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Impact of Personality Traits and Negative Expressivity on Psychological Distress: An Exploratory Study

***Rabia Zonash Mir, Dr. Kehkashan Arouj, Anum Rehman, & Zainab Naqvi**
Department of Psychology, International Islamic University, Islamabad, Pakistan

Individual characteristics and manner of emotional expressivity are basic factors behind improving the overall emotional wellbeing of the individual. For that this quantitative study was conducted to explore the impact of personality traits and negative expressivity on psychological distress among university students. Participants of the current study comprised of 150 students (Male *n*= 80; Female *n*= 70) who were approached from different educational institutes though convenient sampling technique. The measures of the study comprised of Big Five Inventory, Brekely Expressivity Scale and Depression, Anxiety and Stress Scale (DASS). Major findings of the study indicated that extraversion, agreeableness, conscientiousness and openness has positive and neuroticism has negative relation with psychological distress i.e. depression, anxiety and stress whereas, negative expressivity has negative relationship with psychological distress i.e. depression, anxiety & stress. The regression analysis highlighted that personality traits (extraversion, agreeableness, conscientiousness, neuroticism, & openness) explained 5% variance in depression, 10% variance in anxiety and 9 % variance in stress. The value of regression analysis highlighted that negative expressivity explained no variance in psychological distress. Mean differences on T-test showed that female scored higher on extraversion, conscientiousness, agreeableness and negative expressivity whereas male scored higher on psychological distress. This study has important implications in clinical setting.

Keywords: Extraversion, agreeableness, conscientiousness, neuroticism, openness, negative expressivity, psychological distress

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*Correspondence concerning this article should be addressed to Rabia Zonash, Department of Psychology, International Islamic University, Islamabad, Pakistan. Email: rabi_123_mir@yahoo.com

Every person has unique personal traits. Personality determines how a person will interact and respond to the outside world. In this study we assume that specific prominent personality traits and different levels of negative expressivity can increase or decrease features of psychological distress among students.

Personality is the study of the individual differences including differences of thinking, feeling, and behavior and that helps to create the whole personality (American Psychological Association, 2015). According to Schultz and Shultz (2005), personality is enduring internal and external aspects of individual attributes that is evolved from birth to death (Feist & Feist, 2009). An individual's personality determines an individual's perspective regarding the emotional expression. Emotions have evolved to help us respond adequately to crucial environmental challenges. Emotional expressivity means the behavioral, facial, postural and vocal change associated with the expression of emotion (Gross & John, 1995).

Psychological distress is widely used as an indicator of internal health. Psychological distress is defined as the state of emotional suffering characterized by symptoms of depression i.e. loss of interest, sadness, hopelessness, anxiety and tense feelings (Mirowsky & Ross, 2002). Psychological distress is mostly affected by manner of individual's emotional expressivity, and maintained by individual personality characteristics (Ridner, 2004). Effects of psychological distress are widespread, causing the emotional disturbance that may impact the social and occupational day to day activities (Horwitz, 2007; Wheaton, 2007).

Many researchers, to date, have attempted to explore the relationship of personality traits with different variables. The study by Smith (2011) was designed to determine relationship between big five and career decisiveness. The result revealed that there is positive relationship between career decisiveness and all big five personality traits except neuroticism. Nye, Orel, and Kchegina (2013) explored the relationship between big five personality traits and academic performance. Agreeableness is positively correlated

with academic performance among students of Mathematics and Social Sciences. The relation between conscientiousness, extroversion and academic performance was found to be insignificant. Another study by Sanza (2010) explored the direct and moderating effect of big personality traits on work and psychological distress. The study showed that neuroticism has direct effect on psychological distress and organizational performance. Extroversion, conscientiousness and openness to experience had moderate positive impact on psychological distress and work organization conditions. In a recent study, Cubel, Nuevochiquuero, Sanchez and Vidal (2014) investigated the effect of personality traits on productivity and showed the negative correlation between neuroticism and productivity and positive correlation between conscientiousness and productivity (Awadh, & Ismail, 2011). Another study by Huang, Chi and Lawler (2005) investigated the relationship between personality traits of expatriates and their adjustment to international assignments. The result shows that extroversion and openness are positively related to adjustment. The personality characteristics are major determinant of social website interaction such as Facebook (Loonqvist & Itkonrelationen, 2016), for example, openness was found to be major determinant of Facebook friendships. An individual's personality traits are major determinants of maintaining healthy life styles (Allen, Vella, & Laborde, 2015; Sutin & Terracciano, 2016) as positive health behavior are related with openness, agreeableness and conscientiousness.

Other researches carried out in Pakistan have shown different variables affected by one' personality characteristics. As study by Aslam and Nazir (2010) have shown that the student having high conscientiousness and openness have less cheating behavior. Personality traits also determine individual delinquent features (Naqvi & Kamal, 2013). In a research, the results showed that extroversion significantly positively predicted feature of delinquency. The study by Arif, Rashid, Tahira and Akhtar (2012) highlighted that extraversion, agreeableness, conscientiousness and neuroticism are in the same level among males and female

prospective teachers, except openness, which is dominant in teachers having emotional difficulties. In students, the factors of personality, especially conscientiousness and openness to experience help to enhance the academic performance (Hussain, Abbas, Shahzad, & Bukahari, 2011; Hazrati-Viari, Rad, & Torabi, 2012).

Emotional expression gives an opportunity for catharsis that leads toward better emotional health. Tiedens (2001) found that negative emotional expressions, such as anger expressions, lead towards status conferral. Emotional expression fundamentally regulates the attitude toward life situations (Akin, Stici, & Kayis, 2012; Nezlek & Kuppens, 2008) as negative expressivity is negatively associated with submissive behavior. Furthermore, the way a child experiences social interaction with others affects their emotional responsive behavior as Moore, Quigley, Voegtline, & DiPietro, (2016) found that mother's negative emotions were the predictor of child's negative emotions. The feelings of psychological distress are found to be linked with higher mortality and morbidity in medical patients (Rosenberg et al., 2013). Alos, Van Lieshout and MacQueen (2012) showed that the psychological distress had negative impact on the individuals with asthma.

The distress feeling are linked with poor emotional health (Winefield, Gill, Taylor, & Pilkington, 2012). As psychological distress results in failure of poor emotional regulation strategies, such as poor maladaptive coping strategies, it increases feeling of distress (Deasy, Coughan, Pironom & Jourdan,, 2014; Nejad & Nejad, 2006; Khan, Sajid, Areef, Syed, & Yasir, 2006; Van Berkel, 2009). Similarly study by Fiddick, Brase, Hiraishi, Honma, & Smith (2016) found that there is a positive relationship between cognitive ability, emotional stability and openness whereas conscientiousness is negatively related with cognitive ability for different problem-solving strategies. Emotional expressivity and negative expressivity positively mediated the relation between the emotional intelligence and psychological distressed with cognitive ability. Certain innate personality traits are strong predictors of distress among different populations (Panayiotou, Kokkinos, &

Kapsou, 2014; Shaheen, Jahan, & Shaheen, 2014). Specifically, there was positive relation between neuroticism and distress, whereas, there is a significant negative correlation between extroversion, openness, agreeableness, conscientiousness, and distress features among university students. A previous study has catered to personality traits, emotional expressivity, and distress as independent variables. The present study also attempted to fill up the literature gap in relation to the variables. For that the present study attempted to highlight the impact of personality traits and emotional expressivity on psychological distress among university students. The second objective of the study was to highlight the gender differences in personality traits and negative expressivity and psychological distress among university students.

Method

Research Design

Current research employed a quantitative correlational survey research design in which the data was obtained from university students.

Participants

The present study used convenient sampling techniques to obtain the data. The participants of the current study comprised of 150 students (Males *n*= 80; Females *n*=70) approached from International Islamic University, Foundation University, Bahria University, and Riphah International University of Islamabad and Rawalpindi. The age of students ranged from 18-30 years. The minimum education level of the student was sixteen year of education.

Measures

Following measures were used in the current study:

Big Five Inventory. This scale was used to explore the five personality dimension e.g., agreeableness, extroversion,

neuroticism, openness and conscientiousness. The scale comprised of 44 items with five-point Likert scale with score ranging from *1= strongly disagree to 5= strongly agree*. The scale comprised of R items which denote the reverse scored items (John & Srivastava, 1999).

Brekely Expressivity Scale. It comprise of 16-items which were designed to measure an individual's emotional expressivity. The scale has 7-point Likert responses ranging from *1=strongly disagree to 7 = strongly agree*. In scale, items 3, 8, and 9 are reverse scored (Gross, John & Richard, 1995).

Depression, Anxiety, Stress Scale (DASS). This scale was used to assess features of depression, anxiety, and stress among the students. In the present study, DASS-21 was used which consists of 21 items. Each subscale consists of 7 items and basic intension is to assess the features of depression, anxiety, and stress that are experienced by participants for a couple of weeks. High score indicates depression, anxiety, and stress. The score of each scale ranges from *0= did not apply to me at all over the last week to 3= applied to me very much or most of the time* (Lovibond & Lovibond, 1995).

Procedure

After receiving consent from university authorities, students were approached in their university timings. The students were briefed regarding the nature of the research and were also ensured about their confidentiality. After receiving the informed consent of the participant the research procedure was started. The demographic sheet with all the questionnaires was given to them and they were requested to fill the questionnaires by reading the statements carefully and responding to the items genuinely. At the end of completion, all participations were thanked for their cooperation, time and assistance in study. After that, data was analyzed through SPSS-21.

Results

For study purpose, the data was analyzed using SPSS-21 and descriptive, correlation and regression analyses were carried out to test the predictive hypothesis of the study. Firstly the alpha reliability of the scale instruments were analyzed and found that the alpha reliability of the personality sub scales ranged from *a*=.36 to .51. The alpha reliability of negativity expressivity was *a*= .38. The alpha reliability of psychological distress ranged from *a*=.79-.81. The reliability of scales has shown that the scales are reliable measures to explore the study constructs.

Table 1

Pearson Product Moment Correlation among Personality Traits, Negative Expressivity and Psychological Distress

	1	2	3	4	5	6	7	8	9
1 Extroversion		52**	.38**	.33**	.51**	.19**	-.01	-.02	-.09
2 Agreeableness		56**	20**	.42**	.28**	-.19**	-.20**		-.15*
3 Conscientiousness		-	.30**	.42**	.19**	-.07	-.03	-.04	
4 Neuroticism	.46**	.02	.19**	.20**	.13				
5 Openness		.15*	.01	-.01	-.07				
6 Negative expressivity		-.09	-.11	-.09					
7 Stress	.82**	.79**							
8 Anxiety		.79**							
9 Depression		-							

As seen in table 1, extraversion, agreeableness, conscientiousness, and openness have negative whereas, neuroticism have positive relation with psychological distress. The extraversion, agreeableness, conscientiousness, neuroticism and openness have positive relation with negative expressivity. The negative expressivity has positive relation with depression, anxiety and stress.

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openness have positive relation with negative expressivity. The negative expressivity has positive relation with depression, anxiety and stress.

Table 2

Multiple linear regression analysis showing the impact of personality traits on psychological distress (depression; N = 150)

	Psychological distress (depression)	
		Model 1
Variables	*β*	95 % *CI*
Constant	7. 62	[2.48, 12.77]
Extraversion	-.04	[-0.21 , .12]
Agreeableness	-.12	[-.28 , 0.03]
Conscientiousness	.02	[-.12 , 0.17]
Neuroticism	.23**	[0.06 , 0.41]
Openness to experience	-.07	[-.20 , 0.06]
R^2	0.05	
F	2.42	

As shown in table 2 extroversion, agreeableness and openness negatively predicted depression among students. Regression table showed that neuroticism (β = .211, p< .01), positively predicted depression. The value of R^2 showed that neuroticism explained 5 % variance in psychological distress (depression).

Table 3

Multiple linear regression analysis showing the impact of personality traits on psychological distress (anxiety; N=150)

	Psychological distress (anxiety)	
		Model 1
Variables	*B*	95 % *CI*
Constant	6. 91	[1.90, 11.93]
Extraversion	.05	[-.11 , .21]
Agreeableness	-.24**	[-.40 , -0.09]
Contentiousness	.04	[-.10 , 0.19]
Neuroticism	.28**	[.11 , 0.46]
Openness to experience	-.04	[-.17 , .08]
R^2	0.10	
F	4.75	

As shown in table 3, agreeableness and openness negatively predicted anxiety among students. Regression table showed that extraversion (β = -.292, p< .001) negatively, whereas neuroticism (β = .256, p< .001) positively predicted outcome variables (anxiety). The value of R^2 showed that extroversion and neuroticism explained 10 % variance in anxiety.

Table 4

Multiple linear regression analysis showing the impact of personality traits on psychological distress (stress; N=150)

	Psychological distress (stress)	
		Model 1
Variables	*B*	*95 % CI*
Constant	6. 66	[1.43, 11.91]
Extraversion	.05	[-.11 , .22]
Agreeableness	-.22	[-.38 , -0.06]
Contentiousness	.02	[-.17 , 0.13]
Neuroticism	.28	[.10 , 0.46]
Openness to experience	.00	[-.14 , .12]
R^2	0.09	
F	4.15	

As shown in table 4, agreeableness negatively and neuroticism positively predicted stress among students. Regression table showed that agreeableness (β = -.254, p< .01) negatively, whereas neuroticism (β = .241, p< .01) positively predicted outcome variables (stress). The value of R^2 showed that agreeableness and neuroticism explained 9 % variance in stress.

Table 5

Multiple linear regression analysis showing the impact of negative expressivity on psychological distress (depression; N = 150)

	Psychological distress (depression)	
		Model 1
Variables	β	*95 % CI*
Constant	8. 82	[0.27, -.18]
Negative expressivity	-.06	[-.16 , .03]
R^2	0.003	
F	1.76	

As shown in table 5, negative expressivity negatively predicted depression in students. Regression table showed that negative expressivity explained 0 % variance in depression.

Table 6

Multiple linear regression analysis showing the impact of negative expressivity on psychological distress (anxiety; N = 150)

	Psychological distress (anxiety)	
		Model 1
Variables	*B*	95 % *CI*
Constant	10.06	[7.50, .12.62]
Negative expressivity	-.07	[-.17 , .01]
R^2	0.01	
F	2.52	

Table 6 showed negative expressivity negatively predicted anxiety in students. The value of R^2 showed that negative expressivity explained 1 % variance in stress.

Table 7

Multiple linear regression analysis showing the impact of negative expressivity on psychological distress (stress; N = 150)

	Psychological distress (stress)	
		Model 1
Variables	*B*	95 % *CI*
Constant	9.44	[6.77, 12.10]
Negative expressivity	-.06	[-.17 , .03]
R^2	0.005	
F	1.68	

Results highlighted in table 7 showed negative expressivity negatively predicted stress in students. The value of R^2 showed that negative expressivity explained 0 % variance in stress.

Table 8

Mean, standard deviation, t value on personality traits, negative expressivity and psychological distress

Variables	Male (n = 80)		Female (n =70)			95% CI		Cohen's d
	M	*SD*	*M*	*SD*	*t*	*LL*	*UL*	
Extroversion	26.67	5.21	27.28	4.22	-.90	-1.9	.71	0.12
Agreeableness	29.22	6.07	30.63	4.21	-1.9	-2.8	.04	0.26
Conscientiousness	28.70	5.66	29.45	4.54	-1.0	-2.1	.68	0.14
Neuroticism	26.02	4.34	26.08	3.60	-.10	-1.1	1.0	0.01
Openness	34.08	6.15	34.98	5.76	-1.0	-2.5	.76	0.15
Negative expressivity	24.23	5.97	26.20	6.58	-2.2	-3.7	-.21	0.28
Stress	09.44	4.60	06.04	4.08	5.5	2.1	4.6	0.78
Anxiety	09.64	4.49	06.49	3.90	5.2	1.9	4.3	0.74
Depression	09.00	4.41	05.33	3.76	6.3	2.5	4.8	0.89

Note. CI= Confidence Interval, LL = Lower Limit, UP= Upper Limit.

*p<0.05, **p<0.01

The results from table 8 showed that females are higher on extraversion, agreeableness, and conscientiousness as compare to male students. Negative expressivity is seen to be more in female students and depression, anxiety and stress is seen to be more prominent in male students. The results have highlighted that male students are lower on negative expressivity but they are higher on depression, anxiety and stress.

Discussion

Different researches have highlighted that individual's personality is best predictor of individual's emotional response patterns (Gross & Munoz,1995) but when these emotional patterns get maladaptive including personality issues then overall emotional health of the individual can be thwarted (Kennedy-Moore & Watson, 2001; Lepore & Smyth, 2002). For that, the present study attempted to highlight the relationship between study variables and to explore the predictive effect of personality traits and negative expressivity on psychological distress. The result of the current study has shown that students higher on extroversion, agreeableness, conscientiousness and openness have decreased tendencies to experience depression, anxiety and stress as these personality factors act as resilient factors against distress whereas student experiencing higher neuroticism are more prone to develop depression, anxiety and stress. Further analysis showed that negative expressivity has positive relation with depression, anxiety and stress. Individual differences exist in expression of different emotions (Kennedy-Moore & Watson, 2001). Researchers have identified that ambivalent feelings for emotional expression and how suppression of emotions can lead to emotional disorders (King & Emmons, 1990). Research by (Grandi, Clementi, Guidi, Benassi, & Tossani, 2011; Ramakers et al., 2015) highlighted that extroversion, agreeableness, conscientiousness and openness have negative relation with psychological distress. Whereas, neuroticism has positive relation with psychological distress as the feeling of neuroticism are related with low-self-esteem, anxiety features, bodily pain, sleep issues and distorted thought process and negative thought patterns that last for longer duration and result into feeling of depression, anxiety and stress (Aaseth et al., 2011; Ramakers et al., 2015).

The impact of personality traits on psychological distress (e.g., depression, anxiety & stress) was also explored. Result of study showed that neuroticism positively predicted depression and stress whereas agreeableness and openness negatively predicted anxiety as extrovert individuals are more social, and expressive

regarding the emotional issues. The individual with higher agreeableness mostly adopts humorous manner and cooperative behavior regarding distress feelings. Other studies on the contrary have highlighted that individuals with openness prefer to indulge in creative ideas and conscientious individuals are organized in manner of thinking, working and social activities which help them to deal with life stresses. These findings are in accordance with previous researches (Cubel et al., 2014; Loonqvist & Itkonrelationen, 2016; Panayiotou, Kokkinos, & Kapsou, 2014). Neurotic individuals have negative thoughts related with poor adjustment as these individuals are more impulsive and anxious in life circumstance (Quartana, Laubmeier, & Zakowski, 2006 Ramakers et al., 2015; Sanza, 2010; Wal., et al., 2016).

Further, the result of study highlighted that negative expressivity negatively predicted psychological distress (depression, anxiety & stress). Studies have highlighted that inability to control impulses and negative expressivity were found to be linked with the feelings of anxiety and stress (Mennin, Heimberg, Turk, & Fresco, 2005), whereas positive expressivity was linked with less anxiety (Turk, Heimberg, Luterek, Mennin, & Fresco, 2005). According to Rude & McCarthy (2003) depressed college students suppressed their true emotions compared to non-depressed students. Studies have also found that distress disclosure and negative expressivity have negative association with depression and anxiety (Kahn, Achter, & Shambaugh, 2001; Kahn & Hessling, 2001). Empirical evidence has highlighted that personality characteristics are linked to verbal expression of emotion such as more neurotic features are linked with high negative expressivity (Grandi, Sirri, Wise, Tossani, & Fava, 2011). As individual with negative expressivity often has ambivalent feelings for emotional expression which is linked with lower life satisfaction, poor well-being and lower self-esteem, and regular use of negative expressivity leads to prolong disorders such as depression, anxiety and stress (Barr, Kahn, & Schneider, 2008; Mongrain & Vettese, 2003; Shaeen, Jahan, & Shaeen, 2014). Similarly, those people having negative expressivity tend to have

tendency towards self- concealment which in turn leads to the feelings of depression, anxiety, and low self-regard (Ichiyama et al., 1993; Larson & Chastain, 1990; Nejad & Nejad, 2006;).

Lastly, the gender difference showed that extraversion, agreeableness, and conscientiousness are higher in female as compared to male students. The results of present study are contrary to what previous researches suggest that male students are higher on extraversion. As vast demographic differences exist in different cultures, the differences are indication that culture can play significant role in affecting the demographic characteristics. Similarly, extraversion is one's ability to be social, interactive, friendly, and outward which is seen to be more prominent in female students as compared to Pakistani males. Although male students are more inclined to go out and according to previous literature are higher on extraversion but in current study it is found to be more in female students. These results are also consistent with previous indigenous research by Zonash and Naqvi (2011) which showed that neuroticism, openness, and conscientiousness are more prominent among female as compared to male students. The gender differences highlighted that negative expressivity is seen to be more prominent in females students. These findings are also supported by research study of Barr, Kahn, & Schneider (2008) which highlighted that females were more prominent on ambivalent thinking and secret keeping that embellish the features of negative expressivity in female students. Finally the gender difference in current research on psychological distress has shown that males are higher on depression, anxiety and stress which is a new finding in this domain as previous researches have shown that psychological distress is seen to be more prominent in female participants (Gill, Taylor & Pilkington, 2012; Grandi et al., 2011). Cultural difference can account for these findings since males tend to suppress their emotions and may not report any experience of depression, anxiety, and stress compared to females who are more expressive. Some research, however, supports this finding as suggesting that depression is seen to be more prominent in males as compare to females (Boyles, Michalek, & Suarez, 2006; Vaccarino, Kasl, Abramson, & Krumholz, 2001; Zonash, 2015).

Conclusion

The present research highlighted that personality traits determine individual's probability to develop depression, anxiety and stress. Research have also highlighted that emotional expression fundamentally regulates the attitude toward life situation but students having expressive issues are prone to develop emotional issues. Cultural differences have impact on gender differences which have shown some interesting findings as female and male are both higher on extroversion. According to literature, females are higher on distress but our study have highlighted that male students are higher on distress.

Implications of the study

The present study has significant implications for students as findings of this study could help them understand how different personality characteristics and manner of expressing emotions can disrupt normal life activities. Awareness of this association between personality traits and psychological distress can help them work on their personality traits that hinder their emotional and psychological health. The study can guide the educators, institutes, parents, caregivers, and other individuals affiliated with such programs that involve working with students. This study can even guide the personality theorist, clinical psychologists, and educational psychologists working at different institutions to direct their efforts towards promoting awareness of emotional and psychological problems that can arise due to personality characteristics. Finally, the role of family cannot be ignored, and this research can guide the parents to work on fostering personality traits and emotional expression styles that can improve adjustment and psychological health of their children in later stages of their life.

Limitations and recommendations for future studies

Though the present study contributes some new findings relevant to Pakistani culture in the literature, like any research

study it has some limitations that should be addressed in future researches. The sample of the present research was small due to time constraints and it is suggested that to improve power of significant findings, future research should study these variables on a larger sample. Secondly, the study was limited to the sample of Islamabad and Rawalpindi students due to funds and feasibility issues. Future researchers from different cities are encouraged to work on these variables so that results are more generalizable. There is always a chance of biased reporting in self-report measures which were utilized in the present study to assess personality traits, negative expressivity and psychological distress. Hence, research studies using clinician administered tools can further enhance the understanding of the study variables.

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