Moderating Role of Emotional Intelligence in the Relationship between Negative Life Events and Psychological Distress among E-Cigarette Users

[1]**Tehniyat Fatima**
[2]**Khalid Mahmood Bhatti**
[*3]**Zartashia Kynat Javaid -Email - zartashiakynat@gcuf.edu.pk**
[4]**Romaila Shahzadi**
[1]MS Scholar, Department of Applied Psychology, Govt College University Faisalabad, Pakistan
[2]Associate Professor, Department of Applied Psychology, Govt College University Faisalabad, Pakistan
[*3]Assistant Professor, Department of Applied Psychology, Govt College University Faisalabad, Pakistan
[4]MS Scholar, Department of Applied Psychology, Govt College University Faisalabad, Pakistan

Abstract

Negative life events are certain and often leave a profound impact, but the way we respond to them shapes both our mental health and our behaviors. The present study seeks to examine the association of Negative Life Events, Psychological Distress and Emotional Intelligence in E-Cigarette Users. The study also analyses the moderating role of Emotional Intelligence. The participants were 302 young adult e-cigarette users. The sampling techniques used were purposive and snowball sampling. The study design was cross-sectional correlational. Data were collected using standardized scales like the Kessler Psychological Distress Scale (Kessler et al., 2002), Negative Life Events Scale for Students (Buri, 2018), and Wong and Law Emotional Intelligence Scale (Wong & Law, 2002). The data was analyzed through SPSS version 23, and moderation was found using the PROCESS macro (version 23) (Hayes, 2022). The findings show that Negative Life Events, Emotional Intelligence and Psychological Distress are interlinked with each other. According to the moderation analysis, Negative Life Events and Psychological Distress are moderated by Emotional Intelligence. Emotional intelligence can serve as a protective mechanism against Psychological Distress.

Keywords: Negative Life Events, Emotional Intelligence, Psychological Distress, E-Cigarette Users

INTRODUCTION

Electronic cigarettes have become a very popular product in recent years, especially among young adults. It is an age at which most young people experience challenges and stress, including difficult life events that may affect their health choices. The perception of e-cigarettes as a safer alternative to traditional smoking makes them popular these days. Although much attention has been paid to the physical dangers of e-cigarettes, we do not yet know the emotional and psychological effects of using e-cigarettes among young adults. This study examines the connection between Negative Life Events, Emotional Intelligence, and Psychological Distress in e-cigarette users.

It also explores whether Emotional Intelligence which is the ability to understand and manage emotions, can help protect against these effects. Throughout life, we all go through major changes, graduating from school, changing careers, getting married or divorced, and becoming parents, and these moments can deeply impact how we see ourselves and how we cope. Understanding how these experiences affect e-cigarette use is an important step toward helping people make healthier choices. By digging into these emotional and psychological patterns, this research hopes to uncover deeper insights into why young people use e-cigarettes. The goal is to help shape better prevention and support programs.

Negative Life Events

Negative Life Events refer to unpleasant, uncontrollable, and mostly stressful experiences that induce adverse changes and critical challenges in the life of people (Armstrong et al., 2011). Negative life events situations that threaten, challenge, or exceed an individual's physical or mental capacity in domains such as family, study, or work. They function as psychosocial stressors and can lead to maladjustment and stress reactions (Liu et al., 2024). Negative Life Events could be abrupt and drastic, life-altering events like job loss, which have devastating psychological effects, or a pandemic. Other Negative Life Events that college students in their first away-from-home experience are experiencing include the death of a grandparent, divorce of parents, loss of an important relationship, rape, social upsets, and isolation (Paladino et al., 2020). Negative Life Events are potent experiences that involve stress or disturbance, such as loss, trauma, financial strain, or relationship problems. These experiences are usually considered bad and require considerable psychological and emotional adjustment and in most cases, cause emotional distress and the beginning of mental health issues (Holmes & Rahe, 1967).

The loss of a loved one, divorce, or severe illness is rated highly on the Social Readjustment Rating Scale (SRRS) as a stressful event that predisposes a person to physical illness and maladaptive coping strategies, such as substance use (Holmes & Rahe, 1967). Students are vulnerable to the adverse effects of academic pressure, social stresses, and personal losses, in particular. Negative Life Events combined with academic pressures and decreased social support may lead to an elevated Psychological Distress in students and, consequently, to an amplified risk of smoking or vaping to self-soothe (Park, Armeli, & Tennen, 2004). Moreover, studies have discovered that childhood abuse or neglect early in life can result in the prolonged dysregulation of the stress response system and predispose individuals to substance use later in life (Anda et al., 2006; Gul et al., 2024; Munir et al., 2024).

Emotional Intelligence

One recent study describes Emotional Intelligence as "the ability to identify, understand, regulate, express and use one's own and others' emotions" (Pirsoul et al., 2023). Another study suggests it as "the capacity to control, recognize and regulate emotions" (BMC Psychology, 2024). It plays a pivotal role in the ways individuals respond to challenges in life, whether negative or stressful. In response to adversity, emotionally intelligent individuals are able to recognize emotional signals, effectively cope with suffering, and employ effective coping strategies (Mayer et al., 2008; Javaid et al., 2024). Secondly, individuals with low EI often find it hard to manage negative emotions and are, therefore, at a greater risk of unhealthy coping strategies such as substance abuse (Schutte & Malouff, 2011).

Emotional Intelligence enables individuals to recognize, understand, and regulate their emotions in the face of challenges (Salovey & Mayer, 1990). For example, if someone has higher Emotional Intelligence may face a stressful life event as temporary and manageable rather than overwhelming. Also, People with higher Emotional Intelligence tend to get empathy and social support which is an important coping mechanism in times of crisis. (Goleman, 1995). Different studies have shown that Emotional Intelligence reduces the negative impact of stressful events on mental health. A meta-analysis found that higher Emotional Intelligence is linked with lower levels of depression, anxiety, and perceived stress, even when controlling for personality traits (Martins, Ramalho, & Morin, 2010; Adeeb et al., 2017; Javaid et al., 2023). Though Emotional Intelligence does not stop Negative Life Events but it shapes the emotional response to these stressors.

Psychological Distress

Psychological Distress is a complex and multifaceted concept that captures a wide range of emotional and mental suffering experienced by individuals in response to life stressors, adverse events, or underlying vulnerabilities. It is generally understood as a state characterized by symptoms such as anxiety, depression, irritability, hopelessness, and physical complaints, including fatigue and insomnia (Kessler et al., 2002; Javaid, 2025). Psychological Distress is a set of painful mental and physical symptoms that are associated with normal fluctuations of mood in most people. Unlike formally diagnosed psychiatric disorders that follow specific clinical criteria, psychological distress is a broader and more diffuse concept representing a continuum of emotional difficulties that do not necessarily meet diagnostic thresholds but still significantly impact an individual's functioning and well-being (Mirowsky & Ross, 2002; Khan et al., 2025).

Psychological Distress can thus be considered as an indicator of underlying mental issues, a marker of emotional disturbance that should be of concern to clinicians. Psychological distress is more than just a sense of sadness or worry; it is an individual being unable to cope with psychological demands beyond their adaptive capacity (Drapeau et al, 2012). Psychological distress refers to a range of emotional, behavioral, cognitive, and physical challenges arising from familial, social, or psychological stressors; these challenges may result in either positive or negative results depending on the context (BMC Psychology, 2025).

Psychological Distress is a wide range of emotional discomfort that people feel when reacting to any stressors, and it comprises anxiety, depression, irritability, and somatic symptoms, including fatigue or sleep disturbances (Kessler et al., 2002). Psychological Distress is a result of the interplay of biological, psychological, and social factors. Distress

can be triggered by life events like bereavement, job loss or chronic illness, whereas social disadvantages like poverty, discrimination, and social isolation may aggravate it (Drapeau et al., 2012).

Theoretical Framework

Negative Life Events such as any major loss, social rejection, any trauma, or academic failure usually interfere with the coping capacity of an individual and may trigger Psychological Distress, which consists of anxiety, depression, irritability and negative affect (Lazarus & Folkman, 1984; Ingram & Luxton, 2005). On the other hand the Diathesis-Stress model shows that individuals who are vulnerable due to neuroticism and poor emotional regulation are especially prone to such distress in reaction to Negative Life Events (Ingram & Luxton, 2005).

Emotional Intelligence (EI) plays a significant moderating role in tobacco and e-cigarette use among adolescents. The Ability Model of Emotional Intelligence defines Emotional Intelligence as a set of cognitive-emotional skills involving the understanding, use, accurate perception, and regulation of emotions (Mayer & Salovey, 1997). This emotional capacity influence behavioral decisions and help the individuals in managing Psychological Distress more effectively. Research indicates that both trait and ability Emotional Intelligence are inversely correlated with smoking behaviors.

Rationale of the Study

The use of e-cigarettes among young adults is increasing widely, which presents an alarming public health concern. E-cigarettes were once promoted as a safer alternative to traditional cigarettes, but they are now associated with serious health risks, including nicotine addiction, lung and heart issues, and cognitive impairment (Benowitz, 2020; King et al., 2022). Young adults are more attracted to e-cigarettes due to their ease of access, easy usage, variety of flavors, and social acceptability. Young adults face different life challenges, including academic pressure, social instability, financial difficulties, and personal uncertainty. These Negative Life Events can trigger emotional breakdown, increasing the likelihood of engaging in unhealthy coping mechanisms such as nicotine use. Many students report that they use e-cigarettes to manage stress, anxiety, or feelings of depression, commonly drawn from the term Psychological Distress (Chang et al., 2022; Drapeau et al., 2012). Psychological Distress can push individuals toward e-cigarette use. Students with higher Emotional Intelligence often handle stress, build supportive relationships, and make thoughtful decisions in challenging situations. The individuals with strong Emotional Intelligence are less likely prone to depend on substances that include nicotine, to regulate their emotions (Trinidad et al., 2004; González-Yubero et al., 2020). The university students, who are treated unfair, betrayed, or face academic failure may be affected by these experiences, that lead them to emotional distress. This research aims to fill the gaps in the literature by analyzing how Negative Life Events (NLE), Emotional Intelligence (EI), and Psychological Distress (PD) are correlated and how Emotional Intelligence has moderating role in relationship between NLE and PD.

Objectives

- To examine the association between Negative Life Events, Psychological Distress and Emotional Intelligence.
- To examine the moderating role of Emotional Intelligence between Negative Life Events and Psychological distress.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

According to the model of Emotional Intelligence, people who can understand and regulate emotions can handle stressful situations easily (Salovey & Mayer's, 1990). When Negative Life Events occur, those who have higher Emotional Intelligence are more resilient and have low chances to experience severe Psychological Distress. According to Stress-Buffering model, Emotional Intelligence can work as a shield in protecting individuals from the harmful effects of stress (Cohen & Wills, 1985). This means that even when people face many Negative Life Events, higher Emotional Intelligence may reduce their chance of experiencing Psychological Distress. Broaden-and-Build theory argues that positive emotions make a person's thinking broader and build long-term coping skills (Fredrickson's, 2001). Emotionally intelligent people are better at developing and maintaining positive emotions, they are more capable of dealing with Negative Life Events and experience lower levels of Psychological Distress. People with higher Emotional Intelligence reported lower levels of depression, stress and anxiety (Schutte et al., 2007).

According to meta-analysis, Emotional Intelligence is negatively linked with Psychological Distress and positively associated to well-being (Martins et al., 2010). These findings suggest that Negative Life Events, Psychological Distress, and Emotional Intelligence are significantly related. According to General Strain Theory (Agnew, 1992), Agnew (1992) proposes that Negative Life Events increase the risk of negative emotions and maladaptive behaviors. Emotional Intelligence may act as a protective factor that helps individuals to manage these negative events in healthier ways and reduces psychological distress. The Transactional Model of Stress and Coping proposes stress as a result of the interaction between a person and their environment (Lazarus & Folkman, 1984). The way people *appraise* a Negative Life Event and the coping strategies they use determine their psychological outcomes. Emotional Intelligence influences this process by promoting healthier appraisals and adaptive coping styles.

According to the Conservation of Resources Theory, Hobfoll (1989) suggests that stress arises when people lose resources or fear losing them. Emotional Intelligence can be considered a psychological resource that helps conserve other resources (such as self-control, social support, or mental energy). When e-cigarette users face Negative Life Events, those with higher EI are more resourceful and resilient, which protects them from higher distress. According to Self-Regulation Theory, Gross (1998) emphasizes the importance of regulating emotions in determining emotional outcomes. Emotional Intelligence supports the use of adaptive regulation strategies (such as cognitive reappraisal), which moderate the negative effects of Negative Life Events on psychological well-being. Differential Susceptibility Theory suggests that individuals differ in their sensitivity to environmental stressors and resources (Belsky & Pluess, 2009).

In a study, Yıldırım and Arslan (2024) found that university students in Turkey with higher EI reported lower levels of perceived stress and higher levels of resilience and life satisfaction. Their study further revealed that resilience and perceived stress mediated the relationship between EI and life satisfaction, demonstrating the complexity of these emotional and cognitive processes. Similarly, a Malaysian study by Noriega et al. (2025) established that resilience fully mediated the relationship between EI and perceived stress among young adults, implying that those with higher EI were better equipped to cope with life stressors due to enhanced emotional resilience. In a healthcare context, Romanian

professionals demonstrated similar patterns higher EI was associated with lower perceived stress, with resilience again serving as a mediating factor (Preda et al., 2024).

Evidence also confirms EI's moderating role between stress and distress. Cekici et al. (2023) showed that among university students, those with higher EI experienced significantly less depression in response to stress, especially during periods of combined academic and COVID-related pressures. This finding illustrates EI's buffering effect, wherein individuals with greater emotional competencies are better able to regulate their reactions to stress, thereby reducing the intensity of psychological distress. Reinforcing this, Alzahrani et al. (2024) found that in a sample of Saudi nurses, EI positively correlated with stress management and resilience, suggesting that emotionally intelligent individuals not only recognize and manage their own stress but also recover more quickly from it.

People with higher Emotional Intelligence may be less "susceptible" to the harmful impact of Negative Life Events because EI helps them interpret and regulate emotions differently. Thus, EI doesn't just correlate with lower distress, it changes how life events influence distress. According to the Protective–Stabilizing Model (Resilience Theory), Resilience frameworks emphasize protective factors that moderate the impact of risk on outcomes (Fergus & Zimmerman, 2005)

Hypothesis (H1): Negative Life Events, Emotional Intelligence, and Psychological Distress are significantly associated with each other among e-cigarette users.

Hypothesis (H2): Emotional Intelligence will moderate the association between Negative Life Events and Psychological Distress among e-cigarette users.

Conceptual Framework

The hypothesized model describes that Negative Life Events predict Psychological Distress in E-cigarette users, and the moderating role of Emotional Intelligence.
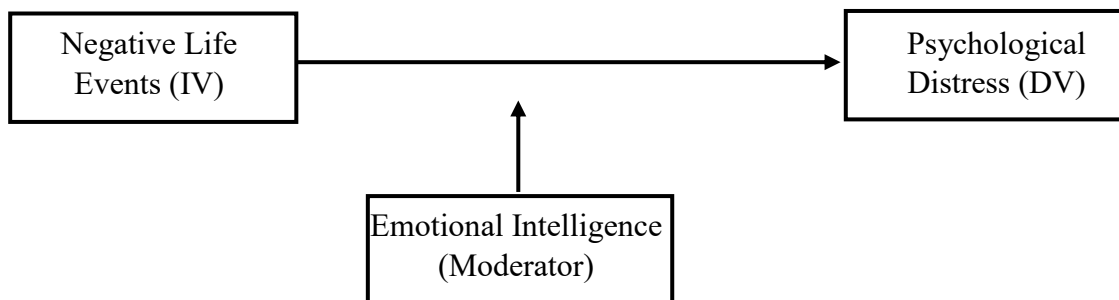
METHOD

Research Design

A cross-sectional correlational research study is used in the present study. The participants comprised 302 samples (male and female) determined using Gpower*, aged between 18 to 28 years (young adults). The participants who use e-cigarettes are recruited through a snowball and purposive sampling method. All the participants knowingly provided their informed consent to be involved in the study.

Sampling and Data Collection

The participants comprised 302 samples determined using Gpower* aged between 18 to 28 years. The participants who use e-cigarettes are recruited through a snowball and purposive sampling method. All the participants knowingly provided their informed consent to be involved in the study. The participants were informed about the objectives of the research, and ethical considerations, including voluntary participation, confidentiality, were strictly followed.

Inclusion Criteria/ Exclusion Criteria

To minimize the confounding effect, the inclusion criteria of the present research is as follows; Young adults aged between 18 to 28 years. The participant must be an E-cigarette user.

To minimize the confounding effect, the exclusion criteria of the present research is as follows; Participants above or below the age range from 18 to 28 years, the participants who are not e-cigarette users.

Instruments

Negative Life Events Scale for Students (NLESS)

The Negative Life Events Scale for Students (Buri, 2018) is a self-report scale that is used to find the impact of adverse life experiences in university and social settings. The scale consists of 24-items and consists of a wide range of stressors of interest to the student population, including academic problems, family issues, relationship problems and financial issues.

Wong and Law Emotional Intelligence Scale (WLEIS)

Wong and Law Emotional Intelligence Scale consist of 16-item self-report questions that measures emotional intelligence in four domains. The items are answered in a 7-point Likert scale and a higher score is meant to be higher Emotional Intelligence (Wong & Law, 2002).

Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale consists of ten self-report questionnaires that assess Psychological Distress, especially the symptoms of anxiety and depression, within the last month (Kessler et al., 2002).

Procedure

A cross-sectional correlational research study where 302 participants who meet the inclusion criteria get recruited for the study through purposive and snowball sampling techniques, focusing on E-cigarette users aged 18 to 28 who are current or past users of e-cigarettes. Recruitment begins with initial contact via social media platforms and student organizations to reach potential Permission to conduct the study is obtained from the relevant university authorities. Participants are informed about the purpose of the study, the voluntary nature of participation, and the confidentiality of their responses.

Data Analysis

Data is analyzed using SPSS version 23. Frequency and percentage are calculated for all demographic variables to describe the sample characteristics. Pearson correlation is conducted to examine the relationships among Negative Life Events, Emotional Intelligence, and Psychological Distress. The PROCESS Macro version 23, developed by Hayes (2013), is employed to test the moderating role of Emotional Intelligence between Negative Life Events and Psychological Distress.

Ethical Considerations

Formal approval for research was obtained by the supervisor before conducting the research. The nature of the study, purpose, and expectations of the current study were explained to participants. It was ensured that all the participants involved in the research had agreed to the informed consent. Participants were given permission to ask questions regarding current research. Limits of confidentiality were maintained. The current research had no deception. Every point and purpose was mentioned clearly for a better understanding.

RESULTS

The fourth chapter of the present thesis covered the findings of the research. In this section, all the hypotheses were tested, and results were analyzed via Statistical Packages for Social Sciences 23 version (SPSS) and other statistical approaches to understand the differences between study variables. To test the hypothesized moderation effects, Hayes' PROCESS Macro version 23 was employed.

Psychometric properties of the scales (Reliability coefficient) used in the present study. All scales are found with good reliability, with an alpha above 0.5. The Cronbach's Alpha for the Negative Life Event Scale for Students and the Kessler Psychological Distress Scale were .91 and .79, respectively, which indicated high internal consistency. The Cronbach's alpha for the Wong and Law Emotional Intelligence Scale was .96. The Cronbach's alpha for the Fagerstrom Test for Nicotine Dependence was .55. All scales were found to be significantly reliable for this study.

Frequency/Demographic characteristics of study variables shows that most respondents were young adults aged 22–25 (65%), predominantly male (80%), and largely from urban areas (76%). Family backgrounds were fairly balanced between nuclear (48%) and joint (51%) systems, with the majority having three or more siblings (54%). Education levels were high, with most being undergraduates (53%) or graduates (31%), and most studied in private institutions (62%). While 59% were not employed, over half of employed individuals reported monthly salaries above PKR 200,000. E-cigarette use was widespread, with 78% current users and 71% using them daily, mostly pod-based (52%). Many had used e-cigarettes for 6 months to a year (40%), and the most common consumption level was 11–20 puffs per day (32%).

Table No. 4.1: *Descriptive Statistics for Study Variables (N=302)*

	Min.	Max.	Mean	Std. deviation	Skewness		Kurtosis	
					Stat	SE	Stat	SE
K10C	10	39	27.37	4.25	-.862	.14	.73	.28
NLESSC	36	72	52.27	8.70	-1.02	.14	3.39	.28
WLEISC	16	112	77.45	21.28	.977	.14	-.32	.28

Note: K10 for Kessler Psychological Distress Scale, NLESS for Negative Life Event Scale, WLEIS for Wong and Law Emotional Intelligence Scale

Table 4.1 presents the descriptive statistics of all study variables. There is a highly significant mean. The result of the standard deviation shows the slight deviation of all observed constructs. In order to examine univariable normality, the skewness and kurtosis were measured (Peat & Barton, 2005). No single score is deleted, and there is no extreme outlier found in the data.

Table No. 4.2: *Pearson Correlation Matrix for Study Variables (N=302)*

	NLESSC	WLEISC	K10C
NLESSC	1	.33**	.05
WLEISC	_	_	.40**
K10C	_	_	_

*Note **. Correlation is significant at the 0.01 level (2-tailed), NLESS for Negative Life Event Scale, WLEIS for Wong and Law Emotional Intelligence Scale, K10 for Kessler Psychological Distress Scale*

Table 4.2 shows analysis of the correlations shows that NLESSC is significantly and positively associated with WLEISC (r = .33, p < .01), suggesting that higher scores on NLESSC tend to correspond with higher scores on WLEISC. In contrast, the relationship between NLESSC and K10C is very weak and non-significant (r = .05), indicating little to no meaningful association between these two measures. Finally, WLEISC demonstrates a moderate and significant positive correlation with K10C (r = .40, p < .01), suggesting that higher levels of WLEISC are linked with higher K10C scores.

Table No. 4.3:   *Moderation Analysis Predicting Psychological Distress (N = 302)*

Variables	B	SE	t	95 % C. I LL	UL
Negative Life Events (X)	.221	.136	1.626	-.046	.4.88
Emotional Intelligence (M)	.238**	.077	3.102	.087	.389
X * M	-.003*	.001	-1.989	-.006	.000
F			22.09***		
R^2			.18		

*Note: ***p ⬚   0.001, **p ⬚ 0.01, *p ⬚ 0.05.*
LL lower limit, UL upper limit.

Table 4.3 shows that a moderation analysis was performed, using PROCESS SPSS to analyze the data (Hayes, 2022). Altogether, 18% variability in Psychological Distress was predicted by Negative Life Events, R^2 = .18, F (22.09), p ⬚ 0.001. The interaction effect was statistically significant, p ⬚ 0.05, indicating that Emotional Intelligence moderated the effect of Negative Life Events on Psychological Distress.

DISCUSSION

The purpose of the study was to establish the correlation among Negative Life Events, Psychological Distress, and Emotional Intelligence. It also examined the moderating effect of Emotional Intelligence on the relationship between Negative Life Events and Psychological Distress. The study entailed 302 participants of e-cigarette users who were young adults via snowball and purposive sampling strategies.

All the scales used in this study were found to be reliable, meaning they worked well in measuring what they were supposed to. The scales used to assess Negative Life Events and Psychological Distress showed strong consistency, which means participants answered in a steady and dependable way across different items. WLEIS also showed excellent reliability. So, the scales used in this study were reliable and consistent, that cause confidence to the results and conclusions drawn from the data used in study.

The demographic analysis of the research participants shows that most of the participants were young adults, mostly between the ages of 22 and 25, and the males were in majority. Most participants were from urban areas where they were grown up in either nuclear or joint family systems equally. A significant portion had three or more siblings. In terms of education, a large number of participants were either undergraduates or graduates, with most enrolled in private educational institutions. Employment status varied, with a considerable number not currently employed, although among those who were working, over half reported earning relatively high monthly salaries. The use of e-cigarettes was notably prevalent, with a large majority identifying as current users, many of whom reported daily usage. Pod-based devices were the most commonly used type, and many participants indicated they had been using e-cigarettes for six months to a year. The typical consumption pattern fell within the range of 11 to 20 puffs per day.

Descriptive statistics of all study variables show highly significant mean. The result of the standard deviation shows the slight deviation of all observed constructs. In order to examine univariable normality, the skewness and kurtosis were measured (Peat & Barton, 2005). No single score is deleted, and there is no extreme outlier found in the data.

The correlation analysis revealed some interesting relationships between the study variables. There was a noticeable positive link between Negative Life Events and Emotional Intelligence, suggesting that individuals who reported experiencing more Negative Life Events also tended to show higher levels of Emotional Intelligence. However, no meaningful association was found between Negative Life Events and Psychological Distress. On the other hand, Emotional Intelligence was significantly and positively related to Psychological Distress which means participants with higher Emotional Intelligence also report higher levels of distress. These findings show that these variables may interact in more complex ways than expected.

These results are interesting because they do not fully match with some psychological theories predictions. For example, According to the Diathesis–Stress model, Negative Life Events often lead to higher distress, particularly when people do not have protective traits like Emotional Intelligence (Zuroff & Blatt, 2003). On the other hand, in our results, Emotional Intelligence was linked to more distress, not less. Appraisal theory supports this explanation which argues that our emotional reactions depend on how we interpret and identify events (Scherer et al., 2001).

The moderation analysis presents that Emotional Intelligence plays vital role in shaping how people respond to Negative Life Events. Emotional Intelligence moderates the association between Negative Life Events and Psychological Distress that mean the impact of adverse or stressful life events on Psychological Distress varies depending on an individual's level of Emotional Intelligence. When individuals with lower Emotional Intelligence face Negative Life Events, experience higher levels of distress. On the other hand, in some cases, individuals those with higher Emotional Intelligence were less affected by such events. These results align with earlier studies which show that Emotional Intelligence can reduce vulnerability to stress and unhelpful coping behaviors (Extremera & Fernández-Berrocal, 2006; Martins et al., 2010). It has also been associated with stronger resilience, greater flexibility in coping strategies, and lower levels of substance use (Trinidad & Johnson, 2002; Limonero et al., 2018). Thus the hypothesis for moderation is accepted.

CONCLUSION

This study aims to explore how the Negative Life Events, Psychological Distress, and Emotional Intelligence are associated with each other among e-cigarette users. Data were collected from 302 e-cigarette users using reliable, standardized scales and analyzed with a cross-sectional correlational design. Snowball and purposive sampling techniques were used. The results showed that there is a partial relationship between Negative Life Events, Psychological Distress, and Emotional Intelligence. Negative life events were associated with Emotional Intelligence; they were not directly linked to Psychological Distress. Emotional Intelligence emerged as a moderator and protective factor that weakens the effect of Negative Life Events on Psychological Distress. The results highlight the complexity of emotional processes in the context of e-cigarette use and suggest that future research should explore when Emotional Intelligence helps individuals cope and when it may make them more vulnerable to stress.

Limitations of the Study

1. The data collection was limited to specific institutes and groups of participants, which may not fully represent the broader population of e-cigarette users.
2. Snowball and purposive sampling techniques were used instead of random sampling, which may have introduced sampling bias.
3. The cross-sectional correlational design was employed, which limits causal interpretations. Longitudinal or experimental designs could provide more robust conclusions about cause-and-effect relationships.

Practical Implications

1. The findings highlight the importance of creating awareness in local communities about the psychological risks associated with e-cigarette use, particularly when linked to Negative Life Events and Psychological Distress.
2. Health professionals, educators, and policymakers can benefit from the results to design interventions that not only discourage e-cigarette use but also strengthen emotional intelligence and healthier coping strategies among young adults.
3. The study opens new doors for researchers to further explore the psychological aspects of e-cigarette use, contributing to the prevention and treatment strategies in Pakistan.

Recommendations

1. To increase generalizability, Future studies should include more diverse samples that cover different regions and cities of Pakistan.
2. Qualitative methods can be used to gain deeper insights into study population.
3. Additional variables such as, family support, coping strategies, or peer influence should be considered to provide a more comprehensive understanding of e-cigarette use.
4. The use of measurement tools and coping mechanisms are recommended to ensure the cultural and contextual realities of Pakistani populations.

REFERENCES

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology, 30*(1), 47–87. https://doi.org/10.1111/j.1745-9125.1992.tb01093.x

Adeeb, M., Saleem, M., **Kynat, Z.**, Tufail, M. W., & Zafar, M. (2017). Quality of life, perceived social support and death anxiety among cardiovascular patients of south Punjab. *Pakistan Heart Journal, 50*(2), 83-87.

Alzahrani, A. S., Alkhammash, R. S., & Alsulami, H. A. (2024). The role of emotional intelligence and resilience in stress management among nurses in Saudi Arabia. *Journal of Nursing Management, 32*(2), 225–234. https://doi.org/10.1111/jonm.13845

Anda, R. F., Croft, J. B., Felitti, V. J., Nordenberg, D., Giles, W. H., Williamson, D. F., & Giovino, G. A. (2006). Adverse childhood experiences and smoking during adolescence and adulthood. *JAMA, 282*(17), 1652–1658. https://doi.org/10.1001/jama.282.17.1652

Armstrong, T., & Costello, E. J. (2011). Negative life events and psychological distress in adolescents: *The moderating role of optimism. Journal of Youth and Adolescence, 40(3), 321–329. https://doi.org/10.1007/s10964-010-9572-5*

Belsky, J., & Pluess, M. (2009). The nature (and nurture?) of plasticity in early human development. *Perspectives on Psychological Science, 4*(4), 345–351. https://doi.org/10.1111/j.1745-6924.2009.01136.x

Benowitz, N. L. (2020). Nicotine addiction. *New England Journal of Medicine*, *362*(24), 2295–2303. https://doi.org/10.1056/NEJMra0809890

BMC Psychology. (2024). Emotional intelligence impact on academic achievement and psychological well-being among university students: the mediating role of positive psychological characteristics. *BMC Psychology, 12*, Article 389.

BMC Psychology. (2025). Psychological distress among nursing students during the COVID-19 pandemic: A hybrid concept analysis. BMC Psychology.

Buri, J. R. (2018). *Negative Life Events Scale for Students (NLESS)*. *College Student Journal, 52*(3), 361–367.

Cekici, F., Arslan, G., & Yıldırım, M. (2023). Emotional intelligence moderates the relationship between stress and depression before and during the COVID-19 pandemic: A longitudinal study among university students. *Current Psychology, 42*(15), 12478–12490. https://doi.org/10.1007/s12144-023-05178-9

Chang, Y., Lee, S., & Park, H. (2022). E-cigarette use and perceived stress among university students. *Journal of American College Health*, *70*(1), 23–30. https://doi.org/10.1080/07448481.2020.1754834

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310–357. https://doi.org/10.1037/0033-2909.98.2.310

Diathesis–stress model. (2025, "last month"). In *Wikipedia*. https://en.wikipedia.org/wiki/Diathesis%E2%80%9

Drapeau, A., Marchand, A., & Beaulieu-Prévost, D. (2012). Epidemiology of psychological distress. In L. L'Abate (Ed.), *Mental Illnesses - Understanding, Prediction and Control* (pp. 105–134). IntechOpen. https://doi.org/10.5772/30872

Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health, 26*(1), 399–419. https://doi.org/10.1146/annurev.publhealth.26.021304.144357

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226. https://doi.org/10.1037/0003-066X.56.3.218

Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences, 359*(1449), 1367–1378. https://doi.org/10.1098/rstb.2004.1512

Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

González-Yubero, S., Palomera, R., & Brackett, M. A. (2020). Emotional intelligence and smoking behavior in adolescents: The protective role of emotional clarity and emotional repair. *Personality and Individual Differences, 156*, 109752. https://doi.org/10.1016/j.paid.2019.109752

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271

Gull, M., Javaid, Z.K., Khan, K. & Chaudhry, H.A. (2024), "Improving healthcare for substance users: the moderating role of psychological flexibility on stigma, mental health, and quality of life", *International Journal of Human Rights in Healthcare, 17*(5), 662-677.

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). New York: Guilford Press

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513

Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research, 11*(2), 213–218. https://doi.org/10.1016/0022-3999(67)90010-4

Ingram, R. E., & Luxton, D. D. (2005). Vulnerability-stress models. In B. L. Hankin & J. R. Z. Abela (Eds.), *Development of psychopathology: A vulnerability-stress perspective* (pp. 32–46). Sage.

Janoff-Bulman, R. (1992). *Shattered assumptions: Toward a new psychology of trauma*. Free Press.

Javaid, Z. K., & Ali, A. A. (2023). Mediating role of mindfulness between quality of life and workplace stress among working women. *Journal of Workplace Behavior (JoWB) Volume, 4*(1).

Javaid, Z. K. (2025). Development of Embitterment Scale for Individuals with Traumatic Life Experiences. *The Critical Review of Social Sciences Studies, 3*(1), 2334-2346.

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine, 32*(6), 959–976. https://doi.org/10.1017 /S0033291 702006074

Khan, W. U., Javaid, Z. K., Mahmood, K. & Nawaz.F. (2025).Identity Struggles, Embitterment and Life Satisfaction in Internally Displaced Persons of Waziristan. *Policy Journal of Science Review,3*(9), 67-90.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Liu, X., et al. (2024). Negative life events and college students' adjustment: The mediating role of self-esteem and the moderating role of grade. Frontiers in Psychology.

Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and health. *Personality and Individual Differences, 49*(6), 554–564. https://doi.org/10.1016/j.paid.2010.05.029

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist, 63*(6), 503–517. https://doi.org/10.1037/0003-066X.63.6.503

Mirowsky, J., & Ross, C. E. (2002). *Handbook of the sociology of mental health*. Springer.

Munir, M., **Javaid, Z. K.,** Mahmood, K., Fareed, M., & Mubeen, A. & Ali, A.L. (2024). Mediating Role of Quality of Life between Perceived Stress and Sleep Quality among Patients with Rheumatoid Arthritis. *Journal of Health and Rehabilitation Research, 4*(2), 1570–1575.

Newton, C., Teo, S. T. T., Pick, D., Ho, M., & Thomas, D. (2016). Emotional intelligence as a buffer of occupational stress. *Personnel Review, 45*(5), 1010–1028. https://doi.org/10.1108/PR-11-2014-0271

Noriega, M., Yusof, M. H. M., & Abdullah, S. (2025). Emotional intelligence and perceived stress among Malaysian young adults: The mediating role of resilience. *Asian Journal of Psychiatry, 78*, 103421. https://doi.org/10.1016/j.ajp.2025.103421

Paladino, M. P., & Lanza, S. T. (2020). Negative life events and psychological distress and life satisfaction in U.S. college students: *The moderating effects of optimism, hope, and gratitude. Journal of Pedagogical Research, 5(4), 62–75. https://doi.org/10.33902/JPR.2021472963*

Park, C. L., Armeli, S., & Tennen, H. (2004). The daily stress and coping process and alcohol use among college students. *Journal of Studies on Alcohol, 65*(1), 126–135. https://doi.org/10.15288/jsa.2004.65.126

Peat, J., & Barton, B. (2005). *Medical statistics: A guide to data analysis and critical appraisal*. Blackwell Publishing.

Pirsoul, T., Parmentier, M., Sovet, L., & Nils, F. (2023). *Emotional intelligence and career-related outcomes: A meta-analysis. Human Resource Management Review*. (Use actual DOI if available.)Psychology Today

Preda, A. M., Ionescu, L., & Toma, M. (2024). Emotional intelligence, resilience, and perceived stress among Romanian healthcare professionals. *Frontiers in Psychology, 15*, 1183605. https://doi.org/10.3389/fpsyg.2024.1183605

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Salovey, P., et al. (2016). The mediating role of emotional intelligence between negative life events and psychological distress among nursing students. *Journal, Volume*(Issue), pages. (Based on Zhang et al.)

Scherer, K. R., et al. (2001). Appraisal processes in emotion: Theory, methods, research. *Oxford University Press*.

Schutte, N. S., & Malouff, J. M. (2011). Emotional intelligence mediates the relationship between mindfulness and subjective well-being. *Personality and Individual Differences, 50*(7), 1116–1119. https://doi.org/10.1016/j.paid.2011.01.037

Schutte, N. S., Malouff, J. M., Thorsteinsson, E. B., Bhullar, N., & Rooke, S. E. (2007). A meta-analytic investigation of the relationship between emotional intelligence and health. *Personality and Individual Differences, 42*(6), 921–933. https://doi.org/10.1016/j.paid.2006.09.003

Shafran, R. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences, 32*(2), 197–209. https://doi.org/10.1016/S0191-8869(01)00012-5

Trinidad, D. R., Unger, J. B., Chou, C. P., & Johnson, C. A. (2004). The protective association of emotional intelligence with psychosocial smoking risk factors for adolescents. *Personality and Individual Differences, 36*(4), 945–954.

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13*(3), 243–274. https://doi.org/10.1016/S1048-9843(02)00099-1

Yıldırım, M., & Arslan, G. (2024). Exploring the role of emotional intelligence and resilience in the relationship between perceived stress and life satisfaction among university students. *BMC Psychology, 12*(1), 78. https://doi.org/10.1186/s40359-024-01860-0

Zuroff, D. C., & Blatt, S. J. (2003). The diathesis–stress model in life stress research: Implications for depressive disorders. *Psychological Bulletin*.