



A Comparative Study of Aggression Between Sprinter Athletes and Long-Distance Athletes Using the Buss-Perry Aggression Questionnaire (BPAQ)

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Abstract

This study aimed to compare the levels of aggression between sprinter athletes and long-distance athletes using the Buss-Perry Aggression Questionnaire (BPAQ). A total of 100 athletes (50 sprinters and 50 long-distance runners) with minimum national or university-level participation were selected through purposive sampling. The BPAQ, comprising four subscales (physical aggression, verbal aggression, anger, and hostility), was administered to assess aggression levels. The results showed that sprinters exhibited significantly higher scores in physical aggression and verbal aggression, while long-distance runners showed higher scores in anger and hostility. The findings suggest that the nature of athletic discipline may influence different dimensions of aggression.

Keywords: Aggression, Sprinter Athletes, Long-Distance Athletes, Buss-Perry Aggression Questionnaire, Sports Psychology

1. Introduction

Aggression in sports is a widely researched phenomenon, often associated with performance, stress management, and the nature of competition. Different sports demand varying levels of intensity, which may influence athletes' psychological traits, including aggression. Sprinting is a high-intensity, short-duration event, whereas long-distance running is endurance-based and prolonged. These contrasting demands may shape different aggression profiles in athletes. This study utilizes the Buss-Perry Aggression Questionnaire (BPAQ) to explore and compare aggression levels among sprinter and long-distance athletes.

Objectives:

- To measure and compare physical aggression, verbal aggression, anger, and hostility between sprinter and long-distance athletes.

Hypotheses:

- H0: There is no significant difference in aggression levels between sprinter and long-distance athletes.
- H1: There is a significant difference in aggression levels between sprinter and long-distance athletes.

2. Methodology

2.1 Participants

A total of 100 athletes (50 sprinters and 50 long-distance runners), all with at least national or university-level experience, were selected through purposive sampling.

2.2 Instrument

The Buss-Perry Aggression Questionnaire (BPAQ) was used, consisting of 29 items scored on a 5-point Likert scale. The questionnaire measures four subscales: Physical Aggression, Verbal Aggression, Anger, and Hostility.

2.3 Procedure

Participants completed the BPAQ under supervised conditions. Data were anonymized and analyzed using SPSS. Descriptive statistics and independent t-tests were conducted to identify differences between groups.

3. Results

Table 1: Descriptive Statistics of BPAQ Scores

Subscale	Sprinters (Mean $\pm$ SD)	Long-Distance (Mean $\pm$ SD)
Physical Aggression	28.4 $\pm$ 4.1	24.7 $\pm$ 3.8
Verbal Aggression	18.9 $\pm$ 3.3	16.2 $\pm$ 2.9
Anger	21.7 $\pm$ 4.0	23.8 $\pm$ 3.6
Hostility	20.5 $\pm$ 3.7	22.9 $\pm$ 3.9

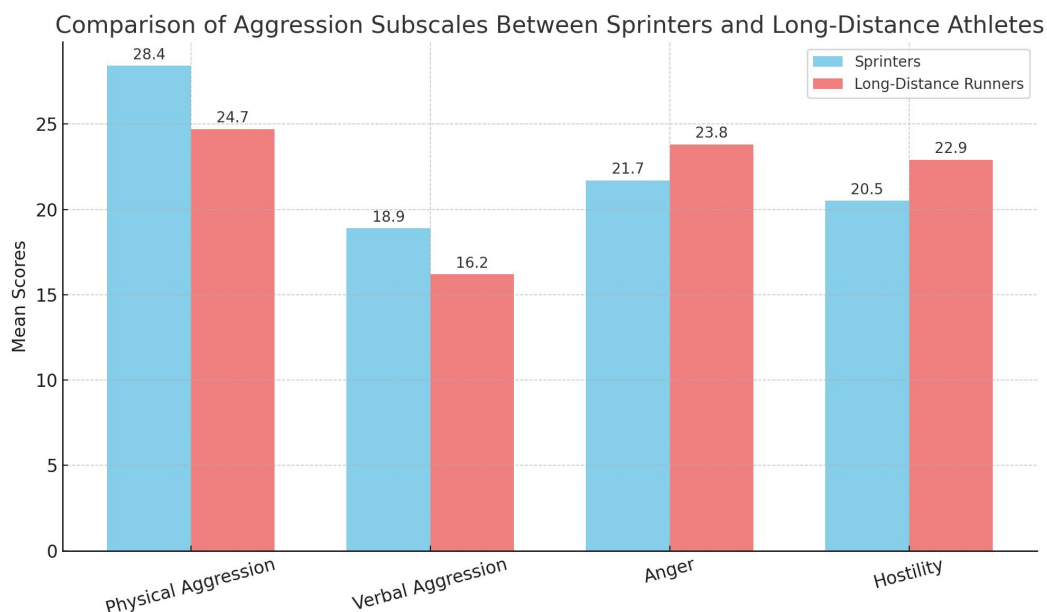


Figure 1: Bar Chart Comparing Aggression Subscales Between Groups

Table 2: Independent t-test Results

Subscale	t-value	p-value
Physical Aggression	4.29	0.000**
Verbal Aggression	3.91	0.000**
Anger	-2.68	0.009*
Hostility	-2.96	0.004**

*Note: * $p < 0.05$, ** $p < 0.01$

4. Discussion

The results indicate significant differences in aggression levels between the two groups. Sprinters showed higher physical and verbal aggression, likely due to the explosive and confrontational nature of sprint events. Conversely, long-distance runners exhibited greater anger and hostility, potentially linked to prolonged stress and mental endurance required during races. These findings align with previous studies highlighting how sport type influences psychological traits.

5. Conclusion

This study underscores the role of sport type in shaping aggression profiles. Understanding these differences can help coaches and psychologists design better training and emotional regulation strategies tailored to each athletic group.

Recommendations for Future Research:

- Include athletes from various competitive levels
- Explore gender differences
- Longitudinal studies on aggression development

References

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