

Meaning in Life and Existential Anxiety among University Students: Mediating Role of Resilience

Quratulain Mehmood¹ & Hafiza Maryam Rafique¹

1. National University of Medical Sciences

For Correspondence: Quratulain Mehmood. Email: quratulainmehmood415@gmail.com

Abstract

Background. Young adults often face existential concerns due to increasing academic pressures and life uncertainties that negatively affect their psychological wellbeing. Despite the significant influence of meaning and resilience on existential concerns, the interrelation of these factors remains underexplored in context of Pakistani youth. The current study aimed at finding out the relationship among meaning in life and existential anxiety mediated by resilience among young adults university students.

Method. The research was carried out in universities situated in Rawalpindi and Islamabad, Pakistan. Data collection was performed using three standardized instruments: the Existential Anxiety Questionnaire (Weems, 2004), the Meaning in life Questionnaire (Steger et al. 2006), and the Brief Resilience Scale (Smith et al., 2008).

Results. The results indicated a negative correlation between meaning in life and existential anxiety ($r = -0.273, p < .01$) and positive correlation with resilience ($r = 0.157, p < .01$). Furthermore, resilience was negatively correlated with existential anxiety ($r = -0.316, p < .01$). Females reported higher existential anxiety than males, whereas males showed greater resilience and a stronger sense of meaning in life as indicated by independent sample t-test. The relationship between meaning in life and existential anxiety was found to be partially mediated by resilience, while the direct effect of meaning in life on existential anxiety remained significant.

Conclusion & Implications. The findings highlight the protective role of meaning in life and resilience against existential anxiety in promoting psychological well-being among young adults. This study supports Sustainable Development Goal 3 (Good health and well-being) and Goal 4 (Quality Education) by promoting youth mental health and emotional resilience in higher education contexts.

Keywords. Existential anxiety, meaning in life, resilience, young Adults, sdgs



Introduction

Issues with life meaning, existential anxiety, and adaptive capacity are among the particular challenges faced by university students that have a big influence on their psychological health (Alshehri et al., 2024). These existential and psychological elements are crucial in determining living standards and psychological wellness outcomes. A person's feeling about their life as meaningful, worth living, and coherent can be referred to as meaning in life (Steger, 2012). It can be an episodic feeling or a chronic stable outlook toward one's life. It has a variety of sources including personal relationships, employment, spirituality, and personal development. Significant life purpose has been found to provide a shield against life's challenges and is linked to improved psychological health. It has been estimated that a high percentage of the world population, particularly young adults, experience challenges regarding questions of meaning and purpose. Unjust circumstances, surroundings, educational responsibilities, economic instability, and social exclusion may result in a feeling of drift and indirection among numerous individuals. Such a condition is particularly prevalent among the younger generation who are experiencing a period of identity formation (Schwartz et al., 2011). Those with superior meaning are also likely to perceive that they have control over their life's narrative, something that can increase their psychological health. Alternatively, a low life meaning has been linked to lower mental well-being (Steger & Kashdan, 2007) and higher incidence of distress and depression (Brassai et al., 2011)

The concept of resilience broadly encompasses various aspects of an individual's capacity to recover from life's stressors and regain well-being (Richardson, 2002). Psychological and physical well-being are strongly associated with resilience processes (Masten & Barnes, 2018). A meaningful outlook on life is theoretically understood to increase resilience by giving people a sense of direction and motivation, thereby strengthening effective coping with stress and uncertainty. Psychological factors such as active coping mechanisms, intellectual functioning, self-regulation, optimism, and secure attachment contribute to resilience (Richardson, 2002)

Existential anxiety refers to a form of

anxiety that arises when individuals confront the fundamental issues of human existence. It is based on four human concerns: The awareness about death being inevitable and one's mortality, the responsibility of making autonomous choices, the experience of isolation, and feelings of emptiness (Yalom, 1980). It is different from clinical anxiety which is typically caused by external stressors such as workplace stress, adjustment, health, and finances or neurotic anxiety which originates from internal conflicts. Existential anxiety is rooted in the idea of existentialism which emphasizes that there is no inherent life meaning and every individual is free to create their own meaning. While in today's world individuals have an abundance of options and the fear of making the right choice generates anxiety which leads to existential crisis (Schwartz, 2005). Moreover, the theory of logotherapy emphasizes that looking for a meaning is an important driving force in homo sapiens. In this context, we can understand lack of meaning as a key contributor to existential concerns, whereas the sense of life being meaningful serves as a safeguard that helps individuals interpret and manage existential concerns more effectively. As previous studies proposed, those who find significance in their lives are more likely to demonstrate psychological resilience even under the most extreme and inhumane conditions (BAno, 2014; Steger, 2013). A study found 71.1% prevalence of existential worry among Saudi students and had high correlations with depression and stress (Alshehri et al., 2024) both of which are mitigated by meaningful life (Hashmi et al., 2024). This illustrates the point that absence of meaning is a major contributor to existential anxiety. Elaborating on this, the theory of Meaning Management (Wong, 2008) suggests that living with a sense that life matters serves as a protection, it facilitates coping with uncertainty, adversity, and loss by providing individuals with cognitive and emotional frameworks to understand and accept these experiences. This concept is especially relevant to youth and young adults, who are in a developmental phase marked by existential questioning and emotional fluctuation.

According to a past research, university students are more likely than people who are not involved in challenging academic setting to experience psychological, emotional, social, and behavioral

challenges (Auerbach et al., 2016). Despite the fact that existential concerns have become more common among young adults, the amount of empirical research examining the psychological factors that may lessen this form of distress is very low in Pakistan. Most of the local studies have primarily focused on generalized anxiety, trauma, depression, and stress, often ignoring the unique existential problems that contribute to psychological burden. According to a recent study, 44% of people experiences anxiety as a result of lack of purpose (Hashmi et al., 2024). In particular, the interplay between existential anxiety, life meaning, and resilience remains underexplored in the Pakistani context.

Current study is carried out with the intention to add valuable insights in the existing knowledge by studying the connections among existential anxiety, meaning in life, and resilience in Pakistani youth. Results from this research will be used to guide targeted strategies and interventions to improve the psychological health of university scholars.

Hypotheses

1. Existential anxiety will be negatively correlated to meaning in life and resilience, while resilience will be positively correlated to life meaning.
2. Resilience will significantly mediate the relationship among meaning in life and existential anxiety, such that higher meaning in life will be associated with higher resilience, which in turn will be associated with lower existential anxiety
3. There are gender differences in levels of existential anxiety, life meaning, and resilience.

Method

Research Design

This study employed a correlational study design to examine the relationship among life meaning, existential anxiety, and resilience. Data were collected by administering standardized Questionnaires.

Study Area and Population

The target population consisted of 300 young

adults and the sample was selected using convenient sampling method, from both public and private sector universities in Rawalpindi/Islamabad Pakistan,. The sample size was determined based on Roscoe's (1975) rule of thumb for behavioral research, which recommends a minimum of 10 observations per variable/item for multivariate analyses. Accordingly, the total number of items (29) was multiplied by 10, yielding a required sample of 290 participants. Finally, a sample of 300 respondents was deemed adequate as it falls within the acceptable range suggested by Roscoe (1975).

Assessment tools

The following standardized questionnaires were used to gather data.

Meaning in Life Questionnaire (MLQ). Developed by Steger et al., (2006) is a 10-item Questionnaire, which assesses two distinct aspects: the longing and effort to discover significance in life known as "Search for meaning" and the extent to which people believe their lives have a meaning known as "Presence of Meaning". Participants respond to questions on a seven-point Likert scale that goes from "Absolutely True" to "Absolutely False". Scores for both subscales are calculated separately, and item 1, 4, 5, 6, and 9 are reverse-scored prior to analysis. Cronbach's alpha ranging from 0.86 to 0.88 reported in earlier investigations, the scale has shown great internal consistency and high reliability. Since its first validation on American undergraduate samples, the MLQ has been widely applied in various cultural contexts, including Asian and other student populations. It is appropriate for research with young adults and university students because it is generally suitable for people 16 years of age and older.

Existential Anxiety Questionnaire (EAQ). Created by Weems et al., (2004) is a 13-item Existential Anxiety Questionnaire to assess the emotional and mental distress associated with basic existential concerns, such as mortality, autonomy, free will, and meaningless life. The scale uses a dichotomous True/False response format, with items scored as 1 for "Yes" and 0 for "No". Responses to item 2, 4, 7, 9, 12 and 13 must be reverse scored before analysis in order to reduce response bias. Higher overall scores indicate greater levels of

existential anxiety. For research purposes, the EAQ has a reported internal consistency of .71, which is considered acceptable. The scale has been used in a variety of cultural context, particularly in studies focusing on anxiety and psychological distress but it was first validated on western teenage and young adult sample.

Brief Resilience Scale (BRS). It is a 6-item instrument created by Smith et al., (2008) that provides a quick and reliable assessment of resilience as a dispositional trait. A five point Likert scale which ranges from ‘strongly agree’ to ‘strongly disagree’ is used to score items. Items on the scale have both positive and negative wording, and items 2, 4 and 6 must be scored in reverse. To obtain the overall resilience score, all six items must be averaged. With Cronbach’s alpha values in the range of .80 to .91 the scale has shown excellent reliability. The scale was first validated on adult samples in the United States, including both clinical and non-clinical groups, and it has been widely used in multicultural research, including studies carried out in Asian and developing countries. Although it has also been used with older adolescents, it is usually acceptable for individuals aged 18 years and above.

Procedure

The internal consistencies of the scales used within Pakistani culture was evaluated through a pilot research ($n=50$), all scales showed acceptable reliabilities and exhibited normal distribution.

Afterwards, main study was conducted to evaluate the proposed hypotheses. 300 university students who expressed interest in participating were given a comprehensive information sheet which included details regarding significant ethical considerations and the objectives of the research. Before taking part, all participants provided signed informed consent form. The obtained data was cleaned and incomplete responses from questionnaires were eliminated (Chu et al., 2016) to reduce the chances of misinterpretation and strengthen the credibility of study results. Thereafter, only 293 complete responses were included in the main study. Once the data was cleaned, descriptive analyses were conducted including frequencies for categorical and demographic variables. The relationship between study variables was calculated through Pearson correlation, and Model 4 of PROCESS macro for SPSS was used to carry out the mediation analysis (Hayes, 2022).

Ethical Consideration

The relevant institutional review board provided ethical approval prior to conducting the research. Every subject gave their informed consent, and participation was entirely voluntary. Participants were recruited through student representatives who facilitated the circulation of the study invitation and were not involved in data collection to minimize potential coercion. All data were securely stored to ensure confidentiality and anonymity.

Results

Table 1: Demographic characteristics, Frequencies, and Percentage of Participants ($N=293$)

Characteristics	Groups	<i>f</i>	%age
Gender	Male	122	41.6
	Female	171	58.4
Family Structure	Joint	108	36.9
	Nuclear	171	58.4
	Missing	14	4.8
Birth Order	First/Eldest/Only Child	84	28.7
	Second	44	15.0
	Middle/Third	61	20.8
	Youngest/Last	55	18.8
	Fourth-Tenth	16	5.5
	Missing	33	11.3
Residence	Day Scholar	205	70.0
	Hostelite	83	28.3
	Missing	5	1.7

Table 1 summarizes the analysis of data from 293 participants using descriptive statistics. Descriptive statistics were measured using frequency and percentage in order to comprehend the sociodemographic features of the sample.

Table 2

Reliability Estimates and Descriptive Analysis of Study Variable in Main Study (N=293)

	Subscale	$\alpha(k)$	M	SD	95%CI		Skew	Kurt
					LL	UL		
Age		-	20.76	1.63	20.59	21	0.33	-.55
Meaning in life Questionnaire	Presence of Meaning	0.61(5)	21.97	4.64	21.41	22.49	-.42	-.06
	Search for Meaning	0.81(5)	15.16	6.7	14.43	16.00	.75	0.16
Existential Anxiety Questionnaire		0.51(13)	6.35	2.96	6.02	6.72	1.31	7.70
Brief Resilience Scale		0.59(6)	19.64	4.21	19.16	20.15	8	3

The measurement properties of the questionnaires used in primary study are reported in Table 2. Cronbach's alpha coefficient for all instruments indicates acceptable reliability (Taber, 2018). The data was normally distributed as in showed by Skewness and kurtosis values which are within the normal range (± 2 for Skewness and ± 7 for kurtosis) (George & Mallery, 1999).

Table 3

Correlation analysis of the study variables (N=293)

Variables		M	SD	1	2	3
1	Meaning in Life	37.6	7.20	-		
2	Existential Anxiety	6.35	2.96	-.27**	-	
3	Resilience	19.64	4.21	.16**	-.32**	-

Note. * $p < .05$, ** $p < .01$

Table 3 indicates a significantly inverse correlation among meaning in life and existential anxiety. Likewise, a significantly inverse association can be seen between resilience and existential anxiety. Moreover, there is a positive correlation of meaning in life with resilience. At the 0.01 level (2-tailed), all reported correlations were significant.

Table 4

Mean Gender Differences among the study variables (N=293)

Variables	Gender Differences					
	Male (n=122)		Female (n=171)		$t(df)$	p
	M	SD	M	SD		
Meaning in Life	38.26	6.79	36.38	7.40	2.19(286)	0.029
Existential Anxiety	5.68	2.48	6.83	3.18	-3.35(285.07)	0.001
Resilience	21.18	4.39	18.54	3.72	5.53(289)	0.001

Table 4 presents gender differences across the three variables. Females reported higher existential anxiety scores compared to males. In contrast, high resilience scores were seen in male participants than females, and on meaning in life compared to females. The range of effect sizes was minimal to large (Cohen, 1988).

Table 5

Regression Analysis for Mediation of Resilience between Meaning in Life and Existential Anxiety (N=293)

Variables	Resilience		Existential Anxiety		95% CI	
	Model 1		Model 2		LL	UL
	B	SE	B	SE		
Constant	16.33	1.31	13.77	1.06	11.68	15.87
Meaning in Life	0.09*	0.03	-0.11**	0.02	-0.14	-0.05
Resilience	-	-	-0.02**	0.04	-0.27	-0.12
R ²	0.02		0.15			
F	6.70*		25.24**			

Table 5 provides a summary of the study variables' direct and indirect effects. Life meaning negatively predicted existential anxiety both directly and indirectly via resilience, indicating partial mediation.

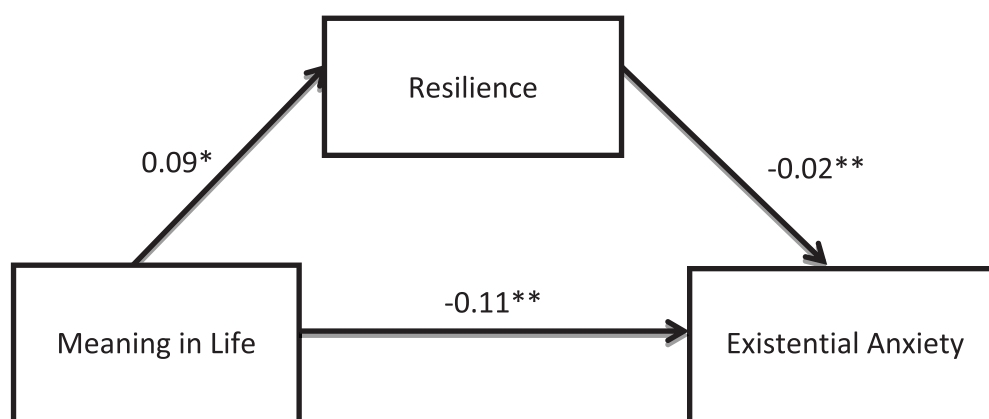


Fig 1. Conceptual model of the direct and indirect effect of Meaning in life and Resilience on Existential Anxiety

Discussion

The findings strongly support the proposed relationships, conforming to the existing literature while also adding new perspectives within cultural context of Pakistan. The discussion that flow ties these findings to the goals, hypothesis, and importance of the study in light of previous research. According to the results higher life meaning was liked with reduced existential anxiety and greater resilience, which is in line with prior researches that suggests that young adults who actively seek for meaning in life are protected against existential anxiety because doing so gives them stability and direction in uncertain circumstances (Hashmi, 2024; Inayat Ur Rahman et al., 2025). Taking important life decisions is challenging for young adults in

Pakistan due to number of structural issues, including social inequalities, unstable economy, and lack of opportunities. According to studies these difficulties contribute to unresolved internal conflicts, which can lead to chronic anxiety that shows up as existential anxiety, which is characterized by a fear of living or uncertainty about the future (Haqqani et al., 2024).

Resilience plays a role in mediating the relationship between existential anxiety and meaning in life, as indicated by results, demonstrating that leading a meaningful life both reduces existential concerns and improves coping. When paired with a purposeful existence resilience is a trait that helps individuals face major challenges more bravely and adaptively. Research shows resilience increases the positive effects of meaning on well-being and reduces psychological issues in young adults (Heintzelman

et al., 2014; Arslan et al., 2021; Lara-Cabrera et al., 2021).

Males showed higher resilience and deeper sense of purpose, while females reported higher level existential anxiety.(McLean & Anderson, 2009). Gender disparities in Pakistan may be a reflection of the roles expected to be played by men and women based on sociocultural and religiously beliefs. It can be stated that males often experience a clearer sense of purpose rooted in cultural and Islamic norms, such as being providers, guardians and protectors of the family, which motivates goal-directed behaviors and reduces existential worries. In contrast, Women face multiple, sometimes conflicting, expectations such as pursuing education, building a career, fulfilling marital roles, child bearing, and nurturing a family. Increase existential discomfort in females can be a result of the abundance of possibilities, which can lead to confusion about their existential purpose. A local research involving university students has documented similar trends, female students exhibited higher psychological distress and male students demonstrated higher presence of meaning and lower distress, reflecting the varying impact of cultural and social pressures (Shrivastav et al., 2025).

In general, resilience and existential meaning in life are two important factors in lowering existential distress among Pakistani young adults. This study establishes a framework for culturally adapting western based interventions to the South Asian environment, which can help Pakistani young generation to cope better, develop a sense of meaningfulness and improve their mental well-being.

Limitation and suggestions

Although this study provides valuable insights about the significance of resilience and life meaning in reducing existential anxiety, there are still certain limitations. Because the sample was only taken from Rawalpindi and Islamabad the generalizability of results is limited. The correlational design prohibits drawing conclusions regarding causality and self-report data may be vulnerable to bias. Therefore, it is suggested for future researchers to use a variety of data sources, longitudinal approaches and larger and more diverse populations.

Implications

The results of this study emphasize the demand for interventions addressing the sociocultural determinants of meaninglessness. The interventions can be more relevant and effective if they incorporate Pakistani sociocultural and Islamic interpretations of life and its purpose. Educational institutions can plan and implement purposes-oriented programs with resilience-building exercises, life skills training, and activities that encourage young adults to ponder upon their goals and values in order to help them crystallize their objectives and overcome challenges.

Declaration

Funding: Not Applicable.

Conflict of interest: The authors do not have any conflict of interests.

Ethical approval: Ethical approval was taken from institutional review board and informed consent was obtained from participants prior to data collection.

Data availability: The data is available on request from the author

References

- Alshehri, A., Aljohani, S., Alzahem, A., & Alenezi, M. (2024). The prevalence of existential anxiety and its associations with depression and stress among Saudi students. *Journal of Anxiety and Stress*, 25(4), 255–265.
- Arslan, G., Yildirim, M., & Allen, K. A. (2021). Meaning in life and mental well-being among Turkish young adults: The mediating role of resilience. *Journal of Positive Psychology*, 16(1), 1–10.
- Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., ... & Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychological Medicine*, 46(14), 2955–2970.
- BAno, A. (2014). Impact of meaning in life on psychological wellbeing and stress among university students. *Existenzanalyse, GLE-International*, 12, 21–25.
- Brassai, L., Piko, B. F., & Steger, M. F. (2011). Meaning in life and well-being among

- university students in Hungary. *Journal of Happiness Studies*, 12(1), 101–111.
- Chu, X., Ilyas, I. F., Krishnan, S., & Wang, J. (2016). Data cleaning: Overview and emerging challenges. In *Proceedings of the 2016 International Conference on Management of Data* (pp. 2201–2206).
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- George, D., & Mallery, P. (1999). *SPSS® for Windows® step by step: A simple guide and reference*. Allyn & Bacon.
- Haqqani, S., Naeem, M., Fatima, T., Sabahat, N. U., & Yousaf, I. (2024). Depression, anxiety, stress and wellbeing of young psychology students in Pakistan: A cross-sectional descriptive study. *Migration Letters*, 21(S10), 100–108.
- Hashmi, S., & Zafar. (2024). Meaning of life with existential crisis among Muslim young adults. *Pakistan Social Sciences Review*.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). Guilford Press.
- Heintzelman, S. J., & King, L. A. (2014). Life is pretty meaningful. *American Psychologist*, 69(6), 561–574.
- Inayat Ur Rahman, Zeb, H., Mansha, S., & Shah, I. (2025). Exploring the association between sense of meaning in life, life satisfaction and resilience among adults of age 18–22 years. University of Peshawar.
- Lara-Cabrera, M. L., Betancort, M., & Muñoz-Rodríguez, J. (2021). The mediating role of resilience between perceived stress and mental health among nurses during the COVID-19 pandemic. *International Journal of Mental Health Nursing*, 30(6), 1680–1689.
- Masten, A. S., & Barnes, A. J. (2018). Resilience in children: Developmental perspectives. *Children*, 5(7), 98.
- McLean, C. P., & Anderson, E. R. (2009). Brave men and timid women? A review of the gender differences in fear and anxiety. *Clinical Psychology Review*, 29(6), 496–505.
- Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3), 307–321.
- Roscoe, J. T. (1975) *Fundamental research statistics for the behavioral sciences* (2nd ed). New York , Holt. Rinehart and Winston.
- Shrivastav, A., & Chauhan, A. (2025). *Gender perspectives on existential anxiety and meaning in life in young adults* [Manuscript]. International Journal of Creative Research Thoughts.
- Schwartz, B. (2005). *The paradox of choice: Why more is less*. HarperCollins.
- Schwartz, S. J., Beyers, W., Luyckx, K., Soenens, B., Zamboanga, B. L., Forthun, L. F., Hardy, S. A., Vazsonyi, A. T., Ham, L. H., Kim, S. U., Krauss Whitbourne, S., & Waterman, A. S. (2011). Examining the light and dark sides of emerging adults' identity: A study of identity status differences in positive and negative psychosocial functioning. *Journal of Youth and Adolescence*, 40(7), 839–859.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200.
- Steger, M. F. (2009). Meaning in life. *The Journal of Positive Psychology*, 4(5), 1–14.
- Steger, M. F. (2010). Meaning in life questionnaire. In M. F. Steger (Ed.), *The handbook of meaning and life* (pp. 3–12). Springer.
- Steger, M. F. (2012). Making meaning in life. *Psychological Inquiry*, 23(4), 381–385.
- Steger, M. F. (2013). Experiencing meaning in life: Optimal functioning at the nexus of well-being, psychopathology, and spirituality. In P. T. P. Wong (Ed.), *The human quest for meaning* (pp. 165–184). Routledge.
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93.
- Steger, M. F., & Kashdan, T. B. (2007). Stability and specificity of meaning in life and life satisfaction over one year. *Journal of Happiness Studies*, 8(2), 161–179.

- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in science education*, 48(6), 1273-1296.
- Weems, C. F. (2004). Existential anxiety questionnaire. *Journal of Anxiety and Stress*, 22(5), 469-478.
- Wong, P. T. P. (2008). Meaning management theory: A system approach to coping with uncertainty, loss, and adversity. *Psychological Inquiry*, 19(4), 203-230.
- Yalom, I. D. (1980). *Existential psychotherapy*. Basic Books.