

Comparative Analysis of Performance Anxiety and Aggression in Swimmers and Para swimmers

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Abstract –

Background: This study compares performance anxiety and aggression between female swimmers and female para-swimmers. It aims to identify significant differences and provide recommendations for enhanced psychological support for both groups.

Objective: To compare and analyse performance anxiety and aggression levels between para and able-bodied swimmers, identify key contributing factors, and develop recommendations for improved psychological support and coping strategies for both groups.

Method: This study involved a total of 50 national-level subjects, consisting of 25 female swimmers and 25 female para-swimmers, to identify previously unknown psychological drawbacks. All participants were aged between 18 and 30 years. Tests were administered to assess psychological variables including Aggression and Competitive State Anxiety as well as influencing factors in their sports careers.

Result: The analysis revealed that female swimmers had significantly higher levels of aggression ($M = 80.04$, $SD = 14.72$) and competitive state anxiety ($M = 19.35$, $SD = 3.01$) compared to female para-swimmers, who had lower scores in both areas (aggression: $M = 72.04$, $SD = 13.77$; anxiety: $M = 17.08$, $SD = 5.91$). T-tests showed significant differences in aggression ($t = 2.02$, $p = 0.048$) and anxiety ($t = 2.99$, $p = 0.004$) between the two groups, indicating that female swimmers experience higher levels of both psychological variables than female para-swimmers.

Conclusion: Female swimmers show significantly higher levels of aggression and competitive state anxiety compared to female para-swimmers. These findings highlight the need for targeted psychological support to address these elevated levels and improve overall athlete well-being and performance.

Keywords: swimmer, para-swimmer, anxiety, aggression

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INTRODUCTION

The psychological experiences of athletes, particularly regarding performance anxiety and aggression, play a critical role in their overall performance and well-being. Performance anxiety and aggression are pivotal factors that can influence an athlete's behaviour, focus, and competitive edge. This research aims to explore and compare these psychological variables between two distinct groups: female para-swimmers and able-bodied female swimmers. By understanding the levels of performance anxiety and aggression in these athletes, this study seeks to uncover significant differences and identify contributing factors that may impact their sports performance and mental health.

Performance anxiety, or competitive state anxiety, refers to the feelings of apprehension and nervousness that athletes experience before or during competitions. It can affect an athlete's performance, confidence, and overall experience in sports (Martens et al., 1990). Aggression, on the other hand, involves behaviors or attitudes characterized by hostility or assertiveness, which can influence an athlete's interactions with competitors and performance dynamics (Maxwell & Visek, 2009). Both of these psychological factors are known to vary across different groups of athletes and sports contexts, necessitating a focused comparison between para-swimmers and able-bodied swimmers.

AIM

This study aims to compare the levels of performance anxiety and aggression between female para-swimmers and able-bodied female swimmers. By doing so, it seeks to identify any significant differences in these psychological experiences between the two groups, which may contribute to their performance and coping strategies in competitive environments.

OBJECTIVE

1. Compare and analyse the levels of performance anxiety and aggression between para-swimmers and able-bodied swimmers,
2. Identify key contributing factors influencing these psychological variables, and
3. Develop recommendations for improved psychological support and coping strategies tailored to the needs of both groups.

METHODS

The study involved a sample of 50 national-level athletes, comprising 25 female swimmers and 25 female para-swimmers, all aged between 18 and 30 years. Psychological assessments were administered to measure aggression and competitive state anxiety, along with evaluating influencing factors in their sports careers. This approach aimed to reveal previously unidentified psychological challenges and differences between the two groups.

RESULT AND DISCUSSION

Table 1. Descriptive Statistics of Aggression and Competitive State Anxiety of Female Swimmers.

Variables	N	Range	Mean	Std. Error	Std. Dev.	Variance
Aggression	25	57.00	80.03	2.88	14.717	216.59
Anxiety		13.00	19.34	0.58	3.005	9.035

Table. 1 summarizes the descriptive statistics for aggression and competitive state anxiety among female swimmers. For aggression, the sample size (N) is 25, with a mean of 80.04 (SD = 14.72), a standard error of 2.89, and a variance of 216.60. The range of aggression scores is 57.00. For anxiety, the sample size is also 25, with a mean of 19.35 (SD = 3.01), a standard error of 0.59, and a variance of 9.04. The range of anxiety scores is 13.00. These statistics reflect moderate dispersion in aggression and lower variability in anxiety among the swimmers.

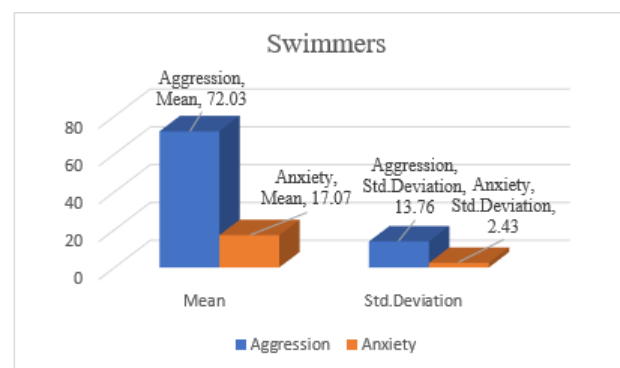


Figure 1: Graphical representation of Aggression and Competitive State Anxiety of female swimmers

Table 2. Descriptive Statistics of Aggression and Competitive State Anxiety of Female Para Swimmers

Variables	N	Range	Mean	Std. Error	Std. Dev.	Variance
Aggression	25	50.00	72.03	2.70	13.76	189.55
Anxiety		9.00	17.07	.476	2.43	5.91

Table. 2 presents the descriptive statistics for aggression and competitive state anxiety among female para swimmers. For aggression, the sample mean is 72.04 (SD = 13.77), with a standard error of 2.70 and a variance of 189.56. The range of aggression scores is 50.00. For anxiety, the mean is 17.08 (SD = 5.91), with a standard error of 0.48 and a variance of 5.91. The range of anxiety scores is 9.00. These statistics indicate a moderate level of aggression and anxiety with respective ranges and variability among the sample.

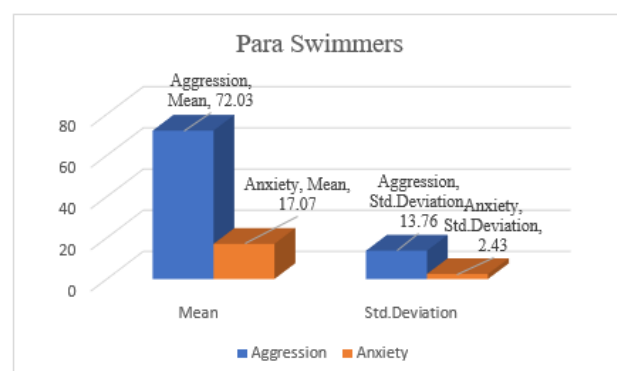


Figure 2: Graphical representation of Aggression and Competitive State Anxiety of Female Para Swimmers

Table 3. T-test comparison of Aggression between Female Swimmers and Para-Swimmers

Variables	t-value	p-value	df	Sig. (2-tailed)
Female Swimmers Female Para-swimmers	2.02	.048	50	0.05

Tabulated value at df 50 = 2.000, * Significance level at 0.05 (2-tailed)

Table .3 displays the results of a t-test comparing aggression levels between female swimmers and female para-swimmers. The t-value obtained is 2.02, indicating a significant difference between the two groups. The table value for significance at the 0.05 level is 2.00, and the p-value is 0.048. Since the calculated t-value exceeds the table value and the p-value is less than 0.05, the comparison demonstrates a statistically significant difference in aggression between female swimmers and female para-swimmers.

Table 4. T-test comparison of Sports Competition Anxiety (SCAT) between Female Swimmers and Para-Swimmers

Variables	t-value	p-value	df	Sig. (2-tailed)
Female Swimmers	2.99	.004	50	0.05
Female Para-swimmers				

Tabulated value at df 50 = 2.000, * Significance level at 0.05 (2-tailed)

Table .4. Presents the results of a t-test comparing Sports Competition Anxiety (SCAT) between female swimmers and female para-swimmers. The obtained t-value is 2.99, indicating a significant difference between the two groups. The critical t-value for significance at the 0.05 level is 2.00, and the p-value is 0.004. Since the calculated t-value exceeds the table value and the p-value is less than 0.05, the comparison shows a statistically significant difference in Sports Competition Anxiety between female swimmers and female para-swimmers. This suggests that the levels of competition anxiety are significantly different between the two groups.

The study assessed aggression and competitive state anxiety in female swimmers and female para-swimmers. Descriptive statistics indicated that female swimmers reported higher levels of aggression (M = 80.04, SD = 14.72) and competitive state anxiety (M = 19.35, SD = 3.01) compared to female para-swimmers, who had lower scores in both measures (aggression: M = 72.04, SD = 13.77; anxiety: M = 17.08, SD = 5.91).

T-tests revealed significant differences between the groups. For aggression, the t-value was 2.02 (p = 0.048), indicating a significant difference with female swimmers exhibiting greater aggression. For competitive state anxiety, the t-value was 2.99 (p = 0.004), demonstrating a significant difference with female swimmers experiencing higher levels of anxiety. These findings highlight that female swimmers face greater psychological challenges in terms of aggression and anxiety compared to their para-swimming counterparts.

The findings from this study highlight significant differences in psychological experiences between female swimmers and female para-swimmers,

particularly in terms of aggression and competitive state anxiety. The data indicate that female swimmers exhibit significantly higher levels of both aggression and competitive state anxiety compared to their para-swimmer counterparts.

These findings suggest that the competitive environment for able-bodied swimmers may be more intense, potentially leading to heightened aggression and anxiety. This could be due to several factors, including higher expectations, more rigorous competition, and possibly greater pressure to perform at national levels (Jones & Hanton, 2001). In contrast, female para-swimmers might experience a different set of challenges that do not necessarily translate into higher aggression or anxiety levels, perhaps due to differing social support systems, coping mechanisms, or the nature of their competitive environments (Pensgaard & Roberts, 2002).

The implications of these findings are significant for developing psychological support strategies tailored to the needs of both groups. For female swimmers, interventions may need to focus on managing competitive state anxiety and aggression, potentially through techniques such as cognitive-behavioral therapy, mindfulness training, or stress management programs. For female para-swimmers, while their lower levels of aggression and anxiety might suggest fewer immediate concerns, there is still a need for ongoing psychological support to address any other unique stressors they may face in their sports careers.

This study's insights contribute to a deeper understanding of the psychological dynamics at play in competitive sports and underscore the importance of tailored psychological interventions. By recognizing and addressing the distinct needs of both female swimmers and female para-swimmers, sports psychologists and coaches can better support these athletes in achieving optimal performance and maintaining their mental health.

CONCLUSION

According to table 1. Overall, the data suggests that female swimmers exhibit moderate levels of aggression and relatively low levels of competitive state anxiety, with aggression scores showing greater variability compared to anxiety scores. The descriptive statistics provide a comprehensive overview of the psychological profiles of the sample, useful for understanding the emotional and psychological states of female swimmers and para swimmers in competitive settings.

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