

PERSONALITY TRAITS AND IMPULSIVENESS: MEDIATING ROLE OF SOCIAL SUPPORT IN UNIVERSITY STUDENTS

*¹Dr. REHANA MUSHTAQ and ²Prof Dr. SADIA SALEEM

^{1,2} Department of Clinical Psychology, School of Professional Psychology, University of Management and Technology Lahore.

*Corresponding Author Email: rehana,mushtaq93@yahoo.com

Abstract

The aim of this research was to explore the mediating role of social support between personality traits and impulsiveness in University Students. A sample of 437 university students (211 men 48% and 226 women 52%) with the age range of 18-24(M=20.78, SD=1.64) was taken from 2 government and 2 Private Universities of Lahore and given Demographic Performa, Big Five Personality Test (BFPT), Social support questionnaire (SSQ) and Bartlett impulsiveness Scale-11 (BIS-11). Pearson product-moment correlation indicated a significant relationship among personality traits, social support, and impulsiveness. Mediation analysis indicated that social support mediates the association between personality traits (openness and neuroticism) and impulsiveness. Path analysis showed that social support mediates the association between personality traits (openness and neuroticism) and impulsiveness with the controlling effect of age. Personality traits play an essential role in the life of university students who need social support. This research provides empirical evidence that social support mediates the association between personality traits (openness and neuroticism) and impulsiveness.

Keywords: Openness, Neuroticism, Impulsiveness, Social Support, University Students.

1. INTRODUCTION

Young adults are in the age of transition in which they faced unique and numerous developmental changes i.e. career choice, academic performance, and peer acceptance (Saleem et al., 2013; Sawyer et al., 2018; Serine, et. al., 2020). Personality provides a vital role in terms of insight interns of individual differences in patterns of feeling, thinking, and behaving (Zainah et al. 2019). Personality traits refer to the patterns of the behavior of an individual which exhibit over time (Ezeakabekwe & Nwankwo, 2020). Personality traits in form of five factors provide a meaningful taxonomy that classifies the personality attributes (Shahjehan et.al. 2012). Openness is a cognitive disposition to creativity and esthetics (Zainah et al. 2019). Individuals having openness personality traits tend to be curious about both their inner and outer worlds (Ukpabi, 2021).

Moreover, in a socio-genomic model, the definition of personality traits is relatively enduring, automatic patterns of thoughts, feelings, and behaviors that discriminate one individual from the other (Roberts, 2017). Adults who have Neuroticism personality trait is found more vulnerable to experiencing instability in their life (Agbaria & Mokh, 2021). Individuals who have a higher level of neuroticism experience more emotions which leads to impulsiveness and they have less control over their impulses (Agbaria &

Mokh, 2021). Impulsiveness is a trait in which a tendency to inform or act immediately without thinking, weakening to appreciate the situations beyond here and now and making a quick decision (Barrat, 1993).

In addition, social support states to the person's material or psychological possessions from their social links that can support to deal with stressful challenges in their daily life in form of family, friends, and other loved ones (Taylor, 2011). Perceived social support is significant and predicts the mental health of individuals. It indicates receivers' perceptions regarding the general availability of support. People are fixed in some social communities and structures. It is too essential to evaluate the circumstances, contribution, and functioning of the individuals in the social circle (Yu et al., 2021).

In previous literature, neuroticism personality trait significant positive correlated with impulsiveness (Mao et al., 2018; Peterka et al., 2019). Openness personality trait significant negative association with impulsiveness (Mao et al., 2018). High scorer individuals on neuroticism report higher impulsiveness that lower scorer individual on neuroticism. Moreover, personality traits are constant predictors of social support (Baranczuk, 2019). Personality traits described according to the Big Five were related to social support as a different type of personality traits with a different type of social support and culture plays a vital role in the association of personality traits and social support (Yu et al., 2021). Adults with higher neuroticism personality traits have negative affectivity and greater vulnerability which play a vital role in decreasing the social support availability (Ayub, 2015). Neuroticism is negatively associated with social support and openness is positively associated with social support (Agbaria&Mokh, 2021; Ayub, 2015).

Similarly, individuals with openness personality trait respond positively to social support and reciprocate emotional support received by others (Ukpabi, 2021). They seemed more flexible and creative so they built relationships. Adults who have higher level of openness personality trait experience more openness to emotions, feelings and imaginations obligation of art and beauty, liberalism and intellect which linked to social support (Baranczuk, 2019) and have better social functioning (Seldon& Goodie, 2018).

Furthermore, Joiner's (2005) theory recommended that social support is a safeguard against risk factors and it may diminish the risk related to impulsiveness. Lamis et al. (2016) and Zhang et al. (2018) indicated that social support has been linked with mental health and problem behavior. Lack of social support induces negative behaviors (Ukpabi, 2021). Social support is a protective factor for impulsiveness and individual who have high social support have low impulsivity (Zhang & Lin, 2021). Social support and impulsiveness are negatively associated (Zhang et al., 2021).

To sum up the above literature, it can be concluded that personality traits and social support play an important in the development of impulsiveness which affects the life of young adults. After reviewing the previous literature, it was found that research was

done on personality traits and impulsiveness and its correlates (Agbaria & Mokh, 2021; Baranczuk, 2019; Mao et al., 2018; Zhang & Lin, 2021). Therefore, the current research is aimed to investigate the relationship among personality traits, social support, and impulsiveness in young adults and to explore the mediating role of social support between personality traits and impulsiveness.

2. Methods

Current research is approved by Institution Review Board (IRB). The research was carried out from September to November 2020 through a Cross-sectional research design and the setting was Government and private university setting.

2.1 Participants

A sample of 437 university students (211 men 48% and 226 women 52%) with the age range of 18-24 ($M=20.78$, $SD=1.64$) was taken from 2 government and 2 private universities in Lahore.

2.2 Measures

Demographic Performa comprised of gender, age, and academic class. Big Five Personality Test (BFPT) measures five personality traits (extraversion, openness, agreeableness, emotional stability, and conscientiousness) and consists of 50 items on a 5-point Likert scale from 0 (totally disagree), 1 (disagree a little), 2 (neutral opinion), 3 (agree a little) and 4 (totally agree). Each trait consists of 10 items. The score of each trait lies between 0-40. Higher scores equal a stronger personality type. The internal consistency of this scale of each dimension is between .79-.86 (Goldberg, 1992). The personality traits (openness and neuroticism) are used in current research.

The social support questionnaire (SSQ) measures the perception of social support, consists of 12 items, and with 3 subscales appraisal support, belonging support, and tangible support -point Likert Scale from 1 (definitely false), 2 (probably false), 3 (probably true) and 4 (definitely true). The score of this scale lies between 1-48. The internal consistency of this scale is $\alpha=.70$ (Cohen & Hoberman, 1983). Bartlett Impulsiveness Scale-11 (BIS-11) is a self-report questionnaire that measures impulsiveness and consists of 30 items on a 4-point Likert Scale from 1 (rarely), 2 (occasionally), 3 (often), and 4 (almost) (Patton et al., 1995). The score of this scale lies between 1-120. The internal consistency of this scale is $\alpha=.83$ (Patton, 1995).

2.3 Procedure

In this research after ensuring privacy and confidentiality data was collected from 450 university students in groups and debriefed at the end of the session. 13 Performa's were discarded due to lack of information completed by participants. They were asked to rate the statement to the extent to which it applies to them.

2.4 Data Analysis

SPSS was used for correlation analysis, PROCESS was used for mediation analysis and AMOS was used for path analysis.

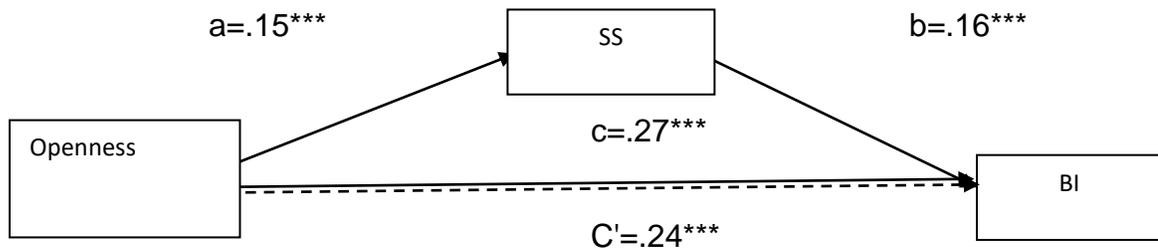
3. Results

The relationship among personality traits, social support, and impulsiveness in university students was explored through Pearson Product Moment Correlation. The results indicated that a significant relationship between openness and neuroticism ($r = .38$, $p < .001$), openness and social support ($r = .15$, $p < .001$), openness and impulsiveness ($r = -.27$, $p < .001$), neuroticism and social support ($r = -.20$, $p < .001$), neuroticism and impulsiveness ($r = .16$, $p < .001$) and social support and impulsiveness ($r = -.20$, $p < .001$).

Pearson Product Moment Correlation indicated that significant relationship among personality traits, social support, and behavior impulsiveness in university students. Hence mediating role of social support in the relationship between personality traits (openness and neuroticism) and behavior impulsiveness was explored by conducting mediation through Hayes (2018) bootstrapping approach. Figure 1 shows the mediating role of social support in the relationship between openness and behavior impulsiveness. The total effect of openness on behavior impulsiveness ($\beta = .27$, $SE = .06$, $p < .001$, $R^2 = .07$) was significant. Furthermore, the direct effect of social support ($\beta = .15$, $SE = .05$, $p < .001$, $R^2 = .02$) was significant. In contrast, an examination of the direct effect of the mediation variable on behavior impulsiveness ($\beta = .16$, $SE = .05$, $p < .001$, $R^2 = .10$) was significant. Finding suggests that social support partially mediates the association between openness and behavior impulsiveness ($\beta = .24$, $SE = .06$, $p < .001$, $R^2 = .10$) but c' is still significant.

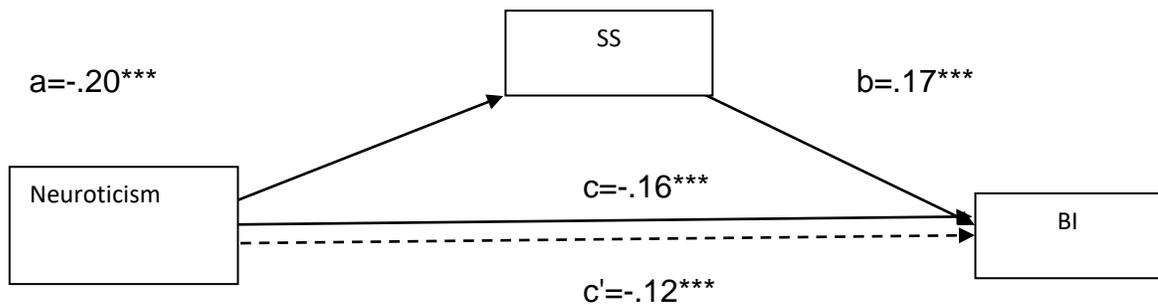
Figure 2 shows the mediating role of social support in the relationship between neuroticism and behavior impulsiveness. The total effect of neuroticism on behavior impulsiveness ($\beta = -.16$, $SE = .06$, $p < .001$, $R^2 = .03$) was significant. Furthermore, the direct effect of social support ($\beta = -.20$, $SE = .05$, $p < .001$, $R^2 = .04$) was significant. In contrast, an examination of the direct effect of the mediation variable on behavior impulsiveness ($\beta = .17$, $SE = .06$, $p < .01$, $R^2 = .05$) was significant. The finding suggests that social support partially mediates the association between neuroticism and behavior impulsiveness ($\beta = .12$, $SE = .06$, $p < .001$, $R^2 = .05$) but c' is still significant.

Figure 1: Mediation path framework of openness, social support, and behavior impulsiveness



Note: SS= social support, BI= behavior impulsiveness

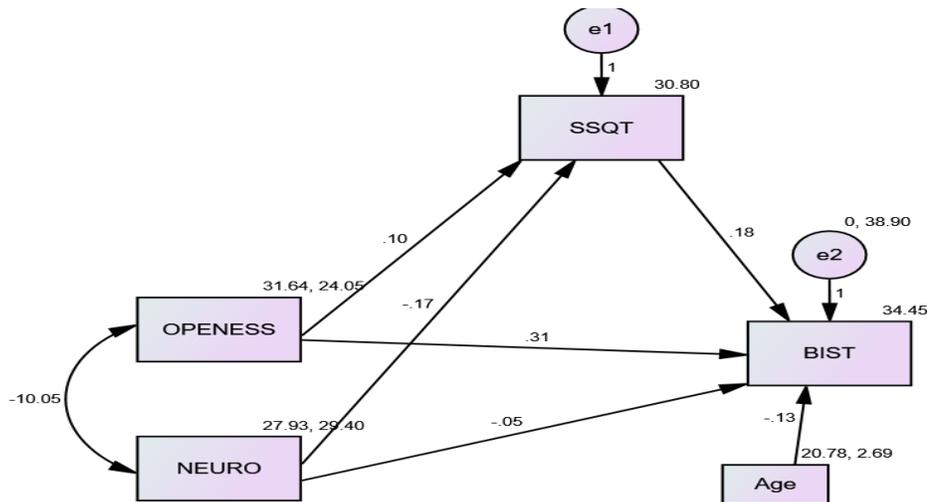
Figure 2: Mediation path framework of neuroticism, social support, and behavior impulsiveness



Note: SS= social support, BI= behavior impulsiveness

Structural equation modeling was conducted through Analysis of Moment Structure (AMOS) version 24 to investigate the mediating role of social support in the association between personality traits (openness, neuroticism) and behavior impulsiveness in university students. The results of model fit indices indicate the value of all model indices $\chi^2(df=3, N=437) = 5.62, p=.05; \chi^2/df = 1.87, NFI=.96; TLI=.93; CFI=.98; RMSEA=.05$ by controlling the age effect fulfilling the standard criteria by Schumacker and Lomax (2004) and Hu and Bentler (1999).

Figure 3: Results of path analysis for openness, neuroticism, social support, and behavior impulsiveness



Note: OPENESS=openness, NEURO= neuroticism, SSQT=social support questionnaire total, BIST= Bartlett impulsiveness scale total.

Table 1: Standardized Estimate of Direct Effects of Personality Traits, Social Support, and Impulsiveness (N=437)

Variables	M(SS)			Y(IM)		
	β	SE	P	β	SE	p
X ₁ (OP)	.10	.06	.05	.23	.07	.001
X ₂ (NE)	-.16	.05	.001	-.04	.06	.39
M(SS)				.15	.06	.001
Age	-.03	.18	.49			
	R ² =.05			R ² =.10		

Note: OP= Openness, NE= Neuroticism, SS= Social Support, IM= Impulsiveness

Table 1 shows the significant direct effect of personality traits openness and neuroticism on social support by controlling the age effect. Furthermore, the result also demonstrated a significant direct effect on impulsiveness.

4. Discussion

In young adults, personality traits and social support are risks and protective factors of impulsiveness (Joiner's, 2005; Lamis et al., 2016; Zhang et al., 2018). The vulnerability

of personality traits promotes impulsiveness in young adults and social support plays an important role in reducing impulsiveness in young adults (Marzilli et al., 2021).

Therefore, the current research is aimed to investigate the relationship among personality traits, social support, and impulsiveness in young adults. The results of Pearson Product Moment Correlation indicated a significant negative relationship between openness and neuroticism, openness and impulsiveness, neuroticism and social support, and social support and impulsiveness. The results of this study are consistent with previous literature (Zhang et al., 2021; Mao et al., 2018; Ukpabi, 2021). Moreover, a significant positive relationship between openness and social support and neuroticism and impulsiveness. The results of this study are consistent with previous literature (Agbaria&Mokh, 2021; Baranczuk, 2019; Mao et al., 2018; Peterka et al., 2019; Ukpabi, 2021).

Moreover, the current research is also aimed to explore the mediating role of social support between personality traits and impulsiveness. The analysis of mediation analysis and path analysis indicated that social support partially mediates the relationship between personality traits (openness and neuroticism) and impulsiveness. The results of this study are consistent with previous literature (Agbaria&Mokh, 2021; Ayub, 2015; Mao et al., 2018; Yu et al., 2021). Social support plays the role of a safeguard against impulsiveness (Joiner's, 2005). Individuals who have openness personality traits are more social support and individuals who have neuroticism personality traits are less social support (Ayub, 2015).

5. Conclusion

Personality traits and social support are important risks and protective in the life of young adults. The association of personality traits i.e. openness and social support help them to reduce their impulsiveness. This research provides empirical evidence that social support partially mediates the relationship between personality traits (openness and neuroticism) and impulsiveness which indicated that social support and a positive personality decreased the impulsiveness of young adults. This study highlighted the personality traits which contribute to the impulsiveness of an individual. The implication of this study is to understand the risk and protection of impulsiveness and counseling services are required for reducing the impulsiveness of young adults with increased social support. Regardless of these findings, this research also has some limitations. This research focused on the urban population of Lahore. In the future, research should be on done on rural populations and other cities of Pakistan. In future research, other risk and protective factors of impulsiveness should be identified according to the collectivistic culture.

References

- Agbaria, Q. & Mokh, A. A. (2021). Coping with Stress during the Corona virus Outbreak: The Contribution of Big Five Personality Traits and Social Support, *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-021-00486-2>
- Ayub, N. (2015). Predicting suicide ideation through intrapersonal and interpersonal factors: the interplay of Big-Five personality traits and social support. *Personality and Mental Health* 9, 308–318. <https://doi.org/10.1002/pmh.1301>
- Baranczuk, U. (2019). The five-factor model of personality and social support: a meta-analysis. *Journal of Research in Personality*, 81, 38–46. <https://doi.org/10.1016/j.jrp.2019.05.002>
- Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, 13, 99-125
- Ezeakabekwe, S. U., & Nwankwo, E. A. (2020). Correlate of personality traits, self-efficacy and work coping among police personnel: the need for psychotherapy services for police personnel in Awka Metropolis. *International Journal for Psychotherapy in Africa*, 4(1).
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological assessment* 4(1), 26-42.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York: The Guilford Press.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540>
- Joiner, T. (2005). *Why people die by suicide* (1st ed.). Cambridge, MA: Harvard University Press.
- Lamis, D. A., Ballard, E. D., May, A. M., Dvorak, R. D. (2016). Depressive symptoms and suicidal ideation in college students: the mediating and moderating roles of hopelessness, alcohol problems, and social support. *Journal of Clinical Psychology*, 72, 919–32. <https://doi.org/10.1002/jclp.22295>
- Mao, T., Pan, W., Zhu, Y., Yang, J., Dong, O. & Zhou, G. (2018). Self-control mediates the relationship between personality trait and impulsivity. *Personality and Individual Differences*, 129, 70-75. <https://doi.org/10.1016/j.paid.2018.03.013>
- Marzilli, E. Cerniglia, L. & Cimino, S. (2021). Antisocial personality problems in emerging adulthood: the role of family functioning, impulsivity, and empathy. *Brain Sciences*, 11, 687. <https://doi.org/10.3390/brainsci11060687>
- Patton, J. H., Stanford, M. S., Barratt, E. S. (1995). Factor structure of the Barratt Impulsiveness scale. *Journal of Clinical Psychology*. 51, 768–764.
- Peterka-Bonetta, J., Sindermann, C., Elhai, J. D. Montag, C. (2019). Personality associations with smartphone and internet use disorder: a comparison study including links to impulsivity and social anxiety. *Frontiers in Public Health*, 7, 127. <https://doi.org/10.3389/fpubh.2019.00127>
- Roberts, B. W. (2017). A revised sociogenomic model of personality traits. *Journal of Personality*, 86(1), 23–35. <https://doi.org/10.1111/jopy.12323>.
- Saleem, S., Mahmood, Z., & Naz, M. (2013). Mental health problems in university students: a prevalence study, *FWU Journal of Social Sciences*, 7(2), 124-130.

Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of adolescence. *Lancet Child Adolescence Health*, 2, 223-228. [http://doi.org/10.1016/S23524642\(18\)30022-1](http://doi.org/10.1016/S23524642(18)30022-1)

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling* (2nd ed.). Lawrence Erlbaum Associates Publishers.

Shahjehan, A., Qureshi, J. A., Zeb, F., & Saifullah, K. (2012). The effect of personality on impulsive and compulsive buying behaviors. *African Journal of Business Management*, 6(6), 2187-2194. <https://doi.org/10.5897/AJBM11.2275>

Taylor, S. E. (2011). "Social support: a review," in *Oxford Library of Psychology. The Oxford Handbook of Health Psychology*, ed. H. S. Friedman (New York, NY: Oxford University Press), 189–214.

Ukpabi, D. C. (2021). Unemployment, Personality Traits, and the Use of Facebook: Does Online Social Support Influence Continuous Use? <https://dx.doi.org/10.4018/IJEA.2021010104>

Yu, Y., Zhao, Y., Li, D., Zhang, J. & Li, J. (2021). The Relationship between Big Five Personality and Social Well-Being of Chinese Residents: The Mediating Effect of Social Support. *Frontier in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.613659>

Zainah, M., Muhammad, N. A. A., & Nor, S. A. (2019). Adult personality and its relationship with stress level and coping mechanism among final year medical students. *Medicine & Health*, 14(2), 154–167. <https://doi.org/10.17576/MH.2019.1402.14>

Zhang, J. & Lin, L. (2015). The Moderating Effect of Social Support on the Relationship between Impulsivity and Suicide in Rural China. *Community Mental Health Journal*, 51, 585–590.

Zhang, Y., Liu, Z. & Zhao, Y. (2021). Impulsivity, social support and depression are associated with latent profiles of internet addiction among male college freshmen. *Frontier in Psychiatry* 12. <https://doi.org/10.3389/fpsyg.2021.642914>

Zhang, S. J, Tian, Y., Sui, Y., Zhang, D. H., Shi, J. R., Wang, P., Meng, W. & Si, Y. (2018). Relationships between social support, loneliness, and internet addiction in Chinese postsecondary students: a longitudinal cross-lagged analysis. *Frontier in Psychology*, 9(1707). <https://doi.org/10.3389/fpsyg.2018.01707>

Funding: There was no funding received for this research

Conflict of Interest: There is no conflict of interest of authors.