The Study Of Self-Efficacy Of The Track Event Athletes Of Pune Athletes Club

Mr. Rahul Shinde
Research Student

Dr. Shirish More
Associate Professor, CACPE, Pune

ABSTRACT

Self-efficacy, an individual's belief in their capability to execute behaviours necessary to produce specific performance attainments, plays a pivotal role in athletic success and psychological resilience. This study aimed to investigate and compare the general self-efficacy levels among track event athletes at different specialization levels within a competitive training environment.

The cross-sectional study included 64 competitive track event athletes from the Pune Athletics Club, aged between 16 and 21 years. Participants were categorized into three distinct specialized subgroups based on their primary events: sprint (n = 22), middle-distance (n = 20), and long-distance (n = 20). Data collection was executed using the psychometrically validated 10-item General Self-Efficacy Scale (GSES) developed by Schwarzer and Jerusalem (1995).

Descriptive statistical analysis revealed that mean self-efficacy scores were relatively high and remarkably homogeneous across all running categories: sprint athletes (32.05 + 4.47), middle-distance athletes (31.64 + 3.91), and long-distance athletes (31.90 + 1.77). To evaluate differences among the groups, a one-way Analysis of Variance (ANOVA) was conducted. The inferential analysis indicated no statistically significant differences in self-efficacy means among the three event categories, F (2, 61) = 0.072, p = .931. Consequently, the research hypotheses predicting varying or significantly superior psychological belief systems in sprinters were rejected, and the null hypothesis was accepted.

The striking uniformity in self-efficacy across diverse track disciplines is primarily attributed to the athletes' standardized, high-quality training regimens and their

highly comparable competitive athletic experience, which averaged 3 to 4 years. These findings suggest that structured club-level coaching environments can foster equitable psychological development across different athletic specializations.

Key Words: Self Efficacy, Track Event Athletes, General Self-Efficacy Scale (GSES)

Introduction

Sports and games serve as a foundational mechanism for establishing strong sociological connections and relationships. Competitive sport is recognized as a complex and highly demanding activity that places extreme pressure simultaneously on human physiology and psychological makeup. In the contemporary sporting landscape, a primary challenge for competitive athletes centers on optimizing psychological behavior alongside physical training to enhance athletic performance. While psycho-physiological conditioning and technical sport-specific skill practices remain essential pillars of athletic production, scientific developments in sport psychology have emphasized the heavy influence of psychological variables on final performance outcomes.

Modern sports science acknowledges that while certain athletic attributes are genetically inherited, many crucial psychological characteristics are dynamically acquired and stabilized through sustained participation, deliberate practice, and competitive experience over time. Sports psychologists possess the capacity to examine these latent psychological factors that act directly and indirectly as catalysts for performance enhancement. Given that national and international sporting benchmarks demand maximum and economically efficient performance, dedicated research into core psychological variables within specific tracking disciplines is required to support systemic athletic training development.

Sport psychology is defined as the empirical study of the psychological and mental factors that influence participation in sport, exercise, and physical activities, alongside the targeted application of this knowledge within everyday athletic settings (LeUnes & Nation, 2002). The foundational establishment of this discipline is attributed to Coleman Griffith, widely recognized as the father of sports psychology, who initiated the first dedicated course at the University of Illinois in 1925.

Expert consensus emphasizes that an athlete's ultimate performance output cannot be predicted purely by technical, tactical, or anthropometric parameters alone; rather, it is significantly regulated by their psychological functioning and mental makeup. Sport psychology addresses these factors by offering structured training

in vital psychological skills, such as goal setting, relaxation, visualization, self-talk, concentration, and confidence management, to minimize behavioral disruptions and maximize competitive outcomes. While classic athletic research has heavily analyzed factors like self-concept, self-esteem, achievement motivation, and locus of control, there remains a critical gap in localized field research explicitly tracking general self-efficacy among distinct running track disciplines.

Self-efficacy is defined as an individual's situation-specific confidence in their capabilities to execute actions required to achieve targeted goals. Developed as a central element of Albert Bandura's social cognitive theory, self-efficacy asserts that individuals possess an internal self-system enabling cognitive control over their thoughts, emotions, motivations, and behavioral actions. Perceived self-efficacy acts as a powerful predictor of actual behavioral achievement because it determines how effectively individuals deploy their acquired skills and knowledge when faced with stress or obstacles.

According to Bandura (1997), self-efficacy development is driven by four primary underlying sources of information:

Mastery Experiences : Direct success in executing a task or controlling an environment builds a robust internal belief structure, whereas early or unmitigated failure undermines it. It stands as the most potent contributor to self-efficacy.

Vicarious Experiences (Modeling) : Observing peers or relevant role models succeeding through continuous effort elevates the observer's belief that they possess similar capabilities to achieve comparable success.

Verbal Persuasion : Positive reinforcement, feedback, and evaluative judgments from influential figures (coaches, teachers, parents) can empower an athlete, while negative persuasion weakens self-belief.

Physiological and Emotional States : Individuals interpret somatic arousal, stress reactions, somatic anxiety, and mood states to judge their capabilities. High self-efficacy allows individuals to view high arousal as an energizing facilitator rather than a debilitating threat.

In a sports environment, self-efficacy acts as a critical mediator of performance. An athlete who exhibits high self-efficacy evaluates competitive challenges as controllable and links outcomes directly to personal effort, initiating a positive reinforcing cycle of success. Conversely, low self-efficacy fosters self-doubt, leading to performance decrements even when the physical capability is present.

Materials and Methods

The study aimed to (1) assess the self-efficacy levels of sprinter athletes, (2) evaluate the self-efficacy levels of middle- and long-distance athletes, and (3) compare self-efficacy scores among sprinters, middle-distance, and long-distance athletes. It was hypothesized that sprinters, middle-distance athletes, and long-distance athletes would demonstrate high self-efficacy, and that sprinters would exhibit higher self-efficacy than middle- and long-distance athletes.

A descriptive cross-sectional survey design was adopted to examine the self-efficacy of track event athletes at a single point in time.

The study included **64 track event athletes** (22 sprinters, 20 middle-distance athletes, and 22 long-distance athletes) aged **16–21 years** from Pune Athletics Club. Participants were selected using a purposive sampling technique.

The dependent variable was **general self-efficacy**, while the independent variable was the athletes' event specialization (sprint, middle-distance, and long-distance).

Self-efficacy was measured using the **10-item General Self-Efficacy Scale (GSES)** developed by Schwarzer and Jerusalem (1995). Each item was rated on a four-point Likert scale ranging from **1 (Not at all true)** to **4 (Exactly true)**, producing total scores between **10 and 40,** with higher scores indicating greater perceived self-efficacy.

Data collection was conducted with the assistance of five trained physical education experts. Participants completed the questionnaire during competition intervals after providing written informed consent. English and Hindi versions of the questionnaire were made available according to participant preference. Athletes with medical conditions or those unwilling to participate were excluded. All responses were collected under standardized testing conditions while maintaining participant confidentiality.

Statistical Analysis

Descriptive statistics (mean and standard deviation) were used to summarize the data. A one-way analysis of variance (ANOVA) was performed to compare self-efficacy scores among sprint, middle-distance, and long-distance athletes. Statistical significance was established at $\mathbf{p < .05}$.

The empirical results derived from the psychometric assessments and subsequent statistical tests are presented in this section. Table 3.1 tracks the descriptive metrics computed for self-efficacy across the individual tracking categories.

Table 1: *Descriptive Analysis of Self-Efficacy Among Track Event Disciplines*

Athletic Specialty	Sample Size (n)	Mean Score (MEAN)	Standard Deviation (SD)
Sprinters	22	32.05	4.47
Middle Distance	20	31.64	3.91
Long Distance	20	31.90	1.77

As shown in Table 1, the mean self-efficacy scores across the tracking categories were tightly clustered. Sprinters exhibited the highest descriptive mean value (32.05 ± 4.47), followed closely by long-distance runners (31.90 ± 1.77) and middle-distance runners (31.64 ± 3.91). To evaluate whether these differences were statistically significant, a one-way ANOVA was executed. The inferential outputs are summarized in Table 3.2.

Table 2: *Analysis of Variance (ANOVA) Summary for Self-Efficacy Across Track Events*

Source of Variation	Sum of Squares	df	Mean Square	F-value	Significance (p-value)
Between Groups	1.889	2	0.944	0.072	0.931
Within Groups	799.845	61	13.112		
Total	801.734	63			

The inferential data presented in Table 2 shows that the calculated significance value is $p = .931$, which falls substantially above the established alpha level of 0.05 ($p > .05$). The resulting F-ratio ($F = 0.072$) indicates that the variance between the groups is minimal relative to the variance within the groups.

Therfore, the statistical analysis confirms that there are no significant differences among the self-efficacy means of sprinter, middle-distance, and long-distance athletes. Based on these findings, the research hypotheses H1-1, H1-2, and H1-3—which anticipated distinct or significantly elevated self-efficacy levels in certain disciplines—are rejected, and the null hypothesis is accepted.

Discussion and Conclusions

The objective of this investigation was to evaluate and compare the self-efficacy profiles of track event athletes active within the Pune Athletics Club. Based on the

statistical analysis, the mean scores across all three track groups—sprinters (32.05), middle-distance runners (31.64), and long-distance runners (31.90)—showed no significant variance. The resulting p-value of 0.931 confirms that track specialization does not generate meaningful differences in general self-efficacy among these athletes.

This uniformity can be explained by examining the baseline characteristics of the sample. The selected athletes train under the same club system, share access to uniform coaching methodologies, and possess a comparable athletic background with an average of 3 to 4 years of structured competitive experience. According to Bandura's self-efficacy theory, mastery experiences serve as the strongest driver of self-efficacy. Because these athletes have undergone similar extended training periods and shared tournament exposure, their internal appraisals of athletic capability have developed at a highly consistent rate.

While sprinters displayed a slightly higher descriptive mean, the variance within the groups outlines that overall confidence trends remain balanced across running distances. This emphasizes that systematically structured athletic environments can foster stable psychological qualities, such as self-efficacy, regardless of an athlete's specific physiological event track.

Based on the results obtained from this empirical investigation involving 64 track event athletes, the following conclusions are drawn:

1. There is no statistically significant difference in the self-efficacy levels among sprint, middle-distance, and long-distance athletes of the Pune Athletics Club.
2. The track event athletes display a homogeneous, moderately high level of general self-efficacy on average.
3. The shared experience of 3 to 4 years of structured competitive preparation and uniform coaching explains the balanced self-efficacy profiles across different running disciplines.

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