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Mental Health: A Personality Analysis Exploring the Influence of Neuroticism

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ABSTRACT:

Mental health is found to be reinforced by personality traits and among the Eysenck's personality traits Neuroticism has a significant inverse influence on the behaviour. The current study examines the influence of neurotic personality dimension on the mental health among the youth in Kerala. The participants consisted of 211 undergraduate students between 18 to 24 years. The data were collected using the Mental Health Inventory and Eysenck's Personality Questionnaire-R, and analyzed using descriptive and inferential statistics. Results of MANOVA revealed that mental health of youth significantly differ based on neurotic dimension of their personality. The mean mental health index score was low among the high neurotics compared to the low neurotics. The results of Discriminant Analysis showed that among six dimensions of mental health, anxiety and, loss of emotional and behavioural control contribute more to discriminate the high and low Neuroticism groups. On an average, 73% of subjects originally grouped as belonging to high and low Neuroticism groups were correctly classified. The findings suggest the need for incorporating personality as a core variable in mental health promotion and illness prevention approaches to account for individual differences in thinking, feeling and behaviour.

Keywords: *Mental health, Personality, Neuroticism, Youth, Behaviour*

Mental health has gained recognition as a major public health problem only in recent years as it has important individual, societal, and economic consequences. It maintains an independent relation with psychosocial adaptation, work productivity, physical disease, health care utilization and even mortality (Keyes, 2005, 2006; Chida & Steptoe, 2008). The National mental health programme of India aims to assure minimum mental health care for all by application of mental health knowledge in general health care, community participation, and equitable and balanced distribution of resources and integration of mental health with general health services.

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MENTAL HEALTH

WHO defined mental health as a state of well-being in which the individual realizes his or her own abilities, cope with the normal stresses of life, work productively and fruitfully, and, make a contribution to his or her community (WHO, 2001b, p.1). This definition has three aspects: an individual's well-being, effective individual functioning, and effective social functioning (Herrman, Saxena & Moodie, 2005).

Mentally healthy individuals have three main characteristics: (1) they feel comfortable about themselves, i.e., they accept their shortcomings, neither underestimate nor overestimate their own abilities, and have a reasonable level of self respect; (2) they are considerate towards others and establish relationships that are gratifying and lasting, trust others and takes responsibility for his fellow men and the actions of self; and (3) mentally healthy individuals are able to meet the demands of life and find solutions for problems they face, make decisions thoughtfully, and set reasonable goals for themselves. Good mental health is characterized by a person's ability to fulfill a number of key functions and activities including: the ability to learn; the ability to feel, express and manage a range of positive and negative emotions; the ability to form and maintain good relationships with others; and, the ability to cope with and manage change and uncertainty. Mental and behavioural disorders account for 12% of the global burden of disease. Among 45 crore people suffering from mental and behavioural disorders globally only a minority receive adequate care. The global prevalence of mental and behavioural disorders among the adult population is estimated to be 10%. It is estimated that by 2020, 15% of the disability-adjusted life-years (DALYs) lost would be due to mental and behavioural disorders and the lifetime prevalence of developing one or more mental and behavioural disorders is estimated to be 25% (WHO, 2001a). A meta-analysis of 13 epidemiological studies in Kerala shows a prevalence of 5.8% for mental illnesses. Psychiatric morbidity is found to be associated with urban residence, female gender, 35-44 years age group, low socio economic status and nuclear family type. (Praveenlal, 2013).

PERSONALITY AND MENTAL HEALTH

Among the several factors associated with mental health, personality factors seem to have drawn much attention in the past. Personality has been studied in a number of different ways drawing significant relationships with various aspects of psychological health. Parenting style is seen to have a considerable impact on personality. Rai, Pandey, and Kumar (2009) reported significant difference in personality among boys who had more rejection and girls who had better emotional warmth from father. Significantly higher levels of anxiety, more somatic problems and higher levels of anger and hostility were reported among boys whereas girls reported high self-esteem. Extant literature has identified neuroticism as a significant risk factor for mood and anxiety disorders. Mangold, Veraza, Kinkler, and Kinney (2007) reported it as a strong predictor of subjective stress in 122 Mexican American college students. Individuals select situations that fulfill various personality needs (Furnhan, 1981). Depression facet of Neuroticism and the positive emotions/cheerfulness facet of Extraversion are the strongest and most consistent

predictors of life satisfaction **(**Schimmack, Oishi, Fur, & Funder, 2004). In their meta-analysis, Heller, Watson, and Ilies (2004) revealed that life satisfaction is more positively related to personality constructs. Extraversion was found to be strongly correlated with higher levels of life satisfaction whereas neuroticism correlated with lower levels of satisfaction. In a study by Ebert, Tucker and Roth (2002), exploring the ability of the factors causing psychological resistance in predicting psychological wellbeing conducted in undergraduate students, neuroticism, sense of coherence and optimism were identified as significant predictors of psychological wellbeing. In another study Steel and Ones (2002) reported negative correlation between neuroticism and subjective well-being. Higher levels of neuroticism were found to be significantly related to lower levels of positive well-being. A meta-analysis conducted by DeNeve (1999) reported neuroticism as one of the strongest negative correlates of subjective well-being whereas in another study (DeNeve & Cooper, 1998) it was the strongest predictor of life satisfaction, happiness, and negative affect. Hilleras's (1998) examination on negative and positive affect among elderly showed that the factors that influence affect in the very elderly are similar to those influencing affect in younger ages and that personality traits are the major correlates of affect.

From the above review it is seen that mostly it is the presence of multiple risk factors, or the lack of protective factors or sometimes even the interplay of risk and protective situations predispose individuals to deviate from a mentally healthy state. Personality is an important factor affecting one's mental health. Among Eysenck's personality traits neuroticism seems to have significant relationship with mental health. Though there is a dearth of studies focusing exclusively on personality's influence on various mental health aspects including well-being, there are no many published research studies from Kerala focusing on changes in specific aspects of mental health due to neuroticism. Thus the present investigation is specifically undertaken to investigate the influence of neuroticism dimension of personality on mental health among Keralite youth.

MATERIALS AND METHODS

Cross-sectional survey approach with a descriptive design was adopted for the current study. It was conducted in selected colleges at Kottayam district in Kerala and the data collection was carried out during October and November, 2013. The target population was students in Arts and Science colleges. The objectives of the study necessitated the inclusion of samples from youth who met the inclusion criteria. Administrative permission from institutional authorities, written consent from subjects, and approval from institutional ethical committee of Jubilee Mission Medical College and Research Institute, Thrissur, Kerala were obtained for conducting the current study. Participation was voluntary. The questionnaire was completed anonymously and no compensation was given for participation.

The sample for the present investigation consisted of 211 youth who were undergraduate students in the university. The age of the subjects ranged from 18 years to 24 years. The sample included 136 males and 75 females selected through multistage sampling.

Instruments

Eysenck's Personality Questionnaire- (Revised) (Eysenck & Eysenck, 1964) and Mental Health Inventory (Veit & Ware, 1983) were used to measure personality traits and mental health of subjects.

Mental Health Inventory (Veit & Ware, 1983) has been standardized in 1983 and it has 38 items. It is designed to measure psychological health and mental health status of an individual within the past month. This tool may be aggregated in to six subscales (Anxiety, Depression, Loss of behavioural /emotional control, General positive affect, Emotional ties and Life satisfaction), two global scales (Psychological distress and Psychological well-being) and global mental health index score. The respondent has to give his/her rating for each of the item of a 5 to 6-point Likert type of rating scale. The scoring was done based on the guidelines given in the manual.

Eysenck's Personality Questionnaire- (R) (Eysenck & Eysenck, 1964) measure the personality of the individual with reference to the behaviour, feelings and actions. This focuses on the areas of normal functioning rather than upon psychopathology, and provides an assessment of traits that are relevant to human behaviour. This 90 item measure assesses 3 traits of personality namely extraversion-introversion, neuroticism and psychoticism. In addition, it includes a lie scale also. The respondent is required to give a 'True' or 'False' response for item. Certain statements are positively stated while some are negatively stated. Each subscale had items having responses 'Yes' or 'No' whereas neuroticism had items having only 'Yes' response as the answer. A score is assigned to every response made by the subject that endorses the presence of the particular personality trait that is implied by the statement. The scoring is done based on the scoring key provided in the manual.

Statistical analysis was done with SPSS 16 for Windows using descriptive statistics, MANOVA and Discriminant Analysis.

RESULTS

The median of the distribution of scores of subjects on Neuroticism was used to form the criterion groups distinguishing high and low levels of Neuroticism. The scores of the subjects in the sample on Neuroticism ranged from 2 to 22. The mean and standard deviation (SD) of the scores of subjects on Neuroticism were 10.47 and 4.20 respectively. The median of the distribution of scores of the sample on Neuroticism was 10. All the subjects in the sample who had a score less than the median score were grouped together to constitute the Low Neuroticism Group and the subjects with score greater than the median score were grouped together to form the High Neuroticism Group. The median score was shared by 18 subjects in the sample. These 18 subjects were distributed randomly to the low and high group on Neuroticism. There were 94 and 99 subjects in the low and the high groups respectively. The mean and standard deviation of Neuroticism scores of the Low Neuroticism Group were 6.63 and 1.97 respectively. The mean and standard deviation of the Neuroticism scores of the High Neuroticism Group were 14.21 and 2.41 respectively. Table 1. given below presents the mean and SD of scores of the subjects in

low Neuroticism group and high Neuroticism group on various subscales of Mental Health Inventory.

Table 1. Means and SD of the scores obtained by the criterion groups on Neuroticism on the subscales of Mental Health Inventory

N=211

Variables	High Neuroticism Group	Low Neuroticism Group
Anxiety	26.04 (5.34)	20.33 (6.15)
Depression	12.63 (2.77)	11.05 (2.79)
Loss of Behavioural and Emotional Control	24.84 (5.97)	18.89 (5.64)
General Positive Affect	34.96 (6.78)	39.43 (8.35)
Emotional Ties	07.90 (2.67)	08.77 (2.69)
Life Satisfaction	03.60 (1.26)	04.15 (1.16)

The criterion groups on Neuroticism were compared on the various components of mental health obtained using MANOVA to test the hypothesis that there will be significant difference in mental health with respect to neuroticism. Analysis showed that mental health significantly differed with respect to neuroticism, Wilks' Lambda = .747, $F_{(6,186)} = 10.497$, $p < .001$ level and the Partial Eta Squared was .253. Table.2 gives results of univariate ANOVAs from the summary of MANOVA.

Table 2. One way ANOVAs on High and Low levels of Neuroticism and Mental health

Variables	Sum of Squares	Mean Square	*F*	*df*	*p*
Anxiety	1572.43	1572.43	47.61	1	.000***
Depression	119.32	1572.43	47.61	1	.000***
Loss of Behavioural and Emotional Control	1704.02	1704.02	50.43	1	.000***
General Positive Affect	961.68	961.68	16.73	1	.000***
Emotional ties	36.24	36.24	05.05	1	.026*
Life Satisfaction	14.74	14.74	10.00	1	.002**

*$p < .05$ level; **$p < .01$ level; ***$p < .001$ level

On univariate ANOVAs from the summary of MANOVA (Table 2.) all components of mental health showed the trend in the expected direction. It was found that high Neuroticism group was high on Anxiety ($M = 26.04$, $SD = 5.34$, $F_{(1, 191)} = 47.61$, $p < .001$), Depression ($M = 12.62$, *SD*

= 2.77, $F_{(1,191)}$ = 15.46, $p < .001$) and Loss of behavioural and emotional control (M = 24.83, SD = 5.97, $F_{(1, 191)}$ = 50.43 , $p < .001$) than the low Neuroticism group (Anxiety – M = 20.33, SD = 6.15; Depression- M = 26.04, SD = 2.79; and Loss of behavioural and emotional control- M = 26.04, SD = 5.64). Whereas low Neuroticism group was high on General positive affect (M = 39.43, SD = 8.35, $F_{(1,191)}$ = 16.72, $p < .001$), Emotional ties (M = 8.76, SD = 2.69, $F_{(1, 191)}$ = 5.05, $p < .05$), and Life satisfaction (M = 4.15, SD = 1.16, $F_{(1, 191)}$ = 10.0, $p < .01$) than the high Neuroticism group (General positive affect – M = 34.96, SD = 6.78; Emotional ties – M = 7.90, SD = 2.67; and Life satisfaction – M = 3.60, SD = 1.26).

Further, Discriminant Analysis examined which aspects of mental health were affected by the neuroticism trait. The Canonical Discriminant Function Coefficients of the scores of the subjects on EPQ-R is shown in Table 3. The Classification Results of the Discriminant Analysis of the scores of the subjects on EPQ-R is shown in Table 4.

Table 3. Canonical Discriminant Function Coefficients Discriminating the High and Low Neurotic groups

Standardized Canonical Discriminant Function Coefficients	
Anxiety	.552
Depression	-.150
Loss of Emotional Control	.510
General Positive Affect	-.266
Emotional ties	.015
Life Satisfaction	-.046

As may be seen from the above table (3.) Anxiety and Loss of Emotional control contribute more to discriminate the high and low Neuroticism groups among the variables studied in this investigation though there is also a component of the discriminant function which is associated with the General positive affect and Depression. The Classification Results of the Discriminant Analysis of the scores of the subjects on EPQ-R (N scale) is presented in Table 4.

Table 4. Classification Results of the Discriminant Analysis of the Scores on EPQ-R (Neuroticism scale)

Actual group membership	Predicted group membership		Total
	Low Neuroticism group	High Neuroticism group	
Low Neuroticism group	70 (74.5%)	24 (25.5%)	94 (100.0%)
High Neuroticism group	28(28.3%)	71 (71.7%)	99 (100.0%)

A direct discriminant analysis was carried out using six predictors viz., Anxiety, Depression, Loss of emotional control, General positive affect, Emotional ties and Life satisfaction to determine which of these variables best discriminate between Low and High Neurotic groups. The prediction equation has correctly predicted the classification of subjects originally grouped as belonging to high and low Neuroticism groups to the extent of 73.1% (on an average).
About 75% of the originally grouped cases were correctly classified. One discriminant function is calculated, explaining 100% of the variance. Wilk's lambda was statistically significant ($\chi^2_{(6, 211)} = 54.829$, $p < .001$). The discriminant function maximally differentiated Low Neurotic group from the High neurotic group and correlated most highly with the difference between Loss of Emotional control (.883) and Anxiety (.858). About 75% of Low Neurotic group members were correctly identified with the remaining quarter misclassified as the High neurotic group members. Seventy two per cent of the High neurotic group members were correctly identified with 28% misclassified as the Low Neurotic group members.

DISCUSSION

The findings of the present study suggest that the neurotic individual is characterized by their anxious nature, depressive feelings, and lack of control over his/her emotions and behaviour. Difficulty to relate with others emotionally or to develop relationships, lesser joy, low satisfaction with life etc., also distinguishes the neurotic individual from others. Of the various traits studied here Anxiety and Loss of Behavioural and Emotional control could correctly discriminate highly neurotic individuals from others to a greater extent. General positive affect and Depression also discriminate them but only to a lesser extent. Thus the personality profile of the high neurotics reflecting from the findings seems to show that the neurotic individual experiences more anxiety and does not demonstrate adequate control over his/her emotions and behaviour whereas emotionally stable individuals have lesser anxiety and better control over emotions and behaviour. Having high threat perception may negatively affect a neurotic individual's ability to cope in unfavourable conditions. Thus he/she is characterised by an overall proneness to experience more psychological distress. The findings are in line with earlier studies that report a negative relationship between neuroticism and mental health (Jaksic, Brajkovic, Ivezic, Topic, & Jakovljevic, 2012; Hampson, Goldberg, Vogt, & Dubanoski, 2007).

Neuroticism is a risk factor for mood and anxiety disorders and a strong predictor of subjective stress (Mangold et al, 2007). Highly neurotic individuals have more negative emotional reactions (anxiety), and experience more distress at the end of the day (Gunhert, Cohen, & Armeli, 1999). They are reported to be emotionally unstable and fearful in a variety of situations in everyday life. An especially high score on neuroticism has been mentioned as a predisposition to experience long-term levels of negative affect such as fear, anger, shame and sadness (Costa & McCrae, 1980). Neurotics perceive more threats from the environment. Mak, Blewitt, and Heaven (2004) showed that a high level of neuroticism is associated with a greater amount of threat appraisal and a high level of depressive symptoms. There are marked differences in both psychological and physical well-being and discomfort due to affective personality profiles

(Archer, Adrianson, Plancak, & Karlson, 2007). Emery, Huppert, and Schein (1996) also revealed that neuroticism significantly predicts psychological well-being.

Based on the above evidences it can be inferred that the finding of the present study suggesting high anxiety and instability in emotions and behaviour are in line with the expectation. This study confirms the earlier finding reporting positive relationship between neuroticism and anxiety (Sanja, Elizabeta, & Klementina, 2013), and neuroticism and lack of behavioural and emotional control (Grundy, 2000; Brodsky, Malone, Ellis, Dulit, & Mann, 1997).

The findings imply that neurotic individuals perceive, feel and react in a manner that draws more stressors, negative situations and experiences to them which in turn increase their proneness to experience more mental distress. Thus personality of an individual shapes the behaviour and, the subsequent experiences and adaptation to them affects the mental health. Findings of the current study highlight the need to incorporate personality as a core variable to account for individual differences in thinking, feeling and behaviour in mental health promotion measures. Findings should be interpreted in light of the following limitations: Homogeneity of the sample; and inclusion of single cultural setting.

CONCLUSION

Mental health is significantly affected by personality traits and neurotic trait is the most important one to have a negative impact on various aspects of mental health. Efforts to promote mental health and prevent mental illness must approach personality as a significant contributing factor because one's personality is highly influential in his/her adaptation to and survival in the environment.

REFERENCES

Archer, T., Adrianson, L., Plancak, A., & Karlson, B. (2007). Influence of affective personality on cognition mediated emotional processing; need for empowerment. *European Journal of Psychiatry, 21*(4).

Brodsky, B. S., Malone, K. M., Ellis, S. P., Dulit, R. A., & Mann, J. J. (1997). Characteristics of Borderline Personality Disorder Associated With Suicidal Behavior. *American Journal of Psychiatry, 154*, 1715-1719.

Chida, Y., & Steptoe, A. (2008). Positive psychological well-being and mortality: A quantitative review of prospective observational studies. *Psychosomatic Medicine, 70* (7), 741-756.

DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta- analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.

DeNeve, M. K. (1999). Happy as an extraverted clam? The role of personality for subjective well-being. *Current Directions in Psychological Science, 8* (5), 141–144.

Disability-adjustedlife-years http://www.worldbank.org/html/extdr/hnp/hddflash/workp/wp_00068.html.

Ebert, S. A., Tucker, D. C., & Roth, D. L. (2002). Psychological resistance factors as predictors of general health status and physical symptom reporting. *Psychology, Health & Medicine, 7* (3), 363 – 375.

Emery, F. C., Hupport, A. F., & Schein, L. R. (1996). Health and personality predictors of psychological functioning in a seven year longitudinal study. *Personality and Individual Differences, 20* (5), 567-573.

Eysenck, H. J., & Eysenck, M. S. B. G. (1964). *Manual of the Eysenck Personality Inventory*. London: University of London Press.

Furnhan, A. (1981). Personality and activity preference. *British Journal of Social Psychology, 20* , 57-68.

Grundy, S.E. (2000). Perceived work-related stressors, personality, and degree of burnout in firefighters. Dissertation Abstract International: Section B: *The Science and Engineering, 61,* 16-85.

Gunthert, K. C., Cohen, L. H., & Armeli, S. (1999). The role of neuroticism in daily stress and coping. *Journal of Personality and Social Psychology, 77* (5), 1087-1100.

Hampson, S. E., Goldberg, L. R., Vogt, T. M., & Dubanoski, J. P. (2007). Mechanisms by which childhood personality traits influence adult health status: Educational attainment and healthy behaviours. *Health Psychology. 26* (1), 121-125. doi: 10.1037/0278-6133.26.1.121.

Heller, D., Watson, D., & Ilies, R. (2004). The role of person versus situation life satisfaction: A critical examination. *Psychological Bulletin, 130* (4), 574-600.

Herrman, H. S., Saxena, S., & Moodie, R, eds. (2005). *Promoting mental health: Concepts, emerging evidence, practice.* A WHO report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva, Switzerland: World Health Organization. Available at: http://www.who.int/mental_health/evidence/MH_Promotion_Book.pdf.Accessed January 22, 2010.

Hilleras, P. K. (1998). Negative and positive affect among the very old. *Research on Aging, 20* (5), 593- 610.

Jaksic, N., Brajkovic, L., Ivezic, E., Topic, R. & Jakovljevic, M. (2012). The role of personality traits in posttraumatic stress disorder (PTSD). *Psychiatria Danubina, 24* (3), 256–266.

Keyes, C. L. M. (2005). Mental illness and /or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting Clinical Psychology, 73* (3), 539-548.

Keyes, C. L. M. (2006). Mental health in adolescence:Is America's youth flourishing? *American Journal of Orthopsychiatry, 76* (3), 395-402.

Mak, A. S., Blewitt, K., & Heaven, P. C. L. (2004). Gender and personality influences in adolescent threat and challenge appraisals and depressive symptoms. *Personality and Individual Difference, 36* (6), 1483-1496.

Mangold, D. L., Veraza, R., Kinkler . L., & Kinney, N. A. (2007). Neuroticism predicts acculturative stress in Mexican American college Students. *Hispanic Journal of Behavioral Sciences, 29* (3), 366-383.

Praveenlal, K. (2013). Policy and programmes for mental health in Kerala. *BMC Proceedings, 7* (Suppl 5), O12. doi:10.1186/1753-6561-7-S5-O12.

Rai, R. N., Pandey, R. C., & Kumar, K. (2009). Perceived parental rearing style and personality among Khasi adolescents. *Journal of the Indian Academy of Applied Psychology, 35* (Special Issue), 57-60.

Schimmack, U., Oishi, S., Fur, R, M., & Funder, D, F. (2004). Personality and life satisfaction: A facet-level analysis. *Personality and Social Psychology Bulletin, 30* (8), 1062-1075 .

Steel, P., & Ones, D. S. (2002). Personality and happiness: A national level analysis. *Journal of Personality and Social Psychology, 83* (3), 767-781.

Veit, C.T., & Ware, J.E. Jr. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting Clinical Psychology, 51,* 730-742.

WHO. (2001a): *Strengethening mental health promotion* (Fact sheet, No. 220). Geneva: World Health Organization.

WHO. (2001b). *Mental health: New Understanding, New Hope*. Geneva: World Health Organization.

Sanja, T. V., Elizabeta, D. H., & Klementina, R. (2013). The relationship between personality traits and anxiety/depression levels in different drug abusers' groups. Ann Ist Super Sanitŕ 49 (4), 365-369. doi: 10.4415/ANN_13_04_08.

APPENDIX

Table A1. Correlation between Neuroticism and Mental health variables

N=211

	Neuroticism	*M*	*SD*
Neuroticism	-	10.47	4.20
Anxiety	-.547**	23.21	6.28
Depression	-.309**	11.81	2.93
Loss of Emotional Control	.546**	21.78	6.43
General Positive Affect	-.339**	37.45	7.74
Emotional ties	-.205**	8.45	2.69
Life Satisfaction	-.298**	3.90	1.23

**p< .01 level