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## A comparative study of selected psychological variables among junior national level long jump and high jump athletes

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### Abstract

The aim of this study was a comparative study of selected psychological variables among junior national level long jump and high jump Athletes. The data was collected through questionnaire method and the total subjects were selected simple random method and 200 boys' junior national level athletes and the age group is 18 years to 20 years. They are equally divided in two groups. That is one is 100 athletes in long jump and 100 athletes in high jump. Selected from junior national level athletic championships during the academic year 2015-2016. The tools is Eysenck's Personality Questionnaire (EPQ), State Train Anxiety Test Inventory (STAT), and Self-Concept Questionnaire (SCQ). These questionnaires are used for the measure psychological variable among junior national level long jump and high jump Athletes. The data is interpreted through SPSS statistic software and then use the statistical tools for mean, Standard Deviation (SD) and T-Value and t-ration was employed at 05 level confidence.

**Keywords:** Psychotics, neuroticism, extroversion, introversion

### Introduction

Psychology is the scientific study of mind and behavior. The word psychology comes from the Greek words psyche, meaning life, and logos, meaning explanation. Psychology is a popular major for students, a popular topic in the public media, and a part of our everyday lives.

Personality is derived from the word "persona" which means theatrical mask which the dramatic persons i.e. actors used in a play in the days of ancient Greek civilization later it was used by Romans.

Eysenck defined personality as the more or less a reflection of a person's character. His thinking, intelligence and his physical appearance which shows his adjustment to the surroundings he is moving. Personality can be the image got or created to show to the outer world. It can also be the changes in the human behavior as he matures and in the environment he is developed.

The Extraversion is a personality trait. The extrovert person's orientation is towards the external world. He deals with the people intelligently and smartly. He is a relax guy, friendly and socially active. In Eysenck's term Extraversion stands for central excitatory / inhibitory level and sociability.

If you have depression you can feel low, lack motivation and energy, have feelings of guilt and may experience a loss of appetite or sleep. If you have severe clinical depression, you may experience psychotic symptoms which are usually particularly pessimistic and self-blaming, such as believing that you are responsible for something when you are not.

Neuroticism is a long-term tendency to be in a negative emotional state. People with neuroticism tend to have more depressed moods - they suffer from feelings of guilt, envy, anger and anxiety, more frequently and more severely than other individuals. Neuroticism is the state of being neurotic. Those who score highly on neuroticism tend to be particularly sensitive to environmental stress and respond poorly to it. They may perceive every day, run-of-the-mill situation as menacing and major; trivial frustrations are problematic and may lead to despair.

Self-concept is the way people think about themselves. It is unique, dynamic, and always evolving. This mental image of oneself influences a person's identity, self-esteem, body

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image, and role in society. As a global understanding of oneself, self-concept shapes and defines who we are, the decisions we make, and the relationships we form. Self-concept is perhaps the basis for all motivated behavior [16].

The increased stress of games can harm players both physically and mentally, that can have negative impact on their performance. They may become tense, heart beats may change, heavy sweating, getting worried about the matches, they find it hard to concentrate on the game. Sports psychology deals with mental strength and how the pressure can be handled. But it can also happen that nothing is working and only few motivational words before the match can change the game positively.

Anxiety is a part of psychological factor is a complex emotional state associated by g fear and tension. Anxiety plays an important role in human behavior, it is the main problem. Anxiety is an unpleasant state of inner turmoil and apprehension, often accompanied by nervous behavior, such as pacing back and forth, somatic complaints and rumination. It is the subjectively unpleasant feelings of dread over something unlikely to happen, such as the feeling of imminent death. Anxiety is feeling unrealistic fear, worry, and uneasiness, usually generalized and unfocused. It is often accompanied by restlessness, fatigue, problems in concentration, and muscular tension.

Modern sport gives more importance to the psychology and fitness of the players as both the factors play important role in a game. Physical trainers and coaches think that psychological preparation can increase the chance of success in the competitions. Several studies revealed that the mind, environment, psychological variables and the level of performance is dependent upon the player psychological makeup.

**Methodology**

The Primary and Secondary data use for the present study. Use the Psychological Test that is the Eysenck’s Personality Questionnaire-R (EPQ-R) by H. J Eysenk, State-Trait Anxiety Test (STAT), designed and developed by Sanjay Vohra, and Self-Concept Questionnaire (SCQ) Developed by the Dr. Raj Kumar Saraswat, Reader in Psychology NCERT New Delhi. To used observation method according to the research method. Data is collected through questionnaire on junior national level long jump and high jump Athletes.

**Research Variables**

Dependent Variables : All Inventory/Questionnaires  
 Independent Variables : Long jump and High jump Athletes

**Sampling and Samples**

The total 200 population samples are selected for this study. They are equally dived in two groups. That’s one is 100 players in Long jump and other 100 players in High jump from selected Junior National level Championships during the academic year 2015-16. These samples are selected by the simple random method.

**Procedure and Tools**

The Primary and Secondary data use for the present study. Use the Psychological variable that is the EPQ-R by H. J. Eysenk, STAT by Sanjay Vohra, and SCQ by Dr. Raj Kumar Saraswat. 100 players are selected in each event; there age group is 18 to 20 boys. They have participated in Junior National Athletic Championship. The total 200 population samples are selected

for the study. They are equally dived in two groups. That’s 100 athletes in Long jump and other 100 Athletes in High jump. These samples are selected by the simple random method. Including in the tools is Eysenck’s Personality Questionnaire (EPQ), State Train Anxiety Test Inventory (STAT), and Self-Concept Questionnaire (SCQ). These questionnaires are used for the measure psychological variable among Junior National level Long jump and High jump Athletes. The Eysenck’s Personality Questionnaire (EPQ-R) for the validity for boy is P=5.66+4.02, E=10.67+5.22, N=13.39+6.06, L=9.62+5.12 and their reliability of boy is P=.83, E=.90, N=.89 & L=.86, The State-train Anxiety Test Inventory (STAT) validity is Gp=.86, Ma=.77, Ss=.80, Su=.77, Tn=.73 and their reliability is Dimension wise Gp=.93, Ma=.87, Ss=.82, Su=.86, Tn=.92 the total score=.88, and that same of self-concept questionnaire (SEQ) for the validity is. 91 and their reliability is less than 80%.

Questionnaire were distributed to the Junior National Level Athletes Long jump and High jump, investigator give the instruction; and introduced to rules and norms for the related questionnaire before filling all questionnaire from the Athletes. Then statically analyses on collected data filling by the Athletes.

**Statistical Analysis and Result**

T-ratio will be computed to compare, the significant differences between Long jump and High jump Athletes. To examine significant difference in Long jump and High jump Athletes t-ration was employed at 0.05 level of confidence (or suitable test ), t-Test for Difference of two Mean.

The significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Psychotics

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Psychotics average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to psychotic’s average score.

**Table 1:** Athletes Psychotics Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	8.29	3.77	0.008
High Jump	100	6.98	3.11	

(Significant value 0.05\*)  
 (Statistical analysis with SPSS Software)

**Result**

The 100 Long jump Athletes we observe that P-Value = 0.008 is less than the alpha (α) level (=5%).

∴H<sub>0</sub>: There is no significant personality difference between Long jump and High jump athletes with regards to psychotic’s average score. This hypothesis is rejected. There is significant personality difference between Long jump and High jump Athletes with regards to psychotic’s average score.

**The significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Neuroticism**

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Neuroticism average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to Neuroticism average score.

**Table 2:** Athletes Neuroticism Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	9.94	4.16	0.864
High Jump	100	9.85	3.2	

(Significant value 0.05\*)  
(Statistical analysis with SPSS Software)

**Result**

We observe that P-Value = 0.864 is greater than the alpha ( $\alpha$ ) level (=5%).  
∴ We accept H<sub>0</sub>.

There is no significant personality difference between Long jump and High jump with regards to neuroticism average score.

The Significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Extraversion

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Extraversion average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to Extraversion average score.

**Table 3:** Athletes Extraversion Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	14.06	3.3	0.552
High Jump	100	14.33	3.11	

(Significant value 0.05\*)  
(Statistical analysis with SPSS Software)

**Result**

We observe that P-Value = 0.552 is greater than the alpha ( $\alpha$ ) level (=5%).  
∴ We accept H<sub>0</sub>.

There is no significant personality difference between Long jump and High jump with regards to Extraversion average score.

The significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Lie Score

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Lie score average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to Lie score average score.

**Table 4:** Athletes Lie Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	11.98	2.47	0.141
High Jump	100	11.38	2.87	

(Significant value 0.05\*)  
(Statistical analysis with SPSS Software)

**Result**

We observe that P-Value = 0.141 is greater than the alpha ( $\alpha$ ) level (=5%).  
∴ We accept H<sub>0</sub>.

There is no significant personality difference between Long jump and High jump Athletes with regards to Lie score average score.

The significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Anxiety

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Anxiety average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to Anxiety average score.

**Table 5:** Athletes Anxiety Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	33.22	7.7	0.395
High Jump	100	36.15	33.44	

(Significant value 0.05\*)  
(Statistical analysis with SPSS Software)

**Result:** We observe that P-Value = 0.395 is greater than the alpha ( $\alpha$ ) level (=5%).  
∴ We accept H<sub>0</sub>.

There is no significant personality difference between Long jump and High jump Athletes with regards to Anxiety average score.

The significant Personality difference between Junior National Level Long jump and High jump Athletes with regards to Self-Concept

**Null Hypothesis: H<sub>0</sub>:** There is no significant personality difference between Long jump and High jump Athletes with regards to Self-Concept average score.

**Alternative Hypothesis: H<sub>1</sub>:** There is significant personality difference between Long jump and High jump athletes with regards to Self-Concept average score.

**Table 6:** Athletes Self-Concept Score Summery

Players	Numbers	Mean	S.D	T-Test P-Value
Long Jump	100	186.85	16.23	0.996
High Jump	100	186.84	13.2	

(Significant value 0.05\*)  
(Statistical analysis with SPSS Software)

**Result:** We observe that P-Value = 0.996 is greater than the alpha ( $\alpha$ ) level (=5%).  
∴ We accept H<sub>0</sub>.

There is no significant personality difference between Long jump and High jump Athletes with regards to Self-Concept average score.

**Conclusions**

1. There is significant personality difference between Long jump and High jump Athletes with regards to psychotic's average score.

2. There is no significant personality difference between Long jump and High jump Athletes with regards to neuroticism average score.
3. There is no significant personality difference between Long jump and High jump Athletes with regards to extraversion average score
4. There is no significant personality difference in average lie score between Tennis and Badminton players.
5. There is no significant anxiety difference between Long jump and High jump Athletes.
6. There is no significant difference of self-concept between Long jump and High jump Athletes places.

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