

Personality Traits Linked with Irrational Beliefs: A Case of Adults, Gujrat-Pakistan

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Abstract: The present study attempted to explore the link between personality traits and irrational beliefs and how these personality traits serve as a predictor of irrationality among university students. The sample comprised of 516 university students (age 18-25 years) taken from faculties of University of Gujrat-Pakistan through Proportionate Stratified Sampling. Participants completed demographic information sheet, Big-Five Inventory (BFI; John, Shortened General Attitude and Belief. Results indicated that Agreeableness and Conscientiousness showed a significant negative relationship while Neuroticism showed not only a significant positive relationship with irrational beliefs but also found a strong predictor accounted for a significant variance in irrationality among respondents

Key words: Personality Traits • Openness • Agreeableness • Conscientiousness • Extroversion • Neuroticism • Irrational Beliefs • Gujrat-Pakistan

INTRODUCTION

The most important goal of personality psychology is to describe, explain and measure the ways that helps to study people from inside to outside. Personality is distinctive variation on the evolutionary design of an individual's nature and describes the developing patterns, dispositional traits that are differently placed in one's culture [1]. Therefore personality is an individual's stable patterns of thinking, emotion and behavior, integrated with different psychological mechanisms [2].

One of the important goals of psychology was to establish a model that could conveniently describe human personality and its disturbances. Therefore a strong consensus has emerged since mid-1980 about the number and nature of personality traits [3]. After a great research the well-known model in contemporary psychology regarding personality traits was recognized as the five-factor model of personality [4]. The Big Five' model is commonly referred to as OCEAN being an acronym for names often used for the five traits. These five factors are Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism [5]. The trait Openness represents the quantity of an individual's creativity, open-mindedness and aesthetic abilities [6]. Openness

promotes flexible, democratic interactions [7]. Conscientiousness is characterized by individual's sense of organizing things carefully. They are planned, regular, self-disciplined, competent, dutiful and striving for achievement [8]. Conscientious individuals are ambitious, hard-working and less likely to involve in dangerous activities [6]. Extraverted individuals exhibit a preference for social interaction and activity [9]. Extraversion is reflected by warmth, sociability, boldness, enthusiastic behavior and positive energy [8]. It proposed that positive affect is the core of Extraversion whereas, negative affect is the core of Neuroticism [10]. Agreeableness reflects altruism, compliance, straightforwardness, modesty and tender mindedness. It also reflects willingness to be pleasant and accommodating [11]. Neuroticism is characterized by individual's emotional instability to react toward stress and negative experiences. Anxiety, hostility, self-consciousness, impulsiveness and vulnerability reflect Neuroticism as well [8].

Rational Emotive Behavior Therapy (REBT) is an inclusive approach based on the notion that individual's thinking, emotion and actions all are interlinked. Irrational Beliefs are evaluative cognitions which are illogical, inconsistent with reality and familiarize people to look for

short-term benefits instead of working towards long-term goals [12][13][14]. In other ways undesirable, nonproductive, negative behaviors are the products of feelings that are responses to irrational thoughts or beliefs [15]. The primarily irrational beliefs are concerned with "Demandingness" (DEM) which include rigidity and often include words such as "shoulds," "musts," and "oughts" then these "musts" lead to other core irrational beliefs like Awfulizing; Low-Frustration Tolerance and Self-Downing [16].

It was founded that five personality factors were related to an individual's ability to dispute irrational beliefs. Findings showed that Awfulizing, Self-Downing, Low-Frustration Tolerance (LFT) were negatively related with Agreeableness, Conscientiousness and Extraversion but revealed a positive correlation between Low-Frustration Tolerance (LFT) and Neuroticism [17]. There is a relationship between unconditional self-acceptance and irrational beliefs in accordance with five personality factors among students [18]. There is empirical research evidence which suggests that irrationality is significantly related with personality factors among students [17-24].

Objectives of the Study: The main objectives of the present study are followings;

- To explore the demographic characteristics of university students
- To measure the relationship between personality traits and irrational beliefs and how these personality traits predict irrationality among university students.

It is hypothesized that there is a negative relationship between agreeableness, conscientiousness and irrationality while there is a positive relationship between Neuroticism and irrationality.

MATERIALS AND METHODS

For the present study 215 respondents were selected out of 2977 including 215 (42%) male and 301 (58%) female students with margin of error 0.04%. Sample size was proportionately allocated to the registered students of BS (Hons) and MA/MSC degree programs at University of Gujrat, Pakistan by determination of sample size formula. Two scales; Big Five Inventory ([BFI]; [25]) to measure personality traits and Shortened General Attitude and Belief Scale ([SGABS]; [26]) to measure irrational beliefs were used. In addition researchers developed

demographic questionnaire and used to collect the demographic information from students.

A pilot study was conducted from 51 students (3 students from each department) to administer all three questionnaires in English. The pilot study aimed to see student understands level of English language and concepts used in the questionnaires and the total time required to administer each instrument. Before data collection, permission to collect the data was taken from each head of the department and then permission to participate in the study was also taken from the students as well. After explaining rationale briefed them about research, the instructions were given to them. The researcher administered all scales along with demographic to the respondents in classroom settings. Confidentiality was strictly upheld and no information related to identification of any participant was disclosed.

RESULTS

Descriptive Statistics including the Mean (M) and Standard Deviation (SD) for Big-Five Inventory (BFI), Shortened General Attitude and Belief Scale (SGABS) presented to summarize the data findings in tables given.

Table 1 indicates demographic variables: gender, age, religion, residential area, residential and marital Status. Among sample of 516 students, 58.3% respondents were female and 41.7% were male while 49% of respondents were from BS (Hon) degree program in which 30% and 19.8% of respondents were studying in semester V and VII respectively. On the other hand 50.20% of respondents were from MA/M.Sc degree program in which 28.9% of respondents were from I semester and 21.3% of respondents were studying in semester III.

Table 2 depicts the Mean (M) and Standard Deviation (SD) for scale Big-Five Inventory (BFI). Findings showed that the highest mean value laid with Personality Trait Openness (M = 35, SD =4.22) and lowest mean value laid with Neuroticism (M = 25.05, SD = 5.63) whereas the Mean and Standard Deviation values for other personality traits i.e. Agreeableness (M=34.78 SD= 4.50), Conscientiousness (M = 31.79, SD =5.57) and Extraversion (M= 25.97, SD=4.62) were less as compare to Personality Trait Openness.

Mean and Standard Deviation values for Shortened General Attitude and Belief Scale (M= 65.07, SD=12.63) and Rationality (M= 14.10, SD= 2.96) were presented in Table 3. The highest Mean value was found for Need for Fairness (M=14.69, SD=3.53) and lowest Mean value was

Table 1: Demographic Characteristics of the Respondents (N= 516)

Variables	Category	F	%
Gender	Male	215	41.7
	Female	301	58.3
BS(Hons)		275	49.8
MA/M.Sc		259	50.20
Semester	I	149	29.8
	III	110	21.3
	V	155	30.0
	VII	102	19.8

Table 2: Big Five Personality Traits (N = 516)

Scales BFI	M	SD
Extraversion	25.97	4.62
Agreeableness	34.78	4.50
Conscientiousness	31.79	5.57
Neuroticism	25.05	5.63
Openness	35.58	4.22

Note: BFI = Big-Five Inventory

Table 3: General Attitude and Belief Scale (SGABS) (N = 516)

Scales SGABS	M	SD
Rationality	14.10	2.96
Self-Downing	7.97	3.64
Need for Achievement	12.43	3.61
Need for Approval	9.02	3.03
Need for Comfort	11.67	3.44
Demand for Fairness	14.69	3.53
Other-Downing	9.25	2.69
Irrational Beliefs(SGABS)	65.07	12.63

Note: SGABS = Shortened General Attitude and Belief Scale

found for Self-Downing Belief (M=7.97,SD=3.64). Mean and Standard Deviation values for other Irrational Beliefs i.e. Need for Achievement (M=12.43,SD=3.61), Need for Approval (M=9.02,SD=3.03), Need for Comfort (M=11.67,SD=3.44) and Other-Downing (M= 9.25,SD=2.69) were presented as respectively.

Table 4: Correlation Coefficient between Variables (N=516)

Irrational Beliefs	Big-Five Inventory				
	I	II	III	IV	V
Self-Downing	-.115**	-.171**	-.127**	.055	-.058
Need for Achievement	-.003*	-.082	-.063	.148**	.097*
Need for Approval	-.010	-.143**	-.100*	.204**	-.007
Need for Comfort	-.144**	-.084	-.189**	.287**	-.042
Demand for Fairness	.045	-.036	-.040	.209**	.051
Other-Downing	.033	.024	-.063	.075	.020

Note: ** = p<.01,* = p<.05

I = Extraversion, II= Agreeableness, III = Conscientiousness, IV= Neuroticism, V= Openness

Table 4 describes the relationship between Big-five personality traits and irrational beliefs of respondents. There was a positive but significant relationship was found between Neuroticism and Need for Achievement (r = .148**), Neuroticism and Need for Approval (r = .204**); Neuroticism and Need for Comfort (r = .287**) and Neuroticism and Demand for Fairness(r = .209**) while a negative but less significant relationship was found between Extraversion and Need for Achievement (r = -.003*). However Openness showed non-significant relationship with Need for Achievement (r = .097). The negative but a well significant relationship was found between Extraversion and Self-Downing (r= -.115**), Extraversion and Need for Achievement (r = -.144**), Agreeableness and Self-Downing (r=-.171**), Conscientiousness and Self-Downing (r=-.127**) and Conscientiousness and Need for Comfort (r = -.189**).

The relationship between personality traits and irrationality revealed that there was significant but negative relationship was found between Agreeableness and Irrationality (r = -.135**), Conscientiousness and Irrationality (r = -.155**).The Neuroticism demonstrated a significant positive relationship with Irrationality of respondents (r = .260**). However two non significant correlations were found between Extraversion, Openness and irrationality (r =-.56; r = .016) respectively.

This table elaborates the percent of variability in irrationality explained by Stepwise Multiple Regression Model that was accounted for personality traits. In order to determine the amount of variance for irrational beliefs, the scores of personality traits were used as predictors of irrationality in regression equation. The Model 1 included only Neuroticism score accounted for. 068 % of the variance in psychological distress being explained by $R^2 = .068$, $R^2_{Adjusted} = .066$, $F(1,514) = 37.31$, $P = .000$. The results indicate that Neuroticism is a significant predictor of irrationality. The inclusion of Agreeableness as a predictor into Model 2 showed. 075% of the variance resulted in an additional variance in irrationality being explained by $R^2 = .075$, $R^2_{Adjusted} = .072$, $F(1,513) = 20.91$, $P = .000$.

Table 5: Pearson Product Moment Correlation Coefficient between Variables (N= 516)

Variables	I	II	III	IV	V	VI
Extraversion	1					
Agreeableness	.057	1				
Conscientiousness	.201**	.244**	1			
Neuroticism	-.200**	-.189**	-.321**	1		
Openness	.152**	.081	.227**	.008	1	
Irrationality	-.056	-.135**	-.155**	.260**	.016	1

Note: **p<.01, SGABS= Shortened General Attitude and Belief Scale

I= Extraversion, II= Agreeableness, III = Conscientiousness, IV= Neuroticism, V= Openness, VI= Irrationality

Table 6: Summary of Stepwise Multiple Regression Analysis for Variables Predicting Irrationality (N =516)

Change Statistics							
Model	R	R2	Adjusted R 2	F Change	df1	df2	Sig. F Change
1	.260(a)	.068	.066	37.31	1	514	.000
2	.275(b)	.075	.072	20.91	1	513	.000

a Predictors: (Constant), Neuroticism

b Predictors: (Constant), Neuroticism, Agreeableness

Table 7: Summary of Stepwise Regression Analysis for BFI and SGABS Predicting Psychological Distress (N =516)

Model	Predictors	B	SE	β	t	Sig
Step 1	(Constant)	50.46	2.45		20.57	.000
	Neuroticism	.58	.09	.26	6.10	.000
Step 2	(Constant)	60.12	5.27		11.39	.000
	Neuroticism	.54	.09	.24	5.62	.000
	Agreeableness	-.25	.12	-.08	-2.06	.039

a Dependent Variable: Irrational Beliefs

Note: *** = $P < .001$, BFI = Big-Five Inventory SGABS =Shortened General Attitude Belief Scale, B = Un-standardized Coefficients, β = Standardized Coefficients, SE = Standard Error.

A stepwise regression analysis was conducted to examine, how Big-Five personality traits predicted the irrationality. The first Model showed that Neuroticism score accounted a significant variance in irrationality ($\beta = .26, t = 6.10, P = .000$) and found a strong predictor of irrationality among respondents. In second Model, Neuroticism and Agreeableness showed a negative non significant relationship and predicted non significant variance in irrationality ($\beta = -.08, t = -2.06, P = .039$).

DISCUSSION AND CONCLUSION

The results showed the relationship between personality traits and six irrational beliefs. The negative but a well significant relationship was found between Extraversion, Agreeableness, Conscientiousness and Self-Downing. The results indicated that students who having Extraversion, Agreeableness and Conscientiousness as a prominent personality traits may tend to be less prone

toward irrationality. They may have better coping strategies to deal with academic pressures. They avoid to blame self, others and world for their failures, show willingness to accept challenges, handle academic stressors quite comfortably due to well managed study habits, face challenging situations and re-evaluate problems positively. Self-Downing refers as to be negatively evaluative about oneself and it also comes from them selves' Demandingness. The present findings are consistent with previous findings of [27][28] who suggested that Extrovert students are more sociable and optimistic and they re-evaluate problems positively. This relationship was repetitively publicized in literature and supported the findings of present study. It has also shown that irrationality was having significant association with Agreeableness. Moreover Agreeableness and anti-self-downing beliefs are positively related with emotional stability, Conscientiousness and Extraversion [18].

The results also revealed that Neuroticism showed a positive significant relationship with: Demand for Fairness; Need for Achievement; Need for Approval and Need for Comfort. This finding is consistent with [29] outcomes who found a positive relationship between Neuroticism and maladaptive schemas. In line to this perspective [18] found that global irrationality score was positively related to Neuroticism and negatively related with Openness. Findings also showed the predictive value of personality traits accounted for significant proportion of variance in irrationality. In the presence of all personality traits, Neuroticism showed a positive relationship and accounted for significant variance in irrationality while Agreeableness showed negative non significant relationship accounted for variance in irrationality. Furthermore there are number of studies which supported present findings e.g. [20][21][22][30] suggested that personality traits do have relationship with irrational beliefs. Holding irrational beliefs mean to be more demanding, rigid and stubbornness in nature. So students with this propensity may feel that they must achieve everything, to be approved by all and they show more frustration when they do not get what they demand [31-33].

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