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Personality Factors as Correlates of Health among Adults

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The present study was to findout the relationship among personality factors and health dimensions among young educated adults. The sample consisted of 105 young adults (55 female and 50 male) (age ranges from 22 to 26 years). The NEO personality inventory and GHQ-28 were administered to collect data. The data were analyzed by using Pearson's Product Moment correlation and stepwise regression analysis. The results showed that (i) Neuroticism has a significant positive correlation with anxiety and severe depression, (ii) Extrovert personality have significant negative correlation with all the dimensions of health, and (iii) Stepwise regression analysis revealed three predictors of health i.e. Agreeableness, Openness and Neuroticism.

Keywords: Neo personality, General health, agreeableness, openness, neuroticism

Health is an important aspect of human life. It is a well recognized truth, from the early time, that possessing good health is a pre-requisite for every human being for all round growth and development. It is a positive concept emphasizing the social and personal resources as well as physical capabilities. The World Health Organization defined health as a "complete state of physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1948). In the last few decades, good health has been recognized as something that can be actively achieved by people through a healthy life-style. The importance of psychological processes in the experience of health and sickness is being increasingly recognized. Although there are many factors which affect the various domains of health of an individual, the role of personality factors, which determine the behavior protocols of an individual, need to be studied for understanding one's general health. Health habits are one of the area in which personality variables are likely to be illuminating.

In the Hippocratic era, personality was believed to reflect the predominance of one of four bodily humors: blood, black bile, yellow bile and phlegm. Later work by Galen extend this idea beyond temperament, and argued that an imbalance among the humors lead to ill health (Allport, 1961). The prevailing humor in a person was thought to produce a predisposition toward a particular emotion, while the excess of a humor led to disease. Medical diagnosis no longer relies on the theory of humors, but the notion of a link between personality and health problems (disease) has survived (Friedman & Booth-Kewley, 1987; Scheier & Bridges, 1995).

Several personality factors have been found to be positively related to physical well being (Adler & Matthews, 1994; Kobasa, Maddi & Courington, 1981; Kobasa, 1979).Numerous studies have demonstrated a significant association between multiple indicators of health and measures of personality, using both larger dimensions like Big Five personality traits, as well as more specific personality traits like optimism (Chapman, Lyness & Duberstein, 2007 ; Martin, Friedman, Tucker, Tomlinson-Keasey, Criqui & Schwartz, 2002). In many studies conducted recently in India, similar pattern in

the personality health relationship have been observed. Self esteem has been reported to have a significant effect on various well-being dimensions and people with high self esteem experience better general mental health (Sharma, Sharma & Yadava, 2004). A detailed review of psychosocial correlates of health can be seen in Sharma, Sharma and Yadava, (2005).

Individuals with certain personalities (such as those who are more hostile or more anxious) are hypothesized to be vulnerable to disease in part because they are less able to cope with the challenges life presents (Friedman, Tucker, Tomlinson-Keasey, Schwartz, Wingard & Criqui 1993; Smith & MacKenzie, 2006). Miller, Smith, Turner, Gujjaro & Hallet (1996) found an evidence of an association between hostility and coronary heart disease. Hostility is considered a personality trait which predisposes individuals to experience more episodes of anger, suspicion and cynicism then other individuals (Smith & Frohm, 1985).

Work on early personality processes in relation to health is particularly relevant in light of epidemiologic studies that increasingly point to the importance of early life influences on adult health (Wadsworth & Kuh, 1997).Demonstration of a link between early emerging personality traits with adult health would provide support for life course theories of health (Kuh & Ben-Shlomo, 1997; Repetti, Taylor & Seeman, 2002). A study on a somewhat different sample of health-specific personality dimensions (Kardum & Hudek, 2008) found three similar higher-order factors namely negative experience (comprising narrower traits e.g., hostility, type -A behavior, anxiety), optimistic control (eg, self-efficacy, hardiness-control, optimism), and passivity (e.g., locus of control – powerful others and chance).

In terms of criterion validity there have been the following recent studies. Conard, (2005) found that Conscientiousness significantly predicted the GPA of college students, over and above using SAT scores alone. Cano-Garcia, Padilla-Muñoz, and Carrasco-Ortiz (2005) correlated a Spanish version of the NEO to predictors of teacher burnout in Sevilla, Spain. Neuroticism was related to the “emotional exhaustion” factor of burnout at 0.44, and Agreeableness related to the “personal accomplishment” factor of burnout (which is negatively scored when predicting burnout) at 0.36. Wang, Jome, Haase and Bruch, (2006) found that in minority students Extraversion was correlated to Career Decision Making Self-Efficacy (CDMSE) at 0.30, and that Neuroticism was strongly related to Career Commitment while controlling for CDMSE (r=0.42). Finally, Korukonda (2007) reported that Neuroticism was positively related to computer anxiety, while Openness and Agreeableness was negatively related. In view of the importance of personality in health, the present study was conducted.

Objectives:

1. To study the relationship of five personality factors with health dimensions among adult.

2. To explore whether personality factors significantly predict health problems among adult.

In the present research the following hypotheses were proposed:

1. There would be a significant association between personality factors and health problems.

2. Some personality factors would significantly predict health among adults.

Method

Sample:

The present study was conducted on a sample of 105 subjects, including 55 females and 50 males. The age range of the sample was from 22 to 26 years. The sample was selected from students of post graduate

courses, M.D.University, Rohtak, who volunteered to participate in the study.

Tools:

General Health Questionnaire-28 *(GHQ-28):* It constructed by Goldberg (1978) is designed to be a self-administered screening test. The questionnaire was designed to be easy to administer, acceptable to respondents, fairly short, and objective. Its focus is on psychological components of ill-health. There are different versions of GHQ available depending upon the number and nature of items. GHQ-28, containing 28 items, is derived from factor analyses of GHQ-60 and consists of 4 subscales i.e somatic symptoms, anxiety insomnia, social dysfunction and severe depression. Each item has four response alternatives. Its split-half reliability is .97. Its sensitivity and specificity are .8 and .88 respectively.

NEO-FFI-R: In The NEO-PI-R two dimensions Agreeableness (A) and Conscientiousness (C) have been added to the three dimensions i.e. Neuroticism (N), Extraversion (E) and Openness (O) in NEO-FFI.. It consists of 60 items that are scored for the five domains only. NEO-PIR is a concise measure of five broad dimensions of personality and now it replaces the NEO-Five factor inventory (Costa & McCrae 1992). The five domains covered by NEO-PI-R/NEO-FFI can be described as follows:

Neuroticism (N): The most pervasive domain of personality scales contrasts adjustment or emotional stability with maladjustment or Neuroticism. Although clinicians distinguish among many different kind of emotional distress, from social phobia to agitated depression to borderline hostility, many studies have shown that individuals prone to any one of these emotional states are also likely to experience the other's also (Costa & McCrae, 1992). The general tendency to experience negative affects such as fear, sadness, embarrassment, anger, guilt and disgust is the core of the N domain.

Extraversion (E): Extraverts are of course, sociable, but sociability is only one of the traits that comprise the domain of extraversion. Extraverts like people and prefer large group gathering, and in addition to it they are also assertive, active and talkative. They like excitement stimulation and tend to be cheerful is disposition. They are upbeat, energetic, and optimistic.

Openness (O): Openness to experience is much less well known that N or E as a major dimension of personality. The element O-active imagination, aesthetic, sensitivity, attentiveness to inner feelings, preference for variety, intellectual curiosity, and independence of judgment have often played a role in theories and measures of personality, but their coherence in a single broad domain has seldom been recognized.

Agreeableness (A): Like extraversion, agreeableness is a primary dimension of interpersonal tendencies. The agreeable Person is fundamentally altruistic. He or she is sympathetic to other and eager to help them, and believes that others will be equally helpful in return. On the other hand, the disagreeable or antagonistic person is ego centric, skeptical of other's intentions and competitive rather than cooperative.

Conscientiousness (C): Many of the theoretical approaches to personality, particularly psychodynamic theory, concern the control of impulses. During the course of development most individuals learn to manage their desires, and the inability to resist impulses and temptations is generally a sign of high N among adults. But self control can also refer to more active processes of planning, organizing and carrying out tasks; and individual differences in this tendency are the basis of conscientiousness.

The Five scales have been assessed for internal consistencies and test-retest reliability. The alpha coefficients for the individual facet scale ranged from .56 to .81. The full scale

coefficient alphas ranged from 86 and 95 . Other studies using the NEO-PI have reported very similar values for the samples of clinical cases and college students. The test-retest reliability (with three months interval) of NEO-FFI scales were obtained from a college sample, and the coefficients were found to be .79, .79, .80, .75 and .83 for N, E, O, A and C scales respectively.

Results and Discussion

The present study was conducted to find out the correlation between five factors of personality and psychological health. A perusal of the intercorrelation matrix shows that there is significant relationship between personality factors and health dimensions. The significant correlations between personality factors and health dimensions range between .33 and –.39.

Table1. Intercorrelations between dimensions of personality and health

	S	AI	SD	SD
Neuroticism	.14	.27**	-.069	.36**
Extrovert	-.009	-.194*	-.25**	-.16
Openness	.22*	.089	.33**	.056
Agreeableness	-.18	-.39**	-.026	-.33**
Conscientiousness	-.052	-.16	-.186	-.14

**p<0.01 *p<0.05

The results reveal that Neuroticism is positively associated with two dimension of health i.e. anxiety insomnia (r=.27), severe depression (r=-.36), dimensions of health. Thus there results shows that neuroticism personality related to health problems i.e. anxiety and severe depression. The correlation between extroversion and anxiety insomnia was .194, p<.05 and with social dysfunction correlation it was -.25. This indicates that extroversion is negatively associated with insomnia and social dysfunction. However, Openness was positively related to anxiety somatic (r=.22) and social dysfunction (r=33), while Agreeableness, showed a negative relationship with anxiety insomnia (-.39) and severe depression correlation is (-.33). The association between Conscientiousness and all indices of health is not significant, indicating that there is no significant relationship between consciousness and health problems among adults.

Stepwise regression is the most appropriate path to the predictions equation when one is interested in identifying a subset of potent predictors and eliminating those, which do not provide additional predictions to the predictors already entered. So stepwise regression analysis was applied to the data as the main objective of the study was to obtain the predictors of health problems among adults. The analysis revealed that three significant predictors of general health with an overall multiple R of .53.

Table 2. Summary of Stepwise Regressive Analysis Dependent Variable: Health

Step Variable	Multiple R	R^2	F
1 Agreeableness	.37	.135	16.01***
2 Openness	.49	.243	14.66***
3 Neuroticism	.53	.277	4.78***

***p<0.001

Agreeableness being most pertinent predictor of health, as it entered the equations at step one. The R for this variable equals to .37, while (16.007), it is significant at .001 probability. Openness appeared on the second potent predictor which entered at step two and multiple R increased to .49 with the entry of openness in the equation after agreeableness. The F ratio computed for the significance of multiple R, at step two, equals to 14.66 which is significant at .001. The next variable, which entered in the regression equation, is neuroticism. With the entry of this predictor at step three the multiple R become .53. The F ratio at this step equals to 4.78. The results to stepwise regression analysis revealed that these three variables significantly predict adult's health problems.

The present study was an attempt to study the health problems in relation to big five personality factors such as Neuroticism, Extrovert, Openness, Agreeableness and

Conscientiousness**.** The obtained results are discussed in the light of the theoretical framework of the subject and the research studies already conducted in the field Sharma, Sharma and Yadava, (2006) who found a negative association between personality factors e.g. extraversion, conscientiousness and emotional stability and dimensions of health, Recent work in personality has suggested that personality factors identified among youths may fit within the framework provided by the five factor model of personality. (Markey, Markey & Tinsley, 2004).For example, distress-proneness is characterized by negative affect and emotional instability which is congruent with the FFM factor of neuroticism, while both consciousnesses and neuroticism have been linked to health outcomes as well (Shipley, Weiss, Der, Taylor & Deary, 2007).

In the present study, we found that two factor of personality (extrovert, agreeableness) show negative correlation with health whereas neuroticism and openness showed significantly positive association with health dimensions. The result revealed three predicators of health i.e agreeableness, openness and neuroticism. All three predicators of health explained total 28% of the variance in health whereas agreeableness alone explained 13.5% variance in health.

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