

Effect of Locus of Control and Depression Among Young Adults in Multan (Pakistan)

Rana Zeeshan Ahmad¹, Salah-ud-Din Chaudhry², Muhammad Shehrooz Khan³,
Asif Bilal⁴, Umer Ali⁵ and Rao Zahid Sattar⁶

<https://doi.org/10.62345/jads.2023.12.4.53>

Abstract

Depression is a widespread and severe disease that affects negatively on how individuals feel, think and act. It affects an individual's power of judgments, events, activities, feelings, behavior, and sense of well-being. On the other hand, locus of control has generalized expectancy or belief as to whether an individual's life is controlled by abilities and behaviors or external forces such as fate, destiny, powerful others, luck or chance. The purpose of the present study is to check out the effect of locus of control and depression among young adults to explore the association between locus of control and depression. The sample consisted of 116 individuals from Multan Dist. Rotter's locus of control scale (RL of CS) and Becks depression inventory (BDI) are used to get the predicted hypothesis—an online survey was conducted to get the particular results. The outcomes draw attention to the locus of control as one of the cognitive variables that play an important role in depression. The results suggest that young males are less likely to be depressed as compared to females. The study findings show that males have a higher internal locus of control level, and females have a higher external LOC. It is suggested that there is a need to create awareness programs among young adults to eradicate depression because it is very harmful to life.

Keywords: Psychology, Locus of Control, Depression, Young Adults.

Introduction

Locus of control is conceptualized as the degree to which individuals perceive successes and failures in life as being internally or externally controlled (Samreen & Zubair, 2013; Bilal et al., 2021). Some studies have established a relationship between locus of control and depression. Peterson (Khumalo et al., 2019) predicted that people with an internal locus of control would be more likely to experience higher levels of depression, as depressed individuals tend to blame themselves for failures (Khumalo et al., 2019).

Depressive disorders are widespread across all regions and humanity (American Psychiatric Association, 2013). However, unfortunately, in vulnerable countries, Pakistan is one where levels of anxiety, nervousness, tension, and depression are at a maximum (Ahmad et al., 2016). Depression causes feelings of unhappiness or loss of interest in activities and events that were once positive, such as getting married or starting a new job (American Psychiatric Association, 2013). At its worst, depression can lead to suicide (World Health Organization [WHO], 2012).

¹Department of Applied Psychology, Bahauddin Zakaria University, Multan.

²University of Health Sciences, Lahore.

³Multan Medical and Dental College Multan.

⁴Department of Zoology, University of Okara, Pakistan.

⁵Department of Biological Sciences, Tennessee State University, Nashville Tennessee USA.

Corresponding Author Email: uali1@my.tnstate.edu

⁶Department of Zoology, University of Okara, Pakistan.



By understanding the unique cultural and contextual factors that contribute to the intensity of depression, this research endeavors to shed light on the pathways through which internal and external locus of control influence mental health outcomes. There are multiple factors that affect the mental health of an individual, but the overall percentage of depression and anxiety is 36% in Pakistan. Epidemiological reports around the country put the prevalence rates of depressive and anxiety disorders between 22% and 60%.

In the psychological literature, locus of control (LOC) is a concept unfamiliar to most (Ritchie & Phares, 1969; Rotter, 1975; Terborg, 1985). LOC refers to how strongly people believe they control the situations and experiences that affect their lives. In learning, locus of control usually refers to how students perceive the causes of their academic success or failure in school. It has two forms: external locus of control (ELOC) and internal locus of control (ILOC). ELOC refers to believing one is always at the mercy of fate, fortune, luck, and uncontrollable external forces, while ILOC refers to believing one is capable of taking steps to maximize opportunities for positive outcomes and minimize risks of adverse outcomes. Individuals with an internal locus of control tend to take more responsibility for their actions, whether the actions or outcomes are good or bad, as they do not attribute outcomes to external control (Ritchie & Phares, 1969; Rotter, 1975; Terborg, 1985). Thus, internal–external LOC refers to an individual's beliefs about their control over events (Ritchie & Phares, 1969; Rotter, 1975; Terborg, 1985).

These problems can become chronic or recurrent, leading to substantial impairments in one's ability to carry out daily tasks (American Psychiatric Association, 2013). Approximately 1 million lives are lost yearly to suicide, which means 3,000 suicide deaths each day. For every person who dies by suicide, 20 or more may attempt to end their life (WHO, 2012).

The symptoms of depression can vary from mild to severe. They may include sad mood or feelings of unhappiness, loss of interest or pleasure in activities once enjoyed, changes in appetite—weight loss or gain unrelated to dieting, difficulty sleeping or sleeping too much, loss of energy or increased fatigue, increase in purposeless physical activity (e.g., hand-wringing) or slowed movements and speech discernible by others, feelings of worthlessness or guilt, diminished ability to think or concentrate, or indecisiveness, and recurrent thoughts of death or suicide (American Psychiatric Association, 2013).

Persistent subthreshold depression may not be as severe as major depression but can still impair relationships and make everyday tasks difficult. Manic depression is an outdated term for bipolar disorder. Many people with significant depression also experience periods of losing touch with reality. Many women experience what some describe as "baby blues" after giving birth. Hormonal changes during pregnancy and childbirth can alter the brain in ways that lead to mood swings. Lack of sleep and physical discomfort that often accompany pregnancy and a newborn do not help either. Seasonal affective disorder, also called seasonal depression and medically defined as major depressive disorder with seasonal pattern, is depression associated with specific seasons. For most people, it tends to occur during winter (American Psychiatric Association, 2013).

Depression is a leading cause of disease burden globally. No one seems to escape the hollow dread that the disease can incite. In developing countries, poorer populations or lower-income classes suffer more from depression and receive less mental health care compared to countries with more privileged populations (Ahmad et al., 2016; Bilal, 2021).

Pakistan's rapidly growing population and essential role in current world events underscore an urgent need to establish an evidence base for guiding future policy and implementing new strategies addressing depression (Bilal, 2021). International studies provide corroborating evidence that while women live longer, they do not necessarily live healthier or happier lives. It is established that in addition to their specific disorders like premenstrual syndrome and postpartum depression, women are also at higher risk for developing anxiety, depression, and eating disorders (Zaidi & Jamali, 2013). Research has shown that for depressive disorders,

women account for 41.9% of cases compared to 29.3% among men. Asthma, obesity, arthritis, cardiovascular disease, and cancer and those with unhealthy behaviors (Zaidi & Jamali, 2013). In this longitudinal investigation, Costantini et al. (2021) contribute to the literature by exploring the prospective relationship between locus of control, negative cognitive styles in adolescence, and the emergence of probable depression in young adulthood. Drawing on data from the Avon Longitudinal Study of Parents and Children (ALSPAC), the study addresses a gap in existing knowledge regarding the directionality of these associations and their role in the transition to adulthood and parenthood. The research reveals that elevated external locus of control and negative cognitive styles during adolescence are associated with an increased likelihood of probable depression in young adulthood. The findings emphasize the enduring impact of these cognitive factors, even after adjusting for confounding variables.

Furthermore, the study investigates whether parenthood moderates these associations, finding limited evidence for such moderation. The study's robust methodology and use of a prospective birth cohort contribute valuable insights into the complex interplay between cognitive variables and mental health outcomes. These findings underscore the importance of considering cognitive factors in adolescence as potential risk factors for depression in young adulthood.

The purpose of this study is to examine the relationship between locus of control and depression among young adults, investigate LOC and depression across genders, determine the role of age in internal and external locus of control and depression, and explore internal and external locus of control.

Materials and Methods

Study Design and Sampling

This research employed a cross-sectional design using an online survey to investigate the association between locus of control, as measured by Rotter's locus of control scale, and depression among young adults aged 12 to 30. The study aimed to explore the prevalence of depression and its relationship with an internal or external locus of control within the randomly selected population.

Sampling

The sampling process involved randomly selecting young adults from the Multan District, ensuring representation of both genders. The age range of 12 to 30 years was chosen to capture a diverse group transitioning from adolescence to early adulthood. The use of the Beck depression inventory scale and Rotter's locus of control scale facilitated the identification of individuals with varying levels of depression and locus of control beliefs.

Data Collection

Data was collected through an online survey distributed among the selected young adults. The survey included questions from the Beck depression inventory scale to assess depressive symptoms and Rotter's locus of control scale to measure the degree of internal or external locus of control. The online platform allowed for efficient and widespread data collection, accommodating the diverse age group and gender representation.

Sample Size

The total sample consisted of 116 respondents, with 51% representing females and 49% males within the age group of 12 to 30 years. This sample size was chosen by considerations of feasibility, resource constraints, and the need to ensure statistical validity in capturing the diversity of experiences within the targeted population.

Justifications

Online Survey: An online survey provided a practical and accessible means of reaching a diverse group of young adults. It allowed for flexibility in participation, enabling respondents to complete the survey at their convenience, thereby potentially increasing the response rate.

Random Sampling: The adoption of random sampling enhanced the generalizability of the findings to the broader population of young adults in the Multan District. This method helped reduce selection bias and ensured that each member of the population had an equal chance of being included in the study.

Beck Depression Inventory Scale and Rotter's Locus of Control Scale: The choice of these standardized scales ensured the use of validated and reliable measures for assessing depression and locus of control. This enhances the reliability and validity of the study's results, allowing for meaningful comparisons with existing literature.

Specific Age Group: Focusing on the age group of 12 to 30 years provided a targeted exploration of the transition from adolescence to young adulthood, a critical period in which mental health dynamics and locus of control beliefs may undergo significant changes.

By employing this methodology, the study aimed to contribute valuable insights into the association between locus of control and depression among young adults while ensuring methodological rigor and representation of the targeted population.

Attributes and Variable

Locus of control, internal locus of control, external locus of control, depression, and young adults.

Results and Discussion

There are 108 valid cases for all variables; the minimum age reported is 16, the minimum gender value is 1, and so on. For instance, the maximum age reported is 40, the maximum gender value is 2, and so forth, the mean age is 25.1204, the mean gender value is 1.5185, and so on, and the standard deviation for age is 3.79059; for gender, it is 0.50199, and so forth (Table 1 and 2).

Table 1: Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	108	1.00	2.00	1.5185	0.50199
Age	108	16.00	40.00	25.1204	3.79059
Religion	108	1.00	2.00	1.0278	0.16510
Raised Area	108	1.00	2.00	1.4722	0.50156
Marital Status	108	1.00	2.00	1.6481	0.47977
Socio Economic Status	108	1.00	3.00	1.1019	0.40878
Valid N (list wise)	108				

Table 2: Regression analysis shows the effect of RL of CS on BDI

Predictor	B	Std. Error	T-value	P-value
(Constant)	.428	.029	14.838	.000
BDI	.104	.035	2.957	.004

R=.276, R2=.076, Adjusted R2= .067, (F(8.741),**P< 0.05

Hypothesis: A higher level of internal locus of control will be associated with a lower level of depression.

Linear regression analysis shows that RL of CS significantly affects BDI. So, the internal LOC have a low level of depression, and the external LOC has a high level of depression. Gender and age also have some effects on depression (Table 3).

Table 3: Cronbach's Alpha of scales

Scales	N	Cronbach's alpha
BDI	21	0.895
RL of CS	29	0.567

Table 4 shows the reliability of the scales. The result shows a difference between demographic variable gender and attachment. The result for males (M=.4853, S.D=.40833) is less than for females (M=.8078, S.D=.52659). Females have external LOC and have a high level of depression, while males have internal LOC and have a low level of depression as compared to females. The study's findings show that there is a difference between the demographic variables gender and attachment. The result for males (M=.4521, S.D=.22282) is less than females for (M=.5370, S.D=.13823)

Table 4: Gender difference BDI and RL of CS

Scales	Gender	N	Mean	Std. Deviation	Std. Error Mean	T value	P value
BDI	Male	52	.4853	.40833	.05663	-3.537	.001
	Female	56	.8078	.52659	.07037	-3.570	
RL of CS	Male	52	.4521	.22282	.03090	-2.400	.018
	Female	56	.5370	.13823	.01847	-2.361	

Correlations: **. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis: Young male will low depressive symptoms as compare to female.

The current study's hypothesis predicted that young males would have lower levels of depressive symptoms compared to females. However, the findings indicate that females had a higher level of depression and an external locus of control compared to males. This suggests that females may perceive less control over their circumstances, leading to a higher likelihood of experiencing depression, consistent with prior research showing gender differences in depression and locus of control (Dogra et al., 2020). Results from bivariate analysis showed that BDI is positively correlated with RL of CS. There will be a clear association between LOC and depression (Table 5).

Table 5: Association between locus of control and depression

	BDI	RL of CS
BDI	1	.276**
RL of CS	.276**	1

Hypothesis: There will be clear association between locus of control and depression.

The findings showed a positive correlation between locus of control and depression (Abdollahi et al., 2017; Kazimi et al., 2023). This suggests that individuals with an external locus of control, who believe external factors control their lives, are more likely to experience higher levels of depression, replicating previous research (Alosaimi et al., 2021; Rizwan et al., 2022).

Conversely, individuals with an internal locus of control, who believe they control their lives, are less likely to experience depression, as also found in other studies (Burchianti et al., 2020; Phares, 1976).

There was a significant association between locus of control and depression (Ansari et al., 2020; Nowicki et al., 2018). This implies that as the locus of control shifts toward being more external, depression levels tend to increase. Conversely, as the locus of control becomes more internal, depression levels tend to decrease. The significance of this relationship indicates that the locus of control plays a role in influencing depressive symptoms among young adults, consistent with the literature (Cheng et al., 2013; Hosseini et al., 2016).

Present findings align with previous research demonstrating relationships between gender, locus of control, and depression (Dogra et al., 2020). The significant regressions analyzing the effect of locus of control on depression also replicate prior studies (Abdollahi et al., 2017). This study contributes additional evidence for the locus of control's influence on depressive symptoms.

The findings showed a positive correlation between locus of control and depression. This suggests that individuals with an external locus of control, who believe external factors control their lives, are more likely to experience higher levels of depression, replicating previous research (Jawad et al., 2023). Conversely, individuals with an internal locus of control, who believe they control their lives, are less likely to experience depression, as also found in other studies.

There was a significant association between locus of control and depression. This implies that as the locus of control shifts toward being more external, depression levels tend to increase. Conversely, as the locus of control becomes more internal, depression levels tend to decrease. The significance of this relationship indicates that the locus of control plays a role in influencing depressive symptoms among young adults, consistent with the literature.

As hypothesized, regression analysis showed the effect of Rotter's (1966) locus of control scale on the Beck depression inventory (Beck et al., 1961; Ali et al., 2021), replicating prior findings. The results indicate that the locus of control affects depression levels, as shown by a p-value less than 0.05, suggesting that the internal locus of control is associated with lower depression while the external locus of control is associated with higher depression.

In summary, the present findings align with previous research demonstrating relationships between gender, locus of control, and depression. The significant regressions analyzing the effect of locus of control on depression also replicate prior studies. This study contributes additional evidence for the locus of control's influence on depressive symptoms.

Overall, the study provides evidence supporting the relationship between locus of control and depression among young adults. The findings suggest that individuals with an internal locus of control may have better mental well-being. In contrast, those with an external locus of control may be more susceptible to depressive symptoms. These insights can contribute to understanding and addressing depression among young adults by considering the role of locus of control in preventive and therapeutic interventions.

Conclusion

Depression is a widespread and severe disease that affects negatively on how individuals feel, think and act. It affects an individual's power of judgments, events, activities, feelings, behavior, and sense of well-being and causes unhappiness and loss of interest in activities and attitudes. On the other hand, locus of control has generalized expectancy or belief as to whether individuals' lives are controlled by abilities and behaviors (internal locus of control) or external forces such as fate, destiny, powerful others, luck or chance (external locus of control).

This research is designed to explore the effects of locus of control and depression among young adults. The outcomes draw attention to the locus of control as one of the cognitive variables

that play an important role in depression. The results suggest that young males are less likely to be depressed as compared to females. The findings of the study show males have higher levels of internal locus of control and females have external LOC.

Depression has negative symptoms on female study, career, future relationships and life. However, the finding of the study also indicates that locus of control (internal and external) is associated with depression. It is worthwhile to consider the locus of control as one of the significant variables when addressing depression as a mental health problem among young adults.

References

- Abdollahi, A., Talib, M. A., Yaacob, S. N., & Ismail, Z. (2017). The mediating role of coping styles between locus of control and psychological distress. *PLoS ONE*, *12*(3), e0173818. <https://doi.org/10.1371/journal.pone.0173818>
- *About mental health*, (2010). Center for disease control and prevention. <https://www.cdc.gov/mentalhealth/learn/index.htm>
- Ahmad, A., Sherina, M. S., Khalil, F. S., Rusli, B. N., Zain, Z., Rampal, L., & Rahman, A. H. (2016). Prevalence and factors associated with depression among incoming medical students in University Kebangsaan Malaysia. *SpringerPlus*, *5*(1), 1834. <https://doi.org/10.1186/s40064-016-3544-8>
- Ali, U., Bilal, A., & Fatima, U. (2021). Consumption of Meat and the Human Health. *J Med Res Surg*, *2*(3), 1-3.
- Alosaimi, F. D., Al-Qahtani, M. F., Alqahtani, H. S., Albougami, A. S., & Almotiri, R. I. (2021). The association between stress and depression symptoms: Role of gender, perceived social support and coping styles among physical therapy students. *Risk Management and Healthcare Policy*, *14*, 1729–1738. <https://doi.org/10.2147/RMHP.S291485>
- Ansari, M. T., Kumari, S., & James, K. (2020). Relationship between locus of control, stress, coping and mental health of young adults. *Young*, *28*(4), 281–292. <https://doi.org/10.1177/1103308819840584>
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *4*, 561–571. <https://doi.org/10.1001/archpsyc.1961.01710120031004>
- Bilal, A. (2021). Clinical Diagnosis and Treatment of Absence Seizures: Case Study. *MAR Ophthalmology*, *2*(1).
- Bilal, A. (2021). Impacts of Depression on Pregnancy: A Review. *Occup Med Health Aff*, *9*(2).
- Bilal, A., & Ansari, M. S. (2021). Prevalence and severity of epilepsy in district Chiniot, Pakistan. *Occup Med Health Aff*, *9*, 3.
- Bilal, A., Anjum, M. I., Naveed, N., Saif-ur-Rehman, M., Ali, U., & Iftikhar, A. (2021). Impacts of Abusing Drugs on Our Society. *J Med Res Surg*, *2*(3), 1-3.
- Burchianti, C., Baroncini, P. M., Garberi, L., Marziali, M. E., Pruneti, V., Del Medico, V., & Riccio, M. P. (2020). Alexithymia, locus of control and mental health outcomes: Cross-validation of the Bermond-Vorst Alexithymia Questionnaire (BVAQ). *Personality and Individual Differences*, *166*, 110178. <https://doi.org/10.1016/j.paid.2020.110178>
- Centers for Disease Control and Prevention. (2010). State-specific changes in binge drinking among adults — United States, 2015–2017. *Morbidity and Mortality Weekly Report*, *68*(39), 837–842. <https://doi.org/10.15585/mmwr.mm6839a3>
- Cheng C., Cheung S. F., Chio J. H., Chan M. S. (2013). Cultural meaning of perceived control: a meta-analysis of locus of control and psychological symptoms across 18 cultural regions. *Psychol. Bull.* 139:152. 10.1037/a0028596

- Costantini, I., Kwong, A. S. F., Smith, D., Lewcock, M., Lawlor, D. A., Moran, P., Tilling, K., Golding, J., & Pearson, R. M. (2021). Locus of Control and Negative Cognitive Styles in Adolescence as Risk Factors for Depression Onset in Young Adulthood: Findings From a Prospective Birth Cohort Study. *Frontiers in psychology*, 12, 599240. <https://doi.org/10.3389/fpsyg.2021.599240> *Diagnostic and statistical manual of mental disorders*, (2013). American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- Dogra, A. K., Basu, S., & Das, S. (2020). Gender differences in depression prevalence and its attribution to perceived social support and coping: A study from India. *International Journal of Social Psychiatry*, 66(3), 262–269. <https://doi.org/10.1177/0020764020902357>
- Jawad, M., Bilal, A., Khan, S., Rizwan, M., & Arshad, M. (2023). Prevalence and Awareness Survey of Tuberculosis in The Suspected Population of Bajaur Agency in Fata, Pakistan: Prevalence and Awareness Survey of Tuberculosis. *Pakistan Journal of Health Sciences*, 56-61.
- Hosseini, S. N., Mirzaei, A. ,M., Karami, M. B., Hamzeh, B., Ashtarian, H., & Jalilian, F. (2016). Locus of Control or Self-Esteem; Which One is the Best Predictor of Academic Achievement in Iranian College Students. *Iranian journal of psychiatry and behavioral sciences*, 10(1), e2602. <https://doi.org/10.17795/ijpbs-2602>
- Kazmi, S. M. A., Murtaza, F., Hashmi, F., Iftikhar, M., Iqbal, M. N., & Nasir, A. (2023). Predictive and Protective Role of Grit, Internal Locus of Control and Social Support in Mental Health of Cardiac Patients: Protective Role of Grit, Internal Locus of Control and Social Support in Cardiac Patients. *Pakistan Journal of Health Sciences*, 4(04), 34–42. <https://doi.org/10.54393/pjhs.v4i04.653>
- Khumalo, I. P., Temane, Q. M., & Wissing, M. P. (2019). Locus of control, stress and psychological well-being: A cross-cultural study among South African University students. *South African Journal of Education*, 38(4). <https://doi.org/10.15700/saje.v38n4a1295>
- Nowicki, S., Ellis, G., Iles-Caven, Y., Gregory, S., & Golding, J. (2018). Events associated with stability and change in adult locus of control orientation over a six-year period. *Personality and individual differences*, 126, 85–92. <https://doi.org/10.1016/j.paid.2018.01.017>
- Phares, E. J. (1976). *Locus of Control in Personality*. General Learning Press.
- Ritchie, T., & Phares, E. (1969). Attitude change as a function of internal-external control and communicator credibility. *Journal of Personality*, 37, 429–443. <https://doi.org/10.1111/1467-6494.ep8933379>
- Rizwan, M., Mushtaq, M. F., Akram, U., Mehmood, A., Ashraf, I., & Sahelices, B. (2022). *Depression Classification From Tweets Using Small Deep Transfer Learning Language Models*. Department of Informatics, University of Valladolid, Spain; in part by the Spanish Ministry of Economy and Competitiveness
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology*, 43, 56–67. <https://doi.org/10.1037/h0076301>
- *Public health action for the prevention of suicide: A framework*, (2012). World Health Organization. https://www.who.int/mental_health/prevention/suicide/suicideprevent/en/
- Samreen, S. F., & Zubair, S. (2013). Relationship of emotional intelligence, locus of control and self- efficacy with job satisfaction among intermediate female teachers *Institute of Business Administration, Karachi*.

- *Suicide prevention*, (2012). World health organization. https://www.who.int/health-topics/suicide#tab=tab_1
- Terborg, J. R. (1985). The role of competence and locus of control in the development of attributional styles for feedback. *Journal of Research in Personality*, 19(3), 382–392. [https://doi.org/10.1016/0092-6566\(85\)90020-4](https://doi.org/10.1016/0092-6566(85)90020-4)
- Zaidi, S. M., & Jamali, A. A. (2013). Risk factors associated with depression among elderly Pakistani immigrants: Qualitative study. *Journal of Immigrant and Minority Health*, 15(6), 1211–1218. <https://doi.org/10.1007/s10903-012-9767-z>