

## COMPARATIVE ANALYSIS ON EXTRAVERSION AND CONSCIOUSNESS IN RESPECT OF PHYSICAL FITNESS AMONG THREE COMMUNITICAL SEDENTARY WOMEN

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### Abstract

The present investigation has been conducted with the aim to differentiate between the selected personality traits and physical fitness of sedentary women of the three different communities in three different districts of West Bengal. According to the design of the study 225 sedentary women (75 General Caste, 75 Scheduled Caste and 75 Scheduled Tribe) were randomly selected as the subjects. For personality traits the data were collected by administering Big Five Inventory which measures only two dimensions of personality, extraversion and consciousness. In respect of physical fitness the muscular strength endurance by sit-up and cardio-respiratory endurance by 1-mile run-walk have been measured. Mean and Standard deviation was calculated as descriptive statistics and to find out the inter-group difference t-test was conducted. In both traits the three sedentary groups were not significantly different from each other. Under the sit-up score the three Sed-groups were statistically not significant. In the cardio respiratory endurance score the difference between SC and ST-groups was significant. From the results it was concluded that in the North Bengal region of India the communically all the sedentary women were bear the same personality traits.

**Keywords:** Extraversion, Consciousness, Muscular Strength Endurance and Cardio-respiratory Endurance

### Introduction

Personality embraces a person's moods, attitudes, motivation and style of thinking, perceiving, speaking and acting. It is the way an individual adjusts with his external environment (Singh, A. et al. 2009). It is the total sum of his "being" and includes physical, mental, social, emotional and intellectual aspects. Once personality reflects his perception, imagination, instincts, habits values, interests and sentiments about himself and his self-worth. Intelligence, achievement, motivation, modes of adjustment – all these and much more constitute human personality. Extraversion refers to the extent to which a person is sociable, talkative lively, active and excitable. And consciousness refers to the extent to which a person is organized, careful, self-disciplined and responsible. A person who is high in consciousness would make an effort to be careful, organized and responsible.

Dispués and Friedman (2008) determined the association between the five-factor traits of personality and common mental and physical disorders. Conscientiousness (productivity) and neuroticism (adversely) were found to be meaningful associated with illness. Further, among adults with

physical illnesses, associations were found between decreased likelihood of physical limitations and personality, especially consciousness. Andre, M. et al. (2010) investigated to secular trends in personality traits in adult female populations. In both age groups (38 years; n=318 and 50 years; n=593), secular comparisons in psychological profile subscales showed an increase in dominance, exhibition aggression and achievement.

Physical fitness is an important part of life. It is a set of attributes that relate to the ability of people to perform physical activity (Mc Ardle et al. 1996). Regular physical activities contribute positively to physical and psychological health (Paudevigne and O' Connor, 2006). This level changes with respect to an individual's age, sex, activity level and socio-economic. Generally, it is achieved through exercise, correct nutrition and enough rest (Wikipedia, 2014).

### Methods

In the present study, total 225 sedentary women within the range between 35-44 years were selected from three districts namely Cooch Behar, Jalpaiguri and Darjeeling of North Bengal, India. According to the design of the study there were three sub-groups namely General Caste (GN), Scheduled Caste (SC) and Scheduled Tribe (ST). The personality traits was assessed by administering Big Five Inventory which measures only two dimensions of personality, extraversion and consciousness. In respect of physical fitness for estimation of muscular strength endurance by sit-up and cardio-respiratory endurance by 1-mile run-walk have been considered.

Central tendency and standard deviation were used as descriptive statistics for this study. Significance of the difference between two means was computed by using t-test and the level of significance was considered only 0.05 levels. All statistical calculations were done using standard statistical software.

### Results and Discussion

The Mean and S.D. of extraversion and consciousness were presented in Table-1 and result of t-test have presented in Table-2. The ST-group has the highest mean score in comparison to GN and SC groups in case of extraversion. The mean consciousness score of SC-group were higher than other two groups.

TABLE NO.1  
MEAN AND SD OF SELECTED PERSONALITY TRAITS

Parameters		GN	SC	ST
Extraversion	Mean	27.66	28.16	28.25
	S.D.	4.02	3.83	4.12
Consciousness	Mean	32.32	31.91	32.17
	S.D.	4.90	5.37	5.07

Pair-wise t-test was conducted as a routed matter. For the extrovert score none of the pairs was found not significantly difference. It means all sedentary females were same extrovert in different communities of three different districts in North Bengal. For consciousness, pair-wise t-test was clearly shown that out of three paired means none was the significantly difference. It means consciousness score of the groups were almost identical.

TABLE NO.2  
T-TEST: ALL THE GROUPS TOGETHER FOR EXTRAVERSION AND CONSCIOUSNESS

Parameters	Statistics	GN Vs. SC	GN Vs. ST	SC Vs. ST
Extraversion	t- stat	0.87	0.84	0.13
	P(T>=t) one tail	0.19	0.2	0.45
Consciousness	t- stat	0.33	0.03	0.3
	P(T>=t) one tail	0.37	0.49	0.38

\*Significant at 0.05 level of significance

Table No.3 represents the physical fitness of the SC-sedentary women group was better than the other two groups. In the mean sit-up score of the GN-sedentary women group was comparatively lower among the all other groups. Beside these, the SC-sedentary women group was taken the less time among the other GN and ST groups in 1-mile walk/run.

TABLE NO.3  
MEAN AND SD OF SELECTED ACTIVITIES ON PHYSICAL FITNESS

Parameters		GN	SC	ST
Sit-up (No.)	Mean	3.43	4.29	4.27
	S.D.	5.27	5.47	5.15
1-mile run/walk Run(Sec.)	Mean	1157.27	1116.49	1166.96
	S.D.	163.27	153.13	192.43

The result for sit-up of paired t-test revealed that in the sedentary women groups separately none of the matched pair was significant. Similarly, for 1-mile walk /run the intra-group difference were not significant. That means communically in sedentary women the intra-group variation was negligible. Further it appears that different personality traits and also physical fitness depends on the class of people.

TABLE NO.4  
T-TEST: ALL THE GROUPS TOGETHER FOR SELECTED ACTIVITIES ON PHYSICAL FITNESS.

Parameters	Statistics	GN Vs. SC	GN Vs. ST	SC Vs. ST
Sit-up (No.)	t- stat	1.92	0.94	1.16
	P(T>=t) one tail	0.03	0.18	0.13
1-mile run/walk Run (Sec.)	t- stat	1.54	0.40	1.75
	P(T>=t) one tail	0.06	0.35	0.04

\*Significant at 0.05 level of significance

In the present study psychological health was assessed with the two dimensions of personality, extraversion and consciousness. Extraversion predicts effective functioning and well – being across a wide variety of domains from cognitive performance and social endeavors to social economic status (Ozer and Benit – Martinez, 2006). John and Srivastava (1999) found the mean correlation was 0.28 for agreeableness and conscientiousness, –0.28 for agreeableness and neuroticism. They also showed the reliability and validity of BFI for agreeableness was 0.79 and 0.92 respectively. Bandyopadhyay and Dhar (2014) found that no significant difference ( $P < 0.05$ ) between individual and team game athlete in consciousness, extraversion and agreeableness in personality traits.

In this study, the physical fitness of the house wife group was lower than the working women group. Osawa et al., (2011) reported the student and staff (21-29yrs.) of Keio University, Helsinki performed the number of sit-ups to the thereof  $18.1 \pm 4.5$ . Kamyabnia et al., (2011) found the dynamic sit-up was higher in control subjects than the obese women. A statistically significant interaction was found between the treatment and group factors ( $[F. \text{sub. } 1.38] = 7.08; P < 0.05$ ) for cardiovascular endurance. Moreover, mean comparison indicated that the mean time needed to run the 1- mile was significantly reduced only in the experimental group (Derri et al., 2004). AL-Shamli (2010) found the rural students secured better in cardiovascular endurance than urban students ( $7.63 \pm 1.30, 8.03 \pm 1.77$  respectively). The findings of the present study are closely similar to the findings of the leading researchers.

## Conclusion

### On Personality Traits

In extraversion and consciousness scores of three Sed-groups were not significantly different from each other.

### On Physical Fitness

Under the muscular strength endurance the sit-up score and the cardio respiratory endurance the 1mile walk/Run score of three Sed-groups were statistically not significant.

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