



Evaluation of Relationship between Personality Traits and General Health of High School Students in Bandar Abbas

Eghbal Zarei *, Hossein Zeinalipour, Mehdi Tayebi sough, Maryam Adli, AllaMorad Tayebi sough

Hormozgan University, Bandar Abbas, Iran

* Corresponding author's Email: eghbalzarei2010@yahoo.com

ABSTRACT: The current research has been performed due to evaluation of ties of personality traits and general health. 205 students have been selected through multi stage random sampling. In order to collect data, NEO personality inventory and Goldberg & Hiller' general health questionnaire have been applied. Research data were analyzed by Pearson's correlation and Regression analysis. The results have indicated that there is a positive and significant relationship between personality traits of extraversion, openness (flexibility), agreeableness, conscientiousness and general health of students and there is a negative relationship ($p < 0.05$) between Neuroticism and general health of students. Neuroticism predicts 0.452 % of variance of general health.

Keywords: Personality Traits, General Health, Female Students

ORIGINAL ARTICLE

INTRODUCTION

Successful systems of education in different levels, besides the various evaluations will dedicate some parts to measure mental & personality dimensions of students so that with considering the results and performing the necessary actions, support them to access academic achievement. Generally, educational programs should be provided in an appropriate mental condition that leads students to apply all their abilities (Dehghan, 2010).

General health means somatic, mental & social complete ease of individual that there is an effective and dynamic interaction between them. Therefore, mental health is a criterion for determining general health of people which means: feeling well and ensuring from effectiveness, competitive capacity, intergenerational belonging, potential self-actualization of intellectual, emotional and etc. (World Health Report, 2001).

In fact the concept of mental health is an aspect of general concept of health. Although, the word health is defined for us and has a clear meaning, nevertheless its defining is not easy and has various meaning for different people. By mental health we mean health of some parts of human such as intelligence, mind, mode and thought (Jamali, 2009).

Any person to enter the community and deal with different people and conditions is equipped to the tools such as mental structure and personal traits which can be useful (Judge, et al., 2007).

It should be noted that in different situations and due to having different understanding and dealing, people react variously toward accidents and conflicts which are related to their personality traits. Some personality traits can have a significant role in etiology and progression of disorders. Traits of a person indirectly can cause disease through non-

healthy behaviors such as smoking, using drugs, insomnia and malnutrition. For instance, Meehl (1975), believes that those have low score in extraversion are prone to depression. Evaluations have indicated that personality traits can be considered as the most important factors in their compatibility and health (McCrea et al., 1986, Myers et al., 1995, Hayes et al., 2003). Nowadays, many researchers believe that five factor model of personality can increase our knowledge about traits and health. As each of the five main factors such as Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), Conscientiousness (C) can be considered as a set of compromising attributes that can help either people or group to achieve to their essential needs (Korotkov et al., 2004). Five main dimensions can be considered between individual differences in personality traits.

Neuroticism: In description of dimensions of five factor model, the least disagreement is existed about definition of neuroticism. It shows the difference of people in anxiety level to experience. In this model, emotional stability and low anxiety is separated from emotional instability and high anxiety. Other features of this group include: Tendency to anxiety and aggression, Depression, Timidity, Being Insecure, Precipitancy and Early Arousal (McCrea et al., 1992, McCrae, et al., 1992, Connor, et al., 2007, Huver, et al., 2009).

Extraversion: The most important feature of this group is Predominate, Sensation Seeking, Active, Being Energetic, Being Intimate, sociable, and Being Intrepid. These people are sociable and community-oriented (McCrea et al., 1992, McCrae, et al., 1992, Connor, et al., 2007, Huver, et al., 2009).

Openness: Openness of flexibility toward experience has been rarely seen in a society and as a

factor in personality. These people are curious about outer and inner world. They have a rich life full of experience and are willing to accept new ideas and non-conventional values. They include protesting groups at school. Imagination, Aestheticism, Seeking Diversity are considered as other features of this group (McCrae et al., 1992, McCrae, et al., 1992, Connor, et al., 2007, Huver, et al. 2009).

Acceptability or Compatibility: In one hand, they have features such as Altruism, Kindness, Lovemaking; Accompaniment & Humbling are and on the other hand, features such as Hostility, Malice, Jealousy, Competitiveness & Incuriosity to others (McCrae et al., 1992, McCrae, et al., 1992, Connor, et al., 2007, Huver, et al. 2009).

Responsibility: Volition is the best interpretation for responsibility. These people are responsible, have goal, volition, are determined, reliable, active, regular and accurate and have desire to succeed (McCrae et al., 1992, McCrae, et al., 1992, Connor, et al., 2007, Huver, et al. 2009).

In some studies, it was found out that extraversion is positively connected to the mental health of individual, whereas neuroticism has negative relation with mental health of people (Costa et al., 1984; Schultz 2000). Hobbes et al. (2003) believe that after openness or flexibility, person will experience both positive and negative emotional state; therefore, there is no direct tie between flexibility and health. Longitudinal studies have revealed that those have higher score in agreeableness & conscientiousness in compare with those has lower score in this dimension, have more mental health (Schultz 2000). Research of Bernardo et al., (2005), has indicated that personality, especially through extraversion and neuroticism, is considered as one of the most important correlations of health and there is a positive relationship between flexibility and negative and positive affection. Mani (2004) has indicated in his research that there is a positive & significant correlation between extraversion personality and agreeableness with positive affection and happiness and also there is a negative and significant correlation with negative affection. However, there is a negative and significant correlation between neurosis with positive affection and happiness and there is a positive and significant correlation with negative affection.

In connection to the foregoing, objective of this research is determining the part of predictor variable of personality traits on general health of students and prediction of general health.

MATERIALS AND METHODS

In this research, correlation method has been applied. Statistical population of this research

comprise of female student of secondary schools of Bandar Abbas in academic year of 2011-12. Number 205 of students that were selected by multi stage random sampling have been evaluated. Furthermore, the following tools were used in this research:

Five-Factor Personality Questionnaire (NEO):

NEO personality questionnaire is short and revised form of test of NEO-PI-R and is considered as its alternative which was provided in 1985 by Costa et al. (1985) (Garooosi, 2001). This test includes 240 questions and have two forms of S (grading by self) and R (grading by others) which measures 5 main factors of personality and 6 specification of each factor and provide a comprehensive assessments from personality of person. It was translated, standardized and implemented by Garooosi (2001) in Iran. Short form of this test (NEO-FFI) which comprise of 60 questions are applied in this research and the questions are answered in five-points Likhert items as totally disagree, disagree, no idea, agree, totally agree and are replied by person himself.

McCrae et al. (1983) have implemented NEO 60 Questions on 208 students within 3 months and have obtained reliability coefficient of 0.83, 0.75, 0.80, 0.79, and 0.79 respectively for N, E, O, A & C factors. (Garooosi 2001) Roushan et al. (2006) also, attained the Cronbach's Alpha of this test in range of 0.72 for flexibility and to 0.87 for neuroticism. Mani's research (2004), have indicated that reliability of test within two weeks for this test measures is obtained between 0.86 and 0.90 and range of coefficient of internal consistency is reported 0.68 to 0.86. Most researches confirmed validity of this research by using correlation form of S and R (Garooosi 2001). McCrae et al. (1989) stated about validity of test that short form of NEO-FFI is an exact match with its complete form and the correlation is determined more than 0.68. Kiamehr (2002), in his research which was performed on university student's of Tehran, has obtained the correlation coefficient of this test with NEO 240 questions test for 5 factors respectively 0.75, 0.91, 0.71, 0.78, 0.75.

General Health Questionnaire:

This questionnaire was provided by Goldberg et al. (1972) and standardized by Homan (1996), on Bachelor's Degree students of Tarbiat Moallem University of Tehran. Questions were replied based on four-points Likhert Items. (It should be noted that high scores in this test indicates the low health condition of individual, therefore in description of correlations, this matter should be considered) 28 questions questionnaire of general health which is also used in this research, has four sub-scales of Somatic, Anxiety

and Sleep Disorder, Impairment in Social Functioning and Depression symptoms. The question have arranged in order in a way that questions 1-7 are somatic symptoms, 8-14 are anxiety and sleep disorder, 15-21 are impairment in social functioning and 22-28 are depression symptoms. From sum of scores of these 4 sub-scales, one total score will be obtained for health of individual (Garooosi, 2001). The best and most appropriate method for scoring is applying Likhert method with scores of (0, 1, 2, and 3). In scoring, 4 scores is related to the subsidiary scales and 1 score to all items of questionnaires. Score 23 and higher indicate the non-mental health and score lower than 23 indicate mental health (Mohammadi, 2006), In Ahmadian research (2005), reliability of test through Cronbach's Alpha coefficient for sub-scales of Somatic, Anxiety and Sleep Disorder, Impairment in Social Functioning and Depression symptoms and total scale of mental health is respectively 0.77, 0.77, 0.48, 0.85 and 0.90. Validation of this questionnaire is performed by Haghghi et al by using total score of SCL-90-R which the coefficients were respectively 0.84, 0.85, 0.72, and 0.72 (Ahmadian, 2005). Questionnaires of personality and general health have been completed by individuals who last 40 days.

RESULTS

As it can be seen in table 1, frequency, percent and cumulative percent of students are determined based on field of study. 1st grade students (general) who are 68 dedicated 33.17 % and the highest percent of total sample. Humanities students who are 57 dedicated 27.80 %, natural science students who are 45 dedicated 21.95 % and mathematics students who are 35 dedicated 17.07 % of total sample of research. As it can be seen in the table 2, conscientiousness has the highest average (30.69) and neuroticism has the lowest (22.33) average among the students.

As it is seen in the table 3, subscale of social functioning has the highest average and depression the lowest one. Therefore, statistical population of this research shows their most problems in social functioning and the least one in depression.

The results of table 4 have indicated that calculated correlation coefficients of all the personality dimensions with general health are significant in lower level of $p < 0.01$. It can be concluded that there is a positive and significant relationship between neuroticism and general health. As it was said earlier, positive correlation in GHQ questionnaire means that the relationship is reversed. Consequently, by increasing neuroticism feature in people, their general health will jeopardize and vice versa. Also there is a negative and significant relationship between extraversion, flexibility, agreeableness and

consciousness with general health which with considering the reversion of scores of general health questionnaires can be concluded that with increasing the extraversion, flexibility, agreeableness and consciousness, general health will increase and vice versa. Calculated determination coefficient indicates that neuroticism (45.2), extraversion (13.62), flexibility (5.66), agreeableness (16.32) and consciousness (5.52) will provide the aforesaid percent of variance of general health.

To answer this question that what extent of variance of student's general health is provided by their personality dimensions, step by step regression method have been applied. To do this, variable of general health as criterion and personality dimension as predictor variable have entered to this model. The results are presented in tables 5 and 6.

The results shows that among 5 personality traits, only neuroticism entered to regression model and it could provide 0.452 % of variance of general health variable.

Table1: Frequency, Percent & Cumulative Percent

Field	Frequency	Percent	Cumulative Percent
1 st Grade General	68	33.17	33.18
Humanities	57	27.80	60.97
Natural Science	45	21.95	82.92
Mathematics & Physics	35	17.07	100
Total	205	100	

Table 2: Descriptive Indicators of Scores of Different Personalities (n=205)

Index Statistics	Average	Standard Deviation
Neuroticism	22.33	8.65
Extraversion	27.71	6.93
Openness	28.89	5.78
Agreeableness	28.11	5.85
Conscientiousness	30.69	7.54

Table 3. Descriptive Indicators of Scores of General Health (n=205)

Index Statistics	Average	Standard Deviation
Social Disorder	6.05	4.25
Anxiety	5.78	4.47
Impairment in Social Functioning	8.67	3.57
Depression	3.50	3.94
Total of General Health	24.02	14.12

Table 4, Results of Correlation Coefficient of Personality Dimensions with General Health (n=205)

Variables	Correlation Coefficient	Significance Level	N
Neuroticism - General Health	0.672	0.001	205
Extraversion - General Health	-0.369	0.001	205
Openness - General Health	-0.238	0.001	205
Agreeableness - General Health	-0.404	0.001	205
Conscientiousness - General Health	-0.235	0.001	205

Table 5, Summary of Results of Significant Regression for Predicting General Health of Students

Variable	R	R ²	Revised R ²	Standard Error	F	Df	Significance Level
Neuroticism	0.672	0.452	0.45	0.06	9.66	203	0.002

Table 6, Summary of Regression Coefficients Table

Variable	Non-standard coefficient		Standard value of β	Value of t	Significance level
	Value of b	Standard Error			
Y-intercept	-8.63	11.60		-0.74	0.45
Neuroticism	0.78	0.06	0.63	3.10	0.002

DISCUSSION

The current research has been performed with objective of evaluation of ties between personality traits and general health of female students of secondary schools of Bandar Abbas and prediction of their health on personality dimensions. The results of hypothesis of research with Pearson correlation indicate that there is a positive and significant correlation between neuroticism and general health and negative and significant correlation between extraversion, flexibility, agreeableness and responsibility with general health. In the other word, it can be cited that increasing the scores of neuroticism will be accompanied with disorders in any somatic, anxiety, social and depression fields. So, by increasing personality traits of extraversion, flexibility, agreeableness and responsibility, scores of students will decrease in all subscales of general health. It means that whatever a person's score is higher; he/she will enjoy higher general health either.

The results of this research is in the same line with performed researches by Hobbs et al. (2003), Costa et al. (1986), Costa et al. (1991), Bernard et al. (2005), Donio et al. (1998), Kerotkof et al. (2004), Shay et al. (2002), Forenham et al. (2000), Mani (2004), Peneli et al. (2002), Val Ras et al. (1999) which indicate that health is in relationship with low level of neuroticism and high level of extraversion with agreeableness and consciousness. Other researches performed by Hilzet al (2001), Pauol et al. (2001) and Grohel (2005) confirmed this research as well. Considering the fact that those other factors in neuroticism in personality five factor models are

anxiety, aggression, depression, self concern, impulsiveness and vulnerability (Garooosi, 2001), relationship of this dimension with low health level of individuals in all dimensions will be logical. Happiness has negative correlation and grief and depression has positive correlation with OCD (Dinio, et al., 1998). Also it is possible that those who has OCD, in dealing with conflicts use brave, audacious and hurriedly approaches and their approaches in compare with healthy people are more effective. Consequently, this raises their stress and jeopardizes their general health (Kardum et al., 2001).

The results of regression have indicated that among five personality traits, only neuroticism entered into the regression model which provided 0.452 % of variance of general health variable.

Nevertheless, due to the fact that statistical population of research were only female students of Bandar Abbas, there is difficulty in generalizing findings of research to the entire population and other students of the country. Since data collection has been performed by questionnaire, there is no certainty about accuracy and truth of responses. Performing research by applying questionnaire has its associated disadvantages.

To evaluate accurately, it is recommended to use long form of NEO questionnaire (240 questions) and other tools of health, performing longitudinal research about research variables in order to study effective factors in general health of people such as behavior and method of raising child, family environment and society, effects of stress and life accidents.

REFERENCES

- Ahmadian, F. (2005). Relationship with the style and child self-efficacy and mental health of students. MA dissertation, University of Tabriz.
- Bernardo, M., Gonzalez Gaultierrez, J. & Garrosa, L. (2005). Personality and subjective well-being: big five correlates and demographic variables. *Personality and Individual Differences*, 38, 1561-1569.
- Chelse Roushan, R. (2006). Examine the psychometric characteristics of the five-factor personality questionnaire NEO (NEO-FFI). *Journal of Daneshvar*, No. 16, pp. 27-36.
- DeNeve, K., & Cooper, H. (1998). The happy personality: a meta-analysis of 137. *Personality traits and subjective well-being. Psychological Bulletin*, 124, 197-229.
- Dehghan, N. (2010). The relationship between social skills and academic progress of students with mental health. MS Thesis, University of Al-Zahra.
- Furnham, A. and H, Cheng. (2000). Perceived parental behavior, self-esteem, and happiness, *Social Psychiatry and Psychiatric Epidemiology* 35, pp. 463-470.
- Garoozi, M.T. (2005). New approaches to personality assessment: The application of factor analysis in Personality Studies. Printing, Tabriz, the publication of Daniel.
- Grohol, J.M. (2005). Big five personality traits, *empsychopediavol.17*. [Http/ psychic trial com/psych/big-five-personality-traits](http://psychic-trial.com/psych/big-five-personality-traits).
- Hayes; N. & Joseph S. (2003). Big five correlates of three measures of subjective well - being. *Personality and individual differences*, 18, 663 - 668.
- Haren, E., & Mitchell, C. W. (2003). Relationships between the five factor personality model and coping styles. *Psychology & Education. An Interdisciplinary Journal*, 40(1), 38-49.
- Hooman, A. (1996). Standardization and Standardization of the General Health Questionnaire for undergraduate students daily, Teacher Training University. Educational Research Institute of Teacher Training University.
- Huver, R.M.E. Otten, R. Veries, H. & Engelse, R.C.M.E. (2009). Personality and Parenting style in parents of adolescents. *Journal of Adoloscence*, 1-8.
- Jamali, F. (2009). Relationship between religious attitude, a sense of meaning of life and mental health of students in Tehran University. MS Thesis, University of Al-Zahra University of Educational Sciences and Psychology.
- Judge, T.A., Jackson, C.L., Shaw, J.C., Scott, B.A., & Rich, B.L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology*, 92, 107-127.
- Kardum, I., & Krapic, N. (2001). Personality traits, stressful life events, and coping style in early and individual differences, 30, 503-515.
- Kiamehr, J. (2002). Standardization of the short form questionnaire five NEO-FFI and its factor structure (confirmatory analysis) between students of Tehran University Faculty of Humanities. Master's thesis, Allameh Tabatabai University, School of Psychology and Educational Sciences.
- Korotkov, D; Hannah, E. (2004). The five factor model of personality: strengths and limitation in predicting health status, such-role and illness behavior. *Personality and individual differences*, 36, 187 - 199.
- Mani, A. (2004). The relationship between attachment and personality traits classes with feelings of happiness among students of Tabriz University. MS Thesis, University of Tabriz.
- Mccrea, R.R. Costa, P.T. (1991). The full five - factor model and well- being. *Personality and social psychology bulletin*, 17, 227- 232.
- Mccrea, R.R. Costa, P.T. (1986). Personality, coping and coping effectiveness in an adult sample. *Journal of personality*, 54, 385 - 405.
- McCrae, R.R., & John, O.P. (1992). An introduction to the five factor model and its applications. *Journal of Personality*, 60, 175-215.
- Mohammadi, F. (2006). The effect on self-descriptive evaluation of primary third-grade students in Tehran. MS Thesis, University Al-Zahra.
- Connor, M.C., & Paunonen, S.V. (2007). Big five personality predictors of postsecondary academic performance, *Personality and Individual Differences*, 43, 971-990.
- Paunonen, S., Ashton, M. (2001). Big five predictors of academic achievement. *Journal of Research in Personality*, 35, 78-90.
- Penley, J.A., & Tomaka, J. (2002). Associations among the Big five, emotional responses, and coping with acute stress. *Personality and Individual Differences*, 32, 1215-1228.
- Schultz, D. & Schultz, S.E. (2000). Theories of personality, translation of S, Mohammadi Yahya, Sixth Edition, Tehran: Publication Editor.
- Word health organization. (2001). The world health report health system: Geneva.