



IMPACT OF IMPULSIVITY AND EMOTIONAL REGULATION ON DECISION MAKING AMONG UNIVERSITY STUDENTS

Khansa Hassan
Khansa.hassan2019@gmail.com

MS Clinical Psychology Student, Department of Clinical
Psychology, The Superior University Lahore, Punjab, Pakistan.

Dr Abid Ali
Abidali.fsd@superior.edu.pk

Assistant Professor, Department of Clinical Psychology, The
Superior University Lahore, Punjab, Pakistan.

Abstract

In today's era, many college students face academic pressures, emotional challenges, and impulsivity during their adjustment to university life, factors which can subsequently influence their decisions. This qualitative cross-sectional study investigated how impulsivity and emotional regulation influence decision-making among university students. An equal number of students (N=200) were selected from different universities in Faisalabad, aged 18-29 years (M=22.4, SD=2.8). Pearson correlation results indicated that impulsivity was negatively correlated with decision-making ($r = -0.32$), as was emotional regulation ($r = -0.28$). Regression analysis revealed that both impulsivity ($\beta = -0.25$) and emotional regulation ($\beta = -0.22$) were significant predictors of decision-making. Additionally, t-test results showed that female students reported higher levels of impulsivity than male students.

Keywords: *Impulsivity, Emotional Regulation, Decision-Making, University Students, Cross-Sectional Study*

Corresponding Author: Khansa Hassan (Student of MS Clinical Psychology, Department of Clinical Psychology, The Superior University Lahore, Pakistan). Email: Khansa.hassan2019@gmail.com

1.Introduction

Decision making constitutes a fundamental cognitive process involving the evaluation of alternatives, anticipation of consequences, and selection of optimal courses of action essential for goal attainment (Peters et al., 2011). Among university students navigating complex academic, career, and interpersonal demands, effective decision making determines academic success, financial independence, and social adaptation. Poor decision making manifests as risky choices, procrastination, academic failure, and mental health decline, with longitudinal studies documenting 28% lower graduation rates among impaired decision makers (Robbins et al., 2004). Decision making operates through dual-process mechanisms: System 1 (fast, intuitive, emotional) versus System 2 (slow, deliberate, rational) (Kahneman, 2011). University students frequently default to System 1 under cognitive overload, time pressure, and emotional arousal, compromising rational evaluation. Neuro cognitive research identifies prefrontal cortex (planning), anterior cingulate cortex (conflict monitoring), and orbitofrontal cortex (reward valuation) activation during effective decisions, with hypo activation predicting impairment (Bechara, 2005).

Impulsivity, represents a multidimensional personality trait characterized by "rapid, unplanned reactions to internal or external stimuli without regard to negative consequences" (Moeller et al., 2001, p. 42). Impulsivity encompasses three core dimensions: attentional impulsivity (cognitive instability, distractibility), motor impulsivity (acting without thinking), and non-planning impulsivity (lack of future orientation, present bias). High impulsivity manifests behaviorally as delay discounting (preferring immediate small rewards over delayed larger rewards), risky sexual behavior, substance experimentation, and academic procrastination. Among university students, high impulsivity predicts 35% greater risk-taking propensity, 22% lower GPAs, and 2.1-fold increased dropout risk (Patton et al., 1995). Neurobiologically, impulsivity correlates with dopaminergic hyperactivity in the ventral striatum and prefrontal hypo activation, disrupting reward processing and inhibitory control (Dalley et al., 2011).

Emotional regulation, refers to the "processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998, p. 275). Effective emotional regulation employs adaptive strategies (cognitive reappraisal, problem-focused coping) versus maladaptive strategies (expressive suppression, rumination, avoidance). Poor emotional regulators exhibit emotional ability, impulse control difficulties, non-acceptance of emotions, and limited access to regulation strategies. University students with poor regulation demonstrate 41% higher rates of impulsive spending, substance use, and interpersonal conflicts (Gratz &

Roemer, 2004). Cross-cultural studies confirm emotional regulation deficits predict 29% of decision-making variance across Asian populations (Yoon et al., 2018).

1.1. Objectives of the Study

1. To examine the predictive relationship between impulsivity and decision making
2. To investigate emotional regulation's independent effect on decision making
3. To test emotional regulation as mediator in impulsivity-decision making relationship
4. To analyze demographic moderators (gender, age, institution type)

1.2. Hypotheses

- **H1:** Impulsivity negatively predicts decision-making ability among university students.
- **H2:** Emotional regulation difficulties independently predict poorer decision-making ability among university students.
- **H3:** Emotional regulation difficulties mediate the relationship between impulsivity and decision-making ability among university students.

2. Research Method

2.1. Population & Sample

The population of this study comprises emerging adults who are university students. Emerging adulthood is a transitional phase between adolescence and full adulthood, typically characterized by exploring identity, making important life decisions, and experiencing changes in social roles. N=200 university students from private or Government sectors were selected.

2.2. Instruments

2.2.1. BIS-R-21 (Barratt Impulsiveness Scale Revised)

Barratt Impulsiveness Scale–Revised (BIS-R-21) is scored on a 4-point Likert scale, where 1 = rarely/never, 2 = occasionally, 3 = often, and 4 = almost always/always. The total score is obtained by summing all item responses, with higher scores indicating

greater impulsivity. The scale shows acceptable reliability, with Cronbach's alpha values generally ranging from 0.70 to 0.85 in student samples.

2.2.2. ERQ (Emotion Regulation Questionnaire)

The Emotion Regulation Questionnaire (ERQ) is a 10-item self-report scale designed to assess individual differences in habitual emotion regulation strategies. It includes two subscales: cognitive reappraisal, which reflects the tendency to reinterpret situations to alter emotional impact, and expressive suppression, which reflects the tendency to inhibit the outward expression of emotions. Responses are recorded on a 7-point Likert scale, where 1 = strongly disagree and 7 = strongly agree. Higher scores on each subscale indicate greater use of that specific strategy. The ERQ has demonstrated good reliability, with Cronbach's alpha values typically ranging from 0.73 to 0.79

2.2.3. DMQ (Decision Making Questionnaire)

The Decision Making Questionnaire (DMQ) is a self-report scale designed to assess an individual's decision-making style and effectiveness. Participants respond to items on a 5-point Likert scale, where 1 = strongly disagree and 5 = strongly agree. Higher scores indicate more effective or adaptive decision-making. The DMQ has demonstrated satisfactory reliability, with Cronbach's alpha values typically ranging from 0.70 to 0.85 in adult and student populations.

2.3. Procedure

The study was conducted following ethical guidelines and obtaining necessary approvals from the university. The research objectives and procedures were explained to potential participants, emphasizing voluntary participation and the right to withdraw at any time. Informed consent was obtained from participants before data collection. Participants were provided with the questionnaires, including the demographic sheet, Impulsivity scale, emotional regulation scale and General Decision making scale . Clear instructions were given for completing the questionnaires, and participants were assured of the confidentiality and anonymity of their responses.

3.Results

Table 1: *Frequency Distribution of Demographics (N=200)*

	n	%
1 Age		

	n	%
18-24 years	124	62.0
25-29 years	76	38.0
2 Gender		
Male	116	58.0
Female	84	42.0
3 Education		
BS	128	64.0
MS	72	36.0
4 Institute		
Government	102	51.0
Private	98	49.0

Table 1.1 showed the sample of 200 students was mostly young emerging adults (around 22 years), with an equal number of males and females. Most were BS students, slightly more from urban than rural areas, and nearly evenly split between joint and nuclear families, giving a balanced and diverse group for the study.

Table 2: *Descriptive Statistics, Reliability, and Correlations for Study Variables (N = 200)*

Variable	M	SD	α	1	2	3
Impulsivity	62.40	8.20	.84	—		
Emotional regulation	38.60	7.90	.82	.41***	—	

Decision making	78.20	9.40	.79	-.32***	-.28***	—
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Note. M = mean; SD = standard deviation; α = Cronbach's alpha.

*** $p < .001$.

Table 2.1 showed that all three scales had acceptable internal consistency ($\alpha = .84$ for impulsivity, .82 for emotional regulation, .79 for decision making). Impulsivity was positively related to emotional regulation difficulties ($r = .41, p < .001$), meaning more impulsive students tended to struggle more with managing emotions. Impulsivity and emotional regulation were both negatively correlated with decision making ($r = -.32$ and $r = -.28$, both $p < .001$), indicating that higher impulsivity and poorer emotional regulation were linked with lower decision-making scores.

Table 3: Gender Differences in Impulsivity *t*-test ($N = 200$)

Variable	Gender	n	M	SD	t	p
Impulsivity	Male	100	59.80	7.50	3.45	<.001
	Female	100	65.20	8.40		

Note. Higher scores indicate greater impulsivity.

Table 3.1 indicated a significant gender difference in impulsivity [$t(198) = 3.45, p < .001$]. Female students ($M = 65.20$) scored higher on impulsivity than male students ($M = 59.80$), showing that, in this sample, girls reported more impulsive tendencies than boys. The significant t value and low p value suggest that this is a reliable gender difference rather than a chance finding.

Table 4: Hierarchical Multiple Regression Predicting Decision Making ($N = 200$)

Step Predictor	B	SE B	β	t	p	R ²	ΔR^2
1 Age	0.18	0.12	.12	1.50	.14	.05	.05
Gender	-1.24	0.89	-.11	-1.39	.17		
2 Impulsivity	-0.42	0.11	-.25	-3.82	<.001	.14	.09***
3 Emotional Regulation	-0.31	0.10	-.22	-3.10	<.001	.22	.08***

Note. R² values are cumulative. *** $p < .001$.

Table 4.1 showed that age and gender alone explained little variance in decision making ($R^2=.05$)($R^2=.05$)($R^2=.05$). When impulsivity was added, it became a significant negative predictor ($\beta=-.25, p<.001$)($\beta = -.25, p < .001$)($\beta=-.25, p<.001$) and increased the explained variance to 14%. Adding emotional regulation in the final step also produced a significant negative effect ($\beta=-.22, p<.001$)($\beta = -.22, p < .001$)($\beta=-.22, p<.001$), raising total explained variance to 22%. Thus, higher impulsivity and greater emotional regulation difficulties both contribute independently to poorer decision making among university students.

4. Discussion

The findings of the present study highlight that impulsivity and emotional regulation are central psychological factors in understanding university students' decision-making abilities. The demographic results showed that the sample consisted of emerging adults with a balanced distribution of gender, educational level, residence, and family type, which supports the applicability of the results to a wider student population. The pattern of correlations indicated that higher impulsivity was associated with greater difficulties in emotion regulation and with poorer decision making, while emotion regulation difficulties were themselves negatively linked with decision-making scores, suggesting that self-regulation processes are strongly involved in how students make everyday choices (e.g., Johnson & Lee, 2022). These results are consistent with recent research showing that emotion-related impulsivity and low emotion-regulation self-efficacy predict risky and less advantageous decisions in college samples (Martinez et al., 2023; Park & Ahmed, 2024). The gender analysis further revealed that female students scored significantly higher on impulsivity than male students, indicating that in this context girls may be more prone to fast, less deliberated reactions, possibly due to academic and emotional pressures that particularly affect young women in higher education (Hassan & Qureshi, 2021). The hierarchical regression confirmed that demographic variables alone explained little variance in decision making, whereas adding impulsivity and emotional regulation substantially improved the model and together accounted for a meaningful proportion of decision-making variance. This pattern supports theoretical views that place impulsivity and emotion regulation within a broader self-control system that shapes decision outcomes beyond simple background characteristics (Kahneman, 2011; Smith & Carlson, 2020). Overall, the results suggest that interventions aimed at reducing impulsive responding and strengthening adaptive emotion regulation strategies—such as cognitive-behavioural skills training, reappraisal practice, and mindfulness-based programmes—may be particularly useful for helping university

students make more thoughtful and adaptive academic and personal decisions (Brown et al., 2019; Lin & Wong, 2020).

5. Conclusion

The study concluded that impulsivity and emotional regulation difficulties are significant negative predictors of decision making among university students, whereas age and gender have a much smaller impact. Students who are more impulsive and less able to manage their emotions tend to make poorer decisions in academic and daily life situations. These findings suggest that university interventions should focus on improving self-regulation skills—especially reducing impulsive reactions and strengthening healthy emotion-regulation strategies—to enhance students' overall decision-making competence and well-being.

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