



Psychological Profile of Taekwondo Athletes : Cross – Sectional Study

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Abstract

Taekwondo is a martial arts sport that emphasizes the use of hands and feet. Important aspects include technique, tactics, physicality, strategy, and mentality, with a focus on psychology. Psychology in taekwondo includes motivation and anxiety management. Effective stress management is essential during athletes' preparation for competition. Athletes with high levels of motivation tend to employ more effective coping strategies and perceive stress more positively. Coaches and support teams play an important role in supporting athlete motivation, requiring a holistic approach to stress control and performance enhancement. Mental skill help athletes process psychological stress. This study used a descriptive research method with a cross sectional approach, conducted over one month. The subjects were 45 taekwondo athletes aged 20–25 years with at least five years of training experience and active at the provincial level. Results showed that most athletes demonstrated high levels of stress control, motivation, and mental skills, with 59% in the “agree” and 16% in the “strongly agree” category, indicating good psychological readiness though some variations remained. Overall, the study concludes that taekwondo athletes possess a positive psychological profile that supports performance, and the CPRD instrument is effective for evaluating and planning psychological interventions.

How to Cite

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INTRODUCTION

Taekwondo is a martial arts sport that prioritizes hands and feet to attack and defend with attacking techniques (Ilham 2021). The most important aspects are technique, tactics, physical strategy, and mental (Tirtawirya 2005). Mental is related to psychological aspects. Psychological aspects in taekwondo sport are needed such as motivation to practice and compete, anxiety management and many others. (Ilham 2021; Pamungkas and Mahfud 2020). This is closely related to the concept of stress control. Stress control such as when taekwondo athletes are preparing for a match in a few hours so that they can manage mentally so they are not anxious. Another study states that stress control is a series of techniques used to reduce or manage a person's stress level. In this case, of course, it is also related to motivation, if an athlete who is well motivated tends to have more effective coping strategies, more positive stress perceptions, and better recovery abilities. Therefore, there are other factors such as coaches and support teams to understand and support athlete motivation as part of a holistic approach to stress control and improved athlete performance. This requires athletes to have good mental skills.

Mental skills refer to athletes' capacity to develop mental resilience and implement strategies under psychological pressure. Optimistic athletes showed significantly lower levels of pre-competition anxiety compared to pessimistic athletes. A plausible explanation of this finding could be that optimistic athletes are more confident than pessimistic athletes. As a result, many sport psychology interventions for performance enhancement typically include techniques designed to increase self-confidence. (Mabweazara, Leach, and Andrews 2017). These skills are crucial for an athlete before or after a game. This means that stress control, motivation and mental skills greatly affect performance. After discussing these aspects, of course, athletes must be able to evaluate themselves from the performance aspect. Performance is the result of hard training and systematic treatment given by the coach.

Thus, athletes must be equipped with the ability to assess their own performance critically. Studies that discuss stress control, motivation, mental skills and performance evaluation have been found. Such as the study of Athlete Anxiety Assessment of Performance Before and After the Match. (Rendriyana 2020) which discusses athlete anxiety, analyzing the level of anxiety and aggressiveness of martial arts athletes in Papua

(Dongoran 2021), measuring the anxiety level of karate athletes before the match in members of the koarmatim cakra (Hindiari and Wismanadi 2022), There are also those who discuss anxiety facing matches in futsal athletes (Dimas Cesar Dharmawan, 2016), The impact of Anxiety in sports on athletes (Rhamadian 2022) As for the factors of the coach (Nugroho et al. 2024), The Anxiety Felt by 15-Year-Old Athletes at Semen Indonesia Gresik Basketball School Ahead of the Match. (Suprono and Siantoro 2022). The impact of motivation on athletes is also discussed from the article Motivation to Achieve Student Athletes in Sports in East Java during the Covid-19 Pandemic. (Jannah, Permadani, and Widohardhono 2022).

The discussion of athlete motivation is contained in the Athlete Achievement Motivation Survey at the Petuanan Wailete Club, Hative Besar Village, Ambon City. (Talahaturusun, Solissa, and Hukubun 2023), As for the journal that discusses a Relationship between Motivation, Aggressiveness, and Mental Towards Taekwondo Martial Sports Achievements in Kyourugi Athletes. (Tiara Dewi, Muhammad Amir Masruhim 2016), Athlete motivation also has an impact on the Relationship between IQ Review and Achievement Motivation of West Sumatra Pre-PON Volleyball Athletes. (Tiara Dewi, Muhammad Amir Masruhim 2016) which discusses the relationship between iq and a motivation, Student Motivation in Participating in Traditional Archery Extracurricular at SMP IT Madina Boarding School Samarinda. (Al Asari and Mahardhika 2023), The influence of Performance Evaluation on the selection results of the Jambi Province students Sports Training Education Center (PPLP) 2018 (Widowati 2018), This article has similarities with The Role of Sports Psychology in Efforts to Improve Athlete Performance in Serang-Banten Towards Champions. (Irwanto and Romas 2019) in the context of discussing the role of athlete psychology.

The aim of this study is to examine the psychological profile of taekwondo athletes by exploring stress control, mental skills, motivation, and the influence of performance evaluation on their performance. The use of the Psychological Characteristics Related to Sports Performance Questionnaire (CPRD). This research is expected to provide valuable insights for the taekwondo community, especially athletes and coaches, and to contribute to the development of strategies that enhance performance through a sports psychology perspective.

METHODS

This research method is descriptive with a cross sectional approach. The cross sectional approach is a study to study the dynamics of the correlation between risk factors and effects, by approaching , observing, collecting data at one time (point time approach)(Quraniati et al. 2021).

Participants in this study were taekwondo athletes with inclusion criteria (1) aged 20-25 years, (2) actively participating in matches, (3) male and female gender, (4) at least 5 years of taekwondo practice, (5) at least have participated in provincial level matches, thus the participants obtained totaled 45 people. Data collection techniques in this study were through questionnaires and interview studies with a 5-option Likert scale (from strongly disagree to strongly agree). It also includes an "I don't understand" response option to avoid errors.to Totally disagree, disagree, moderately agree, agree, absolutely agree.

The research instrument used was the CPRD, which aims to develop psychological characteristics related to sports performance in athletes. The Psychological Skills Inventory for Sports (PSIS) was used as a starting point. The PSIS questionnaire consists of six scales: anxiety (anxiety control), self-confidence, concentration, motivation, mental preparation, and cooperation, which provide specific information about athletes' needs and resources (Olmedilla et al. 2018). The data analysis technique uses quantitative descriptive analysis which presents the minimum, maximum, mean, and standard deviation values and then presents the results with the percentage formula;

$$P = F/N \times 100\%$$

To be clearer the stages of research are presented below as follows:

The author in the preparation stage conducts a preliminary study with document analysis in the form of relevant articles as material for rationalizing the problem, besides that the author conducts a preliminary study with observation techniques at several training and competition venues to reveal facts that will be used as the basis for research.

The author distributes questionnaires for 1 month, with the participants in this study being taekwondo athletes with inclusion criteria (1) aged 20-25 years, (2) actively participating in matches, (3) male and female gender, (4) at least 5 years of taekwondo practice, (5) at least have participated in provincial level matches thus the participants obtained totaled 45 people and with

the assistance of two additional researchers. Data analysis using the percentage formula and supported by excel software.

The instrument used by researchers as a data collection tool is using a questionnaire as a measuring tool that has questions in the form of facts or opinions. The author makes meaning of the data, namely analyzing data, interpretation, and discussion. Furthermore, a reflective study is carried out.

RESULTS AND DISCUSSION

This section presents and interprets the results of psychological profiling in Taekwondo athletes based on four key dimensions: stress control, mental skills, motivation, and performance evaluation. The findings are then discussed in relation to existing literature and practical implications.

The purpose of this analysis is to understand the distribution of athletes' psychological responses and identify areas that may require psychological intervention or development."

The mean and standard deviation of each psychological variable assessed according to sport modality as well as inferential statistics. Table (Mean, SD, p value and effect size of each psychological variable according to sport modality and gender in Taekwondo)(Olmedilla et al. 2018)

Table 1. CPRD Survey Result

Category	Min	Max	Mean	STD
Absolutely agree	10	50	44	14,15
Agree	36	180	135,5	65,82
Moderately Agree	14	70	44,33	27,82
Disagree	1	5	2,5	1,93
Totally Disagree	0	0	0	0
Total	61	305	226,33	109,73

Based on the data presented in the **Table 1** above, the responses collected using the Psychological Characteristics Related to Sports Performance Questionnaire (CPRD) indicate a general trend toward high psychological preparedness among Taekwondo athletes. The "Strongly Agree" category showed a minimum score of 10 and a maximum of 50, with a mean of 44 and a standard deviation of 14.14893. The "Agree" category, which was the most frequent response group (15 athletes), had a minimum score of 36 and a maximum of 180, with a mean of 135.5

and a standard deviation of 65.8197. This result suggests that while athletes generally have a positive psychological profile, there is considerable variation, indicating that some individuals may still require targeted mental training.

For the "Moderately Agree" category, scores ranged from 14 to 70, with a mean of 44.33 and a standard deviation of 27.82551. The "Disagree" category, which was rarely chosen, showed a very low range (min 1, max 5) with a mean of 2.5 and a standard deviation of 1.936. Notably, the "Strongly Disagree" category showed no data, suggesting that none of the athletes responded within this category.

These statistical findings support the conclusion that the majority of athletes perceive themselves as having strong psychological competencies in the areas assessed by the CPRD—namely stress control, mental skills, motivation, and influence of performance evaluation. The predominance of responses in the "Agree" and "Strongly Agree" categories underscores the perceived relevance and accuracy of the CPRD items in capturing essential psychological traits relevant to competitive Taekwondo performance.

Furthermore, the wide range and variation within the "Agree" and "Moderately Agree" categories suggest individual differences in specific psychological areas, which may guide more personalized psychological training. The CPRD's item-level analysis capacity allows practitioners to identify which specific subscales (e.g., stress control or motivation) may require targeted interventions. Therefore, coaches and psychologists can use these results to develop personalized psychological training, especially for stress control and confidence enhancement. As noted by Olmedilla et al. (2018), this makes CPRD a valuable diagnostic and planning tool for sport psychologists in tailoring interventions to athletes' psychological needs.

In summary, the CPRD not only provides a broad overview of athletes' psychological profiles but also enables a detailed understanding of their mental readiness. This facilitates evidence-based decisions in psychological coaching, contributing to performance enhancement and sustained athlete development.

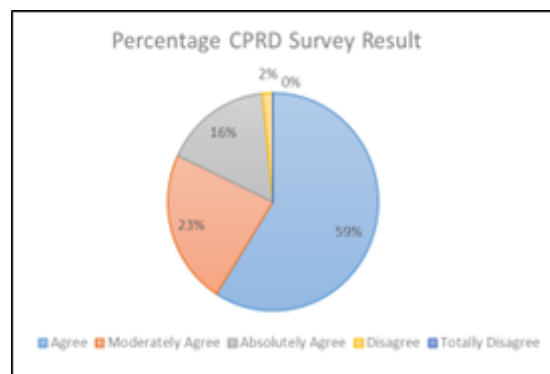


Figure 1. Percentage of CPRD Survey

Based on the percentage of CPRD Survey Results, the Absolutely Agree category has a percentage of 16%, the Agree category has a percentage of 59%, the Moderately Agree category has a percentage of 23%, the Disagree category is 2% and the Totally Disagree category answers 0%.

In Taekwondo, psychological interventions have been shown to enhance athletes' self-confidence. Stress control, motivation, and mental skills greatly affect athlete performance. The research findings revealed that the results of the percentage agreed as much as 59% because it can cultivate mental toughness and strategize in the event of psychological pressure. (Bondarchuk et al. 2024). However, this global score is not enough to determine where the athlete's problems or resources lie, what additional information is needed to carry out the evaluation, and what the specific goals of the intervention are. To address this issue, the CPRD allows for a detailed analysis of each item, allowing psychologists to focus on the items that stand out most in each scale due to high or low scores.

Such data analysis facilitates the identification of athletes' needs and existing psychological resources, propose hypotheses in advance within the framework of a functional analysis of behavior and decide more precisely the path to follow for evaluation and intervention. Psychological interventions in the sport of Taekwondo play a crucial role in enhancing athlete performance, particularly in aspects such as self-confidence, stress management, motivation, and other mental skills. In the context of a competitive sport like Taekwondo—where both physical and psychological demands are extremely high—mental preparedness becomes one of the key determinants of an athlete's success on the field.

A study by Mabwezara et al. (2017) revealed that 59% of participants agreed that psychological interventions helped them manage mental toughness and formulate strategies when

facing psychological pressure. These findings reinforce the view that mental readiness is not just a supplementary element, but a fundamental component of training and competition preparation. Athletes who possess good emotional control, high self-confidence, and the ability to handle pressure tend to perform more consistently and optimally during matches.

However, global percentage data alone is insufficient to deeply identify where an athlete's psychological issues or strengths lie. Therefore, more specific measurement tools and detailed analyses are required. In this regard, the Psychological Characteristics related to Sports Performance Questionnaire (CPRD) serves as a highly valuable instrument, as it allows for item-by-item evaluation across various relevant psychological scales.(Olmedilla et al. 2019).

Analysis using the CPRD enables sports psychologists to identify the psychological areas that require the most attention—whether due to particularly high scores (as strengths) or low scores (as weaknesses or concerns). Consequently, psychological interventions can be directed more specifically and accurately, tailored to the individual needs of each athlete. Moreover, examining this data also facilitates the formulation of initial hypotheses within the framework of functional behavioral analysis, which assists in determining appropriate evaluation strategies and the most effective intervention steps. However, this study is limited by its cross-sectional design and relatively small, homogeneous sample. Future research should explore these psychological dimensions across different sports, age groups, and using longitudinal approaches to track development over time.

Overall, a structured and data-driven sports psychology approach is critical in developing Taekwondo athletes' performance. The integration of both qualitative and quantitative data in psychological evaluation not only provides a general overview but also opens the door for deeper and more personalized intervention strategies.

CONCLUSION

The results of this study indicate that Taekwondo athletes generally exhibit high levels in psychological aspects such as stress control, performance evaluation influence, motivation, and mental skills. The average responses fell under the "strongly agree" category, indicating good self-regulation and mental readiness in facing competitive pressure.

The use of the Psychological Characteris-

tics Related to Sports Performance Questionnaire (CPRD) proved effective in thoroughly evaluating athletes' psychological profiles. These findings provide relevant information for sports psychologists in designing both specific interventions and general psychological training programs. Moreover, the CPRD helps identify needs, formulate hypotheses, and monitor the ongoing development of Taekwondo athletes' mental performance.

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