

Original Article

Trait Emotional Intelligence as a Protective Factor against Substance Use among Adolescents in Pakistan

 Sabir Shahzad¹, Salman Shahzad², Shahid Iqbal³, Sadia Hameed⁴, Atyia Khatoon³ &  Malak Haseeb Ullah³

¹ College of Clinical Psychology, Ziauddin University, Karachi, Pakistan

² Institute of Clinical Psychology, University of Karachi, Pakistan

³ Federal Urdu University of Arts, Science and Technology, Karachi, Pakistan

⁴ Asghar Un Nisa Institute of Special Education, Karachi, Pakistan



Abstract

This study examines the predictive association of trait emotional intelligence (TEI) with substance use among adolescents in Pakistan. A total of 400 adolescents ages between 12 years to 18 years ($M_{age}=15.18$, $SD=1.18$) were recruited in different school settings, in Karachi, Pakistan using a convenience sampling technique. Among them, 200 (50%) were males and 200 (50%) females. The Trait Emotional Intelligence Questionnaire-Adolescent Short Form (TEIQue-ASF; Petrides & Furnham, 2006), and Drug Abuse Screening Test-10 (DAST-10; Skinner, 1982) was used in Urdu language. Regression analyses revealed the significant predictive association of trait emotional intelligence (TEI) with substance use among adolescents. The TEI scores showed a strong negative predictive association with substance use ($B = -0.065$, $p < .001$, 95% CI for Exp (B) = [0.90, 0.94]). Further, all TEI facets emerged as significant negative predictors, including well-being ($B = -0.052$, $p < .001$), self-control ($B = -0.031$, $p = .001$), emotionality ($B = -0.044$, $p < .001$), and sociability ($B = -0.026$, $p = .009$). These findings indicate that higher emotional competence is consistently linked to reduced likelihood of substance use among adolescents. The study demonstrated that TEI and its core facets like well-being, self-control, emotionality, and sociability serve as buffer against the risk of substance use among adolescents. These findings highlight TEI as a protective factor that helps adolescents regulate emotions, cope with stress, and navigate social situations effectively, reducing the likelihood of engaging in substance use. The results underscore the potential value of evidence-based interventions and programs in promoting healthier social and emotional development and preventing substance use and other risky behaviours among adolescents.

Keywords: Trait Emotional Intelligence, Substance Use, Adolescents, Risk Behavior, Pakistan

INTRODUCTION

Adolescence is a critical phase of life, and it is transition from childhood to adulthood. During this phase, individual goes through an array of social, emotional and cognitive changes. There are numerous factors contributing in adolescents' development. It could be internal and external factors. If these factors are conducive enough then adolescents can live a healthy life. According to Steinberg (2014), adolescence is a crucial developmental stage marked by emotional, psychological, and social changes that can affect behaviors, including risky ones like substance misuse. Research suggests that higher level of EI is linked with positive psychosocial outcome. enables resilience and more desirable behavioral choices. A study conducted by Shahzad, et al. (2014) found the TEI as a significant predictor of self-concept in interpersonal relationship (i.e.,

family, same sex & opposite sex), psychological wellbeing (Shahad, Sadaf, & Begum, 2013), and subjective wellbeing (Riaz, et al., 2009). Other researchers have found that TEI has significant negative association with aggression (Shahzad, Begum, & Khan, 2013, Shahzad et al., 2014). When faced with negative feelings or societal pressures, adolescents who lack emotional intelligence (EI) may resort to substance or alcohol misuse as an ineffective coping mechanism (Trinidad & Johnson, 2002).

Reports indicate that drug usage among Pakistani adolescents is on the rise. A study conducted by Shahzad et al. (2019), found that 22.6% of adolescents who use alcohol had difficulties in maintaining attention, internalizing and externalizing problems. According to Mavroveli et al. (2007), teenagers with high emotional intelligence have better

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coping mechanisms, stronger interpersonal bonds, and less psychological distress. According to Trinidad and Johnson (2002), they are less likely to participate in violent, delinquent, or drug-related behavior.

Understanding this relationship is critical for social and emotional development of adolescents in Pakistan. Research from around the world has increasingly demonstrated the role and importance of TEI in predicting dangerous psycho-social development of adolescents there remains a considerable gap in the literature in studying emotional intelligence among youth in Pakistani context. Despite their acknowledged usefulness in behavioral control, psychological concepts like emotional intelligence have received insufficient empirical research.

Purpose of the Study

The purpose of this study is to investigate the hypothesized link between EI and substance use among Pakistani youth. Given the scarcity of research on psychological aspects among adolescents and the rising use of substance use, this study seeks to fill a critical gap by exploring the role of EI as a potential intra-personal variable factor influencing adolescents' behavioral choices. By providing culturally relevant insights, present study would help mental health professionals in designing indigenous evidence based prevention intervention to reduce the risk of mental health (i.e., emotion regulations, wellbeing, self-esteem, resilience, coping strategies & interpersonal effectiveness) and risky behavior (i.e., aggression, self-harm, and substance use) among youth.

LITERATURE REVIEW

Substance use among adolescents is a global public health concern. Geography, culture, and the availability of alcohol and drugs shape people's consumption habits. The most popular substance among youths globally is alcohol. According to the study, roughly 32% of teenagers had used substance use (i.e., e-cigarettes) with 20% using regularly in the month preceding the poll (WHO, 2024). The usage of cannabis among young people has dropped recently. Emotional intelligence (EI) is seen as a vital component in how people control their emotions and respond to pressures, especially during adolescence, a critical developmental time marked by increased emotional experiences and social hurdles (Salovey & Mayer, 1990). Shahzad, and Bagum (2012) found the significant different between

males and females on the variables of TEI, with males having higher level of TEI as compared to females. Adolescents with higher emotional intelligence often have a better ability to perceive, grasp, and control emotions, which boosts their ability to react adaptably to stressful situations (Brackett, Rivers, and Salovey, 2011). Emotional regulation is essential for reducing the likelihood of participating in dangerous habits, such as substance abuse, and minimizing impulsive actions. According to Mavroveli et al. (2007), youth with emotional intelligence are more likely to utilize constructive problem-solving strategies, such as asking for help from peers or resolving disagreements, rather than negative ones, such as substance abuse or aggressiveness. Teenagers with emotional intelligence (EI) can deal with familial issues, peer pressure, and academic stress without becoming angry (Mayer, Roberts, & Barsade, 2008).

Teenagers with low emotional intelligence, on the other hand, usually struggle to identify and regulate their emotions. This makes them more likely to engage in impulsive behavior and make poor decisions, which may lead to further substance abuse. The peer pressure is associated with substance use, and psychological distress mediated the relationship between peer pressure and substance use among youth (Farooq E Azam, et al., 2025). Several pieces of research have shown that emotional intelligence has a protective influence on dangerous behaviors. Trinidad and Johnson (2002) found a connection between early alcohol and tobacco use among teenagers and lower emotional intelligence. This means that teenagers may be more likely to use drugs or other external coping techniques to alleviate their distress. To lower the likelihood of substance abuse and increase psychological well-being, promoting emotional intelligence has been proposed as a preventive technique in adolescent health programmers (Brackett et al., 2011).

Research has investigated the link between adolescent emotional intelligence (EI) and other dangerous behaviors, such as substance use. Several other studies have found that having higher emotional intelligence reduces the likelihood of engaging in harmful behaviors by increasing one's capacity for emotional regulation and sound judgment (Mikolajczak, Luminet, & Menil, 2007). Adolescents with higher emotional intelligence (EI) outperform those with lower EI in terms of stress management, resistance to social pressure, and alternative

dispute resolution approaches (Brackett et al., 2011). A meta-analysis undertaken by Schutte et al. (2007) found a persistently negative connection between substance use and emotional intelligence. The findings of multiple investigations undertaken in different cultural contexts are consistent. According to an Indian study (Saxena & Srivastava, 2015), teenagers with higher emotional intelligence (EI) had better psychological well-being and were less likely to develop substance addiction. Despite the expanding body of evidence, few studies have been conducted on Pakistani teenagers, whose sociocultural traits may have a unique impact on the association between emotional intelligence and risky behavior.

Research Question

- Is there a relationship between TEI and substance use among adolescents?

Hypotheses

H_1 : There would be a significant negative predictive association between trait emotional intelligence and substance use among adolescents.

METHODOLOGY

Research Design and Participants

This study used a quantitative, correlational research design to investigate the association of TEI with substance use among Pakistani adolescents. In this study 400 adolescents ages between 12- 18 years including both male and female students were recruited. To identify participants, the researcher collected data from institutions using a convenience sampling technique. This technique allowed for successful data collection while focused on the relevant target population that aligned with the study's objectives.

Instruments

Trait Emotional Intelligence Questionnaire- Adolescents Short Form

The Trait Emotional Intelligence Questionnaire - Adolescents Short Form (TEIQue-ASF), developed by Petrides and Furnham in 2006, was used in the study to assess emotional intelligence. Each of the 30 items in this self-report questionnaire is evaluated using a 7-point Likert scale, with 1 indicating "strongly disagree" and 7 indicating "strongly agree". The scale examines emotional intelligence as a whole by

selecting two items from each of the TEIQue's fifteen components. The goal is to examine an individual's self-assessment in four key areas: emotionality, self-regulation, sociability, and overall well-being. The TEIQue-ASF has shown to be very reliable across a wide range of people.

Drug Abuse Screening Test

The DAST-10 was developed by Skinner in 1982. The tool was used to evaluate substance usage. This 10-item self-assessment measures the frequency and intensity of substance use behaviors. Each question is evaluated using a Likert scale that measures the frequency with which a person has used drugs or alcohol over a given time. The DAST-10 has been verified in numerous settings and is regarded as an excellent instrument for detecting early signs of substance dependence, particularly in teenagers. With Cronbach's alpha values consistently above .80, the scale has remarkable psychometric properties and dependability. Studies that found strong associations with clinical evaluations and other standardized substance use measures supported the content's and criterion-related validity.

Data Collection

Researchers used self-administered surveys to collect the data for this study. Adolescent's ages between 12 to 18 years were invited to participate after acquiring the requisite approvals from educational institutions and ethical approval from the relevant authorities. The DAT-10 and the TEIQue-ASF) were administered in the classroom during regular school hours. Each participant received detailed instructions for completing the survey, an explanation of the study's objective, and assurances of anonymity and confidentiality. This method of data collection in educational institutions ensured the inclusion of a diverse range of adolescents in a controlled and organized setting.

Ethical Considerations

The study followed ethical rules to ensure the participants' rights and well-being. All participants and legal guardians provided informed consent prior to data collection. This ensured that they had a thorough grasp of the study's goals, procedures, potential risks, and benefits. Participants were briefed that they could leave at any time without penalty because participation was purely voluntary. To protect privacy, personal identifiers were deleted from survey questions and the research team was able

to keep the participants' responses anonymous by securely safeguarding the data and restricting access.

Data Analysis

To achieve the research aims, appropriate statistical procedures were used to assess the data collected from participants. To begin, descriptive statistics such as frequencies, percentages, means,

and standard deviations were used to summarize the sample's demographic characteristics, which included age, gender, and other key variables. Regression analysis was applied to assess the predictive association of TEI with substance use. To assure the quality and reliability of all analyses, researchers used Statistical Package for Social Sciences (SPSS-V.27).

RESULTS

Table 1

Frequency Distributions for Demographic and Behavioral Variables (N = 400)

Variable	Category	N	%
Age	12-15 years	184	46
	16-18 years	216	54
Gender	Male	200	50
	Female	200	50
Education	Pre Matric to inter	400	100
Birth Order	First	94	23.5
	Second	158	39.5
	Third	101	25.25
	Fourth or higher	47	11.75
Parents Alive	Both	276	69
	Father only	53	13.25
	Mother only	71	17.75
Family System	Nuclear	267	66.75
	Joint	133	33.25
Monthly Income	PKR 26,000-30,000	135	33.75
	PKR > 30,000	265	66.25

The sample consisted of 400 adolescents between the ages between 12 -18 years. An equal number of males and females (50% each) were present. The participants were students, ranging from pre-matriculation to intermediate levels. The majority of respondents were second-born (39.5%), and the majority of them had both

parents alive (69%). A nuclear family system was more prevalent (66.8%) than a combined family system. More than half of the respondents (66.3%) reported that their family's monthly income exceeded PKR 30,000, and 50.5% reported that they were presently using drugs.

Table 2

Linear Regression Predicting Substance Use from Trait Emotional Intelligence

Variable	B	SE	Wald	df	p	95% CI for Exp(B)
Trait Emotional Intelligence Total	-0.065	.006	117.20	1	< .001	[0.90, 0.94]
Constant	6.980	.770	82.10	1	< .001	—
Well-being	-0.052	0.008	42.25	1	< .001	[0.93, 0.97]
Self-control	-0.031	0.009	11.85	1	.001	[0.95, 0.99]
Emotionality	-0.044	0.008	30.14	1	< .001	[0.93, 0.97]
Sociability	-0.026	0.010	6.76	1	.009	[0.96, 0.99]

The findings from the linear regression analysis indicate that TEI is a significant negative predictor of substance use among adolescents. Specifically, higher overall TEI scores were associated with lower odds of engaging in

substance use, as shown by a significant negative regression coefficient ($B = -0.065$, $p < .001$) and a 95% confidence interval for $\text{Exp}(B)$ that fell below 1 (0.90–0.94). This supports the hypothesis that adolescents with stronger emotional competence

are less likely to use substances. In addition to the total TEI score, all four TEI facets Well-being, Self-control, Emotionality, and Sociability were also significant negative predictors of substance use. Higher Well-being was associated with reduced likelihood of substance use ($B = -0.052$, $p < .001$), indicating that adolescents who experience more positive emotions and life satisfaction are less prone to substance involvement. Similarly, Self-control showed a significant negative effect ($B = -0.031$, $p = .001$), suggesting that adolescents with better regulation of impulses and stress are less likely to engage in substance use. The facets of Emotionality ($B = -0.044$, $p < .001$) and Sociability ($B = -0.026$, $p = .009$) also significantly predicted lower substance use, implying that stronger abilities in understanding emotions, forming supportive social relationships, and effectively navigating social situations may discourage substance use behaviors.

Discussion

The present study examined the relationship between TEI and substance use among adolescents. The findings demonstrated that higher levels of overall TEI were significantly associated with a lower likelihood of substance use, and this negative association extended consistently across all TEI facets, including well-being, self-control, emotionality, and sociability. These results provide strong support for the hypothesis that adolescents with stronger emotional competencies are less vulnerable to substance involvement.

The negative predictive relationship observed between TEI and substance use is consistent with a substantial body of prior research. Previous studies have consistently shown that adolescents with higher emotional intelligence demonstrate better coping strategies, reduced impulsivity, and enhanced resilience factors that collectively reduce the likelihood of engaging in substance use (Kun & Demetrovics, 2010). In their study, Shahzad et al. (2013) conducted a study on adolescents and concluded individual with higher EI have a greater level of self-understanding and they understand and regulate their emotions adequately. They further concluded that Trait EI serves as buffer against the risky and deviant behaviors; also they have better understanding of the negative consequence of engaging in those behaviors. These views were further supported by Shahzad, Fatima, Begum, Ali et al. (2020), they found the significant association of emotion regulation strategies with depression among individuals using drugs, with individual

having high level of cognitive appraisal have lower level of depression and those with higher level of affective suppression have higher level of depression.

The significant contribution of the TEI facets offers deeper insight into the mechanisms underlying these associations. The strong negative association between Self-control and substance use aligns with past evidence showing that difficulties in impulse control and emotional regulation are major risk factors for substance misuse during adolescence (Wills et al., 2007). Similarly, the negative relationship between well-being and substance use echoes findings that positive emotional states and high life satisfaction reduce adolescents' reliance on substances as a form of emotional escape (Sánchez-Álvarez et al., 2015). The facets of emotionality and sociability also played meaningful roles. Adolescents with higher emotionality the ability to perceive and express emotions may be better equipped to communicate distress or seek support through adaptive channels rather than substance use. This interpretation aligns with prior studies suggesting that emotional understanding reduces the need for avoidant coping strategies, including drug or alcohol use (Mayer et al., 2008). The negative association with sociability supports research showing that effective social skills and strong interpersonal connections decrease susceptibility to peer influence that promotes substance use (Lopes et al., 2004).

Overall, the current study contributes to the growing literature by providing additional empirical support for TEI as a robust protective factor against adolescent substance use. By demonstrating that both global TEI and its core components are negatively associated with substance use behaviors, the findings highlight the potential value of emotional intelligence focused interventions. Prevention programs aimed at enhancing emotional regulation, interpersonal skills, and positive psychological functioning may be particularly effective in reducing substance use among youth.

CONCLUSION

This study demonstrated that higher TEI and its core facets are significantly linked to lower levels of substance use among adolescents. These findings support the idea that emotional competence serves as a key protective factor during a developmental stage where risk-taking behaviors are common. Consistent with previous research, adolescents who can regulate their emotions, cope effectively with stress,

and navigate social situations with confidence are less likely to rely on substances as a coping mechanism. Overall, the results highlight the potential value of integrating EI building strategies into prevention intervention programs aimed at reducing substance use and promoting healthier psycho-social development among adolescents.

Recommendations

Based on the findings that TEI is associated with lower substance use among adolescents, several recommendations can be made to support prevention and intervention efforts. Academic institution should integrate mental health and substance use prevention interventions like Healthy Minds program which is an indigenous evidence based prevention intervention into their curricula to build resilience, improving their mental health and strengthen interpersonal skills such as emotional regulation, self-control, and effective coping, resilience, interpersonal effectiveness, self-harm as these abilities appear to protect adolescents from mental health problem and also reduces the risk of engaging in substance use and self-harm. Teachers, counselors, and youth workers would benefit from training that equips them to foster emotional competence and identify students who may be at risk. Additionally, creating supportive social environments through mentorship programs, peer support initiatives, and family engagement can reinforce positive emotional and social skills. It is also recommended that EI assessments be incorporated into youth wellness programs to help target interventions more effectively. Finally, future research should explore the long-term impact of EI-based interventions and examine a more diverse range of adolescents to ensure that these findings are applicable across different cultural and socioeconomic contexts.

Competing Interests

The authors did not declare any competing interest.

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