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Comparison of self-efficacy between sprinters, throwers and jumpers

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Abstract

The purpose of this study was to find out the difference of Self-efficacy between Sprinters, Throwers and Jumpers of Guru Nanak Dev University, Amritsar, Punjab, India. A Cross-Sectional study was conducted on sixteen (N=16) male Sprinters, Throwers and Jumpers (age 21-26 years). All the subjects were informed about the objective and protocol of the study. Purposive sampling was used keeping in view of administrative feasibility. The participants participated in the study voluntarily and all the subjects were informed about the objective and protocol of the study. The General Self-efficacy scale developed by Schwarzer and Jerusalem (1995) was used to measure self-efficacy of athletes. This study's data analysis procedure was divided into two sections: - Section-1: A descriptive analysis was used to describe the data distribution. Section-2: The hypothesis testing with ANOVA was included in the second section. The data was statistically analyzed using SPSS (Statistical Package for the Social Sciences) version 17 to draw conclusions. For testing hypotheses, the level of significance was set at 0.05. Sprinter had a mean value of 30.1429 and Thrower had a mean value of 22.6000. This shows that the Sprinter group performed better than Thrower group on Self-Efficacy. The Sprinter had a mean value of 30.1429 and Jumper had a mean value of 33.5000. This demonstrates that the Jumper group performed better than the Sprinter group on Self-Efficacy. The Thrower group had a mean value of 22.6000, whereas Jumper had a mean value of 33.5000. This reveals that the Jumper group performed better than the Thrower group on Self-Efficacy.

Keywords: Self-efficacy, sprinters, throwers, jumpers

Introduction

Self-efficacy (SE) refers to an individual's belief that they are able to succeed given any task that they encounter (Bandura, A. 1977)^[1]. SE can be general or task specific, allowing individuals to have a range of SE beliefs about themselves at any time. An individual's beliefs surrounding their own levels of SE can have an impact on how they feel, think and motivate themselves. This can lead to significant contrasts in behavior between individuals with differing levels of SE. Those with a strong or high sense of SE believe in their own capability deeply, seeing challenges as tasks to be mastered rather than threats to be avoided (Bandura, A. & Wood, R. 1989)^[2]. They also engross themselves into tasks and exert strong commitment. Any setbacks they encounter are easily recovered and learned from. These factors can all lead to enhanced personal wellbeing by reducing stress, resulting in the individual being less likely to experience depression. Others with a weak or low sense of SE have major doubts over their own capabilities (Gist, M. E, 1992)^[3]. This can lead to a total avoidance of challenges as they see them as threatening situations. These individuals can spend a lot of time focusing on their previous failings and this can lead to setbacks being difficult to recover from. For this reason, these individuals can be more vulnerable to depression and stress (Newman, E. J. 1997)^[4]. Self-efficacy refers to specific aspects of the self, and what it is capable to do with their abilities and skills (Bandura, 1997)^[5]. Sport psychology in many ways a comprehensive scientific field as it provides an arena for studying the interaction of human performance, thoughts and emotions (Singh et al., 2009)^[6]. Physiological arousal, emotional arousal is also of significance for self-efficacy. Furthermore, efficacy beliefs are suggested to impact upon both positive and negative affectivity. More specifically, athletes with high levels of self-efficacy are assumed to have a greater extent of positive emotions, such as happiness, enjoyment, and satisfaction, than are athletes with low levels of self-efficacy that are assumed to have higher levels of negative emotions (e.g., sadness, anxiety, and depression) (Schunk D.

H. (1995) ^[7] proposed that symptoms that signal anxiety related emotions might be interpreted by the individual (athlete) to believe that he or she lacks the required skills to perform a certain task. One of the most investigated types of thought that strongly predicts achievement behaviors, such as effort expenditure, persistence, and performance, is selfefficacy expectation (Bandura, A. 1977)^[1]. Self-efficacy beliefs that performances then appeared to be increased by the false positive feedback. Recently, (Escarti and Guzman, 1999)^[9] used a similar approach to manipulate college students' 100 m run performance. The participants who received positive feedback showed higher self-efficacy and performance than those who had received negative feedback. The existence of relationships between causal attribution, self-efficacy, and performance is well documented by research in academics. For instance, didactic training with effort and/or ability attributional feedback proved to have positive effects on children's self-efficacy and arithmetic skill development (Schunk, 1982, 1983)^[10,11].

Material and Methods Participants Participants

A Cross-Sectional study was conducted on sixteen (N=16) male Sprinters, Throwers and Jumpers (age 21-26 years). All the subjects were informed about the objective and protocol of the study. Purposive sampling was used keeping in view of administrative feasibility. The participants participated in the study voluntarily and all the subjects were informed about the objective and protocol of the study. Subjects were purposively divided into three groups:

- **Group A:** Sprinter $(N_1=7)$
- **Group B:** Thrower $(N_2=5)$
- **Group C:** Jumper $(N_3=4)$

The General Self-efficacy scale developed by Schwarzer and Jerusalem (1995) was used to measure self-efficacy of athletes. The general perceived self-efficacy scale (G.P.S.S.) developed by Schwarzer and Jerusalem (1995) assesses self-efficacy based on general personality disposition. Participants responded by indicating their extent of agreement with each of the 10 statements using a four-point scale of 1 (Not at all true), 2 (Hardly true), 3 (Moderately true) and 4 (Exactly true). Generally, the scale is self-administered, as a part of a more comprehensive questionnaire. It requires 4 minutes on average.

Statistical Techniques

This study's data analysis procedure was divided into two sections:

- Section 1: A descriptive analysis was used in the first section to describe the data distribution.
- Section 2: The hypothesis testing with ANOVA was included in the second section.

The data was statistically analyzed using SPSS (Statistical Package for the Social Sciences) version 17 to draw conclusions. For testing hypotheses, the level of significance was set at 0.05.

Results

Table 1: Descriptive analysis between male Sprinter, Thrower and Jumper with regards to variable, Self-Efficacy

Descriptive									
	Ν	Mean	Std. Deviation	Std. Error	Minimum	Maximum			
Sprinter	7	30.1429	4.70562	1.77856	25.00	38.00			
Thrower	5	22.6000	4.33590	1.93907	18.00	28.00			
Jumper	4	33.5000	2.51661	1.25831	30.00	36.00			
Total	16	28.6250	5.88643	1.47161	18.00	38.00			

The descriptive statistics (Mean and S.D) of "Self-Efficacy" of male Sprinter, Thrower and Jumper players were

30.1429±4.70562, 22.6000±4.33590 and 33.5000±2.51661, respectively.



Fig 1: Descriptives (Mean± Std. Deviation) between male Sprinter, Thrower and Jumper with regards to variable, Self-Efficacy

Table 2: Analysis of Variance (ANOVA) results between male Sprinter, Thrower and Jumper with regards to variable, Self-Efficacy

ANOVA							
	Sum of Squares	DF	Mean Square	F	Sig.		
Between Groups	292.693	2	146.346				
Within Groups	227.057	13	17.466	8.379	.005		
Total	519.750	15					

The ANOVA results for the variable "Self-Efficacy" between male Sprinter, Thrower and Jumper were statistically significant (P.05). A post-hoc test was employed to assess the direction and significance of differences between matched means because the resultant F-value (8.379) was determined to be significant.

 Table 3: Analysis of post-hoc test results between male Sprinter, Thrower and Jumper with regards to variable, Self-Efficacy

Multiple Comparisons								
Variables	(J) VAR00002	J) VAR00002 Mean Difference (I-J)		Sig.				
Sprinter (30.1429)	Thrower	7.54286*	2.44710	.028				
	Jumper	-3.35714	2.61947	.461				
Thrower (22.6000)	Sprinter	-7.54286*	2.44710	.028				
	Jumper	-10.90000*	2.80351	.007				
Jumper (33.5000)	Sprinter	3.35714	2.61947	.461				
	Thrower	10.90000^{*}	2.80351	.007				

- Sprinter had a mean value of 30.1429 and Thrower had a mean value of 22.6000. This shows that the Sprinter group performed better than Thrower group on Self-Efficacy.
- Sprinter had a mean value of 30.1429 and Jumper had a mean value of 33.5000. This demonstrates that the

Jumper group performed better than the Sprinter group on Self-Efficacy.

• The Thrower group had a mean value of 22.6000, whereas Jumper had a mean value of 33.5000. This reveals that the Jumper group performed better than the Thrower group on Self-Efficacy.



Fig 2: Mean comparison between male Sprinter, Thrower and Jumper with regards to variable, Self-Efficacy

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