



---

## ANALYSIS OF THE PERSONALITY TRAITS OF MEDALIST AND NON MEDALIST ATHLETES

Baljindar Singh Bal, Sukhbir Singh & Nishan Singh

### ABSTRACT

*This exploratory study investigated the comparison of personality traits of medalist and non-medalist men athletes of Punjab Police and Border Security Force of north region of India. Data were obtained for 40 medalist and non-medalist athletes from Punjab Police and 40 medalist and non-medalist athletes from Border Security Force. Sixteen Personality Factor Questionnaire (16 PF) developed by Raymond Cattell, a factor-analytically derived questionnaire for personality assessment, was selected as criterion measures. Responses pertaining to analysis of personality traits were analyzed. The mean (M) and standard deviation ( $\sigma$ ) for each of the sixteen personality factor were calculated.*

**Keywords:** Medalists, Non-Medalists, Personality, Traits, Punjab Police, Border Security Force.



## INTRODUCTION

The increasingly competent atmosphere of professional sport has resulted in greater scrutiny and analysis of player's performance. The roles of physiological parameters in predicting success in the world of professional and amateur sport are well established. However, to date, evidence is sparse concerning the role of personality traits in predicting such success. Psychology covers a huge field and one interesting aspect of it is personality. The precise definition of personality has been a point of discussion amongst many different theorists within many different disciplines since the beginning of civilization. Personality can be defined as "the distinctive and characteristic patterns of thought, emotion and behaviour that define an individual's personal style and influence his or her interactions with the environment" (Atkinson, Atkinson, Smith & Bem, 1993: 525). It can be proposed that personality psychology has two different tasks. "The first involves specifying the variables on which individuals differ from one another. Secondly, it involves synthesizing the psychological processes of human functioning into an integrated account of the total person." (Atkinson et al., 1993: 532).

There are many different theories of personality and many different theorists. Personality traits can make or break a player. The study of personality and the role it can play in successful athletic performance has interested sport psychologists for decades. One of the most common sport personality research themes concerns the extent to which athletes and non athletes often differs in their personality profiles. Early research suggested that athletes were more stable and extroverted. These early studies also reported that athletes were more competitive, dominant, self-confident and achievement oriented. Athletes have also been found to be more psychologically well adjusted and often display higher level of self esteem than do non athletes. Although it is possible to



distinguish between the successful athletes and the unsuccessful athletes in terms of mood state, it is not yet possible to distinguish between successful and unsuccessful athletes in any particular sport using personality traits. For this reason, it is important to understand the difference between personality traits and personality states and also to examine the comparison of personality traits of medalist and non-medalist athletes.

### **OBJECTIVE OF STUDY**

The objective of the study is to examine the comparison of personality traits of medalist and non-medalist athletes of Punjab Police and Border Security Force of northern region of India.

### **CRITERION MEASURES**

The personality traits scores of the subjects were obtained by using The 16 Personality Factors (16 PF) questionnaire. The 16 Personality Factors (16 PF) questionnaire were multivariably-derived by psychologist Raymond Cattell. It is a self-report assessment instrument that measures the sixteen normal adult personality dimensions discovered. From user responses to the questionnaire, standardized scores (stens) are derived for each of the sixteen personality factors and scores for five Global Factors (the original Five-Factor Model) are computed. These scores enable you to formulate personality models useful in industrial/organizational applications, clinical settings, counseling and research for predicting human behavior. In 1949, Raymond Cattell published the first edition of the 16PF Questionnaire - the 16 Personality Factor Questionnaires. It was a revolutionary concept: measuring the whole of human personality using structure discovered through factor analysis.



## **METHOD**

The t-test assesses whether the means of two groups are statistically different from each other. This analysis is appropriate whenever you want to compare the means of two groups.

t-ratio:

First calculate the means and standard deviations for each group and use the t-test formula to compute the t-value. The formula used will depend on whether you have equal numbers of subjects, the standard deviations are not different, or if you are testing the same people twice or using matched groups.

## **PARTICIPANTS MATERIALS AND PROCEDURE**

The athletes from Punjab police and Border security force completed the Cattelle's Sixteen Personality Factor (16 PF) Questionnaire. Medalist and Non-Medalist men athletes of Punjab Police and Border Security Force of Jalandhar, north region of India were the subjects for this study. Further restrictions were made in selecting the athletes on the basis of medals won in either senior national game or All India police games. The sample size was delimited to 40 medalist and non-medalist athletes from Punjab Police and 40 medalist and non-medalist athletes from Border Security Force. Cattelle's Sixteen Personality Factor (16 PF) Questionnaire were selected as criterion measures. The following personality traits were measured.



## ANALYSIS OF THE PERSONALITY TRAITS



<b>Factor A</b>	<b>Warmth</b>	<b>Reserved vs. Warm</b>
<b>Factor B</b>	Reasoning	Concrete vs. Abstract
<b>Factor C</b>	Emotional Stability	Reactive vs. Emotionally Stable
<b>Factor E</b>	Dominance	Deferential vs. Dominant
<b>Factor F</b>	Liveliness	Serious vs. Lively
<b>Factor G</b>	Rule-Consciousness	Expedient vs. Rule-Conscious
<b>Factor H</b>	Social Boldness	Shy vs. Socially Bold
<b>Factor I</b>	Sensitivity	Utilitarian vs. Sensitive
<b>Factor L</b>	Vigilance	Trusting vs. Vigilant
<b>Factor M</b>	Abstractedness	Grounded vs. Abstracted
<b>Factor N</b>	Privateness	Forthright vs. Private
<b>Factor O</b>	Apprehension	Self-Assured vs. Apprehensive
<b>Factor Q1</b>	Openness to Change	Traditional vs. Open to Change
<b>Factor Q2</b>	Self-Reliance	Group-Oriented vs. Self-Reliant
<b>Factor Q3</b>	Perfectionism	Tolerates Disorder vs. Perfectionistic
<b>Factor Q4</b>	Tension	Relaxed vs. Tense

## DATA ANALYSIS AND RESULTS

The scoring of compelled questionnaire was done as per the method mentioned in the manual with the help of using key. In order to determine the personality traits of medalist and non-medalist athletes of Punjab police and Border security force, their mean (M) and standard deviation ( $\sigma$ ) were calculated from sten scores for each of the Sixteen Personality Factor respectively. The data pertaining to mean and standard deviation of athletes of Punjab police is presented in Table-1 and the data for the athletes of Border security force is presented in Table-2. The graphical representation of Mean, Standard Deviation, Mean difference and "t" ratio is presented in figure-1 and figure-2 respectively.

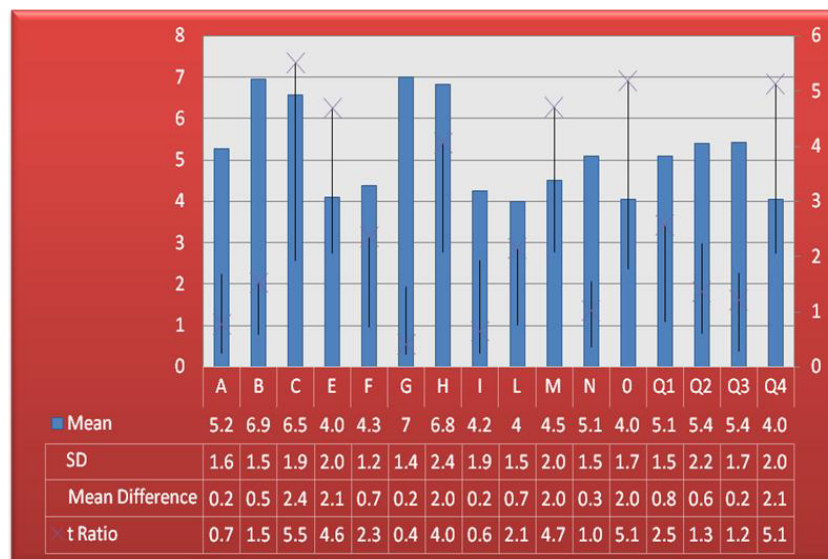


**TABLE-1**  
**Personality Traits of Medalist Athletes of Punjab Police**  
**and Border Security Force (N=40)**

Sixteen Personality Factor Questionnaire	Mean (M)	Standard Deviation ( $\sigma$ )
A	5.27	1.68
B	6.95	1.51
C	6.57	1.92
E	4.09	2.05
F	4.37	1.29
G	7.00	1.44
H	6.82	2.47
I	4.25	1.93
L	4.00	1.53
M	4.50	2.09
N	5.10	1.54
O	4.05	1.78
Q1	5.10	1.54
Q2	5.40	2.23
Q3	5.42	1.70
Q4	4.05	2.06

**Figure-1**

**MEAN (M) AND STANDARD DEVIATION (SD) OF**  
**MEDALIST ATHLETES OF PUNJAB POLICE AND**  
**BORDER SECURITY FORCE (N=40)**





The analysis of data presented in table-1 reveals that the medalists' personality traits in the warmth factor were average. They were more intelligent, emotionally stable and generally avoided conflicts. They were of serious nature, rule conscious and were socially bold. Referring to the sensitivity trait they were tough minded, trusting and more practical whereas they were average in privateness, apprehension, flexibility, self-reliance. It was also observed that they were relaxed and patient.

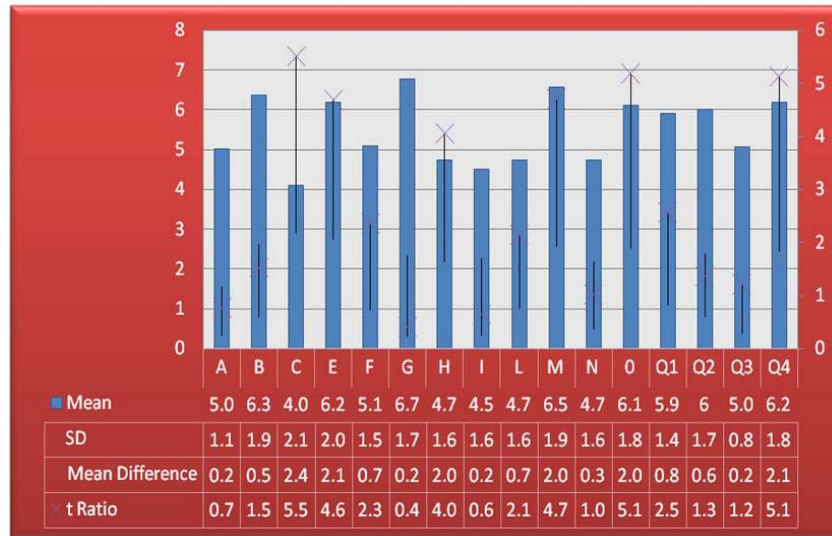
**Table-2**

**PERSONALITY TRAITS OF NON-MEDALIST  
ATHLETES OF PUNJAB POLICE AND  
BORDER SECURITY FORCE (N=40)**

<b>Sixteen Personality Factor Questionnaire</b>	<b>Mean (M)</b>	<b>Standard Deviation (<math>\sigma</math>)</b>
<b>A</b>	5.025	1.16
<b>B</b>	6.37	1.97
<b>C</b>	4.09	2.17
<b>E</b>	6.20	2.05
<b>F</b>	5.10	1.54
<b>G</b>	6.77	1.75
<b>H</b>	4.75	1.63
<b>I</b>	4.50	1.69
<b>L</b>	4.75	1.63
<b>M</b>	6.57	1.92
<b>N</b>	4.75	1.63
<b>O</b>	6.12	1.88
<b>Q1</b>	5.92	1.40
<b>Q2</b>	6.00	1.79
<b>Q3</b>	5.07	0.83
<b>Q4</b>	6.20	1.83



**FIGURE-2**  
**MEAN (M) AND STANDARD DEVIATION (SD) OF**  
**NON-MEDALIST ATHLETES OF PUNJAB POLICE AND**  
**BORDER SECURITY FORCE (N=40)**



The analysis of data presented in table-2 reveals that the non-medalists athletes of Punjab police and Border security force were average in the warmth factor. They had abstract thinking, emotionally less stable and were dominant. They were average in liveliness, openness to change and perfection. They were also rule conscious, hesitant, self-reliant and trusting, impractical and involved. It was also seen that they were insecure, self-sufficient and impatient. Finally the composite analysis is exhibited in table-3





**Table-3**

<b>Factors</b>	<b>Mean 1</b>	<b>SD 1</b>	<b>SEM 1</b>	<b>Mean 2</b>	<b>SD 2</b>	<b>SEM 2</b>	<b>t ratio</b>
<b>Factor A</b>	5.27	1.68	0.26563	5.025	1.16	0.18341	<b>0.7590</b>
<b>Factor B</b>	6.95	1.51	0.2388	6.37	1.97	0.3115	<b>1.4779</b>
<b>Factor C</b>	6.57	1.92	0.3036	4.09	2.17	0.3431	<b>5.4133</b>
<b>Factor E</b>	4.09	2.05	0.3241	6.20	2.05	0.3241	<b>4.6030</b>
<b>Factor F</b>	4.37	1.29	0.2040	5.10	1.54	0.2435	<b>2.2982</b>
<b>Factor G</b>	7.00	1.44	0.2277	6.77	1.75	0.2767	<b>0.6419</b>
<b>Factor H</b>	6.82	2.47	0.3905	4.75	1.63	0.2577	<b>4.4239</b>
<b>Factor I</b>	4.25	1.93	0.3052	4.50	1.69	0.2672	<b>0.6163</b>
<b>Factor L</b>	4.00	1.53	0.2419	4.75	1.63	0.2577	<b>2.1218</b>
<b>Factor M</b>	4.50	2.09	0.3305	6.57	1.92	0.3036	<b>4.6130</b>
<b>Factor N</b>	5.10	1.54	0.2435	4.75	1.63	0.2577	<b>0.9871</b>
<b>Factor O</b>	4.05	1.78	0.2814	6.12	1.88	0.2973	<b>5.0568</b>
<b>Factor Q1</b>	5.10	1.54	0.2435	5.92	1.40	0.2214	<b>2.4918</b>
<b>Factor Q2</b>	5.40	2.23	0.3526	6.00	1.79	0.2830	<b>1.3270</b>
<b>Factor Q3</b>	5.42	1.70	0.2688	5.07	0.83	0.1312	<b>1.1701</b>
<b>Factor Q4</b>	4.05	2.06	0.3257	6.20	1.83	0.2893	<b>4.9349</b>



## SUMMARY AND CONCLUSIONS

The purpose of the study was to investigate the comparison of personality traits of medalist and non-medalist men athletes of Punjab Police and Border Security Force of north region of India. Data were gathered from 40 medalist and non-medalist athletes from Punjab Police and 40 medalist and non-medalist athletes from Border Security Force. Sixteen Personality Factor Questionnaire (16 PF) was selected as criterion measures. Responses pertaining to analysis of personality traits were analyzed. The mean (M) and standard deviation ( $\sigma$ ) for each of the sixteen personality factor were calculated. The analysis of data clearly reveals that the medalists' personality traits in the warmth factor were average. They were more intelligent, emotionally stable and generally avoided conflicts. They were of serious nature, rule conscious and were socially bold. Referring to the sensitivity trait they were tough minded, trusting and more practical whereas they were average in Privateness, apprehension, flexibility, self-reliance. It was also observed that they were relaxed and patient. Whereas the non-medalists athletes of Punjab police and Border security force were average in the warmth factor. They had abstract thinking, emotionally less stable and were dominant. They were average in liveliness, openness to change and perfection. They were also rule conscious, hesitant, self-reliant and trusting, impractical and involved. It was also seen that they were insecure, self-sufficient and impatient.



## REFERENCES

- Aidman, E.V., "Attribute-based Selection for Success: The Role of personality Attributes in long-term Predictions of Achievement in sport", *The Journal of the American Board of Sport Psychology*, volume1-2007, Article#3.
- Barrow McGee, Harold M, & Rose Marry, "Practical Approach to Measurement in Physical Education", *Philadelphia; Lea and Fibiger*, 1979.
- Daniel J. Garland and John R. Barry, "Personality and leader behaviors in collegiate football: A multidimensional approach to performance" *Journal of Research in Personality*, Volume 24, Issue 3, September 1990, Pages 355-370.
- David K. Ingledew, David Markland and Kate E. Sheppard, "Personality and self-determination of exercise behavior" *Personality and Individual Differences*, Volume 36, Issue 8, June 2004, Pages1921-1932.
- H. Harrison Clarke, David H. Clarke, "Application of Measurement to Physical Education", *sixth Edition*, *Prentice-Hall, Inc., Englewood Cliffs, New Jersey* 1987.
- John W. Best and James V. Kahn, "Research in Education" *Seventh Edition*, *Prentice-Hall of India private limited, New Delhi*, 2002.
- Laplace, J.P., "Personality and its relationship to success in professional Baseball", *Research Quarterly* 25:3 (1954) 313-319.
- McDonald, Kaye, "A Comparison of the Personality Traits of Participants and Non Participants in High School Inter Scholastic Tennis Program for Girls", *Dissertation Abstract International* 31(February 1971): 3935-A.
- Timothy A. Judge, Joyce E. Bono, Remus Ilies and Megan W. Gerhardt, "Personality and Leadership: A Qualitative and Quantitative Review" *Journal of Applied Psychology*, Volume 87, Issue 4, August 2002, Pages 765-780.
- Verma J. Prakash, "A Text Book on Sports Statistics" *Venus publication, Gwalior, India*, 2000.