



Personality Differences Among the Patients of Psycho-Physiological Illnesses and Matched Normal

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ABSTRACT:

Context: As the severity of psycho physiological illnesses increased now days the focused is given more to its causes rather than the symptomatic criteria. Health psychologists suggest that the personality of the individual predisposes the individual to become vulnerable to psycho physiological illnesses. The causes behind these illnesses are basically physiological but psychologists revealed that these illnesses are developed because of individual factors or psychological factors. The psychological factors consist of personality of the individual, lifestyle of the individual, and the way to cope with the demands of the precipitating factors of illness. **Aims:** The present study was conducted to investigate the significance difference in personality factors, between clinical group (patients of psycho physiological illnesses like Asthma and Peptic ulcer) and Matched Normal group. **Subjects and methods:** The sample consisted of two groups namely Clinical and matched Normal. The total of 200. From which clinical group consists of 100 patients of psycho physiological illnesses (50 Asthmatic and 50 Peptic ulcer patients) and 100 in Matched Normal. Sample selected from Ahmednagar city. Nonprobability sampling technique and with the help of personal data sheet sample selected under the study. The tools used to collect data were NEO-FFI by Costa and McCrae (1995), and Personal Data Sheet developed by researcher. The difference between two groups analyzed by using t statistics. **Conclusion:** The findings based on 't' Statistics were considered. Obtained t values were found to be statistically significant. Thus Significant difference between clinical (patients of asthma and peptic ulcer) group and matched normal group were found on personality factors like Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. The results were discussed in light of review of literature.

Keywords: Psycho physiological illnesses, Matched Normal's, Neuroticism, Extroversion, Openness to Experience, Agreeableness, Conscientiousness.

OVERVIEW

Health psychology is the emerging field of psychology of 21st century. Current research says, out of the 10 hospitalized cases 7 cases suffer through psycho-physiological



illnesses. The maladjustment, disturbed lifestyle and stressful life events are the determining causes of psycho physiological illnesses. In addition to this failure in coping with the stress are main causes behind these illnesses. According to the DSM-IV TR (axis III) and ICD-10, following are the representative psycho-physiological illnesses - Asthma, Peptic ulcer, Hypertension, Skin Diseases, CHD, and Cancer etc. Whereas immune system also affected by the stress.

Psycho-physiological (psychosomatic) disorders: A group of disorders characterized by physical symptoms that are affected by emotional factors and involve a single organ system, usually under autonomic nervous system control (American Psychiatry Glossary, 1998). Health psychologist revealed that in this stressful life situations severity of life style illnesses, are increasing tremendously. In the present study selected psycho physiological illnesses like asthma, peptic ulcer was taken into consideration. They are chronic life style prone illness.

Asthma:

Essentially asthma is a chronic inflammation of the air ways (Bronchi) that result in obstruction of airflow. There is a decrease in the lumen of the airways resulting from a two-fold response to the allergens and other irritants. Anxiety, tension, produced by frustration, anger, depression, and anticipated pleasurable excitement may lead to asthma. Asthma patients report that many attacks are precipitated by emotions such as anxiety (Rumback et al, 1993). Research has generally found higher levels of emotionality in people with asthma. Their Self-reports on personality test also reveal high levels of emotionality (Lehrer, Isenberg, & Hochron, 19993, Mrazek, & Chuman & Klinnert, 1998). Emotional arousal has also been found to be directly related to reports of asthma symptoms and peak expiratory flow. It has also been suggested that particular constellations of personality traits are linked to asthma. Several investigators have been found that asthmatic individuals have a great many so called neurotic symptoms: dependency, and maladjustment (Herbert, 1965), sensitivity, anxiety, meticulousness, perfectionism and obsessions (Rees, 19964).

Peptic ulcer:

Peptic ulcers are crater like lesions or holes in the lining of the stomach or duodenum. In the digestive process of gastric juice, made up of dilute hydrochloric acid and pepsin, acts on ingested food to break it down into components that the body can use. A peptic ulcer usually results from the excessive flow of the stomach's acid-containing digestive juices, which eat away the lining of the stomach or duodenum, leaving a crater-like wound. In the twentieth century men became far more prone to peptic ulcers than women. The stress can be only part of the story of the development of peptic ulcers. Researchers has also locate the factors that can interact with stress and greatly increase the probability that an individual that an individual having the particular characteristic will develop a peptic ulcer. One important factor is the physiological predisposition, the amount of pepsinogen secreted by the peptic



cells of the gastric glands in the stomach. Peptic ulcer (Peptic ulcer Disease, PUD) is caused by exposure to gastric acid and pepsin. Mirsky (1958) was able to detect marked individual differences in pepsinogen were found to be members of families with a high incidence of excessive pepsinogen levels.

Big five personality factors

A famous definition, Gordon Allport (1937) stated “Personality is the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment”. The five factor model is a hierarchical model of trait structure, in which relatively narrow and specific traits are organized in terms of five broad factors: Neuroticism, Extroversion, and Openness to Experience, Agreeableness, and Conscientiousness. Proponents of the model claim that it is comprehensive that is, that it encompasses all major dimensions of personality, and thus super cedes older trait models like Eysenck's (Eysenck & Eysenck, 1975) and Guilford's (Guilford & Zimmerman, 1976). In fact, by 1992 Costa & McCrae (1992a) has identified universality, as one of the reasons the five factors should be considered “basic” although the evidence in favor of universality then was slim by today's standards.

REVIEW OF LITERATURE

In a study of personality traits and risk of lifetime asthma diagnosis by Aysha Najjiab, Jayme M Palka & Sherwood Brown concluded that neuroticism and openness were positively associated with life time asthma diagnosis. Higher scores in the traits of Neuroticism and Openness were associated with increased risk of life time asthma diagnosis. Consciousness was associated with decreased risk of life time asthma diagnosis. It is negatively associated with diagnosis. It was suggested that increased risk of asthma associated with higher scores in certain personality traits.

Goodwin and others (2003) *investigated in a study of peptic ulcer disease and neuroticism in the United States adult population* that neuroticism was associated with significantly increased odds of peptic ulcer disease, which persisted after controlling for differences in socio-demographic characteristics, cigarette smoking, and perception of poor health, co morbid mental disorders and physical illnesses. This relationship was specific to neuroticism.

Friedman and Booth-Kewley (1987) conducted a Meta-analysis of 101 studies in relation to personality, Asthma, Peptic ulcers, Coronary Heart Disease (CHD), Headaches, and Rheumatoid Arthritis. Results suggest that all five diseases categories are associated with depression and anxiety, and to lesser extent with anger and hostility. Introversion was related to three of the five disorders.

Singh. R.N.;Bharadwaj, Shubhra, S.(2020) this study Conducted a study on personality profiles of bronchial asthma patients and normal persons. The purpose of their study was to compare the bronchial asthma patients with normal participants on personality



characteristics. They concluded that patients of asthma significantly differ on personality characteristics than normal.

In a study entitled a cross-sectional study of stress and personality factors in patients with bronchial asthma (2017) by Lakshmi P Prasuna, Radha Krishna C Krishna, Lakminarayana I Reddy, D On personality dimensions, patients with bronchial asthma were significantly scored less on extraversion score and higher on neuroticism score compared to normal subjects. In a total 50 subjects in each group were taken into the study.

MAJOR OBJECTIVES OF THE STUDY

The objectives of the study were as follows

- To study the personality factors of patients of psycho physiological illnesses and Matched Normal.
- To study the differences in personality factors among the patients of psycho physiological illnesses and Matched Normal.

HYPOTHESIS

- There is significant difference between personality factors among the patients of psycho physiological illnesses and Matched Normal.

METHODOLOGY

Sample:

Data was obtained from various clinics from Ahmednagar city with consultation of physicians and chest specialist. Sample consists of total 200 respondents 100 clinical (asthma and peptic ulcer patients.) and 100 Matched Normal. The age group of sample was determined with the help of personal data sheet and one to one matching. The information in the personal data sheet was sort in order to match the sample of patients and matched Normal on the demographic variables.

No probability sampling method, purposive and accidental sampling technique was used. The patients who diagnosed as asthma and peptic ulcer were taken as a sample for the present study. The sample of Asthma and peptic ulcer patients and matched Normal were selected from Ahmednagar city.

RESEARCH DESIGN

Ex- post facto research design

VARIABLES

Independent variable: Type of group: Clinical, Matched Normal

Dependent variable:

Personality: Big five personality factors like Neuroticism, Extraversion,

Openness to Experience, Agreeableness, and Conscientiousness.



TOOLS

NEO-FFI: Five Factor Inventory by McCrae and Costa (1992)

NEO-FFI is a sixty-item scale, which provides a brief comprehensive measure of the five domains of personality. The domains it measures are Neuroticism, Extroversion, and Openness to experience, Agreeableness, and Conscientiousness. NEO-FFI requires a Sixth Grade reading level. There are 12 items for each domain. There is no time limit for NEO-FFI. Most respondents require to 15 to 30 minutes to complete it. The individual has to respond to each item on a five-point scale, ranging from “Strongly Disagree.” to “Strongly Agree.” The reliability coefficient (alpha) for domain scales range from 0.86 to 0.95. Validity values for the domains namely Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness are 0.92, 0.90, 0.91, 0.77, and 0.87 respectively.

PERSONAL DATA SHEET:

Personal data sheet consist of personal information like age, gender socioeconomic status, birth order, and history of illness, heredity, occurrence of first attack, symptoms at the time of attack.

PROCEDURE:

Sample consisted of total 200 respondents, 100 for clinical group (asthma and peptic ulcer patients) and 100 from normal group. Sample of Clinical group (asthma and peptic ulcer patients) were collected from various clinical practitioners in Ahmednagar city. The age group of sample was 20 to 65 yrs is determined with the help of personal data sheet which is administered at the time of data collection. Data were obtained with the help of chest specialists and gastro intestine specialists from Ahmednagar city for asthmatic and peptic ulcer patients. However, sample of normal group were collected from Ahmednagar city considering matching of demographic variables. Personal data sheet is administered to match the sample of normal and patients with asthma and peptic ulcer. The inventories were in English version number of respondents understand the Marathi language for that purpose Marathi translation is done by using backward translation method. The NEO Personality Inventory NEO-FFI by Costa and McCrae (1995) were administered. All participants were told that their responses were kept confidential and they were appealed to report their responses truthfully and honestly. They were asked to follow the instructions given on the questionnaire. The data were collected for the statistical analysis.

RESULTS & DISCUSSION

Statistical analyses were carried out for analyzing the difference between two groups. Parametric statistics technique ‘t’ test was used for finding the difference between clinical and Matched Normal. Obtained t values were statistically significant. Summary of the results presented below.

Mean Comparisons of personality factors among the patients of psycho physiological illnesses And Matched Normal.

Variable (Big five Personality factors)	Groups	N	Mean	Std. Deviation	Std. Error Mean	df	t value
Neuroticism	Clinical	100	29.10	6.113	.611	198	8.363**
	Matched Normal	100	22.11	5.70	.570		
Extraversion	Clinical	100	27.45	5.239	0.524	198	9.684**
	Matched Normal	100	21.74	2.707	0.27		
Openness to Experience	Clinical	100	25.45	4.810	0.481	198	7.334**
	Matched Normal	100	21.34	2.875	0.288		
Agreeableness	Clinical	100	27.80	5.787	0.579	198	11.125**
	Matched Normal	100	20.79	2.492	0.249		
Conscientiousness	Clinical	100	29.91	5.63	0.567	198	10.546**
	Matched Normal	100	23.00	3.278	0.328		

**t 'value is significant at 0.01 level

P. < 0.01 level

Difference between clinical group and Normal with respect to personality factors namely Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness were assessed with the help of t test. The t values for neuroticism, extroversion, openness, agreeableness, and conscientiousness were 8.363, 9.684, 7.334, 11.125, and 10.546. These values were significant at 0.01 level at df 198. It is found to be significant at 0.01 level. The above result shows that Patients of Psycho physiological illnesses like Asthma and Peptic ulcer were high on big five personality factors like Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. The stated hypothesis there is significant difference between personality factors among the patients of psycho physiological illnesses and Matched Normal was accepted. It also shows that there was significant difference to be existed between clinical group and Matched Normal with respect to personality factors.

CONCLUSION:

The personality factors and the way the individual responds to certain stimulus play an important role in the development of certain Psycho physiological illnesses. This study tried to show the importance of personality factors in the development of Psycho physiological illnesses and Matched Normal. The conclusions of the study are as under. Patients of Asthma and Peptic ulcer were found to be higher on personality factors as compare to the Matched Normal. The significant difference was found to be existed between clinical group and Matched Normal group with respect to Neuroticism, Extraversion. Openness to experience, Agreeableness and Conscientiousness.

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