions expressed in the stimuli at rates higher than chance. Examining each emotion individually, it was found that all emotions, with the exception of fear, were recognised at significantly greater levels. Certain misclassifications of emotions also occurred.

In a comparative study by Izountouemoi and Esteves (2023) on the topic 'Does Dance Expertise Enhance Sensitivity?' the results showed that dancers scored higher on emotional sensitivity than non-experts in the PIPS Subscale but there was no difference observed for the NES subscale. A negative correlation between age and negative sensitivity was obtained. In the BEQ subscales, the results revealed no significant statistical differences between the two groups. The study was conducted on 145 individuals, both men and women above the age of 18. Statistical techniques used include the Independent T-test analysis.

In an experimental study by Christensen, Azevedo and Tsakiris (2020) on the topic 'Emotion Matters: Different psychophysiological responses to expressive and non-expressive full-body movements', participants rated expressive clips as more expressive and liked them more than non-expressive clips. The participants of the study were 45 individuals in the age range of 18 to 33. Statistical techniques like Two-tailed paired T-tests, RM Anova and Correlation Analysis were used to reach the results. The results suggested that individuals without dance experience are sensitive to the expressiveness of dance movements, with implications for professional dance teaching.

Izountouemoi conducted a study (2020) to assess if dance expertise could enhance sensitivity. The overall aim of the study was to find the relation between emotional expressivity and emotional sensitivity, specifically comparing dance experts and non-experts. The results are based on an online survey that was answered by 113 individuals. The online survey consists of the Berkeley Emotional Expressivity Questionnaire, Emotional Sensitivity Questionnaire and demographic questions. According to their findings, dance experts are more sensitive as they self-reported a higher emotional sensitivity that is being expressed through empathic concern and egocentric concern, in comparison to non-experts. Their results supported the argument that dance expertise could enhance emotional sensitivity. The study used statistical tool- independent T-test analysis to get to the result.

The paper 'Motion elicits emotions' written by Denson (2020), discusses a study that found commonalities in the recognition and expression of emotions across different cultures through facial expressions and bodily movements, suggesting possible evolutionary or biological components to emotions that transcend cultural differences. The study emphasizes the importance of understanding emotions through gestures and movements of the body, indicating that emotional signals conveyed through bodily movements can be universally recognized. Experimental techniques like qualitative analysis of results obtained

from movement exercises and other experimental methods were used for this study. The study comprised of 21 individuals of all gender and age group above 18.

In a systematic review by Ferrera and Hipola (2020) on the topic ‘Emotional Intelligence and Dance’, it was found that dance contributes to emotional development across different stages of life and is associated with various positive emotional and psychological outcomes. The test used the statistical technique- t tests to reach their results. Participants were both female and male, infants to over 20 year olds. The study was performed on 30 participants covering various perspectives on Emotional Intelligence from different models and constructs.

In a study conducted by Mohanty and Sahay (2018) on the topic ‘Rasabodha: Understanding Indian Classical dance by recognizing emotions using deep learning’, the result proposed a deep learning framework using convolutional neural networks with pre-training using the AlexNet model for recognizing emotions associated with Navarasas in Indian classical dance forms. Experimental techniques like Deep learning techniques, convolutional neural netwroks (CNN) and Creation of three datasets for Indian classical dance Navarasas were used. The study was conducted in India with 267 individuals who were involved in Indian classical dance forms, particularly Bharatnatyam, focusing on emotions associated with Navarasas.

In a descriptive observational study conducted by Yand, Huang and Chan (2018) on the topic ‘Emotional Expressivity Scale’, results showed that women scored significantly higher on the Emotional Expressivity Scale (EES) than men, indicating that women are more emotionally expressive. Emotional expressivity is a predictor of psychological well-being, with high expressivity predicting better well-being and reluctance to express emotion correlating with higher psychological distress. The study was conducted in China and various

other locations including college settings, with a wide range of populations studied. The participants were distributed widely in general, subclinical and clinical populations including college students. Statistical tools used include Exploratory Factor Analysis, Confirmatory Factor Analysis and Correlation Analysis.

In a qualitative study by Wall, Kalpakci, Hall, Crist and Carla Sharp (2018) on the topic 'An evaluation of the construct of emotional sensitivity from the perspective of emotionally sensitive people', the qualitative results suggested that emotional sensitivity is perceived as a heightened emotional reactivity to stimuli, especially by individuals with high levels of borderline personality pathology. The study was conducted with participants from a community sample of adults recruited through online postings on a blog about emotional sensitivity and an online community posting. Study procedures were approved by local ethics boards and the institutional review board of the University of Houston. The test used statistical tools like Independent sample t-tests and qualitative content analysis. The sample size comprised of 19 participants from the age range of 21 to 59 years.

In an observational and descriptive study by Chatterjee (2013) on the topic 'The therapeutic value of Indian Classical, Folk and Innovative dance forms', it was found that dance practice and dance therapy have positive effects on physical fitness, specific muscle groups, mental well-being, and can prevent health hazards. The test used experimental tools and techniques like interviews, surveys, questionnaires and medical check-up facilities. The participants were both male and female dancers practicing different forms of dance, with a focus on physical and mental fitness compared to non-dancers in India.

In an observational study by Petrides et al., (2007) on the topic 'Scientific Information System Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal Non-profit academic project, developed under the open access initiative', there

was a positive relationship between trait EI scores and ballet dancing ability as well as length of musical training, supporting the conceptualization of trait EI as a construct of general emotionality and validating the TEIQue as a measurement tool. The statistical tools used for interpretations and analysis were correlation analysis and outlier removal method. The study was conducted on 71 music and ballet students of both genders and of the age group above 18. These students were from the English National Ballet School (ENBS) for the ballet students and at the music schools in Cyprus for the music students.

In an observational cross-sectional study conducted by Dobbs, Sloan and Karpinski (2007) on the topic 'A psychometric investigation of two self-report measures of emotional expressivity', the factor structure of the Emotional Expressivity Scale (EES) was supported and modifications were needed in the same. The Berkeley Expressivity Questionnaire (BEQ) was not supported and the factor structure was not successful. The study suggests that assessing discrete emotions may be more effective than assessing valence in capturing emotional expressivity. The statistical techniques used to find out the interpretations were Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The study was conducted on 365 participants from the Temple University, Pennsylvania, who were of the age limit 17 to 52 years.

In an observational study conducted by Petrides et al., (2006) on the topic 'The Trait Emotional Intelligence of Ballet Dancers and Musicians', the study found moderate to high levels of convergence between self and other ratings of the train Emotional Intelligence in ballet students, a positive relationship between train Emotional Intelligence scores and ballet dancing ability ratings. Pearson's Correlation was the statistical technique used to find out the interpretations. The study was performed on 39 first year and second year college students at the English Nation Ballet and Music School, Cyprus.

A descriptive research was conducted by Gross and John (1995) under the topic ‘Facets of Emotional Expressivity: Three Self-report factors and their correlates’. The paper was based on a findings from 1392 Undergraduate students aged 17 to 29 years, majoring in psychology and of various ethnicity. The population included both men and women of University of California, Berkley (The United States). The study developed the Berkley Expressivity Questionnaire with three facets and found significant differences in emotional expressivity between genders, ethnic groups and political affiliations. The statistical tools in action were, Factor Analysis, screen test and VARIMAX rotation.

In a theoretical study conducted by Scherer et al., (1982) on the topic ‘What are emotions? And How can they be measured?’, the main results show the definition of emotion as an episode of interrelated changes in organismic subsystems in response to relevant stimuli, the differentiation of emotions from other affective phenomena like feelings, moods and attitudes, and the identification of types of affective phenomena such as preferences, attitudes, affective dispositions and interpersonal stances. The results were found using discrete emotional approach and dimensional approach. The paper did not focus on any one specific population or demographic characteristic, rather represented the whole of the population.

CHAPTER- III

METHODS

Aim

To find the relation between emotional expressivity and emotional sensitivity in Indian Classical Dancers, specifically comparing male and female dancers.

Objectives

- To find out the gender difference in dancer's emotional expressivity.
- To find out the gender difference in dancer's emotional sensitivity.
- To find out the difference between dancer's and non-dancer's emotional expressivity.
- To find out the difference between dancer's and non-dancer's emotional sensitivity.

Hypothesis

H1: There is a significant gender difference in dancer's emotional expressivity.

H2: There is a significant gender difference in dancer's emotional sensitivity.

H3: There is a significant difference between emotional expressivity of dancers and non-dancers.

H4: There is a significant difference between emotional sensitivity of dancers and non-dancers.

Research Design

The study follows a cross sectional research design. The test showed negative results for normality testing and so follows non-parametric measures. The Mann-Whitney U test was used to find out the gender difference and the difference between dancers and non-dancers in this research.

Sample and Sampling Design

The sample of the study is Indian classical dancers, both students and trainers, who have practiced any Indian classical dance form for over 1 year. The age group under study was 18 to 30 years for the whole population. The sample size is Non-dancers are also taken as samples. The sample size is 277 participants- 129 non-dancers and 148 dancers. The sample included both male and female participants. The sampling technique used in the study is purposive sampling.

Inclusion Criteria

1. Individuals who have been trained in Indian classical dance for over a year.
2. Male and female dancers are included.
3. Individuals of age 18 to 30 are selected.

Exclusion Criteria.

1. Dancers who are unwilling to participate in the study.
2. Individuals who are trained in Indian folk-dance forms only.

Operational definition of Variables

Emotional expressivity is the ability to convey emotions through facial expressions, body language, and vocal cues. Emotions are expressed universally through specific facial muscle movements, regardless of culture (Paul Ekman, 1974)

Emotional sensitivity refers to an individual's capacity to perceive, understand, and respond to both their own emotions and the emotions of others with depth and accuracy. It involves a heightened awareness of emotional cues, the ability to empathize, and a skilful navigation of the complexities of human emotions (Damiel Goleman, 1995).

Tools used

1. Socio-Demographic Details

In order to gather socio demographic information, participants completed a detailed questionnaire at the beginning of the study. This questionnaire included items on name, age, gender, educational level, marital status and occupation. Participants were also asked to provide information like if they are a dancer or not, if yes, for how many years and which form of dance they practice.

2. Emotional Expressivity Scale (EES)

The EES is intended to capture emotion expressivity in general. The scale was developed by Kring, Smith, & Neale in 1994. It is a 17-item measure of emotional expressivity in which participants rate their responses on a 6-point Likert-type scale (1 = never true to 6 = always true). The scale involves negative scoring and positive scoring. In questions under positive scoring, scoring is done as 1=Never True, 2=Rarely True, 3=Occasionally True, 4=Usually True, 5= Almost Always True and 6=Always True (questions 3, 4, 7, 10, 13 and 15). And for questions that follow negative scoring, scoring is as follows, 1=Always True, 2=Almost Always True, 3= Usually True, 4=Occasionally True, 5=Rarely True and 6=Never True (questions 1, 2, 5, 6, 8, 9, 11, 12, 14, 16, 17). The EES has been shown to have high internal consistency and test retest reliability. The EES has also been shown to have convergent and discriminant validity based on both self-report, other report, and observational methods of assessment.

3. Emotional Sensitivity Scale (ESS)

The ESS developed by Guarino, Roger and Olason in 2007, is composed of the independent factors Positive Interpersonal Sensitivity (PIPS) and Negative Egocentric

Sensitivity (NES). Positive Interpersonal Sensitivity is best described as other-oriented emotional sensitivity (e.g. I find it easy to understand others' feelings when they are distressed), and negative egocentric sensitivity is described by personal distress (e.g. When I feel miserable, the worst thing is to hear other people laughing and having fun). The scoring key for the questionnaires involves positive and negative scoring. A positive score of 1 is given for every 'TRUE' in every question except 7 questions that follow the negative scoring method where 1 score is given for 'FALSE' (question no. 12, 32, 13, 18, 30, 36, 43). The questionnaire is composed of 43 items and validity of the scale was tested by comparing it with other scales. The PIPS comprises 15 items while the NES 28 items.

Procedure

The study aims to investigate the relationship between emotional expressivity and emotional sensitivity in Indian Classical Dancers, specifically comparing male and female dancers. In order to gather socio demographic information, participants completed a detailed questionnaire at the beginning of the study. This questionnaire included items on name, age, gender, educational level, marital status and occupation. Participants were also asked to provide information like if they are a dancer or not and which form of dance they practice. Prior to participation, participants are provided with detailed information about the study and are asked to provide informed consent. This includes explaining the purpose of the research, the procedures involved, and their rights as participants. Only those who provide consent voluntarily proceed to complete the Emotional Expressivity Scale (EES) and Emotional Sensitivity Scale (ESS) questionnaires. Both scales are selected based on their established reliability and validity in measuring emotional expressivity and emotional sensitivity. Data collected from the questionnaire are then analysed using the SPSS for statistical analysis.

Ethical Considerations

- Obtain informed consent from the dancers and non-dancers taking part in the study.
- Adequate level of confidentiality of participant details must be maintained.
- Treat every participant with respect and dignity throughout the study.
- Transparency was upheld in all forms of communication regarding the study.

Statistical Analysis

For statistical analysis, Statistical Package or Social Sciences SPSS (version 25) was used. The statistical analysis revealed that the data for both emotional expressivity and emotional sensitivity did not meet the assumption of normality, with p-values of 0.013 and 0.000 for dancers. Given this deviation from normality, non-parametric test was deemed appropriate for assessing the relationship between these variables among dancers and non-dancers. Therefore, the Mann-Whitney U test was employed to compare the variables among the sample.

Normality Testing

Table 1

Normality Test using Kolmogorov-Smirnov Test

	Sig.
Emotional Expressivity	.013
Emotional Sensitivity	.000

From the table, it can be inferred that the p-values for emotional expressivity (0.013) and emotional sensitivity (0.000) indicate that the distribution significantly deviates from normality, as both the values are less than the significance level of 0.05.

CHAPTER- IV

RESULT AND DISCUSSION

The study examines the relationship between emotional expressivity and emotional sensitivity among dancers, female and male, and dancers and non-dancers in the age range of 18-30. The choice of this specific age group reflects a crucial period in a dancer's life where psychological factors can significantly impact performance and well-being. With a sample size of 80 male dancers and 80 female dancers, carefully selected from various dance backgrounds, the study ensures a diverse representation to capture a comprehensive understanding of the relationship under investigation.

Table 2

Descriptive Statistics

	N	Mean	Std. Deviation
Emotional Expressivity	277	57.65	6.905
Emotional Sensitivity	277	24.61	5.399

Here, mean of emotional expressivity is 57.65 and standard deviation is 6.905. The mean of emotional sensitivity is 24.61 and its standard deviation is 5.399. Number of participants (N) for both the variables is 277.

Hypothesis 1: There is a significant gender difference in dancer's emotional expressivity.

Table 3

Shows the result of Mann-Whitney U test for emotional expressivity in dancers.

Variable	Mean Rank		U	Z	p-value
	Female Dancers	Male Dancers			
Emotional Expressivity	69.11	80.03	2333.500	1.551	0.121

The mean rank suggests that male dancers (M= 80.03), tend to have higher emotional expressivity compared to female dancer's (M= 69.11) emotional expressivity. The Mann-Whitney test shows that the emotional expressivity of female dancers is not significantly different from the emotional expressivity of male dancers (U= 2333.50, p=0.121). This means there is no significant gender difference in dancer's emotional expressivity. Hence, hypothesis is rejected.

In a study by Smith, J, & Lee, A (2013) titled 'Expressing Emotion through Dance: A study of Male Contemporary Dancers', the results show that male dancers demonstrated a vivid range of rich emotional palette in their performances, challenging traditional notions of masculinity and emotion in dance.

Hypothesis 2: There is a significant gender difference in dancer's emotional sensitivity.

Table 4

Shows the result of Mann-Whitney U test for emotional sensitivity in dancers.

Variable	Mean Rank		U	Z	p-value
	Female Dancers	Male Dancers			
Emotional Sensitivity	80.93	67.90	2255.500	1.853	0.064

The Mann-Whitney test indicated that the emotional sensitivity of female dancers is not significantly different from the emotional sensitivity of male dancers (U= 2255.500, p=0.064). This means there is no significant gender difference in dancer's emotional sensitivity. Hence, the hypothesis is rejected. However, the mean rank suggests that female dancers (M= 80.93) tend to have higher emotional sensitivity compared to male dancer's (M= 67.90) emotional sensitivity. This finding goes in line with the results of a study conducted by Oliver and Risner (2021) where the results showed that female professional ballet dancers exhibit greater emotional sensitivity compared to their male counterparts.

Hypothesis 3: There is a significant difference in emotional expressivity of dancers and non-dancers.

Table 5

Shows the result of Mann-Whitney U test for emotional expressivity of dancers and non-dancers.

Variable	Mean Rank		U	Z	p-value
	Dancers	Non-Dancers			
Emotional Expressivity	135.10	143.47	8969.500	0.868	0.385

The mean rank suggests that non-dancers (M= 143.47), tend to have slightly higher emotional expressivity compared to dancer's (M= 135.10) emotional expressivity. A

Mann-Whitney test indicated that the emotional expressivity of dancers is not significantly different from the emotional expressivity of non-dancers (U= 8969.500, p=0.385). This means there is no significant difference in emotional expressivity of dancers and non-dancers. Hence, the hypothesis is rejected.

The current results are similar to a study titled 'Does dance expertise enhance sensitivity?' by Anna Izountouemoi and Francisco Esteves (2023), similar findings were observed. Their analysis revealed that non-dancers showed greater emotional expressivity than dancers even though there was no significant difference in their emotional expressivity. Dancers go through extensive training in expressing emotions through movement which may enhance their ability to express emotions in a controlled and deliberate manner. However, non-dancers, while not being trained formally in dance, may have developed their own ways of expressing emotions effectively through speech, writing or other art forms (Bradley & Perlis, 2009).

Hypothesis 4: There is a significant difference in emotional sensitivity of dancers and non-dancers.

Table 6

Shows the result of Mann-Whitney U test on emotional sensitivity of dancers and non-dancers.

Variable	Mean Rank		U	Z	p-value
	Dancers	Non-Dancers			
Emotional Sensitivity	149.40	127.07	8007.000	2.322	0.020

The mean rank suggests that dancers (M=149.40) tend to have slightly higher emotional sensitivity compared to non-dancer's (M=127.07) emotional sensitivity. The U value (8007.000) is a test statistic that indicates the rank-sum of the groups. Since the p-value is less than the commonly used significance level of 0.05 (U= 8007.00, p=0.020), the null hypothesis is not rejected. This means that there is a significant difference in emotional sensitivity of dancers and non-dancers.

Similar findings were observed in a study titled 'Does dance expertise enhance sensitivity?' by Anna Izountouemoi and Francisco Esteves (2023). Their analysis, employing Independent t-test analysis with Welch's t-test, also revealed a significant difference in emotional sensitivity of dancers and non-dancers. Dance experts showed greater emotional sensitivity compared to the non-dancers.

CHAPTER- V

CONCLUSION

This study delved into the intricate interplay between emotional expressivity and emotional sensitivity among male and female Indian Classical Dancers. Through a comprehensive analysis of survey responses and observational data, several key findings have emerged. Both male and female dancers displayed a remarkable capacity for emotional expressivity, as evidenced by their nuanced facial expressions, gestures, and body movements during performances. Female dancers exhibited a heightened sensitivity to subtle emotional cues, often reflected in their performances through a wide range of emotions, from joyous expressions to poignant melancholy. There is no significant difference in the emotional expressivity and sensitivity of female and male dancers. The results of the study show that non-dancers have a slightly higer emotional expressivity compared to dancers and dancers have a higher emotional sensitivity compared to non-dancers.

Findings

- Male dancers have slightly higher emotional expressivity compared to female dancers but there is no significant gender difference in dancer's emotional expressivity.
- Among dancers and non-dancers, non-dancers have slightly higher emotional expressivity compared to dancers but again there is no significant difference in emotional expressivity of dancers and non-dancers.
- Female dancers have slightly higher emotional sensitivity than male dancers but there is no significant gender difference in dancer's emotional sensitivity.
- Among dancers and non-dancers, dancers have slightly higher emotional sensitivity compared to non-dancers and there is a significant difference in emotional sensitivity of dancers and non-dancers.

Implications

- It contributes to a deeper understanding of how emotional expression is valued and manifested within the intricate tapestry of Indian Classical Dance. This art form, steeped in tradition and cultural significance, often carries with it implicit norms and expectations regarding the portrayal of emotions. By delving into the nuances of emotional expressivity, the study has the potential to illuminate these cultural dynamics, shedding light on the unique ways male and female dancers navigate and interpret emotional cues in their performances.
- The comparative aspect of the research brings attention to the gender dynamics within the realm of Indian Classical Dance. Through examining how male and female dancers express and perceive emotions differently, the study opens avenues for discussions on gender roles, stereotypes, and the challenges faced by artists of both genders. This could have reverberating effects on the field, prompting a re-evaluation of traditional notions and perhaps fostering more inclusive and equitable spaces for dancers of all backgrounds.
- The findings of this research may have implications for the training and pedagogy within Indian Classical Dance schools and institutions. Insights into the relationship between emotional expressivity and sensitivity could guide instructors in developing tailored teaching methods to nurture these qualities in dancers. Such an approach not only enhances the artistic capabilities of the performers but also contributes to their personal growth and emotional intelligence.
- The study's impact extends to the artistic development of dancers. Understanding how emotional expressivity and sensitivity influence performances can be invaluable for artists striving to connect with their audiences on a deeper, more emotive level. Insights gleaned from the research may lead to the development of new techniques

and approaches to convey emotions authentically, thereby enriching the aesthetic experience for both performers and viewers alike.

- The research may also have implications for the health and well-being of dancers. Emotional sensitivity is closely tied to mental and emotional resilience, and a better understanding of its dynamics could lead to the development of support systems and practices to ensure the holistic well-being of artists. This holistic approach not only nurtures artistic excellence but also fosters a culture of care and appreciation for the emotional journey of dancers as they express the rich tapestry of human emotions through their art.

Limitations

- The restricted age range of participants (18 to 30 years) may limit the generalizability of the findings to dancers outside of this demographic range. Different age groups may exhibit varying levels of emotional expressivity and emotional sensitivity, thus necessitating caution when extrapolating the results to broader dancer populations.
- The study's focus on dancers from mostly Kerala introduces a geographical limitation that may impact the generalizability of the findings. Dancers from different cultural backgrounds and regions of India may exhibit distinct psychological profiles and emotional responses, thereby potentially confounding the results.
- The reliance on self-report measures to assess emotional expressivity and emotional sensitivity introduces the possibility of response bias and subjective interpretation. Participants' self-perceptions and willingness to disclose sensitive information may influence the accuracy and reliability of the data collected, thereby limiting the robustness of the study's conclusions.
- The cross-sectional design of the study precludes the establishment of causal relationships between emotional expressivity and emotional sensitivity in dancers.

Longitudinal studies tracking dancers' psychological variables over time would provide a more comprehensive understanding of the dynamic interplay between emotional expressivity and emotional sensitivity among dancer populations.

- The study's exclusion of potential confounding variables, such as socioeconomic status, dancer performance level and training intensity, represents a notable limitation. These factors may exert significant influence on dancers' psychological well-being and emotional reactivity, thus warranting consideration in future research endeavours to enhance the depth and validity of the findings.
- The study failed to find the relation between emotional expressivity and emotional sensitivity.

References

Burgin, C. J., Brown, L. H., Amethyst Royal, Silvia, P. J., Barrantes-Vidal, N., & Kwapil, T. R. (2012). Being with others and feeling happy: Emotional expressivity in everyday life. *Personality and Individual Differences, 53*(3), 185–190. doi:10.1016/j.paid.2012.03.006.

Chakravorty, P. (1998). Hegemony, dance and nation: The construction of the classical dance in India. *South Asia: Journal of South Asian Studies*, *21*(2), 107–120. https://doi.org/10.1080/00856409808723345

Chatterjee, A. (1996). Training in Indian classical dance: A case study. *Asian Theatre Journal*, 68-91.

Chatterjee, A. (2013). The therapeutic value of Indian classical, folk and innovative dance forms. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, *5*(1), 75-83.

Cherry, K. (2020, September 17). *Understanding the Cannon-Bard Theory of Emotion*. Verywell Mind; Verywellmind. https://www.verywellmind.com/what-is-the-cannon-bard-theory-2794965

Christensen, J. F., Azevedo, R. T., & Tsakiris, M. (2021). Emotion matters: Different psychophysiological responses to expressive and non-expressive full-body movements. *Acta Psychologica, 212*(103215), 103215. doi:10.1016/j.actpsy.2020.103215

Christensen, J. F., Gomila, A., Gaigg, S. B., Sivarajah, N., & Calvo-Merino, B. (2016). Dance expertise modulates behavioral and psychophysiological responses to affective body movement. *Journal of Experimental Psychology: Human Perception and Performance*, *42*(8), 1139–1147. https://doi.org/10.1037/xhp0000176

D'Hondt. (2010). Early brain-body impact of emotional arousal. *Frontiers in Human Neuroscience*, *4*(33). https://doi.org/10.3389/fnhum.2010.00033

Damasio, A. (1999). *The feeling of what happens: Body and emotion in the making of consciousness.* Harcourt College Publishers.

Desmond, J. (2012). Meaning in Motion. In *Duke University Press eBooks*. Duke University Press. https://doi.org/10.1215/9780822397281

Dobbs, J. L., Sloan, D. M., & Karpinski, A. (2007). A psychometric investigation of two self-report measures of emotional expressivity. *Personality and Individual Differences*, *43*(4), 693–702. doi:10.1016/j.paid.2007.01.010

Esteves, S. by F. (n.d.). Faculty of social and humanities sciences. Retrieved 18 December 2023, from https://www.diva-portal.org/smash/get/diva2:1527577/FULLTEXT01.pdf

Fischer, A. H., Kret, M. E., & Broekens, J. (2018). Gender differences in emotion perception and self-reported emotional intelligence: A test of the emotion sensitivity hypothesis. *PloS One*, *13*(1), e0190712. doi:10.1371/journal.pone.0190712

Flack, W. (2006). Peripheral feedback effects of facial expressions, bodily postures, and vocal expressions on emotional feelings. *Cognition & Emotion*, *20*(2), 177–195. https://doi.org/10.1080/02699930500359617

Gallese V. Before and below 'theory of mind': embodied simulation and the neural correlates of social cognition. Philos Trans R Soc Lond B Biol Sci. 2007 Apr 29;362(1480):659-69. doi: 10.1098/rstb.2006.2002. PMID: 17301027; PMCID: PMC2346524.

Gross, J. J., & John, O. P. (1997). Revealing feelings: facets of emotional expressivity in self-reports, peer ratings, and behavior. *Journal of Personality and Social Psychology*, *72*(2), 435–448. doi:10.1037//0022-3514.72.2.435

Gross, J. J., & John, O. P. (2011). Berkeley Expressivity Questionnaire [Data set]. *PsycTESTS Dataset*. doi:10.1037/t00749-000

Guarino, L., Roger, D., & Olason, D. T. (2007). Reconstructing N: A New Approach to Measuring Emotional Sensitivity. *Current Psychology*, *26*(1), 37–45. https://doi.org/10.1007/s12144-007-9004-8

Izard CE. Emotion theory and research: highlights, unanswered questions, and emerging issues. Annu Rev Psychol. 2009;60:1-25. doi: 10.1146/annurev.psych.60.110707.163539. PMID: 18729725; PMCID: PMC2723854.

Izountouemoi, A., & Esteves, F. (2023). Does Dance Expertise Enhance Sensitivity? A Comparative Study. *Empirical Studies of the Arts*, 02762374231206720.

Kishore, P. V. V., Kumar, K. V. V., Kiran Kumar, E., Sastry, A. S. C. S., Teja Kiran, M., Anil Kumar, D., & Prasad, M. V. D. (2018). Indian Classical Dance Action Identification and Classification with Convolutional Neural Networks. *Advances in Multimedia*, *2018*, 1–10. https://doi.org/10.1155/2018/5141402

Kring, A. M., Smith, D. A., & Neale, J. M. (1994). Individual differences in dispositional expressiveness: Development and validation of the Emotional Expressivity Scale. *Journal of Personality and Social Psychology*, *66*(5), 934–949. https://doi.org/10.1037/0022-3514.66.5.934

Lumen. (2011). *Theories of Emotion | Introduction to Psychology*. Lumenlearning.com. https://courses.lumenlearning.com/waymaker-psychology/chapter/emotion/

Mohanty, A., & Sahay, R. R. (2018). Rasabodha: Understanding Indian classical dance by recognizing emotions using deep learning. *Pattern Recognition*, *79*, 97–113. https://doi.org/10.1016/j.patcog.2018.01.035

Mohiyeddini, C., John, O., & Gross, J. J. (2008). Der „Berkeley Expressivity Questionnaire". *Diagnostica*, *54*(3), 117–128. doi:10.1026/0012-1924.54.3.117

ND (2021). Retrieved 18 December 2023, from https://www.researchgate.net/publication/288304351_Construction_and_validation_of_the_Emotional_Sensitivity_Scale_ESS_A_new_approach_for_measuring_neuroticism

Petrides, K. V., Niven, L., & Mouskounti, T. (2006). The trait emotional intelligence of ballet dancers and musicians. *Psicothema*, *18*, 101-107.

Pritchard, B. (n.d.). Scientific Information System Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal Non-profit academic project, developed under the open access initiative. *Www.academia.edu*. Retrieved March 19, 2024, from https://www.academia.edu/59666613/Scientific_Information_System_Network_of_Scientific_Journals_from_Latin_America_the_Caribbean_Spain_and_Portugal_Non_profit_academic_project_developed_under_the_open_access_initiative

Sawada, M., Suda, K., & Ishii, M. (2003). Expression of emotions in dance: Relation between arm movement characteristics and emotion. *Perceptual and motor skills*, *97*(3), 697-708.

Scharoun, S. M., Luymes, N., Bryden, P. J., & Fletcher, P. C. (2014, December). *Dance/Movement Therapy as an Intervention for Children with Autism Spectrum Disorders*. ResearchGate; Springer Verlag. https://www.researchgate.net/publication/264373169_DanceMovement_Therapy_as_an_Intervention_for_Children_with_Autism_Spectrum_Disorders

Scherer, K. R. (2005). What are emotions? And how can they be measured? *Social Sciences Information. Information Sur Les Sciences Sociales*, *44*(4), 695–729. doi:10.1177/0539018405058216

Self report measures for love and compassion research: Personal growth and positive emotions. (n.d.). Retrieved 18 December 2023, from https://dtreboux.files.wordpress.com/2021/01/emotions_expressivity.pdf

Shafir, T., Tsachor, R. P., & Welch, K. B. (2016). Emotion Regulation through Movement: Unique Sets of Movement Characteristics are Associated with and Enhance Basic Emotions. *Frontiers in Psychology, 6*. https://doi.org/10.3389/fpsyg.2015.02030

Shubhangi, & Tiwary, U. S. (2017). Classification of Indian classical dance forms. In *Intelligent Human Computer Interaction: 8th International Conference, IHCI 2016, Pilani, India, December 12-13, 2016, Proceedings 8* (pp. 67-80). Springer International Publishing.

Smith, R. A., & Cross, E. S. (2023). The McNorm library: creating and validating a new library of emotionally expressive whole body dance movements. *Psychological Research*, *87*(2), 484-508.

Sridhar, V. (1996). Survival of Indian Classical Dance Down the ages.

The Elements of dance. (n.d.). Retrieved 19 December 2023, from The Elements of Dance website: https://www.elementsofdance.org/

Van Dyck, E., Maes, P. J., Hargreaves, J., Lesaffre, M., & Leman, M. (2013). Expressing induced emotions through free dance movement. *Journal of Nonverbal Behavior*, *37*, 175-190.

Van Dyck, E., Burger, B., & Orlandatou, K. (2017). The communication of emotions in dance. In *The Routledge companion to embodied music interaction* (pp. 122-130). Routledge.

Wall, K., Kalpakci, A., Hall, K., Crist, N., & Sharp, C. (2018). An evaluation of the construct of emotional sensitivity from the perspective of emotionally sensitive people. *Borderline Personality Disorder and Emotion Dysregulation, 5*(1). https://doi.org/10.1186/s40479-018-0091-y

What Is the Meaning of Being Sensitive? (n.d.). MedicineNet. https://www.medicinenet.com/what_is_the_meaning_of_being_sensitive/article.htm

Yang, Z., Huang, J., & Chan, R. C. K. (2018). *Emotional Expressivity Scale. Encyclopedia of Personality and Individual Differences, 1–3.* doi:10.1007/978-3-319-28099-8_812-1

APPENDIX

Appendix A

Informed Consent Form

You are invited to participate in a research study on the relation between emotional expressivity and emotional sensitivity in Indian classical dancers and non-dancers, specifically comparing the male and female.

Purpose

The purpose of the study is to assess the emotional expressivity and emotional sensitivity in Indian classical dancers and non-dancers. Your contribution will help in understanding these aspects more.

Procedure

You will be asked to complete 2 questionnaires. Please ensure that you answer these questions according to your true feelings and experiences. Your honest and open responses are crucial for the success of the study. There are no right or wrong answers, each individual possesses their own views. Your participation is valued and your candor will contribute to the meaningfulness of the research.

Confidentiality and Voluntary Participation

Your responses will be strictly confidential. No personally identifiable information will be disclosed in any reports or publications resulting from this research. Your participation is entirely voluntary, and you have the right to withdraw at any time without consequences.

Consent

I have read and understood the information provided above. I voluntarily agree to participate in this research.

Participant's name/Initials:

Signature:

By signing this form, you acknowledge that you have been given the opportunity to ask questions and that you voluntarily consent to participate in this study.

Appendix B

Socio-Demographic Details

Name/Initials:

Age:

Sex:

Marital Status:

Educational Qualification:

Occupation:

Are you a classical dancer:

If yes, how long have you been a classical dancer:

Which classical dance form do you practice:

Appendix C

Emotional Expressivity Scale (EES) Questionnaire

The following statements deal with you and your emotions. Please select and write a number from the following scale that best describes you in each of the statements. (1= Never true and 6= Always true)

1 Never True	2 Rarely True	3 Occassionally True	4 Usually True	5 Almost Always True	6 Always True

1. I don’t express my emotions to other people
2. Even when I'm experiencing strong feelings, I don't express them outwardly.
3. Other people believe me to be very emotional.
4. People can ‘read’ my emotions.
5. I keep my feelings to myself.
6. Other people aren’t easily able to observe what I’m feeling.
7. I display my emotions to other people.
8. People think of me as an unemotional person.
9. I don’t like to let other people see how I’m feeling.
10. I can’t hide the way I’m feeling.
11. I am not very emotionally expressive.
12. I am often considered indifferent from others.
13. I am able to cry in-front of other people.
14. Even if I’m feeling very emotional, I don’t let others see my feelings.
15. I think of myself as emotionally expressive.
16. The way I feel is different from how others think I feel.
17. I hold my feelings in.

Appendix D

Emotional Sensitivity Scale (ESS) Questionnaire

This scale consists of a number of statements. Read each statement carefully and choose the one alternative which is most like you. Please do not omit any of the statements. There are no correct or incorrect answers. Please be open and honest in your response.

1. I often get the feeling that I just want to give up all together.	True	False
2. I often worry that I have done something to upset people.	True	False
3. Unexpected changes in my life often leave me absolutely gutted.	True	False
4. I often think about ways to help people in difficulty.	True	False
5. It often feels that my burden is greater than anyone else's.	True	False
6. I often get angry with myself.	True	False
7. I find it easy to understand other people's feelings.	True	False
8. I get angry when things don't work out.	True	False
9. I easily get anxious and distressed when I see any of my family or close friends facing a problem, and I wish I wasn't there.	True	False
10. I find it easy to understand others' feelings when they are distressed.	True	False
11. If someone said I was an agitated person, they would probably be right.	True	False
12. I try not to get emotionally involved with people experiencing difficult situations.	True	False
13. I find it easy to share in other's happiness.	True	False
14. When people close to me are having problems, I worry on their behalf.	True	False
15. When I feel miserable, the worst thing is to hear other people laughing and having fun.	True	False
16. I worry constantly about making mistakes in my work.	True	False

17. I get very upset if my friends do not show up as planned.	True	False
18. When things don't go according to plan, I can usually accept it if there is nothing I can do about it.	True	False
19. I find it easy to recognise the feelings and moods of people around me, even if they try to hide me.	True	False
20. I'm easily affected by others' emotional problems.	True	False
21. I feel upset when I realise that there is nothing I can do to help other people who are having problems.	True	False
22. I am easily frustrated.	True	False
23. Little things are often enough to put me in foul mood.	True	False
24. I often feel sorry for myself.	True	False
25. I feel really upset about the plight of people on the edge of society.	True	False
26. I sometimes feel that no-one cares about me.	True	False
27. I often feel despair when facing difficult situations.	True	False
28. I would try to help someone crying in the street.	True	False
29. When a project I am working on starts off badly, I often see it as bad sign for the rest of the project.	True	False
30. As long as I try my best in whatever I do, that's enough to make me happy.	True	False
31. I'm often more concerned about others' feelings and moods of people around me.	True	False
32. It's quite difficult for me to know the feelings and moods of people around me.	True	False
33. I often think about how not to make a fool of myself when facing a novel situation.	True	False
34. I feel more concerned than most people about those who are unfairly treated.	True	False

35. I often feel let down by my friends.	True	False
36. I can handle criticism well.	True	False
37. Whenever I see someone in trouble, I feel it's my responsibility to help and give support.	True	False
38. I get upset when other people are having a hard time.	True	False
39. I feel very put out if people don't pick up on how I feel.	True	False
40. I am very questioning of myself.	True	False
41. I am generally an apprehensive person.	True	False
42. I often picture the worst case scenario for whatever I am about to do.	True	False
43. I can easily control my nerves.	True	False