

## Role of Resilience and Self-Esteem in Determining Sports Performance

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### ABSTRACT

Resilience in sports psychology is a key psychological factor of sports activities. It can be also be defined as the bouncing back of an individual from any traumatic experience or disturbances. Self-esteem is also a critical variable that impact on sports performance. Self-esteem is an overview of an individual about himself. It's a confidence in one's own worth and abilities. The purpose of this study was to assess the relationship between resilience, self-esteem and sports performance. To achieve the purpose this study examined 100 athletes including 60 males and 40 females across North India, with cross sport participation as well as achievement at distinct levels participated in the study for this objective. All subjects completed the Nicholson McBride Resilience Questionnaire developed by McBride 2010 designed to measure resilience level, Rosenberg Self-esteem Scale developed by Rosenberg M. 1965 which examines self-esteem and their coaches' ratings on several sports performance dimensions were also collected using Cross Sport Athletic Rating Scale developed by Darhl M. Pedersen And Craig L. Manning 2003. Our findings indicated that that resilience and self-esteem plays a vital role in influencing sports performance. The present research is productive for athletes in recognizing their self-esteem and resilience level and how it facilitates or impedes their sports performance. It likewise shows that recognizing confidence and resilience of players is vital in light of the fact that mentors by distinguishing players' characteristics could utilize them in best occasions and reasonable positions. Likewise, by knowing players in setting of their resilience and confidence, the mentors can handle them during the games. Another implication of this investigation is the likely chance to incorporate exploration around here. Practical implications also focus on carrying out training direction identified with the improvement of mental attributes related with athletic achievement.

**Keywords:** Resilience, Self-esteem, Sports performance, Motivation, Athletes

Resilience alludes to "positive transformation or the capacity to keep up with or recapture emotional well-being, regardless of encountering misfortune." (Wald, Taylor & Asmundson, 2006). Sorkkila, Tolvanen, Aunola and Ryba (2019) in their longitudinal study divided student-athletes into three profiles: average profile, increased

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burnout profile, and non-risk profile. They found out that athletes in increased burnout profile were less resilient and were more likely to drop from school. Luthans (2002a, pg 702) defined Resilience as "developable ability to bounce back or skip back from misfortune, struggle and disappointment or even certain occasions, progress and expanded liability." Ali, Mohammad, Besharat (2010) found out the relationship of resilience and hardiness with sport achievement and intellectual fitness in a group of athletes and revealed that resilience and hardiness can expect adjustments of recreation fulfillment and mental fitness in athletes. Hardiness researchers endorse that athletes with excessive ranges of the construct of resilience display better levels of sport performance (Golby & Sheard, 2004; Maddi & Hess, 1992). Sheard and Golby (2011) diagnosed that a psychological profile that includes excessive stages of hardiness seems to distinguish elite-stage competitors from sub-elite performers. Fletcher and Sarkar (2012) revealed the connection among mental resilience and superior sport performance outcomes greater the information of the role of resilience in athletes' lives and accomplishment of greatest game performance.

Self-esteem is a term used to describe a person's overall subjective sense of his personal worth. It means that what a person appreciate and feel about himself. Self-esteem consists of many factors like confidence, belongingness, identity, competence, feeling of security etc. According to Burns the beliefs and evaluations people hold about themselves determine who they are, what they can do and what they can become (Burns 1982). Madlem and bridges (2007) did a study on eight class students who participated in physical education and yoga class and examine their self-esteem after these classes. The results showed that after observing them for eight-weeks, there was an increase in their self-esteem in both experimental and control groups. The study revealed that yoga and physical activity plays an important role in enhancing self-esteem. Soyer (2011) did a study to find out the relation between self-esteem and the motivation to succeed and examine their correlation with age, sports experience, sports type, gender and education level and he revealed that there was a significant relation between self-esteem and gender and also between self-esteem values of athletes in team and individual sports.

Sports performance is the way of measuring sports participation. Sports performance is a compound aggregate of biomechanical characteristic, emotional elements, and education strategies. Performance in an athletic situation has a favored nuance of illustrating the pursuit of excellence, wherein an athlete evaluates his/ her overall performance as a route in the direction of perfection or success. Analysing sports performance has obtained great interest for many contributors like Coaches, Technical staff, Analysts, players etc. (Borms, 2008). Mummery, Schofield and Perry (2004) identified how self-concept, social support and coping style can act as defensive elements against the probably deleterious outcomes of bad performance in competitive sport and found that a high concept of bodily endurance, appropriate self-perceptions for peaking underneath stress and managing adversity, and a stage of independence from social help are vital elements in swimming overall performance. Agans, Su and Ettekal (2018) did a study on 655 adolescent athletes and analysed that the character at the three levels (athletes themselves, by their team mates and game) assessed and found positive character even when the peer climate involved high intra team competition. Vealey et al. (2008) shared his views that confidence is needed for athletes to swing to have consistent success in sports. If an athlete wants to have consistency in his game he should focus on his previous performances and think where he failed and thus leads to success in future. Hanton, Evans and Neil (2003) did a study on 199 sportspersons and found out that Elite athletes have higher hardiness, commitment and control than lower level athletes.

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Need to conduct this research is to highlight the sector of sports activities as the sphere of sports psychology in India is rising however not established yet. Preceding researches conducted worldwide have studied the variables like resilience, self-esteem, personality developments, motivation and sports activities performance on athletes of their native countries or elite athletes of the world however there's a lack of studying these variables at the Indian athletes.

### *Purpose*

The purpose of the present study is to assess the relationship between Resilience, Self-esteem and Sports Performance.

### *Hypothesis*

- There will be positive relationship between Resilience, Self-esteem and factors of Sports Performance.
- Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes.

## **METHODOLOGY**

### *Sample*

A total of 100 participants (60 male and 40 female) across NCR region, with cross sport participation as well as achievement at distinct levels beginning from district/school level to national/inter-university level of age between 18-30 years took part in this research.

### *Measures*

- **Nicholson McBride Resilience Questionnaire (NMQR)** is a 12 item measure on resilience, created by McBride (2010). It is measure on a five point Likert scale, ranging from “strongly disagree” to “strongly agree”.
- **Rosenberg Self Esteem Scale** is a 10-item scale that measures self-esteem of an individual by measuring both positive and negative feelings about himself created by Rosenberg (1965). It is a measure using a 4-point Likert scale format ranging from strongly agree to strongly disagree.
- **Cross Sport Athletic Rating Scale** is a 37-item scale made for comparing the characteristics of successful athletes in sports, given by Darhl M. Pedersen and Craig L. Manning (2003). It consists of 5 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 were 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.

## **RESULTS AND DISCUSSIONS**

### *Analysis of Data*

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

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**Table 1: Correlation between Resilience, Self-Esteem and Factors of Sports performance (N=100)**

	Resilience	Self-Esteem	Factors of Sports Performance				
			Self-Motivation	Mental Skills	Emotional Stability	Athletic Ability	Character
Resilience	1	.572**	.722**	.867**	.389**	.392**	.316**
Self-Esteem	.572**	1	.509**	.446**	.071	.225*	.242*

Note. \* $p < .05$ . \*\* $p < .01$ .

The results in the table revealed that resilience scores were positively correlated to self-esteem and all of the factors of sports performance. Resilience was found to have a high positive correlation with self-motivation ( $r=0.722$ ,  $p<0.01$ ) and mental skills ( $r=0.867$ ,  $p<0.01$ ) and low positive correlation with emotional stability ( $r=0.389$ ,  $p<0.01$ ), athletic ability ( $r=0.392$ ,  $p<0.01$ ) and character ( $r=0.316$ ,  $p<0.01$ ) and it also have moderate positive correlation with self-esteem ( $r=0.572$ ,  $p<0.01$ ). The table also revealed that self-esteem scores were positively correlated to most of the factors of sports performance. Self-esteem was found to have a positive moderate correlation with self-motivation ( $r=0.509$ ,  $p<0.01$ ) and mental skills ( $r=0.446$ ,  $p<0.01$ ) and negligible correlation with emotional stability ( $r=0.071$ ) and a low positive correlation with athletic ability ( $r=0.225$ ,  $p<0.05$ ) and character ( $r=0.242$ ,  $p<0.05$ ). Therefore, the findings supported the stated hypothesis. “There will be positive relationship between Resilience, Self-esteem and factors of Sports Performance.” However, Self-esteem is found to have a negligible correlation with one factor of sports performance i.e. ‘Character’. The findings of this study is consistent with the Ali, Mohammad, Besharat (2010) who explored the association of resilience and hardiness with sport achievement and intellectual fitness in a sample of athletes and deduced that resilience and hardiness can expect adjustments of recreation fulfillment and mental fitness in athletes. The present finding can also be inclined with the findings of Maleki, Mohammadzadeh, Syed & Sani (2011) who found out the relation between self-esteem and motivation and thus self-esteem was higher in successful athletes compared to unsuccessful athletes. This is consistent with the previous researches of resilience and sports performance such as Meggs, Golby, Mallett, Gucciard, Polman (2016) studied resilience in elite swimmers and discovered, resilience significantly predicted sport performance.

### Step Wise Multiple Regression

To support our second hypothesis Stepwise Multiple Regression was carried out to know whether Factors of Sports performance can be significantly predicted by Resilience, Self-esteem and Age (N=100).

#### Stepwise Multiple Regression for Self-motivation as Dependent Variable

Model	Predictors	R-square	Sum of Squares	Df	Unstandardized coefficients		Beta	t	F	Sig.
					B	Std. error				
1	Resilience	0.521	6006.341	99	.935	.091	.722	10.316	106.422	.001

#### Excluded Variables

Model	Predictors	Beta	t	Sig	Partial Correlation	Collinearity Statistics (Tolerance)
1	Self-esteem	.144	1.702	.092	.170	.673
	Age	-0.23	-0.326	.745	-0.33	.996

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The dependent variable Self-Motivation was regressed on predicting variables Resilience, Self-esteem and Age to test the hypothesis. The stepwise technique was used, with an inclusion threshold of probability less than 0.05 and an exclusion value of more than 0.05 (n=100). The regression revealed that Self-esteem and Age did not satisfy the criterion and hence excluded and only Resilience was accepted. The model indicates that Resilience significantly predicted Self-motivation (b=.935, p<.001) so it partially supported the hypothesis. "Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes." Moreover, the R<sup>2</sup>=0.521 illustrates that the model explains 52.1% of the variance in Self-motivation.

### *Stepwise Multiple Regression for Mental Skills as Dependent Variable*

Model	Predictors	R-square	Sum of Squares	Df	Unstandardized coefficients		Beta	t	F	Sig.
					B	Std. error				
1	Resilience	0.712	5579.521	99	.901	.052	.867	17.253	297.688	.001

### *Excluded Variables*

Model	Predictors	Beta	t	Sig.	Partial Correlation	Collinearity Statistics (Tolerance)
1	Self-esteem	-0.074	-1.212	.229	-0.122	.673
	Age	.063	1.251	.214	.126	.996

Another dependent variable Mental Skills was regressed on predicting variables Resilience, Self-esteem and Age to test the hypothesis (n=100). The regression revealed that Self-esteem and Age failed to satisfy the criterion and hence excluded. Therefore, only one predictor variable is accepted i.e., Resilience. The model showed that Resilience significantly predicted Mental Skills (b=.901, p<.001) so it partially supported the hypothesis. "Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes." All the variables together explained 71.2% of the variance in Mental Skills.

### *Stepwise Multiple Regression for Emotional Stability as Dependent Variable*

Model	Predictors	R-square	Sum of Squares	Df	Unstandardized coefficients		Beta	t	F	Sig.
					B	Std. error				
1	Resilience	0.151	322.320	99	.217	.052	.389	4.175	17.434	.001
2	Resilience	0.185	394.962	98	0.288	.062	0.517	4.629	11.014	.001
	Self-esteem				-0.255	.127	-0.225	-2.013		.047

### *Excluded Variables*

Model	Predictors	Beta	t	Sig.	Partial Correlation	Collinearity Statistics (Tolerance)
1	Self-esteem	-0.225	-2.013	.047	-0.200	.673
	Age	-0.033	-0.357	.722	-0.36	.996
2	Age	-0.46	-0.498	.619	-0.051	.992

Emotional Stability also regressed on predicting variables Resilience, Self-esteem and Age (n=100). At first, Self-esteem and Age were excluded and only Resilience significantly predicted Emotional Stability (b=.217, p<.001) whereas in second case Resilience (b=.288, p<.001) and Self-esteem (b=-0.255, p<.05) significantly predicted Emotional Stability when combined together and Age is excluded for not satisfying the criteria hence, it partially

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supported the hypothesis. “Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes.” Additionally the  $R^2=0.151$  in first case explained 15.1% of the variance in Emotional Stability when Self-esteem and Age were excluded and 18.5% of the variance in the second case when only Age was excluded.

### Stepwise Multiple Regression for Athletic Ability as Dependent Variable

Model	Predictors	R-square	Sum of Squares	Df	Unstandardized coefficients		Beta	t	F	Sig.
					B	Std. error				
1	Resilience	0.153	104.203	99	.123	.029	.392	4.214	17.754	.001

### Excluded Variables

Model	Predictors	Beta	t	Sig	Partial Correlation	Collinearity Statistics (Tolerance)
1	Self-esteem	.001	.011	.992	.001	.673
	Age	.072	.768	.444	.078	.996

Athletic Ability which was the dependent variable regressed on Resilience, Self-esteem and Age which were the independent variables. The stepwise method was followed having inclusion criterion of probability less than 0.05 and for exclusion the probability being greater than 0.05 (n=100). The regression highlighted that Self-esteem and Age were not satisfying the inclusion criterion and hence excluded. However, Resilience was the only variable which satisfy the criterion and was accepted. Resilience significantly contributed towards Athletic Ability (b=.123,  $p<.001$ ) therefore it partially supported the hypothesis. “Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes.” Moreover, the  $R^2=.153$  illustrates that the model explains 15.3% of the variance in Athletic Ability.

### Stepwise Multiple Regression for Character as Dependent Variable

Model	Predictors	R-square	Sum of Squares	Df	Unstandardized coefficients		Beta	t	F	Sig.
					B	Std. error				
1	Resilience	0.100	168.106	99	.156	.047	.316	3.302	10.904	.001

### Excluded Variables

Model	Predictors	Beta	t	Sig	Partial Correlation	Collinearity Statistics (Tolerance)
1	Self-esteem	.090	.772	.442	.078	.673
	Age	-0.093	-0.967	.336	-0.098	.996

Another dependent variable Character was regressed on independent variables Resilience, Self-esteem and Age (n=100). The regression revealed that Self-esteem and Age did not satisfy the inclusion criterion and hence excluded. The model showed Resilience significantly predicted Character (b=.156,  $p<.001$ ) thus it partially supported the hypothesis. “Factors of Sports Performance can be significantly predicted by Resilience, Self-esteem and Age of athletes.” However, the  $R^2=.100$  explains that the model showed 10% of the variance in Character.

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According to our regression results we can say that Sports Performance can predict both Resilience and Self-esteem in athletes but Age cannot be predicted. Although Resilience was the major predictor in all cases.

### CONCLUSION

The present study aimed at finding the correlation and regression between Resilience, Self-esteem 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 Resilience, Self-esteem and the factors of sports performance. However, Self-esteem is found to be in a negligible correlation with Emotional stability. Although regression analysis indicates us that Resilience is a major predictor of Sports performance whereas in the case of Emotional Stability (Factor of Sports performance) Resilience and Self-esteem both can be used to predict Emotional Stability and Age does not play any role in determining Sports Performance.

### Limitations

- As far as this present investigation is concerned there are few limitations that are needed to be considered and addressed when conducting the further researches in this field.
- An increase in sample size and choosing a sample of elite sportsperson would give more reliable results.
- Experimenter error, subject's and coach's biasness while performing or scoring the tests should be taken care of.
- Cross cultural differences and gender differences should be taken care of.
- In sports, performance is evaluated by two ways a) by direct outcome numbers calculated practically on the field b) by getting the coaches to fill an evaluation questionnaire. This study used the latter method, the future researches would be more authentic if they use the combination of both the methods.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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