Sports fear psychology in martial arts athletes' physical conflict psychology

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Abstract

This study aims to investigate the fear of sports psychology in the physical confrontation of Chinese Wushu athletes. This article profiles 40 Chinese students majoring in physical education, and social sports enrolled in a unique martial arts program. The age range is between 19 and 21. The causes of dread among 40 Sanda athletes were investigated using the research methodologies of literature data, interviews, and questionnaire survey. SPSS l4.0 statistical software was utilized to analyze the questionnaire data. Before two competitions following the experiment, students' psychological readiness was evaluated using a psychological exam. The length of the experiment was eighteen weeks. P<0.05 indicated a substantial difference between the test and control groups to aid Sanda athletes in actual fighting. Provide theoretical support for the psychology of fear. Fear of harm, actual battle experience, and insufficient physical reserve are the causes of the fear of psychology in athletes, which can be overcome through a simulation-based training strategy. The management should develop the special sports quality of sanda athletes, rationalize combat and combat training, enhance technical and tactical skills, and bolster psychological training.

Keywords: Wushu athletes; Actual combat confrontation; Fear

Introduction

In the real combat of sanda, it is simple to observe the athletes' physical prowess, superior technique, and proper and rational use of tactics, but the athletes' psychological state is difficult to notice or ignore and is frequently the deciding factor in the outcome of the game. Fear is one of the primal feelings humans and animals share. It refers to the emotional experience produced by the organism when confronting and attempting to escape a harmful circumstance but unable to do so. Fear is frequently followed by retreat or flight and an uncommon display of enthusiasm. The technical standards for Wushu athletes are increasing because Wushu moves are becoming more complex, new, attractive, and demanding. Physical education majors receive more martial arts instruction in elective courses than in general courses but do not receive systematic or specialized training. They have a weak foundation in technical movement, limited training time, and fear of martial arts moves' technical intricacy and risk (Vasconcelos & Del Vecchio, 2021). According to the students' personality traits and psychological reactions, we should develop a systematic psychological training plan, establish good learning motivation, and instil psychological motivation in the students. Psychological preparation is vital for students who wish to compete in college competitions. This research examines pre-competition psychological training techniques for students participating in the competition. In psychological preparation before the game, the primary issue to be resolved is whether the activities typically executed at a high level can be utilized in addition to the competition tasks and objects (Tao, 2021). Dread is the fear that individuals may face or perceive a certain circumstance with obvious or possible hazards for which they lack understanding, cannot adjust or have no control. Sanda is a combat sport based on skill and competition (Dongoran, Fadlih, & Riyanto, 2020). When athletes experience a high level of dread in actual fighting, they experience mental strain (when they are at a high level of fear, Li will feel tense in their physical skills, but when they are at a high level of mental tension). Fear will manifest not just during competition but also frequently during regular training. If this mindset is not changed, it will hamper training effectiveness and make it challenging to increase competitive skills. Consequently, it is of practical value to investigate the reasons and remedies for College Sanda Athletes' dread in actual conflict. The competition motivation of Wushu athletes is pretty straightforward, and the negative psychological state before competition may be summarized into the following categories. (1) the effect of high excitement on Wushu movement execution. Athletes in an overly excited state typically have a significant increase in muscle arousal compared to normal, which can lead to improper control of the strength required to complete technical actions, such as the relative spatial position change of limbs after jumping, resulting in shaking or jumping after the completion of difficult actions. (2) The

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effect of high strain on Wushu movement completion. Athletes in a state of high stress typically have stiffer limbs and a diminished capacity to mobilize muscle fibers than usual. Frequently, they have incorrect action routes, lesser amplitudes, much lower take-off heights for jumping actions, slower rotation speeds, and forget critical technical fundamentals. (3) The effect of naive self-assurance on executing Wushu motions. Athletes in a state of blind self-confidence are often prone to underestimating uncertain factors in competition. They are unable to evaluate their state objectively. They are prone to ignoring some simple technical details when acting and prone to making errors in actions where it is not easy to make errors under normal circumstances, such as falling off the handle of instruments and shaking steps. Always pay close attention to the psychological developments of young wushu athletes, and based on their varying psychological states, implement appropriate techniques to exert influence and encourage the achievement of their optimal psychological condition.

According to past research, psychological training entails teaching athletes to sustainably enhance and improve the psychological aspects required to perform particular sports and actively impact Athletes' psychological processes and personalities. Influence the psychological process and psychological personality traits of athletes through specific methods and means to form the psychological state required for training and competition, and learn various methods to adjust the psychological state to promote the rapid or extraordinary development of physical and technical levels in training and competition (Yang et al., 2020).

Fear psychology is one of the essential concepts that has received little attention in prior research. This concept is crucial for athletes' performance in many events; nonetheless, the function of fear psychology has received less attention in the literature. Fear psychology can be a problem that hinders an athlete's performance; consequently, identifying this issue and finding an appropriate solution is crucial for athletes to compete effectively. However, past research has not addressed the psychology of fear as an issue and its impact on athletic performance. Various research (Rollo et al., 2021; Sohail et al., 2021; Syrykh & Lovyagina, 2022) have examined sports psychology; however, it is not discussed conflict psychology. Thus, the current study highlighted an important gap in the literature and addressed the sports field psychology in the physical conflict of martial arts athletes. Alongside the sports fear psychology, the physical conflict psychology of artistic athletes is also examined, which is an important contribution to the literature.

Literature Review

In the article "examination of athletes' psychological status before the competition," it is said that athletes' psychological position on the spot plays a crucial part in achieving outstanding competition results. This psychological state largely depends on deliberate cultivation during pre-competition training, careful analysis of athletes' pre-competition psychology, prompt correction of negative psychological issues, and laying the groundwork for athletes' stable performance during the competition (Zhu et al., 2020). Establishing a correct competition psychological orientation, formulating a careful competition plan, adjusting the psychological state before the competition, and making preparations for physical strength, technology, tactics, and equipment are the primary components of the psychological preparation before the competition. Therefore, the competitors' psychological preparation before the competition is closely tied to preparing the components mentioned above. It serves as a theoretical foundation for discussing this issue in this work. This research evaluates the pre-competition psychological status of sprinters in Guangzhou based on Naeem et al. (2021) investigation and discussion of the psychological status of several young sprinters in Guangdong Province. It demonstrates that with the constant advancement of sports technology and sports science, psychological training has garnered increasing attention from coaches and has become an essential component of the modern sports training system. The psychological role of athletes immediately impacts the movement of each muscle, as indicated by the fact that only 20% of the variables of a modern world-class sprint competition are technical (Naeem et al., 2021). Athletes in competitive martial arts must study martial arts movements in line with appropriate technical standards under the supervision of coaches. The role of sports psychology in this process is subservient. As athletes learn difficult motions, psychological alterations manifest as a succession of psychological shifts. It has a significant impact on the development of motor abilities in athletes (Berny Vasconcelos & Boscolo del Vecchio, 2021).

When participants' physical and athletic abilities are comparable, their psychological quality will influence the outcome of the competition. Frequently, the success or failure of a competition is determined by the immediate psychological state of the athletes. Therefore, psychological preparation before the game is crucial. In the pre-competition psychological status analysis of Chinese female gymnasts, Saboori et al. (2021) employed

the methodologies of literature review, questionnaire, and interview to examine the psychological status of female gymnasts. The results indicate that pre-competition tension, extreme excitement, and apathy affect athletes' performance, but combat preparation is an optimal emotional state before the competition. Anzer and Bauer (2022) noted in "Analysis of Psychological Training and Adjustment Methods of Wushu Routine Athletes Before Competition" that Wushu routine moves are becoming increasingly high, difficult, new, and beautiful, necessitating the physical exertion of athletes but also their psychological load. The psychological preparation and adjustment of Wushu athletes before competition are highly correlated with their performance. Good pre-competition tension can bolster competitors' confidence and enhance athletic performance. Focus on psychological training and cultivate psychological and tactical awareness through daily activities and training. It provides the necessary theoretical foundation for the author's paper. Jafarnezhadgero et al. (2021) argued that in the analysis of Wushu Athletes' pre-competition emotional pressure and regulation methods, the competitive level and competition performance of Wushu level athletes are significantly influenced by the coaches' pre-competition regulation methods. Depending on the specific characteristics of routine athletes, selected psychological training and pre-competition psychological control can produce a greater influence on regulation. Likewise, it must be made clear that the regulation of coaches is the external reason, whereas the internal control of athletes is the internal cause; therefore, we must mobilize the excitement of routine athletes. In the psychological state and adjustment of Wushu athletes before the competition, Zhao and Li (2021) stated that the on-site competition state results from pre-competition training. Every athlete will face psychological pressure when facing the opportunities and challenges of competition. Especially before the competition, they will inevitably expend a great deal of physical and mental energy, effectively mobilize and preserve their physical and mental energy, maintain a healthy psychological condition, and maximize their performance to ensure their success. Hollis (2021) argued in "on the pre-competition psychological training and practice of College Wushu Routine Athletes" that modern sports training and competition should have not only high-level sports skills but also high-level psychological quality due to the continuous innovation of movements, the continuous development of high difficulty, the continuous improvement of the competitive level, and the increasing intensity of the competition. To achieve success in Wushu competitions at the highest level, we must possess high-level athletic abilities. Only by combining long-term and short-term in a small manner can the psychological state attain sufficient stability and improve performance in competition. As shown in Figure 1 below, sports cause damage and dread (Mohajel & Arashkia, 2021). Targeted adjustment of the psychological state and negative emotions before the competition so that athletes can modify their emotions promptly to the optimal level for the competition, enter the competition state, conquer fear, and develop self-confidence. Using literature, interviews, questionnaires, and other research techniques, forty sanda athletes' terror in actual fighting was investigated. Before and after the experiment, the students' psychological preparedness was evaluated using psychological exams. The length of the experiment was eighteen weeks. 0.05, with a statistically significant difference, provides a theoretical reference for sanda athletes to overcome anxiety in an actual fight (Li et al., 2021; Mufamadi, 2020).

Figure. 1 Causes of sports injury

According to incomplete statistics, foreign Wushu pre-competition psychological training methods are underrepresented in the data of Wushu pre-competition psychological training methods. There are few pre-competition psychological preparation approaches for pupils in non-martial arts specialized martial arts schools at colleges. For students majoring in Physical Education in colleges and universities, using scientific pre-competition psychological training methods in psychological training methods is a crucial component of Wushu elective course training to improve their sports level rapidly and efficiently.

Methodology

Research object

Forty students were recruited from martial arts special elective physical education and social sports classes. The age range is 19 to 21 years.

Literature method

According to the research objective, which focused on the psychological state of students before the competition, the relevant monographs in general psychology, sports psychology, and experimental psychology were collected via online query and retrieval of the Chinese Journal Index, and more than a dozen relevant papers published since 1990 were reviewed (Ray, 2020). Comprehend the current state of research in this topic area and define its fundamental direction.

Logical analysis method

Utilize logical, analytical techniques such as induction, deduction, analogy, and synthesis to discuss and advance your arguments. The comparative experiment approach selects 40 students as the research object, comprising 20 physical education majors as the experimental group and 20 social and physical education majors as the control group. The results indicate no significant differences in the psychological states of the students before competition before the experiment.

Both groups had the same training progression, frequency, equipment, and test standards. The control group utilized conventional training methods and had no particular psychological training objectives. The experimental group utilized specialized psychological training techniques. Implementation plan: Before the experiment, the two groups of students competed in Wushu and compared their respective psychological states and competition results. In the experiment, 20 Physical Education majors in the experimental group were prepared before the competition, and various psychological training methods were employed to teach and adjust the experimental group during the trial (Amft et al., 2020). Psychological preparation before competition consists primarily of the following elements: 1) Clarify the competition task so students can compete confidently. Before participating in martial arts competitions, pupils should identify the competition's objective. Clarifying the competition's task is the determining factor in determining who will win. Teachers should instil in students the ability for independent analysis, profound knowledge of the significance of the competition, and psychological preparations as part of standard instruction. 2) We should encourage pupils to compete and build their fighting spirit. Motivation is not only the cause for stimulating the psychological activity of students but also the driving power behind the real action. It is essential for humans. Particularly crucial in establishing competition motivation is the cultivation of fighting intent. Consequently, enhancing students' ideological education has far-reaching implications. Students should be in their best spirits before the competition. Before the game, students should maintain moderate excitement and clear thinking. They can eliminate some negative influences within their system. Before playing, they should mentally run through each action from start to finish and identify any flaws. Allow kids to achieve the optimal psychological disposition before playing (Shafee et al., 2021).

This technique is crucial to the athletes' observation and experience in the first step, which consists of learning the contact structure of the difficult actions and then imitating them to feel their major aspects. The second level involves mastering and differentiating difficult moves by the athletes. By enhancing each link of the technical motions, athletes can have a clearer and more accurate awareness of muscle movement, and the perception of each difficult movement can become steadily clearer. On the basis that the athletes have learned the movements, the third stage consists of reinforcing and refining challenging movement skills.

Questionnaire survey method

The competition psychological state questionnaire was used to assess the psychological state of reciters in this study. A questionnaire survey was conducted on the subjects before and after the teaching experiment to ensure the accuracy of the teaching experiment comparison and to exclude the influence of other factors on the pupils Khan et al. (2021). Two questionnaires were created for research purposes. The questionnaires were delivered to students and collected on-site following consultation and validation of their reliability and validity. According to the questionnaire instructions, the tester first explained the objective and requirements of the test to the subjects, who then completed it independently. A total of 40 questionnaires were distributed, and 40 were returned for a 100% recovery rate. Forty valid questionnaires were collected in total. Naeem et al. (2021) in Guangdong province part of the teenage sprinters' pre-match psychological condition investigation and study of Guangzhou sprinter in the pre-match psychological status quo analysis, shows that sports technology and the continuous development of sports science, psychological training is becoming more and more cause the attention of coaches, has become an important part of the modern sports training system, pertinent data indicate that: In the modern world-level sports training system, psychological training has become an essential component.

Mathematical statistics

SPSS l4.0 statistical software was utilized to analyze the questionnaire data. This study presents the research techniques of pre-competition psychological training for the Wushu special elective class of Physical Education Specialization using the experimental, questionnaire, and mathematical statistics methodologies (Rashid, 2019).

Results

Manifestation and causes of fear of Wushu Athletes in actual combat

In the extremely competitive Sanda real combat competition, your psychological quality is low if you face an opponent of a greater level than you.

Athletes frequently experience the following reactions: emotional impatience, limb stiffness, facial expression indifference and panic, pale complexion, cold hands and feet, slow movement, rapid heartbeat, limb weakness, only defence without attack, battle fatigue, and even the desire to quit the game (Mertz, 2020). If it continues, you will lose faith in your ability to win and want to terminate the game immediately. These abnormally negative psychological states manifest in varying degrees during competition in athletes with poor psychological quality. See Table 1.

Table 1

Questionnaire on the causes of fear

Reasons	Person time	Percentage
The players have a great disparity in strength and lack of actual combat experience	36	33
Insufficient physical reserve	27	25
Fear and injury reappearance	20	19
Lack of initiative and interest in learning	13	12
Sports environmental factors	8	7
Lose the game, worry about blame	4	4

Analysis of the psychological state of the two groups of students before the experiment

Before the experiment, the two groups of students participating in the Wushu regular competition were investigated by questionnaire for the first time. The scores of the two groups of students in the four dimensions of excitement, tension, negativity and blind self-confidence were analyzed, and the results were obtained.

Table 2

Pre-competition psychological conditions of students in experimental group and control group

Dimension	Experience group	Control group	P
Excited-state	1.5±0.6	1.5±0.6	P>0.05
Tense state	1.6±0.5	1.6±0.5	P>0.05
Negative state	1.4±0.4	1.4±0.4	P>0.05
Blind confidence state	1.8±0.5	1.8±0.6	P>0.05

The investigation of the psychological state of students majoring in physical education and social, physical education before the experiment reveals, as shown in table 2, that the conditions of the two groups of students before the experiment are essentially identical, indicating that there is no significant difference in the psychological state of the two groups of students before the experiment. (P > 0.05).

Comparison of competition results between the two groups of students before the experiment

Before the experiment, the average scores of the two groups of students participating in the competition were analyzed.

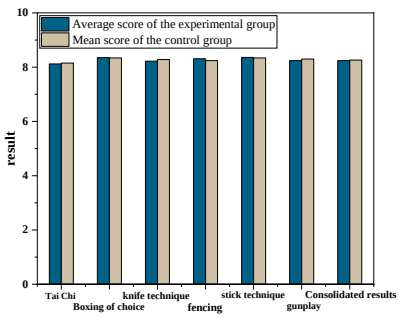

Figure. 2 Comparison of competition results between the two groups of students before the experiment

Figure 2 demonstrates that, before the experiment, an examination of the results of the two groups of students competing in their first martial arts competition revealed that the average value of students majoring in physical education was 8.2 points. The average value of students majoring in social sports is 8.3 points, indicating little difference between the two groups of students in the competition results.

Discussion

Psychological characteristics of students in Wushu special elective class before the experiment

Through psychological assessments administered to the experimental and control groups, it has been determined that students face several psychological difficulties before the competition. This is not only because students have

excessively high expectations for their competition performance but also because the atmosphere of the competition will increase psychological strain. Frequently, their performance in competition falls below the level of their typical training. In actuality, the psychological impediments are not generated by the external environment of the competition scene but rather by the students' subjective reflections on the competition. Before competitions, the majority of students are under intense strain. Students' hearts will undergo a series of transformations due to the competition's proximity to their communities.

Classification and characteristics of pre-competition psychological state

The classification of students' pre-competition psychological state is primarily based on the classification of students' pre-competition emotional state because the previous overview and description of pre-competition psychological state emphasize the personal psychological and emotional experience. According to the emotional changes of athletes, former Soviet Union scientists primarily categorized pre-competition psychology into three states: fight preparation, warm-up, and apathy. Pre-competition psychology is primarily categorized into pre-competition excitement, stress, negativity, and blind self-confidence in Chinese textbooks.

Analysis of students' excessive excitement before the competition

The overexcited condition before competition is mostly a psychological state caused by the weakened inhibition mechanism of the cerebral cortex and the stimulation-induced excessive increase in excitability. This mindset lacks confidence in the forthcoming win over the opponent in the game and is overly ecstatic. There may be sleeplessness, high blood pressure, hunger, and frequent urination, among other abnormalities. There will be errors in technical movements, such as difficult and balance movements during the competition, which will lower the stability of movements and impact the results.

Analysis of students' pre-competition tension

A common psychological concern among students is excessive anxiety before a competition. This condition is typically characterized by extreme excitement, shortness of breath, and elevated blood pressure. Students lose control of their actions and exhibit neurological problems in this situation. Students' inappropriate actions in the competition will result from excessive strain, and occurrences such as forgetting routines may also occur. The tension endures for too long. Students will be acutely aware of the effects of this psychological condition, which will impair their performance in the competition.

Analysis of students' Apathy before the competition

The indifferent state before the game is mainly manifested in the cold interest in the game, the weak sense of responsibility, the weakness of the whole body and the inability to lift the spirit before the game. Excessive training in the pre-competition practise field leads to excessive fatigue and reduced psychological enthusiasm—lack of confidence in the result of the game and excessive consideration of personal gains and losses.

Analysis of students' blind self-confidence before the competition

The state of overconfidence before a game is primarily manifested by a lack of attention to the upcoming game, an overestimation of one's technical level, the denigration of one's opponents, an underestimation of the difficulty and complexity of the game, the belief that one will win, and a feeling of helplessness in the face of difficulties. Because I did not mobilize all of my resources to overcome the problems in the competition before the competition, and there was no way to solve them when they arose, I was forced to observe their progression. Consequently, there was a drop in performance and even significant errors during the tournament.

Analysis of the pre-competition psychological state of two groups of students after simulated psychological training

After 12 weeks of simulated psychological training, the students in the experimental group were required to fill in the questionnaire again. The scores are shown in Table 3.

Table 3

Analysis of the psychological state of two groups of students after simulated psychological training

Dimension	Experience group	Control group	P
Excited-state	1.3±0.6	1.5±0.6	P<0.05
Tense state	1.2±0.5	1.6±0.5	P<0.05
Negative state	1.0±0.4	1.4±0.4	P<0.05
Blind confidence state	1.7±0.5	1.8±0.6	P>0.05

It can be seen from Table 3 that there is no significant change in the improvement of students' blind self-confidence, while the excited state, nervous state and negative state of the experimental group are 1.3 ± 0.6, 1.2 ± 0.5 and 1.0 ± 0.4, respectively. It is significantly different from the control group ($P < 0.05$). The data shows that simulation training can improve the excited, nervous, and negative states, indicating that the simulation training can significantly improve the adjustment of students' psychology before the competition.

Analysis of the pre-competition psychological state of two groups of students after suggestive psychological training

After 18 weeks of suggestive psychological training, the students in the experimental group were asked to fill in the questionnaire again. The scores are shown in Table 4.

Table 4

Analysis of the pre-competition psychological state of two groups of students after suggestive psychological training

Dimension	Experience group	Control group	P
Excited-state	1.3±0.6	1.5±0.6	P<0.05
Tense state	1.1±0.5	1.5±0.5	P<0.05**
Negative state	0.9±0.4	1.3±0.4	P<0.05
Blind confidence state	1.2±0.5	1.8±0.6	P>0.05**

Table 4 demonstrates that the scores of students in the experimental group for the states of blind self-confidence, tension, and negative state are significantly different from those of students in the control group, indicating that the effect of suggestive psychological training on students' mental states of blind self-confidence, tension, and negative state before competition is more pronounced.

Conclusion

In the evolution of modern competitive sports, athletes compete not only on a technical and tactical level but also on a psychological level. Those with a healthy mental condition are more likely to occupy the top podium position. Therefore, in the long-term training preceding the game, coaches should place a premium on the psychological training of Wushu athletes, pay close attention to the psychological changes of young Wushu athletes, and adopt strategies to exert influence under their varying psychological states to facilitate the achievement of their optimal psychological state. In an actual fight, the appearance of dread is the greatest barrier for athletes to overcome. The key to winning the game is overcoming faulty psychology in actual fighting. Thus we should pay close attention to it. Physical fitness is a prerequisite for all sporting events. Athletes can enhance their technical and tactical proficiency by enhancing their physical and psychological quality training. When an athlete is self-confident, they have a clear mind, can deliberately regulate his or her behavior, and employ various approaches and tactics based on the qualities of their opponents.

Implications

This work is of great importance to the field of study due to its original contribution. Rarely addressed in the literature, this study introduced the essential construct. Namely, sports fear psychology in martial arts athletes. This concept is introduced concerning the psychology of physical conflict. The relationship between fear psychology and conflict psychology, which was not studied in prior studies, must be addressed in the literature. Thus, this study contributed significantly to the body of knowledge by presenting sports fear psychology concerning conflict psychology. In addition, the literature on art athletes disregards the correlation between sports fear psychology and conflict psychology. In addition, this study's contribution to the body of knowledge has practical ramifications. Because this study identified the function of sports fear psychology, practitioners can improve the performance of athletes by focusing on fear psychology.

Limitations and Future Directions

Even though the current study deemed sport fear psychology to be one of the new constructs in the concerned subject and made substantial contributions to the literature, it was determined that sport fear psychology is not a new concept. However, this study has shortcomings, which could serve as the basis for future research. This study examined sports psychology in connection to fear, which was quantified via a survey; however, the interviews may have been better handled to identify better results and corroborate the survey's conclusions. Consequently, a mixed-methods strategy for measuring sports phobia psychology can be more effective. In addition, the current study examined conflict psychology, although conflict psychology is related to conflict management.

Consequently, future research should consider conflict management alongside sports fear and conflict psychology. The future experimental study should incorporate the measurement of personality factors and cognition. Future experimental investigations will include follow-up research on the lasting effect of good interventions.

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