Original Article

Role of Optimism and Resilience in Determining Sports Performance

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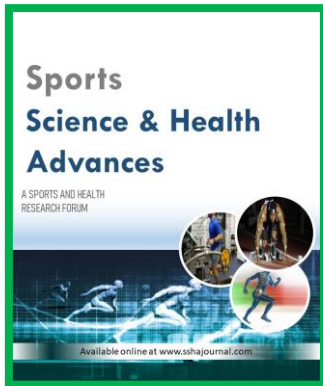
Abstract

Purpose: Optimism refers to the tendency to expect positive outcomes and see setbacks as temporary and specific rather than permanent and pervasive and Resilience is the ability to bounce back after adversities in life. The present study was conducted to find out the relationship of Optimism, Resilience and Sports Performance. **Methods:** Total 60 participants (16 Females 44 Males) across NCR region; with cross sports participants as well as achievement at distinct levels beginning from district level to national/inter-university level of age between 15 to 25 years were selected as sample. For this purpose, Revised Life Orientation Test (LOT- R), Cannor-Davidson Resilience Scale 25 and Cross Sports Athletic Rating Scale were used to collect and data was statistically analyzed using correlation and regression analysis using SPSS. **Result:** The correlation was found by Pearson's correlation and the statistical results indicate that there is a positive correlation between Optimism, Resilience and sports performance and regression analysis indicate that Resilience is a major predictor of Sports performance

Keywords: Sports Person, Resilience, Performance, Mental Health

Introduction

Sports performance is influenced by numerous factors, including physical fitness, technique, strategy, and psychological factors. Psychological factors such as motivation, self- confidence, and mental toughness are known to play a crucial role in determining sports performance (Liew et al., 2019). However, two psychological factors that have received less attention in sports research are optimism and resilience.

Optimism refers to the tendency to expect positive outcomes and see setbacks as temporary and specific rather than permanent and pervasive (Luthans et al., 2014). Resilience, on the other hand, refers to the ability to bounce back from setbacks and maintain motivation in the face of challenges (Stoverink et al., 2020). Optimism and resilience are two important psychological factors that can significantly impact sports performance. Optimism is the belief that positive outcomes are more likely to occur than negative ones, while resilience refers to the ability to bounce back from adversity and maintain one's focus and motivation in the face of challenges. Both optimism and resilience are considered important factors for coping with stress and adversity in daily life, but their role in sports performance remains unclear. These

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factors can have a positive impact on sports performance, and athletes who possess these traits are often more successful than those who do not.

Research has shown that optimism and resilience can impact sports performance in several ways. For example, athletes who are optimistic tend to have higher levels of motivation and are more likely to set challenging goals for themselves. This can help them stay focused and committed to their training, leading to better performance on the field. Similarly, athletes who are resilient are better able to handle setbacks and challenges that may arise during their training or competition. They are more likely to maintain their focus and motivation, even when facing difficult circumstances, and are better able to bounce back from setbacks.

Studies have also shown that optimism and resilience can have a positive impact on an athlete's physical health. Athletes who possess these traits tend to have better immune system functioning, which can help them recover more quickly from injuries and illnesses (Reardon et al., 2019). They may also be less susceptible to the negative effects of stress, such as high blood pressure and heart disease (Borjesson et al., 2016).

Another important aspect of optimism and resilience in sports performance is their impact on an athlete's mental health. Athletes who possess these traits tend to have lower levels of anxiety and depression, which can interfere with their performance on the field (Reardon et al., 2019). They are also more likely to have a positive attitude towards their sport, which can help them maintain their motivation and focus even during difficult times.

In addition to these individual factors, optimism and resilience can also impact team performance. Athletes who possess these traits are often better able to work together as a team and support one another during challenging times. They are more likely to maintain a positive attitude towards their team and their sport, which can help them stay motivated and committed to their training and competition (Kaufman & Wolff, 2010).

In conclusion, optimism and resilience are two important factors that can significantly impact sports performance. Athletes who possess these traits are often more successful than those who do not, as they are better able to maintain their focus, motivation, and commitment in the face of challenges. Coaches and trainers can help athletes develop these traits by providing them with positive feedback, challenging goals, and opportunities for growth and development (Putukian, 2016). By doing so, they can help their athletes achieve their full potential and succeed both on and off the field.

The present paper aims to examine the role of optimism and resilience in determining sports performance. The study used a systematic review approach to analyse the relevant literature on the topic.

Literature Review

Seligman's (1998) book "Learned Optimism" is a seminal work in the field of positive psychology, which explores the idea that optimism can be learned and developed. Seligman argues that people's explanatory style, or the way they interpret and explain events, plays a critical role in their mental health and well-being. Specifically, he suggests that individuals who exhibit an optimistic explanatory style, characterized by a tendency to view setbacks as temporary, specific, and external, are better able to cope with stress and adversity, and are more likely to experience positive outcomes in life.

Gillham and Seligman (1999) discussed the evolution of positive psychology and its potential impact on the field of mental health. The authors noted that traditional psychology has focused primarily on the negative aspects of human behavior, such as mental illness and dysfunction. However, they argued that a more balanced approach is necessary, one that acknowledges the positive aspects of human behavior and emotion. This perspective is particularly relevant to the role of optimism and resilience in sports performance.

The article "Factors affecting Olympic performance: Perceptions of athletes and coaches from more and less successful teams" by Gould, Guinan, Greenleaf, Medbery, and Peterson (1999) aimed to explore the factors that influence Olympic performance, as perceived by athletes and coaches from both successful and less successful teams. The

authors conducted interviews with 26 coaches and 62 athletes from 12 different sports, who had participated in the Olympic Games in the past. They were asked to identify factors that they believed contributed to their team's success or failure in the Games.

Galli and Vealey's (2008) study examined the relationship between optimism and athletic persistence and performance. The authors found that athletes who had higher levels of optimism were more likely to persist in the face of setbacks and perform well in competition. The authors also noted that optimism can help athletes maintain a positive mindset and reduce the negative impact of stress on their performance. The findings from this study support the idea that optimism plays a key role in determining sports performance.

Gucciardi et al. (2011) explored the dimensionality and age-related measurement invariance of the Connor-Davidson Resilience Scale (CD-RISC) with Australian cricketers. The CD- RISC is a commonly used instrument to measure an individual's resilience, which is the ability to cope and adapt to adversity. The researchers aimed to investigate if the CD-RISC could accurately measure resilience in the sport of cricket and if the scale was invariant across different age groups of athletes.

The Connor-Davidson Resilience Scale (CD-RISC) is a well-established measure of resilience that has been widely used in sports psychology research. Gucciardi et al. (2011) sought to examine the dimensionality and age-related measurement invariance of the CD- RISC with Australian cricketers. The study included 353 male cricketers ranging in age from 17 to 47 years old. Results showed that the CD-RISC demonstrated a unidimensional factor structure, supporting its use as a measure of overall resilience in this population. Additionally, the researchers found evidence of measurement invariance across age groups, suggesting that the CD-RISC can be used to compare levels of resilience between younger and older athletes.

Maddux (2000) reviewed the concept of self-efficacy and its implications for various domains, including sports performance. Self-efficacy refers to an individual's belief in their ability to successfully execute a particular task or behavior. The author discussed the role of self-efficacy in determining sports performance, explaining that athletes with higher self- efficacy are more likely to set challenging goals and persist in the face of obstacles.

The study by Ntoumanis, Taylor, and Standage (2010) aimed to test the effectiveness of a self-determination theory (SDT)-based teaching intervention in promoting exercise behavior. The authors proposed that the intervention, which focused on providing choice, feedback, and autonomy support to participants, would enhance their motivation, attitudes, and exercise behavior. The study involved 99 adults who were assigned to either a treatment or control group.

Oades, Robinson, Green, and Spence (2011) conducted a literature review on the positive psychology of resilience in sport. The authors discussed the importance of resilience in sports and how it can be cultivated through various interventions. They argued that resilience is a critical component of sports performance, as athletes are often faced with challenges and setbacks that can negatively affect their psychological well-being and performance.

Mahoney, Gucciardi, Ntoumanis, and Mallett (2014) conducted a study to explore the motivational antecedents and associations of mental toughness with performance and psychological health in sport. The study involved 300 athletes from various sports, who completed self-report questionnaires on mental toughness, achievement motivation, self-determined motivation, perfectionism, self-efficacy, and well-being. The results showed that mental toughness was positively associated with achievement motivation, self-determined motivation, and self-efficacy, and negatively associated with perfectionism. Additionally, mental toughness was found to be positively associated with performance and psychological well-being.

Vuorre, Koivula, and Yli-Piipari (2018) examined coping strategies and their relationship with athlete burnout, investigating both stress-mediated and stress-moderated models. Their study involved 428 Finnish athletes from various sports, who completed self-reported measures of coping strategies, perceived stress, and athlete burnout. The

results of the study indicated that coping strategies had a direct effect on athlete burnout, with higher levels of problem-focused coping and lower levels of emotion-focused coping associated with lower burnout. Additionally, perceived stress partially mediated the relationship between coping strategies and burnout, with athletes who used problem-focused coping strategies reporting lower levels of perceived stress, and consequently lower levels of burnout.

Li and Li (2019) conducted a study in China to investigate the impact of athlete optimism on athlete burnout, and whether resilience played a mediating role in this relationship. The study involved 510 Chinese athletes from a variety of sports, who completed self-report questionnaires to measure their levels of optimism, resilience, and burnout. The results indicated that athlete optimism had a negative relationship with athlete burnout, meaning that athletes who were more optimistic experienced lower levels of burnout. Furthermore, resilience was found to play a mediating role in this relationship, suggesting that the positive effect of athlete optimism on burnout was partially explained by higher levels of resilience.

Purpose: The purpose of the present study is to assess the relationship between Optimism, Resilience and Sports Performance.

Hypothesis: (i) There will be positive relationship between Optimism, Resilience and Sports Performance. (ii) Sports Performance can be significantly predicted by Optimism and Resilience of athletes.

Limitations

- An increase in sample size and choosing a sample of elite sportsperson would give more reliable results.
- The sports, performance can be evaluated by two ways:
- By direct outcome numbers calculated practically on the field by getting the coaches to fill an evaluation questionnaire. The present study used the latter method; the future researches would be more authentic if they use the combination of both the methods.

Methodology

Participants

A total of 60 participants (16 female 44 male) across NCR region, with cross sports participants as well as achievement at distinct levels beginning from district level to national/inter-university level of age between 15 to 25 years took part in this research.

Measures

1. Revised Life Orientation Test (LOT-R) is a 10-item measure on optimism created by Scheier & Carver,1992) It is measure on a five point Likert scale, ranging from "strongly Disagree" to " strongly Agree".

2. Cannor-Davidson Resilience Scale 25 (CD-RISC-25) is a 25-item measure on resilience created by Connor Davidson. It is measure on a five-point Likert scale, ranging from" not true at all" to "true nearly all the time".

3. Cross Sports Athletic Rating Scale is a 37 - item Scale made for comparing the characteristics of successful athletes in sports, given by Darhi M, Pedersen and Craig L Manning (2003). It consists of five dimensions namely self-motivation, mental skills, emotional ability, athletic ability and character, all items are answered using a 5-point Likert scale

Procedure

The participants who were taking part in this research were informed about the purpose of this research and the questionnaires were given to them for filling and instructions were given according to the questionnaires. Each participant was thanked individually for their cooperation and their kind help and was told that they can access their results as well and can leave the research if they don't want to be a part of it

Result

To achieve our objective and to support our first hypothesis correlations were found out to Find the relation between all the variables.

Table 1 Mean, S.D of Resilience, Optimism and Sports Performance

Variables	N	Mean	Standard Deviation
Age	60	21.40	3.46
Resilience	60	80.32	12.32
Optimism	60	20.15	2.59
Sports Performance	60	149.40	18.56

Table 2 Correlation between Resilience, Optimism and Sports Performance

Variables	Resilience	Optimism	Sports Performance
Resilience	1	.394**	.740**
Optimism	.394**	1	.444**
Sports Performance	.740**	.444**	1

The mean age of the athletes is 21.40 years and S.D. in age is 3.46. The Resilience, Optimism and Sports Performance is 80.32±12.32, 20.15±2.59 and 149.40±18.56 respectively. The results in the table indicate that Resilience scores are positively related with Sports Performance. Resilience was found to have high positive relationship with Optimism (r= .394**, p< 0.01) and Sports Performance (r= .740**, p< 0.01). The table also revealed positive relationship of Optimism with Sports Performance (r= .444**, p< 0.01). Therefore, the findings support the first hypothesis.
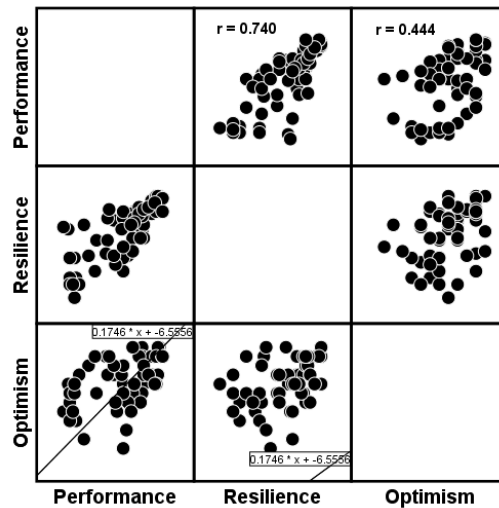

Figure 1 Correlation Matrix

Table 3: Regression Analysis for Sports Performance as Dependent Variable

Predictors	R square	Adjusted R square	df	F	Sig.	Unstandardized coefficients		Standardized coefficients	t		Sig.
						B	Std. Error	Beta			
Optimism	.575	.560	2	38.575	.000	1.01	1.43	.669	7.12		.000
Resilience			57			1.29	.672	.181	1.92		.060

To support the second hypothesis Multiple Regression using Enter method was carried out to know whether Optimism and Resilience are significant predictor of Sports Performance. Table 3indicates multiple regression analysis that was run using enter method to predict sports performance from Optimism and Resilience. These variables significantly predicted Sports Performance, F (2, 57) = 38.57, p < .005, R square = .575. Moreover, R square = .575 indicates the model explains 57.5% of the variance in sports performance. All two variables added statistically significantly to the prediction, p < .05. The findings of the table support second hypothesis.
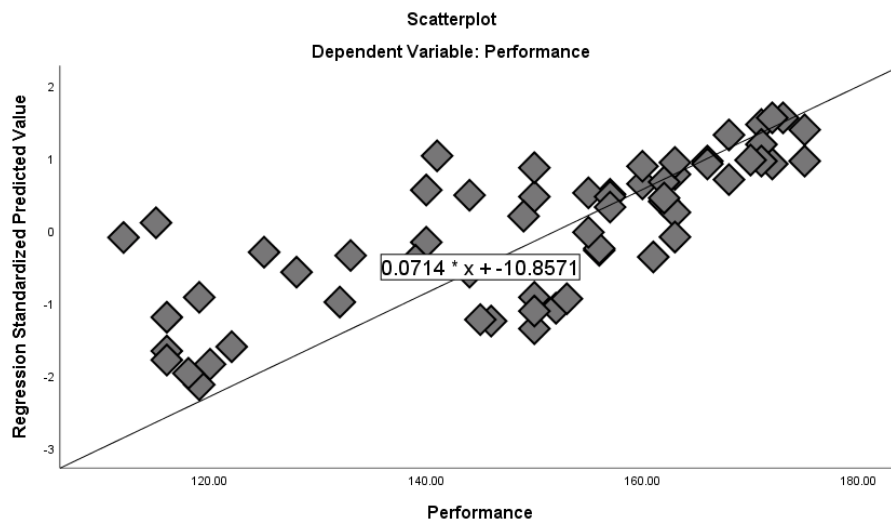
Figure 2 Scatter plot showing residual of performance and psychological variables

Conclusion

The present study aimed at finding the correlation and regression between Optimism, Resilience and Sports Performance among the North Indian Athletes. The correlation was found by Pearson's correlation and the statistical results indicate that there is a positive correlation between Optimism, Resilience and sports performance. Although regression analysis indicates us that Resilience is a major predictor of Sports performance.

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