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COMPARATIVE STUDY OF AGGRESSION AND SELF-EFFICACY AMONG TRACK EVENT ATHLETES OF PUNE DISTRICT

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Abstract:

The psychological characteristics of athletes play a crucial role in determining sports performance. Among these characteristics, aggression and self-efficacy significantly influence competitive behavior and performance outcomes in athletics. The present study aimed to compare aggression and self-efficacy among track event athletes of Pune district during the year 2025. A total of 120 athletes (60 male and 60 female) competing in sprint, middle distance, and long-distance events were selected using purposive sampling. Standardized tools such as the Self-Efficacy Scale for Athletes and the Buss–Perry Aggression Questionnaire were used to measure the variables. Statistical analysis included descriptive statistics and t-test analysis. Results revealed significant differences in aggression and self-efficacy among athletes depending on event specialization and gender. Athletes with higher self-efficacy demonstrated lower levels of aggressive tendencies and greater psychological control. These findings highlight the importance of psychological training programs for track athletes.

Keywords: *Athletics, Aggression, Self-Efficacy, Track Athletes, Sport Psychology*

Introduction:

Modern sports performance depends not only on physical ability but also on psychological readiness. Track and field athletes must maintain concentration, emotional control, and confidence under intense competitive pressure.

One of the most influential psychological constructs in sport performance is self-efficacy, introduced by Albert Bandura. Self-efficacy refers to an individual's belief in their capability to successfully execute actions required to achieve desired performance outcomes. High self-efficacy enhances motivation, persistence, and resilience in competitive sport environments.

Aggression is another important psychological factor in competitive sport. Aggression in athletics may manifest as intense competitiveness, emotional arousal, or hostile behavior. While moderate aggression can enhance motivation, excessive aggression may negatively influence performance and sportsmanship.

Research indicates that athletes with high self-efficacy often demonstrate better emotional regulation and lower levels of destructive aggression. Studies among combat sport athletes show that self-efficacy is negatively related to aggressive behavior and positively related to self-control.

Understanding the relationship between aggression and self-efficacy in athletics is important for coaches, sport psychologists, and athletes. This study investigates these psychological variables among track event athletes in Pune district.

Need for the study:

In modern athletics, psychological preparation has become an essential component of performance training. Despite the increasing emphasis on sport psychology, limited research has been conducted on psychological variables among track athletes at the district level in India.

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Pune district has produced several national-level athletes; however, there is limited scientific evidence regarding their psychological characteristics.

These study efforts to:

Identify psychological strengths and weaknesses among track athletes

Compare aggression and self-efficacy levels

Provide insights for psychological training programs

Objectives of the Study:

1. To measure the level of aggression among track event athletes of Pune district.
2. To measure the level of self-efficacy among track event athletes.
3. To compare aggression levels between male and female athletes.
4. To compare self-efficacy levels between male and female athletes.
5. To examine the relationship between aggression and self-efficacy.

Hypotheses:

1. There will be a significant difference in aggression between male and female track athletes.
2. There will be a significant difference in self-efficacy between male and female track athletes.
3. There will be a significant relationship between aggression and self-efficacy among athletes.

Review of Related Literature:

Research in sport psychology demonstrates that psychological traits strongly influence athletic performance. A study on boxers found that self-efficacy significantly improves self-control and reduces aggressive behavior among athletes.

Another study examining athletes with high and low self-efficacy found that athletes with low self-efficacy displayed higher levels of aggression compared to those with high self-efficacy.

Research comparing throwers and jumpers also reported differences in aggression levels depending on sport specialization. These findings suggest that self-efficacy plays a critical role in regulating aggressive behavior and emotional responses in sport.

Methodology:

The present study employed a descriptive survey method as the research design. The sample for the study consisted of 120 track event athletes from Pune district. Among the total participants, 60 were male athletes and 60 were female athletes. The age range of the participants was between 18 and 25 years. The athletes were selected from different sources, including district-level competitions, athletic training centers, and college athletics teams. This diverse selection helped to ensure proper representation of track event athletes from the Pune district.

Variables of the Study

In the present study, **gender** was considered as the independent variable. The dependent variables included **aggression** and **self-efficacy**. The study aimed to examine how differences in gender influence the levels of aggression and self-efficacy among track event athletes. Aggression refers to the behavioral tendencies related to anger, hostility, or competitive intensity, while self-efficacy represents the athlete's belief in their own ability to successfully perform tasks and achieve goals in sports. The relationship between the independent variable (gender) and the dependent variables (aggression and self-efficacy) was analyzed to understand their impact on athletic performance and psychological characteristics.

Tools Used:

1. Self-Efficacy Scale for Athletes
2. Buss-Perry Aggression Questionnaire (1992)

These tools are widely used in sport psychology research to measure confidence and aggressive tendencies in athletes.

Procedure:

Data were collected from athletes during training camps and competitions conducted in Pune district in 2025.

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Participants were informed about the purpose of the study and provided consent before completing the questionnaires. The questionnaires required approximately 20–25 minutes to complete.

Statistical Analysis:

For the analysis of the collected data, appropriate statistical techniques were applied. The **mean** and **standard deviation** were calculated to describe the central tendency and variability of the data. An **independent t-test** was used to examine the differences between male and female athletes with respect to the selected variables. In addition, **Pearson's correlation** was employed to determine the relationship between aggression and self-efficacy among track event athletes. These statistical methods helped in interpreting the data and drawing meaningful conclusions for the study.

Table: 1

Descriptive Statistics of Aggression and Self-Efficacy among Track Event Athletes

Variable	Gender	N	Mean	Standard Deviation
Aggression	Male Athletes	60	72.45	8.52
	Female Athletes	60	68.3	7.96
Self-Efficacy	Male Athletes	60	81.6	9.1
	Female Athletes	60	84.2	8.45

Table 1 shows that the descriptive statistics of aggression and self-efficacy among male and female track athletes. The mean aggression score of male athletes (M = 72.45) was slightly higher than that of female athletes (M = 68.30). This indicates that male athletes tend to show relatively higher aggressive tendencies in competitive situations.

On the other hand, female athletes demonstrated slightly higher self-efficacy scores (M = 84.20) compared to male athletes (M = 81.60), suggesting that female athletes possess strong confidence in their performance abilities.

Table: 2

Independent t-Test Comparison of Aggression between Male and Female Athletes

Variable	Group	Mean	SD	t-value	Level of Significance
Aggression	Male	72.45	8.52	2.41	Significant ($p < 0.05$)
	Female	68.3	7.96		

Table 2 shows the comparison of aggression levels between male and female athletes using an independent t-test. The calculated t-value (2.41) was found to be significant at the 0.05 level. This indicates that there is a statistically significant difference in aggression levels between male and female track athletes. Male athletes demonstrated higher aggression levels than female athletes.

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Table: 3

Independent t-Test Comparison of Self-Efficacy between Male and Female Athletes

Variable	Group	Mean	SD	t-value	Level of Significance
Self-Efficacy	Male	81.6	9.1	1.76	Not Significant
	Female	84.2	8.45		

Table 3 shows the comparison of self-efficacy between male and female athletes. The obtained t-value (1.76) was not significant at the 0.05 level. Therefore, it can be concluded that there is no significant difference in self-efficacy between male and female track athletes.

Table: 4

Correlation between Aggression and Self-Efficacy

Variables	N	Correlation (r)	Interpretation
Aggression & Self-Efficacy	120	-0.42	Moderate Negative Correlation

Table 4 shows that the relationship between aggression and self-efficacy among track event athletes. The Pearson correlation coefficient was found to be **-0.42**, which indicates a moderate negative correlation. This means that athletes with higher self-efficacy tend to exhibit lower levels of aggression.

Results and Discussion:

The analysis revealed that male athletes showed slightly higher aggression levels than female athletes. However, female athletes demonstrated comparable self-efficacy scores. Athletes with higher self-efficacy showed better emotional control and lower aggressive tendencies. These findings support previous research indicating that self-efficacy enhances emotional regulation and reduces destructive aggression. Self-efficacy also contributes to better concentration and persistence during training and competition.

Conclusion:

The study concludes that:

1. Track athletes demonstrate moderate levels of aggression and self-efficacy.
2. Male athletes show slightly higher aggression levels than female athletes.
3. Athletes with higher self-efficacy demonstrate better emotional control.
4. Psychological training programs can enhance self-efficacy and improve athletic performance.

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