

RESEARCH ARTICLE

Tai Chi training: An effective method to enhance the oneness of mind and body in dance performance

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ABSTRACT

Since the nineteenth century, the primary goal of university dance programmes has been to enhance students' dance skills, while the development of artistic expression has been neglected. Tai Chi training has been shown to be an effective method of exercising the mind and body to enhance perceptivity and body creativity. However, there is still less research on its impact in teaching dance performance in universities. Therefore, this study aims to address two fundamental questions: (1) How does Tai Chi training affect students' perceptivity and creativity in dance performances? (2) What are the specific effects of enhanced perceptivity and creativity on the state of dance performance? In order to answer these questions, this study utilized a qualitative research methodology involving 43 dance students from Hunan Women's University in China. The research methodology included a 10-week Tai Chi training program at Hunan Women's University in Hunan Province, China, and semi-structured interviews with participants. The findings reveal how Tai Chi training enhances dance students' perceptivity and creativity in dance performance and explains its effectiveness on the state of oneness of mind and body in dance performance. This exploratory study provides preliminary evidence for understanding the impact of Tai Chi training on mind and body awareness in dance and provides a basis for incorporating more mind and body exercises into dance education in the future.

Keywords: body awareness; creativity; dance performance; oneness of mind and body; perceptivity; Tai Chi training

1. Introduction

The goal of dance performance education is not only to develop a high level of mastery of dance technique, but also to enhance their artistic expression. However, the modern trend towards the professionalisation of teaching tends to separate body, mind and emotions^[1,2]. Zhang (2019) pointed out that teachers often neglect the cultivation and penetration of dance emotion in the teaching process, which may affect students' ability to express emotion in performance^[3]. Therefore, dance emotion education for Chinese college students is particularly important.

ARTICLE INFO

Received: 23 September 2024 | Accepted: 21 October 2024 | Available online: 23 October 2024

CITATION

Jiang YY, Abdullah NQJ, Nordin N. Tai Chi Training: An Effective Method to Enhance the Oneness of Mind and Body in Dance Performance. *Environment and Social Psychology* 2024; 9(10): 3124. doi: 10.59429/esp.v9i10.3124

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Dance performance is an artistic activity that expresses emotions and conveys messages through the form of dance. In dance performance, dancers convey emotions and thoughts through static gestures and dynamic movements, and at the same time it is a spiritual aesthetic experience^[4]. Dance performance can not only release the imagination and creativity of dancers, but also show the beauty and emotion of dance and reflect the comprehensive ability of dance students. As a result, the demands on the content of the dance curriculum have risen accordingly: the curriculum needs to develop not only the physical skills of the students, but also focus on their emotional expression and aesthetic awareness^[5,6].

University dance education is of great importance to every dance student. At present, dance education in Chinese universities implements “dance literacy” education. The concept of “choreographic literacy” has its roots in the movement theory and symbolic system of Rudolf Laban (1948), who emphasised the kinaesthetic qualities of movement, including body movements, shapes and dynamic qualities, thus making dance a true medium of creative human expression and establishing a symbolic system for dance. This view has been promoted by discipline-based arts education scholars^[7]. Although the Chinese university dance curriculum system is relatively well-designed in terms of upholding the concept of ‘modern dance education’, it still suffers from formalisation and weak practicality^[8].

Tai Chi, a traditional Chinese mind and body exercise with a history of over 1200 years. It is a practice that combines movement and stillness and aims to achieve harmony between mind and body. Tai Chi is a fusion of Chinese martial arts and meditation, characterised by slow and consistent movements, through which the flow of internal qi is channelled to achieve whole-body qi coherence and a balance of yin and yang. The core elements of Tai Chi training include deep, long breaths, physical stability, slow and fluid movements, and the cultivation of inner awareness^[9]. Incorporating these elements into dance training helps practitioners to explore and recognise inner strengths and awareness that they have not previously been able to perceive^[10]. This type of calm and coherent training not only promotes the integration of mind and body, but also enhances the dancers' precision in movement execution and the overall effect of training, which plays a positive role in improving the overall quality of dance performance.

Although the above provides theoretical and practical support for the research and development of dance performance teaching in higher education, there is still room for further exploration of effective ways to enhance students' oneness of mind and body, especially interdisciplinary training methods. In this regard, the researchers asked two specific questions to investigate the effectiveness of Tai Chi training in enhancing the state of oneness of mind and body in students dance performances: (1) How does Tai Chi training affect students' perceptivity and creativity in dance performances? (2) What are the specific effects of enhanced perceptivity and creativity on the state of dance performance?

Based on Thomas Hanna's theory of somatics, this study investigates how Tai Chi training affects dance students' performance state through perceptivity and creativity. In addition, this study provides new perspectives for the research and promotion of interdisciplinary dance training methods. At the same time, the results of this study help to provide new teaching ideas and content for college dance teachers, as well as new learning ideas and content for dance students.

2. Literature review

The focus of this study is to address the deficiencies in performance practice training that exist in the field of dance education in Chinese universities^[11]. Research has also been devoted to exploring how dancers' body awareness can be improved through augmentation strategies to ameliorate the limitations that currently

exist in dance performance^[12]. Therefore, this section discusses in detail the concepts that are closely related to this study.

2.1. Somatics

The term “somatics” was first coined by Thomas Hanna in the 1960s^[13]. This theory endeavours to address the fragmentation between the multiple domains of dance, art, theory and practice, education and environment, creation and performance. Somatics theory advocates the enhancement of a dancer's body awareness and expressive abilities through the creation of transpersonal, intuitive and sensory experiences. For example, instead of completing “correct” movements based solely on the teacher's demands, dancers learn to respond to movement from its roots. By slowing down the speed of movement, dancers can engage in deep self-focus and exploration, which enhances perception and performance of the body^[14]. One of the central ideas of Thomas Hanna's theory of the body is the oneness of mind and body. In the field of dance performance, “oneness of mind and body” emphasises that dancers should effectively integrate body movement processes, self-perception and inner emotions during the movement process, and advocates a deep focus of the body and mind^[15].

2.2. Perceptivity

Within the field of aesthetics, Barone (2018), along with other scholars, defines ‘perceptivity’ as involving noticing things that are often overlooked by most people^[16]. This means that individuals are able to penetrate surface phenomena and capture a deeper reality^[17]. Whitehead had a broader understanding of perception, which he saw as a sensation that transcends the traditional sensory experience; it is not limited by human senses and has a broader existential significance^[18]. The process of perception can be divided into two main stages. The initial stage is an undirected perceptual activity, while the subsequent second stage is the substance of the aesthetic experience, which involves the perception of immaterial attributes. Although humans are able to observe the surface features of almost any object, it is only through deeper scrutiny that we can truly discover its inner subtleties^[19].

2.3. Creativity

Guilford's (1950) pioneering suggestion that creativity could be studied through the scientific method provided a new perspective on the field. This was closely followed by Barron's further definition of creativity in 1955, which emphasised the centrality of originality in the study of creativity. Echoing Barron's views, Guilford's subsequent work continues to emphasise the importance of originality and refines this into innovativeness, focusing on identifying and evaluating those behavioural traits that are unusual. According to Runco and Jaeger's 2012 study, Stein argues that the creativity of individuals working in the scientific community, such as artists, tends to manifest itself in greater flexibility in the expression of emotions or feelings^[20].

It is widely recognised in academia that creativity is a developable ability and is stronger for those with choreographic experience^[21], but how to effectively teach this skill remains an unresolved challenge. Despite the increase in research on creativity processes in recent years, there is still a dearth of effective recommendations that can be made for educational practices or learning environments. Fostering creativity in the education system, especially in higher education institutions with strict regulations, is a challenging task ^[22].

2.4. Oneness of mind and body

The oneness of mind and body is a central idea of Thomas Hanna's theory of somatics, which emphasises the individual's existence as a whole, including the body, the mind, the spirit and the

environment in which it is situated^[23]. In exploring “oneness”, although it may seem to literally refer to two separate entities, in reality they are inseparable communities at the cultural, organisational and individual levels^[24]. For example, Dewey asserts that mind and body constitute a unified whole. Although the mind belongs to the category of matter, it exhibits a property that transcends physical form and manifests itself as a more subtle being^[25].

In the long history of Chinese dance culture, the idea of “oneness of mind and body” originated in the Zhou Dynasty. At that time, the art of dance did not exist independently, but was closely linked to rituals, poetry and music, forming a whole. Dance at that time was not only an artistic expression, but also an embodiment of a moral code that aimed to cultivate and promote high morals^[26]. In the concept of “oneness of mind and body” advocated in the art of dance, ‘mind’ refers to the immaterial plane, while “body” refers to the material entity with the ability to act. The idea is that the dancer's mind has the power to direct the behaviour of the body. Dance, as a powerful form of expression, demonstrates the close union between the spiritual world and the material body, whose inner consciousness is shaped by the whole mind and body together^[27].

Kurnaedy's work as a researcher focuses on deepening the understanding and practice of the art of dance, particularly in its transcendental and consciousness-raising dimensions. He points out the relative lack of research on dance and its physical aspects in the arts and calls for more attention and in-depth exploration of this area^[28].

2.5. Tai Chi Training

Tai Chi, a concept first found in the ancient Chinese text *I Ching*, represents a state of absolute and infinite “extremity”. Not only does Tai Chi embody a philosophical thought and philosophy of life, it is also a form of martial arts that is often used for medical purposes to help treat a wide range of ailments^[29,30]. There are many different styles of traditional Tai Chi. Over time, the main Tai Chi training styles have evolved into five, including Chen, Yang, Sun, Wu and Wu styles^[31]. Of these styles, Yang-style Taijiquan is one of the most widely known and practised due to its classical nature^[32].

Wang (2020) made an important contribution to the field of physical practice by proposing the development of a new approach to exercise from the principles of Taijiquan movement, with the aim of achieving harmony between mind and body, known as ‘Taiji training’^[33]. When using Tai Chi training, researchers can incorporate the characteristics of Yang's Tai Chi Chuan for this purpose, i.e., both feet are usually in a following state, specifically, when one foot moves forward or backward, the other foot will follow at the same time^[34]. The flexibility of Tai Chi training is demonstrated by the fact that it can be adapted to the individual, either practised alone or with others^[35].

For the purposes of this study, Tai Chi includes not only the Tai Chi movement itself, but also Tai Chi related forms of movement, and is defined as a specific training method for dance students that focuses on the ‘one breath, one inhalation’ of the breath and the ‘one tightening, one loosening’ of the body in order to develop flexibility and strength.

In terms of research over the past few decades, scholars have primarily focused on exploring the potential benefits of Tai Chi in the area of chronic disease^[32,36]. Despite the fact that research has been conducted to confirm the multifaceted benefits of Tai Chi, there is still a paucity of research on the use of Tai Chi as an intervention in university dance education^[37,38]. In light of this, it is particularly important and necessary to assess the impact of Tai Chi training as a teaching aid on dance students' ability to achieve a state of oneness of mind and body in performance.

Taking all these considerations into account, this study aims to fill the gap in existing research on training methods for dance mind and body awareness by investigating the effects of Tai Chi training on university students' ability to achieve a state of oneness of mind and body in dance performance. The research framework of this study is shown in **Figure 1**.

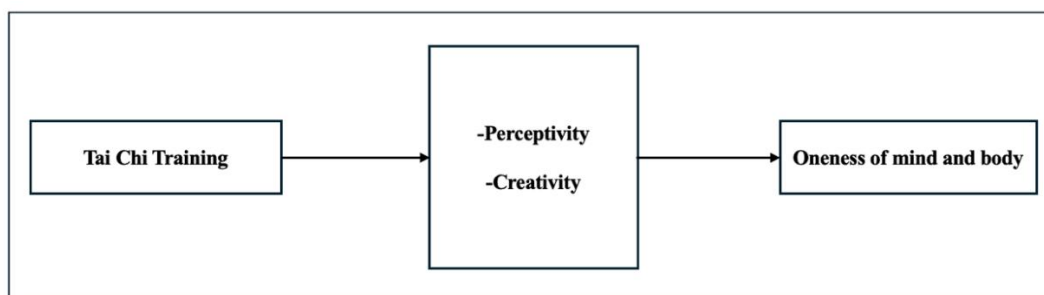


Figure 1. Research framework.

3. Research methodology

This section will discuss the research methodology in detail, including the research design, sample and research instruments, data collection and data analysis process.

3.1. Research design

This study aimed to evaluate the effects of Tai Chi training on students' dance performance status and to explore whether it could enhance students' awareness of the importance of Tai Chi as an auxiliary training tool. Using a qualitative descriptive case study approach, the study focused on respondents' experiences and understanding of Tai Chi training and whether they would continue to use Tai Chi as an adjunct to dance training.

In the first phase of the study, participants underwent ten weeks of Tai Chi training from 16 October 2023 to 15 December 2023, five times a week for one hour. Each workout consists of a 5-minute warm-up, 50 minutes of exercises and 5 minutes of relaxation. The course consists of three core elements of physical preparation, breath regulation and intentional guidance, with different focuses at different stages. Weeks 1 to 3 are the foundation building phase, where the participant will master all the movements while focusing on the breath, weeks 4 to 6 are the breath communication phase, where the focus is on the breath and trying to use the intention to guide the movements, and weeks 7 to 10 are the intention application phase, where the emphasis is on integrating the intention into the practice, and ultimately, achieving the harmony between the body and the mind. At the end of the experiment, a second phase was conducted to collect participants' perceptions of the training process and their agreement with the results through semi-structured interviews.

3.2. Sample and research instruments

The participants in this study were 43 first-year dance students from Hunan Women's University, Changsha, Hunan Province, China. Since these students were in the same grade, they had a similar background of dance training prior to enrolment and were educated in the same dance programme during their university studies. Therefore, the researcher believes that these students share certain common characteristics. Secondly, researchers can use Tai Chi training that is tailored to respondent characteristics. For these reasons, this study focused on this group of respondents with similar backgrounds.

The researcher collected data through semi-structured interviews. The interview protocol was designed with 10 questions designed to lead participants to an in-depth discussion of their behaviours (what they do),

views and values (what they think about the subject matter), affective experiences (emotional reactions), knowledge (understanding of the subject matter), and sensory experiences (what they see, hear, listen to, and touch). The outline of the interviews is shown in **Table 1**.

Table 1. Interview protocol.

Essential information	Please briefly describe your experience in learning dance and describe your involvement in Tai Chi training. What did you expect to get out of Tai Chi training before you got involved?
Experience of Perceptivity	How do you stay focused during Tai Chi training? Can you give me an example? Has Tai Chi training helped you to better understand the co-ordination and connection between the parts of your body? Was there a particular moment or experience in your Tai Chi training that made you realise you were at one with your surroundings? If so, how did this affect your dance performance status? Please give examples. How do you think perceptivity has helped you to become more aware of the state of performing oneness of mind and body?
Experience of Creativity	Has Tai Chi training stimulated your creative thinking? What are some specific manifestations? Have you ever tried to choreograph your own new dance piece or movement? Describe the process by which you choreographed these dance pieces or movements, giving examples. What were some of the challenges you encountered in choreographing and how did you overcome them? How do you see the role of creativity and the impact it has on dance performance?
Other Questions	Looking back on your Tai Chi training experience, what do you think is the most important thing you have learnt? Do you plan to continue to enhance the performance state of oneness of mind and body through Tai Chi or similar practices?

3.3. Validity and reliability

Prior to the formal interviews, the researcher pilot tested the interview protocol to assess the validity and reliability of its design and to enhance the researcher's ability to collect data^[39]. Kallio et al. suggest that in the initial testing of the interview guide, testing with a small group of potential participants can ensure that the content of the guide is accessible to the participants and confirm whether the questions are effective in eliciting the different perspectives and experiences of the participants^[40]. Specifically, the researchers conducted pilot interviews with three first-year students at Hunan Women's University. Based on the test feedback, the researchers optimised the formulation of the questions and assessed their validity, which in turn improved the interview guide. In addition, the pilot test helped the researchers determine how much time was needed for each section and examined potential problems or limitations in the design.

3.4. Data collection

All interviews were conducted using the finalised interview guide and through the Zoom platform. Each interview took approximately 30 to 50 minutes and the researcher met with each participant individually. The interviews were recorded as audio files and subsequently transcribed into text. To ensure that all the important information was recorded, the researchers used two recording devices, from Huawei in China and Apple in the US. The researcher checked the functionality of these devices prior to the start of the interviews and continually confirmed the status of the recordings during the interviews.

3.5. Data analysis

The researcher will analyse the data using NVivo 12 software. During the coding phase, the 43 raw interview data from the formal survey phase will be interpreted and analysed in detail in order to extract key information from each research sample. In naming the codes, the researcher followed Cunningham's principles to ensure clarity of the codes so as to accurately convey their meaning^[41]. The finalised themes will serve as the main headings for the findings section of the study and will be presented in the final report.

4. Results and discussion

The researcher analysed the data with detailed coding. The results showed that the majority of the 43 participants started dance studies in childhood, mainly out of interest rather than professional training. With the onset of senior high school, especially senior three, students turn to systematic professional dance training with a focus on Chinese classical dance and Chinese folk-dance techniques in order to enter their desired tertiary institutions to meet the examination standards and requirements for further studies. All participants found the Tai Chi training course very interesting and expressed their willingness to continue practising after the course. Next, participants' feedback on perceptivity and creativity will be analysed, as well as the specific effects of these factors on the state of dance performance. These results are used to provide insight into how they understand the state of oneness of mind and body in dance performance. The results are summarised in **Table 2**.

4.1. Effects of Tai Chi training on perceptivity and creativity

The results of the study showed that all respondents felt that Tai Chi training significantly improved their perceptivity and enabled them to use all parts of the body more freely, including the joints, which have received less attention in traditional dance training. In addition, increased perceptivity enhances physical coordination. Most respondents also reported that Tai Chi training increased their creativity, enriched their creative material, and improved their logical thinking.

4.1.1. Tai Chi training enhances the connection between body parts

Respondents generally reported that they found they were able to use the small joints of the body more freely during Tai Chi training. This improvement allows them to achieve finer movement control in dance. Participant 30 commented that she was able to feel the strength in all parts of her body while dancing and that the experience was very special. Participant 37 felt that she was able to recognise fluid movement from one joint to another, or from the upper body to the lower body, and that she was able to make natural connections of movement.

This finding is consistent with Yu et al. Yu et al. (2018) noted that Tai Chi training enhances dancers' body control and is particularly effective in enhancing proprioception at the knee and ankle joints ^[42]. In short, dancers need to get the correct centre of gravity of the body and reduce excess tension, thus improving flexibility in all parts of the body.

4.1.2. Tai Chi training improves body coordination

The study participants felt that their body coordination was significantly improved through Tai Chi training. For example, Participant 15 stated that she experienced the importance of centre of gravity shifting, which led to greater coherence throughout the body and more fluid dance movements. Participant 33 mentioned that the Tai Chi training taught her how to use her breath to guide her movements, which resulted in smoother dance movements and a more coordinated feeling throughout the body.

According to Yu et al. (2018), Tai Chi training places special emphasis on the use and coordination of the lower limbs. During training, maintaining a semi-squat position for a long period of time helps to strengthen the muscles of the lower limbs. This type of training improves the coordination of core muscles, upper and lower limbs through synchronised movements of the lower body and legs^[42].

4.1.3. Tai Chi training enriches creative material

All respondents who participated in this study generally agreed that Tai Chi training has a positive effect on enriching creative material. Participant 10 indicated that her incorporation of Tai Chi elements into her creation has, on the one hand, broken the inherent thinking pattern and made her thinking more flexible; on the other hand, Tai Chi has inspired her to use a variety of artistic techniques, which has enriched the style and expression of her choreography. Participant 12 mentioned that she started to experiment with some previously uncharted elements in her performances and wanted to explore new creative possibilities by combining dance with Tai Chi.

According to Vidal et al. (2022), Tai Chi imagery can be a guiding material for performing artists and actors to create. Performing artists and actors can inspire new movement and performance by examining these images and relating them to body language^[43].

4.1.4. Tai Chi training enhances logical thinking

Most of the participants agreed that Tai Chi training enhanced their creativity and strengthened their logical thinking skills. For example, Participant 30 stated that she now thinks more deeply about each dance movement and finds that movement expressions and feelings become richer and more varied. Participant 31 mentioned that the boost in creativity inspired her to think about the true meaning of dance.

Tai Chi training did improve logical thinking skills, a finding consistent with that of Cui et al. (2021). Cui noted that the effects of Tai Chi training on cognitive function and brain activity were more pronounced compared to general aerobic (non-positive) exercise^[44].

4.2. The effect of perceptivity and creativity on the state of oneness of mind and body dance performance

The results of the study showed that all participants agreed that Tai Chi training significantly enhanced their perceptivity, which in turn positively affected their dance performance state. Specifically, they experienced a deeper understanding of the dance piece as well as a greater sense of immersion. Additionally, creativity played an important role in the dance performances, with participants significantly improving the overall performance by increasing the uniqueness of the dance pieces and enhancing emotional expression.

4.2.1. Perceptivity deepens understanding of the dance piece

Participants felt that increased perceptivity could help them understand the dance piece more deeply. Participant 9 stated that she used to focus too much on memorising rhythms and movements, but now she turns her attention to the emotional expression of the dance piece. She realises the need to understand and experience the inner thoughts and feelings of her characters, which makes the dance more compelling due to the emotional changes. Participant 12 mentioned that as her body perceptivity improved, she was able to grasp the inner meaning of the dance piece more deeply. When performing with her whole mind and body, she was able to feel the emotions of the characters delicately.

When dancers had good body perception, they were able to understand the dance piece more deeply, a result that is consistent with Vintila's view. Vintila (2020) states in his study that dancers' improvised physical states help them to actively grasp the meaning of the dance piece^[45].

4.2.2. Perceptivity enhances immersion in dance performance

Most participants felt that the increased perceptivity enabled them to engage more deeply with the dance performance. For example, Participant 11 stated that initially she was afraid to dance due to nervousness and the stares of those around her, but after training, the environment affected her less. During one of her performances, she felt at one with the other dancers, as if she had become a leaf undulating in the wind, in harmony with nature. Participant 10 mentioned that during a training session, she was completely immersed and felt at one with the world around her.

The finding that good perceptivity enables dancers to engage more deeply in dance performance is similar to Ekweariri's view. Ekweariri (2021) argues that perceptivity can provide dancers with an imagination that helps them to enter or explore the world presented by the artwork^[46].

4.2.3. Creativity enhances the uniqueness of the dance piece

Participants generally agreed that the creativity of the dancers significantly enhanced the uniqueness and innovation of the dance pieces. Participant 33 believed that creativity is the core of dance performance, and dancers with creativity can not only imitate, but also bring freshness to the audience by innovating to enhance their character expressions. Participant 36 mentioned that dancers need to show unique insights and creativity in their performances, otherwise the dance may seem stiff and repetitive.

Stronger creativity not only enhances the uniqueness of the dance piece, but also improves the quality of the dance performance, a finding validated in Dou et al.'s study. Dou (2021) states that creativity consists of creative and innovative thinking, which intertwine and merge during the actual interpretation of a dance piece, thus enhancing the uniqueness and innovation of the dance piece, which in turn improves the overall quality of the dance piece^[47].

4.2.4. Creativity enhances dancers' ability to express emotions

The results of the data analyses showed that the participants believed that the creativity of the dancers contributed to a more effective expression of emotions, thus enhancing the emotional experience of the audience. Participant 25 stated that the dancers' unique aesthetic and understanding of the work better helped them to integrate into their roles and commit to their performances, and that this emotional engagement could move the audience more deeply. Participant 43 mentioned that she enriches her character's image and emotions through body movements during her performance, which makes it easier to convey emotions to the audience.

The finding that good creativity helps dancers to express emotions more effectively and thus enhances the emotional experience of the audience is in line with Jaque et al. Jaque (2020) and others state that the creative experience of the performing artist is crucial. In a state of creative flow, dancers may feel more confident and joyful and become more engaged in their performance, as well as positively affecting the audience's mood^[48,49].

Table 2. Summary of participants' perceptions and experiences on Tai Chi training.

Themes and Sub-Themes	Concepts	Findings
The Effects of Tai Chi training on perceptivity and creativity		
● Enhance the connection between body parts	The effect of Tai Chi training in perceptivity on the connection of participants' body parts.	All participants reported an improvement in their body perception as evidenced by their ability to use the small joints of their body more flexibly.
● Improve body coordination	The effect of Tai Chi training on participants' body coordination in terms of perceptivity.	Most of the participants felt that their body perception was improved, which led them to show better body coordination during their dance performances.
● Enrich creative material	The effect of Tai Chi training on participants' creative material in terms of creativity.	All participants felt that their creative abilities were enhanced and that the Tai Chi training contributed positively to enriching the creative material.
● Enhance logical thinking	The effect of Tai Chi training on participants' logical thinking skills in terms of creativity	All participants felt that their creative abilities were enhanced, as evidenced by the fact that they began to think more deeply about each dance movement and explore the true meaning of dance.
The effect of perceptivity and creativity on the state of oneness of mind and body dance performance		
● Deepen the understanding of dance piece	How perceptivity affects how well a student understands a dance piece.	Participants felt that the increased perceptivity helped them to understand the dance piece more deeply.
● Enhance immersion in dance performance	How perceptivity affects student engagement during dance performance	Most participants felt that the increased perceptivity enabled them to immerse themselves more deeply in the dance performance.
● Enhance the uniqueness of dance piece	How creativity enhances the uniqueness of the dance piece performed by the participants in the dance performance	Participants generally agreed that creativity significantly enhanced the uniqueness and innovation of the dance pieces they presented in their dance performances.
● Enhance the dancer's ability to express emotions	How creativity enhances participants' emotional expression in dance	Participants felt that creativity helped them to express emotions more effectively in their dance performances, thus enhancing the emotional experience of the audience.

5. Conclusion

The first finding of this study was that Tai Chi training had a significant impact on dance students' perceptivity and creativity. Specifically, Tai Chi training improved students' small joint flexibility and overall body coordination and enhanced their body perceptivity. In addition, Tai Chi training promotes students' creativity, enabling them to analyse dance movements and explore the true meaning of dance pieces in greater depth, thus enriching the creative material and promoting innovation in the piece.

The second finding of this study suggests that dance students' perceptivity and creativity can significantly improve the state of dance performance, enhance body perceptivity, and lead to stress relief^[50], making it easier for students to enter into a performance state of oneness of mind and body. Specifically, increased perceptivity enabled dance students to gain a deeper understanding of the dance piece and enhanced their sense of engagement, increasing the depth of performance. Creativity, on the other hand, increases the uniqueness and innovation of the dance piece and helps the dance student to express emotions more effectively and, at the same time, improves the emotional experience for the audience. These findings remedied the problem of 'body crisis' that exists for many dancers. The concept of 'body crisis' was

introduced by Timmons (2024), specifically explaining that dancers' internal and external bodies are not aligned and are easily distracted by the stressors associated with different performance venues^[51].

To date, creative as well as mind and body awareness education methods in Chinese university dance education have received limited attention, mostly focussing on the development of technical skills, a phenomenon not limited to China^[52]. In this context, the present study is of significant value, namely (1) the results of this study help to address the challenges of traditional dance training and enhance the oneness of mind and body in dance performance through the introduction of emerging training techniques, such as Tai Chi training. (2) This study adds to the existing literature by providing new insights into the effects of Tai Chi training on dance students' oneness of mind and body performance state, providing ideas for dance students to explore new training methods, as well as bringing new teaching content and methods to college dance teachers. In addition, the research framework can be extended to other artistic fields to promote artistic innovation and diversification.

Since this study is limited to Hunan Women's University, Changsha, Hunan Province, China, it should be noted that the findings and conclusions are only representative of Hunan Women's University, Changsha, Hunan Province, China, and colleges and universities of the same type and level as Hunan Women's University.

Acknowledgements

This article is part of a PhD thesis research at the University Malaysia Sarawak

(UNIMAS). The authors would like to express their sincere gratitude to those who helped us during the writing process.

Conflict of interest

The authors declare that they have no conflict of interest.

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