Journal of Professional & Applied Psychology *Original Article*

Relationship between Family Functioning, Personality Traits, and Psychological Health in Clinical Psychology Trainees

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Abstract

This research was intended to explore in what way family functioning and personality traits predicts psychological health in clinical psychology trainees. These three variables were never studied together in Pakistan, and it provided the clarity about the impact of both individual and collectivistic variables on psychological health. This study aimed to determine the extent to which family functioning and personality traits predict psychological health in clinical psychology trainees. The study comprised of 135 clinical psychology trainees (30 males, 105 females). Snowball sampling was used to collect the data through online questionnaire. The data were collected from seven major cities of Pakistan like Lahore, Karachi, Islamabad, Hyderabad, Faisalabad, Multan, and Peshawar. Hierarchical Linear Model was used to analyze the data and the major finding indicated that neuroticism was the predictor of higher psychological health in clinical psychology trainees whereas agreeableness, conscientiousness, extraversion, and openness did not predict psychological health of clinical psychology trainees. Family functioning did not play significant role in predicting psychological health of clinical psychology trainees. However, this study was significant as the psychological health of the clinical psychology trainees is important because they treat people with psychological illnesses. If trainees would not be psychologically well, they would not be able to treat their clients well.

Keywords: Family Functioning, Personality Traits, Psychological Health

Received: 29 December 2022; Revised Received: 13 January 2023; Accepted: 20 January 2023

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Introduction

Psychological health is a person's capacity to function adequately, adapt to daily life stressores, work satisfactorily, and make any sort of contribution to their community (World Health Organization, 2022). According to some reports, over 15 million people in Pakistan suffer from some psychological illness (Javed et al., 2020). Due to such high prevalence, it is important to study the factors which worked as contributing factors. Family functioning and personality traits are often studied with psychological health individually.

Family functioning affects psychological health, and if family functioning is healthier, then there would be less of psychological health problems (Aalia & Kadivar, 2015). Personality traits also influence the psychological health of individuals. The personality traits are stable throughout our lives (McCrae & Costa, 1987). It can be seen through research that out of all personality traits, neuroticism strongly correlates with psychopathology (Kotov et al., 2010).

A system approach helps to understand family functioning through McMaster Model (Epstein et al., 1978). The model examines the functionality of family which ranges from

healthy to severely pathological. It examines the family functioning on 6 dimensions including behavioral control, roles, affective involvement, problem solving, affective responses, and communication. This theoretical model was tested in the present study, how family functioning affects the psychological health along with personality traits which are known to influence psychological health.

Family functioning can be described as the interaction between the members, their relationship with each other, their conflicts, how cohesive the family is, their adaptability, organization, and how well they communicate with each other (Lewandowski et al., 2010). Moreover, personality dimensions are agreeableness, openness, neuroticism, conscientiousness, and extraversion (Goldberg, 1993). Openness trait explores how open an individual is to new experiences, conscientiousness trait is associated with being organized and efficient. Extraversion trait is associated with socializing, enjoy being around people and these people are full of energy. Agreeableness trait is associated with being optimistic, warm, and friendly and neuroticism trait is associated with being emotionally unstable, having anger, anxiety, and being excessively self-conscious. Psychological health is the absence of any sort of psychological illness and capability to function adequately in society (Manwell et al., 2015).

There is a need to study family functioning, personality traits, and psychological health together as the literature supports that there is a correlation between family functioning and psychological health and personality traits and psychological health. Family functioning has greater impact on collectivistic culture and this study explored how family functioning had an impact on psychological health of the trainees living in collectivistic culture like Pakistan. The study was significant as the psychological health of the clinical psychology trainees is important because they treat people with psychological illnesses. If trainees would not be psychologically well, they would not be able to treat their clients in a professional manner. The purpose was to explore in what way family functioning and personality traits predict psychological health. The study contributed to increase the knowledge within the field of clinical psychology. The following sections outline personality traits and psychological health and family functioning and psychological health literature.

Personality Traits and Psychological Health

Personality traits can impact an individual's psychological health and many studies support this statement. Prior studies suggested that severity and diagnosis of depression were associated with decreased levels of extraversion, and conscientiousness (Koorevaar et al., 2013) and decreased levels of conscientiousness and extraversion were related to depression (Hayward et al., 2013). The study conducted in Pakistan (Batool & Hanif, 2018) found that there was a strong relationship between psychopathology and neuroticism where extraversion and openness was significantly related to positive mental health. Moreover, neuroticism and extraversion were the strongest predictors of psychological health (Burešová et al., 2020).

Family Functioning and Psychological Health

The impact of family functioning is often studied in research. Family functioning was better when the mental problems would be significantly less (Aalia & Kadivar, 2015). Decreased levels of family functioning were positively associated with loneliness and psychological health (Pan et al., 2020). If the family functioning is poor, it would be related to low levels of life satisfaction and

psychological well-being in adolescents (Butler, 2015).

Objective

The present study aimed to measure the extent to which family functioning and personality traits predict psychological health in clinical psychology trainees in Pakistan.

Hypothesis

After controlling for demographic variables and personality traits, family functioning will predict levels of psychological health among clinical psychology trainees.

Methods

Research Design

The predictive correlational research design was used for this research.

Participants

The sample size was 135 clinical psychology trainees with age (*M*=25.37, *SD*=2.31). The sample size was determined by G power analysis with alpha level 0.05 and effect size 0.15. The snowball sampling technique was used in the current research. The data was collected through online questionnaires from Lahore, Karachi, Islamabad, Hyderabad, Faisalabad, Multan, and Peshawar. The inclusion and exclusion criteria were as following:

Inclusion Criteria

- Trainees who were enrolled in MS clinical psychology programs participated in this research only.

Exclusion Criteria

- Trainees who could not understand English language were not included.

Measures

The study used three instruments to measure the variables along with demographic form.

Demographic Questionnaire

This questionnaire had items about gender, age, semester, and hometown.

Big Five Inventory (BFI)

The purpose of this test is to measure an individual's personality traits and the results measure where you fall on a spectrum for each trait. The personality traits include neuroticism, openness, agreeableness, conscientiousness, and extraversion. High on conscientiousness means an individual is detail-oriented and low scores on this means you prefer settings without a structure. Moreover, high scores on agreeableness means an individual is cooperative, helpful, and low scores indicate you hold grudges. High scores on neuroticism indicate unsettling feelings and thoughts where low score indicates an individual is confident. High scores on openness indicate an individual has broad interests and low scores indicate an individual has traditional thinking and avoids change. Besides, high scores on extraversion indicate an individual is an extrovert and low scores indicate an individual like spending time alone or within smaller groups.

Personality traits were measured through Big Five Inventory, 44 items. (John & Srivastava, 1999). This scale was based on and scored on a 5-point Likert Scale. The scale started with the rating as 1 meant disagree strongly, and 5 meant agree strongly. It had a good reliability which was .83 and validity was .81 (Pervin & John, 1999). In the present study, reliability as measured by Cronbach's alpha was .76 for extraversion, .69 for openness, .69 for agreeableness, .65 for conscientiousness, and .78 for neuroticism.

Family Functioning

Family functioning was measured through Family Assessment Device (Epstein et al., 1983), a self-report measure. It was scored on 4-point Likert Scale where 1 meant strongly agree and 4 meant strongly disagree. The test-retest reliability ranged from .66 to .76 and had good validity (Epstein et al., 1983). In the present study, reliability as measured by Cronbach's alpha was .78.

The purpose of Family Assessment Device was to measure individual's perception about their family, and the subscale includes behavior control, problem solving,

communication, roles, affective involvement, affective responsiveness, and general functioning. The overall high scores indicate poor levels of family functioning.

Self Reporting Questionnaire

Self-reporting Questionnaire is an instrument which was developed by the World Health Organization to screen for psychological disturbances. Psychological health was measured through Self Reporting Questionnaire (Beusenberg et al., 1994) which was a self-report measure. The scale had 20 items, and it was scored on yes or no answers. It had good internal consistency, 0.84 (Van der Westhuizen et al., 2016). In the present study, reliability as measured by Cronbach's alpha was .90.

Procedure

The approval was taken from the Board of Studies, Board of Advanced Studies and Research, and from the Institutional Review Board to conduct this study. Permissions from the authors were taken to use their tools. The questionnaires were Big Five Inventory, Family Assessment Device, and Self-Reporting Questionnaire.

The participants were approached via WhatsApp, Facebook Groups, LinkedIn, Instagram, and Twitter and they were asked to fill the informed consent before filling the questionnaire which ensured confidentiality, they had the right to withdraw from the research whenever they wanted to, they were not harmed in any way, and there was not any triggering content in the questionnaires. The informed consent was followed by the demographic form and the questionnaire booklet. These were circulated through Google forms. The data were collected from Lahore, Karachi, Islamabad, Hyderabad, Faisalabad, Multan, and Peshawar from clinical psychology trainees. It took 2 months to complete the data collection. Snowball sampling was used to collect the data, 50 participants were recruited directly, and 85 participants were recruited through snowball as the trainees were asked to forward the Google form to the fellow trainee clinical psychologists.

Statistical Analysis

Regression based analysis known as Hierarchical Linear Model (HLM) was used to analyze the data in SPSS IBM 25. The descriptive analysis was used to analyze the demographic variables and hierarchical regression analysis analyzed variables predicting psychological health where in the first step demographics were entered, followed by personality traits in step 2 and family functioning in step 3.

Results

The result section integrates data analysis and interpretation of statistical results. This research had used three scales which were Big Five Inventory (John & Srivastava, 1999), Family Assessment Device (Epstein et al., 1983), and Self Reporting Questionnaire (Beusenberg et al., 1994) including demographic determinants. Furthermore, this section is divided into two parts which are description of sample and testing of the research hypotheses.

Description of Sample

This section of results describes the sample (N=135).

Table 1

Descriptive Analysis of Categorical Demographic Determinants (N=135)

Variables	Frequency	Percentage	Variables	Frequency	Percentage
Gender			**Hometown**		
Male	30	22.2	Lahore	77	57.0
Female	105	77.8	Karachi	25	18.5
Semester			Islamabad	14	10.4
1	12	8.9	Hyderabad	7	5.2
2	43	31.9	Faisalabad	5	3.7
3	16	11.9	Multan	5	3.7
4	64	47.4	Peshawar	2	1.5

The Table 1 demonstrates the sample size of 135; 105 (77.8%) females and 30 (22.2%) males participated in the research. Moreover, more trainees participated from Lahore (77) in the current study, Karachi been the second (25), then Islamabad (14), Peshawar (2), Faisalabad and Multan had the equal participation (5), and lastly Hyderabad (7) trainees participated. Majority of the trainees were enrolled in the 4th semester (64), then in the 2nd semester (43), 3rd semester (16), and the few were from the 1st semester (12).

Table 2

Cronbach's Alpha Reliability of the Measurement Tools (N=135)

Measurement Tool	No. of items	Cronbach's Alpha Reliability (*α*)	Measurement Tool	No. of items	Cronbach's Alpha Reliability (*α*)
Extraversion	8	.76	Family Assessment Device	60	.91
Agreeableness	9	.69	Problem Solving	6	.78
Conscientiousness	9	.65	Communication	9	.70
Neuroticism	8	.78	Roles	11	.61
Openness	10	.69	Affective Responsiveness	6	.67
Self-Reporting Questionnaire	20	.90	Affective Involvement	7	.68
			Behavior Control	10	.66
			General Functioning	12	.85

Table 2 indicates Cronbach Alpha reliability of total scale and their subscales. The extraversion α was .76 fairly high, agreeableness (.69) slightly low, conscientiousness (.65) reasonable, neuroticism (.78) fairly high, and openness (.69) had slightly low reliability. Furthermore, Family Assessment Device total scale had an α of .91 indicating a strong reliability, the subscales of Family Assessment Device had α as problem solving (.78) fairly high, communication (.70) good, roles (.61) low, affective responsiveness (.67) reasonable, affective involvement (.68) slightly low, behavior control (.66) reasonable, and general functioning (.85)

reliable. Moreover, the total scale of Self-reporting questionnaire had .90 α indicating strong reliability. The subscale of roles was not added to the main analysis as had low reliability.

Table 3

Hierarchical Regression Analysis for Variables Predicting Psychological Health (N=135)

Model	***SE B***	***B***	***T***	***p***	***M***	***SD***
Step I (*R*=.036, ΔR^2 =.03)						
Predictor Variables						
Age	-.35	-.14	-1.30	.19	25.37	2.31
Gender	.68	.05	.47	.63	.77	.42
Hometown	.27	.08	.77	.43	2.08	1.72
Semester	.99	.19	1.67	.09	2.98	1.07
Step II (*R*=.23, ΔR^2=.20)						
Age	-.12	-.05	-.45	.64		
Gender	.95	.07	.71	.47		
Hometown	.28	.08	.88	.38		
Semester	.88	.17	1.60	.11		
Extraversion	.13	.08	.79	.42	27.08	3.56
Agreeableness	-.15	-.14	-1.31	.19	34.66	5.18
Conscientiousness	-.16	-.14	-1.15	.25	31.37	4.83
Neuroticism	.33	.34	3.15	.002	23.77	5.69
Openness	.24	.17	1.63	.10	31.99	3.94
Step III (*R*=.29, ΔR^2=.057)						
Age	-.12	-.05	-.43	.66		
Gender	.83	.06	.62	.53		
Hometown	.32	.10	.97	.33		
Semester	.88	.17	1.60	.11		
Extraversion	.21	.13	1.15	.25		
Agreeableness	-.09	-.09	-.79	.43		
Conscientiousness	-.05	-.05	-.38	.70		
Neuroticism	.36	.37	3.41	.001		
Openness	.14	.10	.93	.35		
Problem solving	.08	.04	.27	.78	12.71	2.81
Communication	.11	.07	.45	.65	21.59	3.62
Affective responsiveness	-.20	-.09	-.70	.48	14.81	2.70
Affective Involvement	-.14	-.07	-.53	.59	17.22	2.95
Behavior control	.22	.14	1.25	.21	22.59	3.7
General functioning	.19	.20	1.02	.30	26.6	5.57

Step I, F (4, 94) = .887, $p > 0.05$, Step II, F (9, 89) = 3.10, $p < 0.05$, Step III, F (15,83) =2.31, $p < 0.05$

Testing of the Hypothesis

Hierarchical linear regression was used to test the main hypotheses. Prior to the main analysis, relevant regression assumptions were checked. All the assumptions of hierarchical linear model were met (Pallant, 2013). The Table 3 demonstrates hierarchical regression analysis. The mean and standard

deviation of each variable was measured through descriptive statistics. Starting from the demographic determinant, the age had mean of 25.37 and standard deviation as 2.31, gender (mean .77, σ .42), hometown (mean .2.08, σ 1.72), semester (mean 2.98, σ 1.07), extraversion (mean 27.08, σ 3.56), agreeableness (mean 34.66, σ 5.18), conscientiousness (mean 31.37, σ 4.83), neuroticism (mean 23.77, σ 5.69), openness (mean 31.99, σ 3.94), problem solving (mean 12.71, σ 2.81), communication (mean 21.59, σ 3.62), affective responsiveness (mean 14.81, σ 2.7), affective involvement (mean 17.22, σ 2.95), behavior (mean 22.59, σ 3.7), and general functioning (mean 26.6, σ 5.57).

In hierarchical regression analysis, in step I, all demographic determinants were added, in step II personality traits were added, and in step III, family functioning variables were added. After adding the demographic determinants, the variance was 3.6%. When personality traits were added, the variance was 23.9% and finally when family functioning variables were added, the overall variance noted was 29.5%. *R* square change was .05, the overall variance explained by the variables of interest (personality traits and family functioning variables) indicated an additional 5.7% variance (.057 x 100), when the effect of age, gender, hometown, and semester were statistically controlled.

Furthermore, the personality traits made significant contribution to the equation at this step as *F* value of 4.73 exceeded the critical *F* with 1, and 89 df. The family functioning, however, exceeded the critical *F* with 1, 83 df but did not significantly improved R^2 at its point of entry.

The model overall (personality traits and family functioning variables) was significant [F (15,83) = 2.13, $p < 0.05$); however, only neuroticism made a significant contribution to psychological health (p <0.05, B = .34).

Discussion

The study investigated whether personality traits and family functioning predicted psychological health or not. The main finding of this research supported the hypothesis which said personality traits were related to the psychological health. The finding suggested neuroticism to be the predictor of psychological health. This was in line with the prior findings of the study conducted by Lewis and Bates (2014) which indicated that neuroticism was the powerful predictor of psychological health. The prevailing literature was also consistent with these findings and observed that neuroticism had a positive correlation with depression, and anxiety (Amini et al., 2015). One finding indicated how elevated levels of neuroticism were related to the diagnosis of depression (Koorevaar et al., 2013). Likewise, neuroticism was said to be related with depression (Hayward et al., 2013) and neuroticism was found to be significantly correlated with phobia, anxiety, and depression (Habibi et al., 2013). Moreover, another significant finding revealed how there was a significantly positive correlation between psychotic experiences and neuroticism (Shi et al., 2018). The previous literature also established that neuroticism and psychological health had the strongest correlation (Kotov et al., 2010; Mirnics et al. 2013), and even one study from Pakistan (Batool & Hanif 2018) had the consistent finding. Furthermore, the literature also demonstrated that neuroticism predicted onset of common disorders as well (Ormel et al., 2013).

Another finding of this research proposed that agreeableness, openness, conscientiousness, and extraversion did not predict psychological health which opposed the hypothesis for this study. The previous literature supported this finding as these four

traits were found to have negative correlation with psychological health (Shi et al., 2018). Moreover, agreeableness and openness did not predict psychological health (Mirnics et al. 2013). The literature suggested that openness, agreeableness, extraversion, and conscientiousness had negative correlation with depression and anxiety (Habibi et al., 2013). Another study unveiled how agreeableness, conscientiousness, and openness had significant negative relationship with anxiety and depression (Amini et al., 2015). Moreover, previous studies also found that decreased levels of conscientiousness and extraversion were linked with depression (Koorevaar et al., 2013).

However, the current study did not find gender, age, semester, and hometown to be the predictor of psychological health. The other finding of this current research did not support the hypothesis that family functioning is the predictor of psychological health. Previous research has indicated that a significant negative correlation could be observed between family functioning and anxiety (Dolz-del-Castellar & Oliver, 2021). Interesting results interpreted that psychological health and family functioning were not associated with each other (Oltean, 2019). Taking into consideration, McMaster Model (Epstein et al., 1978), family dysfunctions, however, were the strong predictors of psychological health but the current research did not validated this model. A possible explanation could be the sample which was clinical psychology trainees for this study. The sample were highly educated and were more inclined to individualistic cultural ideas because of their field but more research would be needed to have a better understanding of this.

Implications of the Study

The three variables, family functioning, personality traits, and psychological health were never studied together in Pakistan and the results were exciting. It was captivating to see how, given the research was conducted in Eastern culture, the results were like the Western culture. Even in Pakistan, neuroticism predicted psychological health. The findings were significant as it gave a better understanding of how educated class of Pakistan had individualistic approach which would not let dysfunctional family affect their psychological health. In the field of clinical psychology, the clinical psychologists would be able to understand that someone with elevated scores on neuroticism would be vulnerable to have psychological issues.

Limitations and Future Directions

The study had certain limitations and future directions to offer which would help to surmount those limitations. The data were only collected from the urban cities of Pakistan, and it would be better if in future, the data could be collected from rural areas as well as Pakistan has diverse cultures. The sample only included MS clinical psychology trainees; it would be better to include students from the other disciplines to get more widely generalizable results. The current research focused on the basic questions regarding psychological health, it would be engrossing to add general psychopathologies like depression, anxiety, and conversion disorders. This study does not have enough variables and just has one research question.

Conclusion

The research concluded that neuroticism was the only personality trait which predicted higher psychological health in clinical psychology trainees. Extraversion, agreeableness, openness, and conscientiousness did not predict psychological health. However, family functioning did not predict psychological health as it was hypothesized in the study nor did demographic variables (gender, age, hometown, and semester) play any

significant role in predicting psychological health of MS clinical psychology trainees.

Contribution of Authors

Maha Iftikhar: Conceptualization, Investigation, Data Curation, Formal Analysis, Writing - Original draft

Elizabeth Maria Schwaiger: Methodology, Writing- Reviewing & Editing, Supervision

Conflict of Interest

There is no conflict of interest declared by authors.

Source of Funding

The authors declared no source of funding.

Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [E.M.S.] upon the reasonable request.

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