

MENTAL HEALTH IN RELATION TO PERSONALITY CHARACTERISTICS AMONG PROFESSIONAL AND NON-PROFESSIONAL STUDENTS

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ABSTRACT

The objective of the present study was to examine the relationship between mental health and personality characteristics among students. A total of 300 participants were randomly selected from Aligarh Muslim University, Aligarh, India. Mental health was measured by mental health inventory and personality characteristics were measured by neo-five factor inventory. Correlation, regression and independent t-test were used for analyzing the data. The result shows that there is significant correlation between mental health and personality characteristics. The multiple regression analysis using the stepwise method found agreeableness, neuroticism and openness as significant predictors of mental health. Finally independent t-test found no significant difference at the mean scores of professional and non-professional students' mental health and personality characteristics in terms of gender. Early detection for indications of mental health problems and understanding factors contributing to stress among students would promote better understanding of mental health in future and findings suggest that should do more researches about students' mental health and personality characteristics.

Keywords: Mental health, Personality Characteristics, Professional students and Nonprofessional students.

INTRODUCTION:

Psychology, as the eminent German psychologist Herman Ebbinghaus described it, has a long past but a short history. Over the past approximately 120 years the focus in psychology was on so-called negative psychology topics, such as anxiety, depression, maladjustment, deviation, aberration and psychopathology in general. In the past two decades, however, positive psychology has burgeoned (Gillham, 2000; Seligman, 2000). In particular, the effects of positive thinking have received growing attention by psychologists and health professionals (Snyder & McCullough, 2000).

The most important topic of positive psychology is mental health. From perspectives of the discipline of positive psychology or holism mental health may include an individual's ability to enjoy life and procure a balance between life activities and efforts to achieve psychological resilience. Wilkinson and O'Connor (1982) defined mental health as a congruent relationship between a person and his/her surrounding environments. According to statistics from the World Health Organization (2003b), 12% of global diseases (121 million people suffer from depression, 70 million from alcoholism, 24 million from schizophrenia and 37 experiences dementia) were a result of mental health problems. By 2020 as indicated by the World Health Organization (2003b) the burden will be increased by nearly 15%. This will result in the loss of disability-adjusted life-years to illness and young adults in developing countries seem to be the most prone.

Uner, Ozcebe, Telatar and Tezcan (2008) revealed that 56.8% of students were found to be at risk for mental health problems. The respondents were from Hacettepe University in Turkey and comprised first and third year students in all faculties of the university. Their age ranged from 16 to 46 years.

According to Yen, Hsu, Liu, Huang, Ko, Yen and Cheng (2006), poor mental health was influenced by demographic characteristics, a high level of family conflict and a low level of family support. The respondents in the study were junior high school students in isolated mountain area of Southern Taiwan. Furham and Cheng (1999) stated that in Britain, Hong Kong and Japan, personality traits were associated with mental health.

Personality is defined as the totality of character attributes and behavioral traits of a person. Personality Analysis is a methodology for categorizing the character and behavior of a person. It is an interaction product, the resultant of heredity and environment. The study of personality is thus a constant intervening of organismic and environmental factors. A personality trait is a consistent and long-lasting tendency in behaviour. There are different personality traits that people normally exhibit. Personality characteristics only come in focus as reflecting innate productive characteristics, but do not have a role in predictive models.

The personality characteristics are mainly defined in terms of the Big Five personality constructs. Factor analytic research revealed that these constructs (agreeableness, conscientiousness, emotional stability, extraversion and openness to experience) cover the broad domain of personality to a large extent (Barrick & Mount, 1991). According to Averill and More (1993), personality characteristics refer to "traits and abilities assessed without regard to function or inner workings".

The five factor model provides a comprehensive framework for describing personality (Deniston & Ramanaiah, 1993) and organizing individual differences (Goldberg, 1993). Unlike other personality

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models, the FFM is not based on one theory of personality but rather combines a variety of theoretical perspectives (McCrae & Costa, 1989a). The model includes affective, experiential, and motivational traits (McCrae & Costa, 1989b) using the five dimensions of Agreeableness, Conscientiousness, Openness to Experience, Neuroticism, and Extraversion. McCrae and Costa (1989a) associate Agreeableness with trust, altruism, cooperation, and sympathy.

Conscientiousness includes being organized, persistent, and achievement oriented, whereas Openness to Experience is described by imaginativeness, curiosity, sensitivity, and a need for variety. Neuroticism refers to negative affect and emotional instability characterized by anxiety, anger and depression, whereas Extraversion pertains to positive emotions and includes being social, active, and dominant.

Haslam, Whelan and Bastian (2009) found that personality traits i.e. neuroticism, extraversion, agreeableness, conscientiousness and openness were significantly associated with subjective wellbeing. Besides that, the researchers indicated that all the traits were positively correlated with subjective well-being except for one trait i.e. neuroticism. The respondents in the study consisted of 180 psychology undergraduates, of whom 132 were women and 46 men. The average age of the respondents was 22 years old.

Goodwin and Friedman (2006) found that personality traits were associated with mental health. The researchers revealed that a higher level in conscientiousness would significantly decrease the probability of mental disorders as well as extraversion and agreeableness. Nonetheless, a higher level in neuroticism was found to significantly contribute to mental disorders. In this study, the respondents were young adults in United States. Researches done across the world on mental health reveals that it has various effects on Personality. Therefore, the present study aims to compare personality and mental health of professional and non-professional students of Aligarh Muslim University (India). However, the hypothesis that this study intends to investigate are:

H₀1: There is no significant correlation between mental health and personality characteristics and its sub scales.

H₀2: Extraversion, agreeableness, conscientiousness, neuroticism, and openness are not significant contributors to mental health among students.

H₀3: There is no significant difference between the mean scores of professional students' mental health and personality characteristics with consideration of gender.

H₀4: There is no significant difference between the mean scores of non-professional students' mental health and personality characteristics with consideration of gender.

METHOD:

SAMPLE:

A sample of 300 individuals by random sampling were selected for this project, 150 professional and 150 nonprofessional students from different faculties of Aligarh Muslim University', Aligarh, India.

TOOLS:

Mental Health Inventory (MHI):

This scale was developed by Srivastava and Jagdish (1983). This scale consist of 56 items based on 6 dimensions- (1) positive self-evaluation, (2) realistic perception, (3) integration of personality, (4) Autonomy, (5) group-oriented attitude, (6) environmental mastery. The scale has four response categories viz. always, often, rarely and never. The reliability and validity coefficients were found significant as the value of split-half reliability coefficient was $r=0.73$ and validity i.e. construct validity was $r=0.54$ which confirm the standardization of the scale.

NEO- Five Factor Inventory (Neo-FFI):

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The Neo-FFI (Costa and McCare, 1992) is a self report measure of personality features that make up an influential model of personality known as Five Factor Model (FFM). The Neo-FFI is a 60 items (12 items per domain) version of the forms-S with 5-point ratings (1 = strongly disagree to 5 = strongly agree). The NEO-FFI scales show correlations of .75 to .89 and Internal consistency values range from .74 to .89. The internal consistencies reported in the manual were: N= .79, E= .79, O= .80, A= .75, C= .83.

RESULTS:

As stated earlier, the main purpose of this investigation was to study mental health in relation to Personality characteristics among professional and non-professional students. For the purpose, correlation and independent samples t-test were used. All the analysis has been done by SPSS. In this study the percentage of males-females and professional-nonprofessionals students' was equal (150 or 50% respondents).

Hypothesis Testing:

H₀₁: There is no significant correlation between mental health and personality characteristics and its sub scales.

Table 1:- Pearson Correlation Result for Relationship between Personality characteristics and Mental Health.

Variables	Mental Health	
	Correlation (r)	Sig. (2tailed)
Personality Characteristics	.224**	.000
Neuroticism	.130*	.024
Extroversion	.072	.213
Agreeableness	.253**	.000
Openness	.193**	.001
Conscientiousness	.031	.590

**p<0.01 *p<0.05

The Pearson correlation has been applied. The amount of coefficient between mental health as a dependent variable and personality characteristics and its sub scales that is neuroticism, agreeableness and openness (r=.224, r= 0.130, r=.253, r=.193) respectively as an independent variable was significant with 99% confidence except neuroticism which was significant at 95% confidence whereas extroversion and conscientiousness (r=.072, r=.031) respectively was not significant.

H₀₂: Extraversion, agreeableness, conscientiousness, neuroticism, and openness are not significant contributors to mental health among students.

Table 2: Multiple Regression Result of Mental Health among students (n = 300)

Variables	Std Beta	R	R ²	F
Agreeableness	0.253	0.253	.064	20.421**
Neuroticism	0.190	0.314	.099	16.293**

Openness	0.130	0.339	.115	12.802*
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**p<0.01 *p<0.05

The multiple regression analysis using the stepwise method was used in order to test the Ho2. Based on Table 2, the regression analysis yielded a multiple correlation coefficient (R) of 0.339. Based on Guildford's (1973) Rule of Thumb, the multiple correlation coefficient (R) in this analysis means that there was a low relationship between the dependent variable and the set of predictors as a whole. Then, taking the regression results as whole, it was found that the three independent variables i.e. agreeableness, neuroticism and openness were able to explain 11.5% of the variance in levels of mental health among students'.

Ho3: There is no significant difference between the mean scores of professional students' mental health and personality characteristics with consideration of gender.

In order to examine this hypothesis, independent t-test was run. The result is as follow:

Table 3. Descriptive statistics on mental health and personality characteristics with consideration of gender.

	Gender	N	Mean	S. D	S. E. M
Mental health	Male	75	141.29	14.667	1.694
	Female	75	145.89	14.597	1.686
Personality Characteristics	Male	75	129.20	12.243	1.414
	Female	75	128.57	9.937	1.147

The results from above table show the number of professional students, mean, standard deviation and standard error with consideration of gender.

Table 4. Significance of Mean Differences of mental health, with consideration of gender

	Groups	N	Mean	S.D	df	t
Mental Health	Male	75	137.52	12.325	148	.292
	Female	75	138.00	7.132		

As shown in above table. Because of ($p=0.771 > 0.05$) There was no significant difference in mental health between male and female professional students'. Female students' had higher mean scores than their male counterparts.

Table 5. Significance of Mean Differences of personality characteristics with consideration of gender

	Groups	N	Mean	S.D	df	t
Personality Characteristics	Male	75	128.29	10.397	148	1.313
	Female	75	130.48	10.002		

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As shown in above table. Because of ($p=0.191>0.05$) There was no significant difference in personality characteristics between male and female professional students'. Female students' had higher mean scores than male students mean scores.

H₀₄: There is no significant difference between the mean scores of non-professional students' mental health and personality characteristics with consideration of gender.

In order to examine this hypothesis, independent t-test was run. The result is as follow:

Table 6. Descriptive statistics on mental health and personality characteristics with consideration of gender

	Gender	N	Mean	S. D	S. E. M
Mental health	Male	75	137.52	12.325	1.423
	Female	75	138.00	7.132	.824
Personality Characteristics	Male	75	128.29	10.397	1.201
	Female	75	130.48	10.002	1.155

The results from above table show the number of non-professional students, mean, standard deviation and standard error with consideration of gender.

Table 7. Significance of Mean Differences of mental health, with consideration of gender

	Groups	N	Mean	S.D	df	t
Mental health	Male	75	141.29	14.667	148	1.925
	Female	75	145.89	14.597		

As shown in above table. Because of ($p=0.056>0.05$) There was no significant difference in mental health between male and female non-professional students'. Female students' had higher mean scores than their male counterparts.

Table 8. Significance of Mean Differences of personality characteristics with consideration of gender

	Groups	N	Mean	S.D	df	t
Personality Characteristics	Male	75	129.20	12.243	148	.344
	Female	75	128.57	9.937		

As shown in above table. Because of ($p=0.731>0.05$) There was no significant difference in personality characteristics between male and female professional students'. Male students' had higher mean scores than female students mean scores.

DISCUSSION:

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As with any research, this study has limitations to consider. First, the population from which the research sample was drawn consisted of students from only one university. The results from this study, therefore, provide only a template on which to base further research and cannot be applied to the general populations of either students or faculty. The readers must remember that the makeup of the population of university students changes every year due to graduation, attrition and admission. In order for the recommendations based on the study to remain valid, the perceptions of this population must be re-evaluated after every few years to ensure that any changes within the population are reflected in appropriate changes in the interventions that are offered. If patterns within certain populations can be discovered through this continued evaluation, however, then it may be appropriate to establish general perceptions to provide a preliminary structure on which to frame future interventions.

Based on the H_01 that there is no significant correlation between mental health and personality characteristics and its sub scales result shows that the amount of coefficient between mental health as a dependent variable and personality characteristics and its sub scales that is neuroticism, agreeableness and openness ($r=.224$, $r= 0.130$, $r=.253$, $r=.193$) respectively as an independent variable is significant with 99% confidence except neuroticism which is significant at 95% confidence whereas extroversion and conscientiousness ($r=.072$, $r=.031$) respectively is not significant. Hence the null hypothesis (H_01) is rejected except on extroversion and conscientiousness. This finding is parallel with findings from past research (Haslam et al., 2009) that found an association between personality traits i.e. agreeableness, openness and subjective well-being. The positive relationship indicated that an increase in neuroticism could lead to unhealthy mental health. This result is parallel with past research (Yang, Chiu, Soong, and Chen, 2008) which revealed that neuroticism can be associated with a single episode of a depressive symptom and on extroversion and conscientiousness finding contradicts with (Wismeijer and Assen, 2008) that indicated that extraversion and conscientiousness was associated with subjective well-being among students at a Dutch university.

Based on H_02 that extraversion, agreeableness, conscientiousness, neuroticism, and openness are not significant contributors to mental health among students. The results found that three independent variables i.e. agreeableness, neuroticism and openness were able to explain 11.5% of the variance in levels of mental health among students'.

As shown in Table 2, the variables of agreeableness [$F = 95.479$, $p \leq 0.01$] were able to contribute to 6.4% of the variance in explaining mental health. Thus, the variable of agreeableness is the most significant contributor on mental health for students'. (Beta = 0.253, $p \leq 0.01$). Besides that, the combination between the variables of agreeableness and neuroticism (Beta = 0.190, $p \leq 0.01$) were able to increase the contribution into (9.9% - 6.4%) or 3.5% of the variance in mental health status among students [$F = 16.293$, $p \leq 0.01$].

Moreover, the variable of openness in this study is also found to be contributive to mental health status. Nevertheless the percentage of contribution is small and the combination for openness (Beta = 0.130, $p \leq 0.05$) with the two variables is able to increase the contribution into (11.5% - 9.9%) or 1.6% of variance toward mental health status among students' [$F = 12.802$, $p \leq 0.05$]. This study indicates that 88.5% of variance is not able to be explained by the variable of mental health among students. This is due to the fact that there were other factors that might contribute to mental health status among students'.

In conclusion, the multiple regression analysis revealed that there were three predictors that are able to contribute to knowledge on mental health status among students' i.e. (1) Agreeableness, (2) neuroticism and (3) openness. The most significant contributor in this study is agreeableness, followed by neuroticism and lastly openness. Hence the null hypothesis (H_02) is partially rejected.

According to the literature on personality characteristics, Furham and Cheng (1999) stated that personality characteristics were associated with mental health. Mellor, Stokes, Firth, Hayashi and Cummins (2008) further indicated that loneliness was associated with mental health. Therefore, there

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are actually several factors that could influence mental health. Goodwin and Friedman (2006) found that personality traits were associated with mental health.

Based on H₀₃ that there is no significant difference between the mean scores of professional students' mental health with consideration of gender, result shows no significant difference between two groups that female students have higher mean scores (M=138.00) of mental health in comparison to male students' mean scores i.e. (M=137.52). This finding is similar to the findings of Reddy, and Nagarathanamma (1993). Their study revealed no difference between urban and rural students', with regard to their mental health status. Females and boys in the sample slightly differed from each other with regard to their mental health status. Mental Health status was measured by using Thorpe and Clark's Mental Health analysis questionnaire. Thus the null hypothesis (H₀₃) is accepted.

Based on H₀₃ that there is no significant difference between the mean scores of professional students' personality characteristics with consideration of gender, result shows that there is no significant difference in personality characteristics between male and female professional students'. Female students' have higher mean scores than male students mean scores. This study contradicts the study of Meit, Meit, and Yasek (1999). In their study they found significant difference between two groups on personality characteristics and female students' have higher scores in comparison to their male counterparts. Thus the null hypothesis (H₀₃) is not rejected. This study says that Female students have high mean scores of personality characteristics compared to their male counterparts. This may be because of female students tending to be more emotional and sensitive toward what is happening in their surroundings. Some of the female students mature earlier than friends of their own age. In the process of reaching puberty, they will experience a visible change in self-image, action towards others and have better perception. They also need to adjust themselves accordingly to the changes that they are experiencing such as body shape, sexual maturity and their social status.

Based on H₀₄ that there is no significant difference between the mean scores of non-professional students' mental health with consideration of gender, result shows no significant difference between two groups, that female students have higher mean scores (M=145.89) of mental health in comparison to male students' mean scores i.e. (M=141.29). This finding contradicts with the findings of Humprey, McCarthy, Popham, Charles, Garland, Gooch, Hornsby, Houghton and Muldoon (1998). Their study indicated that there was a significant difference in stress or GHQ-36 scores in terms of gender. Gender is one of the most important determinants of mental health Ratner et al (1994). Research consistently shows that male students engage in fewer health promoting behaviours and have less healthy life style than those of women (Kandrak, et al 1991; Lonnquist, et al 1992; Rossi, 1992 & Walker, et al 1988). Collage male students specifically, engage in far less healthpromoting behaviour then collage women do (Oleckno & Blacconiere 1990), the failure among males in general, to adopt health promoting behaviour increases their risk for poor mental health. Thus the null hypothesis (H₀₄) is failed to reject.

Based on H₀₄ that there is no significant difference between the mean scores of non-professional students' personality characteristics with consideration of gender, result shows no significant difference in personality characteristics between male and female professional students'. Male students' had higher mean scores than female students mean scores. This study contradicts the study of Meit, Meit, and Yasek (1999). In their study they found significant difference between two groups on personality characteristics. Thus, the null hypothesis (H₀₄) is accepted.

CONCLUSION:

These studies found that majority of students are mentally healthy. The main objective in this study was to look at the association between mental health and personality characteristics. The analysis found that personality was significantly correlated with mental health among professionalnonprofessional students. In sum, the findings in this study were in line with findings of past research. This study does conclusively indicate and point to several factors that could influence mental health status among students.

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As a consequence, to prevent further problems that could result from poor mental health, various efforts should be taken. This is important because past research found that poor mental health status could result in negative effects such as feeling hopeless, suicidal behaviour (Kay, Li, Xiao, Nokkaew and Park, 2009), and lower GPA (Puskar and Bernardo, 2007).

Furthermore, policy makers in field of mental health i.e. Ministry of Health should ensure that there is adequate and proper mental health services for those having indications of mental health problems. Finally, it is suggested that future researchers broaden the scope of this study by examining other factors that could influence the mental health status among students'. In so doing, this would result a better understanding of mental health among professional-nonprofessional students' in the future.

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