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Original Research

Differences In The Personalities Of Taekwondo Athletes In Poomsae And Kyorugi At Tanders Academy, Pekalongan City

Rofa Ichsandi[*,1,A,B,C,D,], **Fani Alfriani**[2,B,C,D], **Naufal Isman**[3,B,C,E]

[1]Ministry of Youth and Sports, Indonesia
[2,3]Physical Education Health and Recreation, Faculty of Sport Science, Universitas Negeri Semarang, Semarang, Indonesia

[A]Study design; [B]Data collection; [C]Statistical analysis; [D]Manuscript preparation; [E]Funds collection.

Abstract

Although personality characteristics in martial arts can vary based on the number of competitions, the identification of personality differences between Kyorugi and Poomsae taekwondo athletes is still lacking. This study aims to analyze these differences across various dimensions: achievement and competitiveness; self-confidence and resilience; interaction and sportsmanship; and aggressiveness and strength. Using a quantitative survey approach, this study was conducted at Dojang Tanders Academy, Pekalongan City. Through a total sampling, 16 high-class athletes (11 Kyorugi and 5 Poomsae) participated in this study. Data were collected using the SPQ 20 questionnaire and analyzed through SPSS descriptive exploration based on SPQ 20 norms. The instrument demonstrated acceptable reliability, with internal consistency (Cronbach's Alpha) for raw scores and SEms ranging from 0.6 to 0.8 (median = 0.72). The results showed significant personality differences between Kyorugi and Poomsae athletes in 16 SPQ 20 indicators, while 1 indicator showed no difference. This study concludes that Kyorugi and Poomsae taekwondo athletes have distinct personality profiles. Therefore, these empirical insights can be utilized by coaches to implement specific and differentiated psychological treatments for athletes based on their specific competition events

Keywords: Personality Traits; Taekwondo; Kyorugi; Poomsae; Sports Psychology

***Correspondence:** Ministry of Youth and Sports, Indonesia; Email: rofa.ichsandi.98@gmail.com

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1. Introduction

Athlete Performance or Sports Performance is the ability and performance of athletes or sportspersons in a competition, whether individual or team. Sports performance has influenced various sporting achievements (Davids & Baker, 2007). The word "performance" in English is "performance," which means "performance." The concept of performance can be viewed from two perspectives: individual and group. According to Ermayanti (2015), performance reflects the level of task achievement within an organization to realize the organization's goals, objectives, mission, and vision. Performance reflects the level of task achievement within an organization in an effort to realize the organization's goals, objectives, mission, and vision (Mulyadi, 2020). Moeheriono (2012) explains that performance reflects the level of task achievement within an organization in an effort to realize the organization's goals, objectives, mission, and vision. According to Marwansyah (2012:234), factors influencing performance include knowledge or skills, the environment, resources, and motivation.

Performance reflects the quality and quantity of work athletes achieve. Athletes' performance in competitions is a combination of various factors, including physical factors, motor skills, techniques, and training. In addition, psychological factors such as motivation, self-confidence, and personality need to be considered by coaches and physical education teachers (Himawan Wismanadi, 2017). According to Kurniawan, F (2020), there are 2 factors that influence the success of athletes in achieving, namely internal and external factors (External factors are those that come from outside, such as infrastructure, coaches, environment, organization, financial management, and so on. Internal factors are those that come from within the athlete, such as physical and mental abilities, body shape, mastery of techniques and tactics, psychology, and personality. Nanda, F. A., & Dimyati, D. (2019) stated that in competitive sports, athletes prepare everything to achieve good performance. Several factors influence athletes' success, including physical factors, technical skills, and psychological skills. Of these factors, skills in managing athletes' psychology are among the most influential in determining athletes' success. Krane (2006) explains that successful athletes can be reviewed based on aspects of good psychological skills. An athlete's performance is an interaction between several factors, such as technical, tactical, physical and mental or psychological aspects (Jones, Hanton, & Connaughton, 2002; Bompa & Haff, 2009; Stolen et al., 2005).

Psychology plays a crucial role in education and learning. Knowledge of psychology is essential for teachers, educators, coaches, mentors, and caregivers to understand students' cognitive, affective, and psychomotor characteristics. Sports psychology is one of seven theoretical fields that constitute the body of knowledge of sports science. Yusuf Hidayat (2008) states that sports psychology is the science that studies individuals and their behavior in sports and training. Furthermore, sports psychology addresses personality, attitudes, anxiety, motivation, aggressiveness, emotions, intelligence, discipline, self-confidence, self-efficacy, peak performance, and more (Hastria Efendi, 2016). Sports psychology is the study of psychology applied to sports and can influence athletes' performance (Herman, 2011).

Personality traits in sports psychology serve as foundational psychological structures that dictate an athlete’s long-term behavior, emotional regulation, and coping mechanisms under pressure. Individual personality profiles significantly influence how athletes handle competitive anxiety, maintain self-confidence, and sustain intrinsic motivation during rigorous training

phases (Allen et al., 2021). Specific traits, such as conscientiousness and extraversion, have been consistently linked to higher levels of mental toughness and overall athletic achievement (Conzelmann et al., 2022). Furthermore, an athlete's personality profile shapes their interpersonal relationships with coaches and teammates, which indirectly affects team cohesion and individual satisfaction with performance (Steca et al., 2023). In combat and precision sports, certain personality dimensions act as psychological predispositions that help athletes manage high-stress environments and sudden tactical shifts (Piepiora, 2021). Consequently, understanding these stable psychological traits allows sports psychologists and practitioners to design customized training regimens that align with the athlete's natural behavioral tendencies (Tedesqui & Young, 2024)

Personality characteristics in sports psychology can be seen from the number of matches/competitions a person participates in, in the form and habits of each sport. Individual and team sports also have different characteristics. According to Husdarta (2010:23), the personality differences between individual and team athletes indicate that athletes in team sports exhibit lower levels of internalized anxiety, are more independent, more open, and more objective, but are less sensitive and imaginative than individual athletes.

In a study by Bayu Nugraha Murdiansyah (2016), the results showed no significant differences between individual and group athletes. This is because the intensity of training on the subjects above has not been sufficient to produce differences in their personalities. The results of research conducted by Maya Nurhayati and Rajip Mustaphilah Rusdianto (2022), based on an analysis of personality differences between Volleyball athletes and Pencak Silat athletes, showed no significant differences between the two groups. In martial arts, personality can also have special characteristics. There are differences in personality characteristics among martial arts branches. This study conducted by Donny Wira Yudha Kusuma and Aris Mulyono (2019) compared personality characteristics in various aspects of athletes in 4 (four) martial arts branches, namely pencak silat, taekwondo, judo, and karate PPLOP Central Java Province and found that there were differences in the personality characteristics of the four sports.

Combat sports present a unique psychological landscape where athletes must navigate direct physical confrontation, high risks of injury, and rapid weight regulation, all of which demand distinct personality configurations compared to non-combat disciplines. Athletes engaged in martial arts generally exhibit significantly higher levels of emotional stability, assertiveness, and self-directed competitiveness to endure the intense physical duals (Blais et al., 2022). However, personality structures are not uniform across all combat disciplines; striking-based martial arts often attract individuals with different psychological profiles than grappling-based or aesthetic-based combat sports (Jensen et al., 2023). These internal traits heavily influence how a combat athlete regulates pre-competition arousal and channels tactical aggressiveness without losing cognitive control (Kostorz et al., 2022). Moreover, experience level and competitive rank within combat sports have been shown to further differentiate personality expressions, where elite fighters display superior stress tolerance and lower trait anxiety (Slimani et al., 2021). Therefore, evaluating personality differences within combat sports is vital, as a generalized approach fails to capture the nuanced psychological demands inherent to specific martial arts disciplines (Wróblewska et al., 2024).

Poomsae, as a non-contact, judged discipline within Taekwondo, requires a highly specialized psychological profile characterized by extreme attention to detail, kinesthetic

awareness, and internal consistency. Because performance success in Poomsae depends entirely on the aesthetic execution of forms, technical precision, and power control, athletes must possess exceptional levels of selective attention and closed-loop motor visualization skills (Chang et al., 2022). Poomsae practitioners often exhibit lower levels of reactive aggressiveness but remarkably high scores in perfectionism, conscientiousness, and intrinsic focus, which are critical for enduring repetitive, solo technical drills (Kim & Hong, 2023). Self-regulation and somatic anxiety management are paramount, as any minor emotional destabilization can visibly disrupt the rhythm, balance, and presentation of the performance (Lee et al., 2024). Additionally, because there is no direct opponent to react to, Poomsae athletes rely heavily on high self-efficacy and internal motivation to achieve peak flow states during competition (Park & Jeong, 2021). Thus, the psychological paradigm of Poomsae is deeply rooted in introverted mental toughness, precision execution, and self-directed mastery (Ryu & Cho, 2025).

In stark contrast, Kyorugi is a dynamic, full-contact Olympic sparring discipline that demands a psychological profile geared toward open-loop decision-making, high stress tolerance, and controlled tactical aggressiveness. Kyorugi athletes operate in a volatile, high-pressure environment where they must rapidly decode an opponent's movements while managing direct physical impact and fatigue (Bridge et al., 2022). This discipline requires elevated levels of mental toughness, high self-confidence, and extraversion, which enable athletes to remain resilient after absorbing blows or losing points (Follmer et al., 2023). Risk-taking behavior, high pain tolerance, and the ability to channel functional state aggressiveness are essential psychological traits that correlate with winning performances in sparring (López-Gullón et al., 2021). Furthermore, Kyorugi fighters must possess superior cognitive flexibility and rapid reactive capabilities to adjust their competitive strategies instantly under fluctuating combat conditions (Moitinho et al., 2024). Ultimately, the psychological core of a Kyorugi athlete is defined by extroverted resilience, assertive combativeness, and high emotional regulation during chaotic physical confrontations (Torres-Luque et al., 2025).

Despite the clear divergence in the technical, physical, and psychological demands between Kyorugi and Poomsae, current sports science literature consistently treats Taekwondo athletes as a single homogenous cohort. Most psychological assessments in martial arts have focused broadly on comparing combat vs. non-combat sports or elite vs. non-elite martial artists, completely ignoring internal intra-sport differences (García-Cardona et al., 2023). This oversight creates a critical empirical gap, as coaches are left without scientifically validated data to differentiate mental training strategies for sparring versus form-based athletes (Herrera-Valenzuela et al., 2022). Furthermore, while the Sport Personality Questionnaire 20 (SPQ 20) has been widely used to map profiles in various sports, its specific application in investigating sub-disciplines within a single martial art remains virtually non-existent (Martínez-Moreno et al., 2024). Failing to identify these distinct personality profiles hinders optimal talent identification and prevents the implementation of specialized psychological interventions tailored to an athlete's specific competition number (Santos et al., 2021). Therefore, this study directly addresses this gap by executing a comparative analysis of Kyorugi and Poomsae athletes utilizing the SPQ 20 framework to establish a foundation for differentiated psychological training.

2. Methods

2.1 Research Design

The method used is a survey through a quantitative approach.

2.2 Participants / Sample

The research location is in Pekalongan City Dojang Tanders Academy with the research target of the competition class athletes of Dojang Tanders Academy. The athlete population consisted of 16 athletes, the sampling technique used total sampling so that the entire population was used as the research sample.

Table 1. Population and Sample

No.	Name	Age	Gender	Category	Duration of Training (years)	Achievement Level
1	Athlete 1	9	L	Kyorugi	3	Region
2	Athlete 2	9	L	Kyorugi	3	Region
3	Athlete 3	10	L	Kyorugi	4	Region
4	Athlete 4	11	L	Kyorugi	5	National
5	Athlete 5	12	L	Kyorugi	6	National
6	Athlete 6	12	L	Kyorugi	6	National
7	Athlete 7	12	L	Kyorugi	6	National
8	Athlete 8	12	L	Kyorugi	6	National
9	Athlete 9	12	L	Kyorugi	6	National
10	Athlete 10	12	P	Kyorugi	6	National
11	Athlete 11	15	P	Kyorugi	8	National
12	Athlete 12	7	P	Poomsae	1	Region
13	Athlete 13	8	P	Poomsae	2	Region
14	Athlete 14	9	P	Poomsae	2	Region
15	Athlete 15	10	L	Poomsae	4	National
16	Athlete 16	11	P	Poomsae	5	National

2.3 Instruments and Measures

The data collection instrument was conducted using the SPQ 20 questionnaire. The research variables were taken from the indicator aspects in SPQ 20, namely the achievement and competitiveness aspects, self-confidence and resilience aspects, interaction and sportsmanship aspects, and power and aggressiveness aspects

2.4 Procedure

The procedure for carrying out this research is to distribute questionnaires to participants and participants are advised to fill them in according to their respective circumstances.

2.5 Data Analysis

Data analysis used in this study is SPSS descriptive exploration where the data will be analyzed according to the norms in SPQ 20 with internal consistency based on Cronbach's

Coefficient Alpha along with raw scores and sten SEms for SPQ20 are within the benchmark of 0.6 to 0.8 with a median range of 0.72.

To find the difference between the kyorugi and poomsae numbers, a test was conducted using the SPSS 21 application. Because the data for kyorugi and poomsae athletes were not the same, the data testing used a parametric analysis of the Paired Sample T-Test. Before conducting the T-Test, the data must first be ensured to be normal using the data normality test. If it is found to be abnormal, it can be tested using the Wilcoxon test.

3. Results

Taekwondo athletes in the kyorugi category excel in 16 indicators, while taekwondo athletes in the poomsae category excel in 4 indicators, out of 20 indicators, 19 of which have significant differences in the indicators of Achievement, Adaptability, Competitiveness, Conscientiousness, Visualization, Intuition, Goal Setting, Managing Pressure, Self-Efficacy, Fear-of Failure Control, Flow, Stress Management, Emotions, Self-Talk, Self-Awareness, Ethics, Empathy, Relationship, Aggressiveness. While the Power indicator does not show any differences.

Table 2. The Difference Between Taekwondo Athletes in Kyorugi and Poomsae

Variable	Sub Variable	Group		Sig. 2 Tailed
		SD of Kyorugi	SD of Poomsae	
Achievement and Competitiveness	Achievement	0.734	0.429	0.022
	Adaptability	0.909	0.588	0.014
	Competitiveness	0.778	0.979	0.017
	Conscientiousness	0.949	0.911	0.013
	Visualization	0.985	0.903	0.030
	Intuition	0.849	0.542	0.018
	Goal Setting	0.830	0.481	0.018
	Managing Presure	0.774	0.589	0.044
	Self Efficacy	0.659	0.542	0.005
	Fear of Failure Control	0.842	0.229	0.003
Conficence and Resilience	Flow	0.786	0.616	0.008
	Stress Management	0.892	0.656	0.019
	Emotions	0.748	0.353	0.010
	Self-Talk	0.887	0.809	0.012
	Self-Awareness	0.952	0.725	0.017
Interaction and Sportsmanship	Ethics	0.933	0.933	0.022
	Empathy	0.883	0.573	0.016

	Relationships	0.711	0.543	0.015
Power and Aggresiveness	Aggresiveness	0.683	0.343	0.037
	Power	0.513	0.383	0.097

4. Discussion

For athletes in both the kyorugi and poomsae categories, the indicators that both scored highest among the others were conscientiousness, competitiveness, and ethics. However, the psychological level of kyorugi athletes was still higher, scoring high compared to the poomsae category, which scored average. Meanwhile, one of the other highest levels differed: self-talk for the kyorugi category and visualization for the poomsae category. The indicators with the lowest scores in both categories were aggressiveness and power, with psychological levels lower than the other indicators. Meanwhile, fear of failure control and emotions were found to be low only for the poomsae category, while the kyorugi category scored average.

These differences are somewhat irrelevant to the research findings of Nurwansyah and Sepdanius (2021), who stated that athletes in non-contact sports, such as poomsae, should have better emotional control than athletes in direct physical contact sports, such as kyorugi. In another indicator, aggressiveness, although both kyorugi and poomsae athletes were at the same low level, poomsae athletes scored higher than kyorugi athletes. This contradicts the results of research conducted by Rydzik (2022), which found that fighting athletes had higher levels of aggressiveness.

In the stress management indicator, kyorugi athletes scored higher than poomsae athletes, although they were at the same psychological level (average), but there was still a significant difference. In a related indicator, managing pressure, poomsae athletes were found to outperform kyorugi athletes, even though they were at the same level. This is relevant to research conducted by Anggara (2022), which found that effective pressure management reduces stress levels, which leads to increased performance.

In another indicator, the relationship indicator, each category was at the same level, but poomsae athletes tended to score higher than kyorugi athletes. Overall, the research by Kim et al. (2021) explains that taekwondo has a positive psychosocial impact on interactions and building positive relationships between individuals. Given the importance of the relationship between athletes and coaches, this relationship needs to be maintained and enhanced. This is relevant to the research by Rizky (2023), who explained that the stronger the relationship between coach and athlete, the higher the athlete's performance.

Overall, this study concludes that kyorugi and poomsae athletes have personality differences. This is supported by previous research by Lowe & McGrath (1971), which explained that individual athletes in direct physical contact martial arts (fighting) have higher anxiety than athletes in indirect physical contact martial arts (arts). However, this finding is not relevant to the research conducted by Dongoran et al. (2020), which examined the personality differences between pencak silat athletes in the arts and fighting categories. Their research found no

personality differences, as the athlete respondents did not truly focus on one category and studied both.

5. Conclusion

This study concludes that there are significant psychological personality differences between Taekwondo athletes in the Kyorugi (sparring) and Poomsae (forms) categories across 19 out of 20 measured indicators. The findings reveal that Kyorugi athletes generally demonstrate a higher level of psychological maturity, outperforming Poomsae athletes in 16 indicators, particularly in self-talk and emotional regulation. Conversely, Poomsae athletes show specialized strengths in visualization, managing pressure, and relationship building. A notable anomaly was found in the aggressiveness indicator; despite both groups scoring low, Poomsae athletes scored higher than their Kyorugi counterparts, challenging the prevailing theory that direct physical contact necessarily correlates with higher levels of aggression. Meanwhile, the "Power" indicator was the only dimension showing no significant difference, suggesting that the perception of physical power is a universal psychological construct among Taekwondo practitioners regardless of their discipline.

The results of this study provide strategic implications for coaches and practitioners to implement differentiated psychological treatment. Training programs should not adopt a one-size-fits-all approach for both categories. Kyorugi athletes require mental interventions focused on enhancing self-talk to maintain performance during high-intensity combat. In contrast, Poomsae athletes necessitate specific training in visualization techniques and strategies to mitigate the "fear-of-failure," which was found to be low in this study. Furthermore, the high scores in the "relationship" indicator for both groups emphasize that the quality of the coach-athlete bond is paramount in managing competitive stress and ensuring long-term performance sustainability.

Scientifically, this research contributes to filling the empirical gap regarding intra-sport personality differences. It refines the academic debate by demonstrating that specialization within a single martial art (fighting vs. arts) fosters fundamentally different psychological profiles. Additionally, the findings that contradict previous research—specifically regarding emotional control and aggressiveness—provide a new perspective: the specific demands of the training environment and the athlete's focus are more dominant in shaping personality than the nature of physical contact itself. This study establishes a robust foundation for future research utilizing the Sport Personality Questionnaire 20 (SPQ 20) in specialized combat sports contexts.

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