

Humanities and Educational
Sciences Journal

ISSN: 2617-5908 (print)



مجلة العلوم التربوية
والدراسات الإنسانية

ISSN: 2709-0302 (online)

Emotional Regulation and its Relationship with Decision-Making Ability among University Female Students in Saudi Arabia(*)

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تاريخ قبوله للنشر 12/4/2025

<http://hesj.org/ojs/index.php/hesj/index>

(*) تاريخ تسليم البحث 16/3/2025

(*) موقع المجلة:

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Abstract

This study explores the relationship between emotion regulation and decision-making ability among female university students at an academic institution in Saudi Arabia. Emotional regulation plays a significant role in decision-making processes. Students who effectively manage their emotions are less likely to engage in risky behaviors and make impulsive decisions. Research shows that interventions aimed at enhancing emotional regulation skills can lead to better decision-making outcomes, particularly in high-stress situations typical of university life. This study has used the descriptive correlational approach, two scales were prepared for (1) emotional regulation, consisting of 45 statements across nine dimensions, and (2) decision-making ability, including 24 statements. The study tools were administered to 240 female students at the university. The research sample had a high degree of emotional regulation (average = 3.52, standard deviation = 0.24) and a higher degree of decision-making ability (average = 3.56, standard deviation = 0.53). Emotional regulation and decision-making ability did not differ significantly according to the independent variables of specialization and academic level. However, emotional regulation and decision-making ability had a significant positive correlation. The study concluded that universities should pay attention to providing counseling programs for university students to enhance their psychological and mental health. In addition, the relationship between emotional regulation and decision-making ability among university students is a significant area of research that has garnered attention due to its implications for mental health and academic performance. This framework can be understood through the dimensions of emotional regulation and decision-making ability. While the framework surrounding the relationship between emotional regulation and decision-making ability is established, significant gaps in longitudinal data, specific variable exploration, external influences, and practical applications remain in the study that could be addressed in future research.

Keywords: Emotional regulation, decision-making ability, mental health, coping, descriptive correlational study.

Introduction:

Emotion is a major aspect of personality because it plays a significant role in behavioral formation. In other words, emotion level and degree of suitability to situations determine the normality and/or abnormality of the behaviors. Hence, psychologists have explored emotions from physiological, cognitive, and behavioral perspectives, and have coined a plethora of theories to interpret emotions and motives.

Emotions are complex psychological states that involve three distinct components: subjective experience, physiological response, and behavioral or expressive response. They play a critical role in the decision-making processes by influencing how individuals assess situations and respond to challenges.

The James-Lange theory posits that emotions arise from physiological arousal. For instance, one might feel fear only after experiencing the physical symptoms associated with fear (e.g., increased heart rate). The Schachter-Singer two-factor theory suggests that emotion is based on physiological arousal and cognitive labeling. The context of an arousal event helps determine emotional experiences, indicating that cognitive appraisal is crucial for emotion regulation.

Furthermore, according to the constructivist approach, emotions are not biologically hardwired but are constructed from individual experiences and predictions about bodily states. This perspective emphasizes the role of personal history in shaping emotional responses (Berkling et al., 2014).

Emotional regulation has recently attracted researchers' attention. As the inability to effectively regulate emotions manifests as a decline in psychological and mental health of an individual (Bullemor-Day, 2015), emotional regulation plays a major role in achieving psychological health and facilitating social and emotional development. Bassiouni (2018) stated that how an individual regulates their emotions and feelings during psychological constraints immediately affects their feelings of satisfaction, optimism, hope, and happiness.

James Gross, the founder of the theory of emotional regulation, investigated the topic from 1997 to 2014, and defined it as the emotional and subconscious strategies that an individual employs to increase, decrease, or

retain one or more components of the emotional response. Gross identified three components of emotional regulation: (1) experience, which includes an individual's personal feelings in light of their life experiences; (2) behavioral, which comprises behavioral reactions; and (3) physiological, which indicates physiological reactions such as heart rate, blood pressure, and hair and skin stiffness (Yaqoub, 2011).

Emotional regulation, as defined by Gross and Thompson (2007), is a goal-directed process that influences the intensity, duration, and type of emotions. It allows flexibility in emotional responses and temporary harmony with long-term goals. Ladis et al. (2023) expanded on this by highlighting its role in managing positive and negative emotions socially and flexibly, delaying organic reactions, and monitoring, evaluating, and modifying emotional responses. Emotional regulation can be implicit (automatic processes outside awareness) or explicit (conscious strategies to modify emotions) (Ahmed et al., 2015). It involves self-awareness and controlling negative emotions (Snow et al., 2013). Mahmoud (2016) described it as cognitive strategies to adaptively redirect emotional arousal, while Dias and Cadime (2017) emphasized its role in adapting to social and psychological challenges. Márquez-Cervantes and Gaeta-González (2018) defined it as modifying emotional intensity and expression, whereas Khasawneh (2020) noted its conscious effort to manage emotional responses effectively.

Procedurally, emotional regulation is defined as organized strategies to control the intensity, type, and quantity of emotions while enhancing emotional flexibility. Strategies include antecedent-focused approaches like situation selection, situation modification, attention deployment, cognitive change, and cognitive reappraisal, which occur before interacting with an emotional stimulus. Response-focused strategies such as suppression or modulation occur after the emotional response to ensure social conformity or manage uncomfortable situations (Gross & Thompson, 2007). These strategies highlight the importance of regulating emotions for adaptive functioning in challenging situations.

Emotional regulation impacts individuals differently based on the processes and strategies applied. It has been interpreted through various psychological models, including psychoanalytic theory, which associates emotions with satisfaction or frustration (Santos et al., 2018), and the

Folkman and Lazarus model, which emphasizes problem-focused and emotion-focused coping strategies (Márquez-Cervantes & Gaeta-González, 2018). Gross's model, a widely accepted framework, explains emotional regulation as a process involving evaluation, physiological changes, and behavioral responses to emotional stimuli (Gross, 2015). Cognitive process-based models highlight perception, attention, memory, and decision-making in regulating emotions (Al-haretheyya et al., 2023), while the ACE model promotes emotional awareness and adaptation to manage negative emotions effectively (Berking et al., 2014).

Adolescence is a critical period for emotional regulation due to vulnerabilities like depression and anxiety (Ahmed et al., 2015). Decision-making and problem-solving are emotionally taxing skills that can be influenced by biases stemming from emotional states (Ndawo, 2021). Effective decision-making prepares students to navigate social and practical challenges (Ho Kuen, 2016) by evaluating alternatives and making rational choices (Özdeş, 2020). Psychological factors like emotions, attitudes, personality traits, and situational variables significantly affect decision-making processes (Gharib, 2018). Emotional regulation plays a vital role in managing these influences to ensure sound decision-making.

Rational decision-making involves predicting real-world scenarios, focusing on relevant cues, and making effective choices across diverse contexts (Burrus et al., 2012). It is a process of selecting the best alternative based on indicators set by the environment (Abu El-Ela, 2013) and emphasizes critical thinking through careful analysis (Johnson, 2019). Özdeş (2020) outlined three steps: evaluating alternatives, calculating expected utility, and choosing the option with the highest utility. Khattab (2012) described four stages: data collection, decision-making, implementation, and evaluation.

Several factors influence decision-making, including psychological elements like emotions, attitudes, and personality traits (Gharib, 2018). Emotional regulation plays a crucial role in managing these influences. Gross (2002) defined emotional regulation as processes that influence emotional experiences and expressions. Failure to regulate emotions can lead to disorders and impact decision-making (Morawetz et al., 2019). Mitchell (2011) highlighted three reasons for linking emotional regulation with

decision-making: evaluating rewards and punishments, understanding abnormal behaviors, and benefiting from their interconnection.

Decision-making empowers individuals to determine their goals and navigate life challenges. Serious decisions like career or marital choices require thorough thinking, while simpler ones may not (Zahran, 2005). Developing sound decision-making skills is essential for addressing difficulties and making informed choices effectively.

Study Problem:

Many studies have investigated how specific emotions, even incidental ones, can influence decision-making abilities (So et al., 2015). The ability to regulate emotions is beneficial for organizing the influence of emotions on decision-making. In human resource management, emotions are likely to influence decision-making in different ways. For example, they moderate career decision-making, self-efficacy, career decisiveness, and the decision to be involved in emotionally-difficult situations (Beling and Wild, 2024).

Martin and Delgado (2011) indicated that cognitive strategies engaged in organizing negative emotions are also effective, with positive emotions associated with decision-making. Lerner et al. (2015) highlighted that emotions constitute powerful, widespread, predictable, and sometimes beneficial motivations for decision making. Modecki et al. (2017) identified deficits in emotional regulation, coping, and decision-making as three abilities linked to external behavioral disorders among youth. Perach et al. (2021) revealed the impact of emotion regulation processes on people with dementia and the interconnection between emotion regulation and decision-making.

Based on the above, and considering the lack of comprehensive studies focusing on emotional regulation's impact on decision-making among university students in Saudi Arabia, the current study aimed to examine this relationship among female university students at a university in Saudi Arabia. In Saudi Arabia, cultural norms and expectations regarding gender roles may further influence emotional regulation and decision-making. Traditional views might dictate how emotions are expressed and regulated differently across genders, potentially affecting students' academic and social decisions. Investigating these gender-specific patterns can provide insights into the broader implications of emotional regulation on decision-making within this demography.

Study Objectives:

The present study aims to:

- 1- Determine the level of emotional regulation among female students at a university.
- 2- Determine the decision-making ability of female students at a university.
- 3- Reveal possible differences in emotional regulation and decision-making ability in the research sample, depending on specialization and academic level.
- 4- Demonstrate the correlation between emotional regulation and decision-making ability in the research sample.

Study Questions:

For the study objective, the following research questions were devised:

- 1- What is the level of emotional regulation among female students at the university?
- 2- What are the decision-making abilities of female students at the university?
- 3- Does emotional regulation and decision-making ability differ depending on specialization and academic level?
- 4- Is there a correlation between emotional regulation and decision-making abilities?

Limitations:

This study has several limitations. Because it relied on a limited sample from a single university, the findings may not be generalizable to all university students in Saudi Arabia. A broader and more diverse sample would provide more comprehensive insights. Second, reliance on self-reported measures for emotional regulation and decision-making can introduce bias, as participants may not accurately assess their own abilities or experiences. Finally, the cultural context of Saudi Arabia may influence emotional expression and regulation, potentially limiting the applicability of these findings to other cultural settings or populations.

Theoretical and Practical Implications:

The study contributes to existing theories by expanding emotional intelligence frameworks and directly linking emotional regulation with decision-making capabilities. Thus, the theoretical models that describe how emotional competencies influence cognitive processes in educational contexts can be expanded. Moreover, it integrated cultural perspectives by

providing insights into how cultural factors in Saudi Arabia shape emotional regulation practices and their effects on academic performance, thereby enriching cross-cultural psychology theories.

Practically, the findings could inform educational programs as universities can develop programs focused on enhancing students' emotional regulation skills, thereby improving academic performance and decision-making abilities. Furthermore, university counseling services might integrate emotion regulation training into their offerings to support students facing academic stress.

Educational policymakers should consider the role of emotional competencies in curricula to foster a more supportive learning environment that promotes both emotional well-being and academic success.

Literature Review:

Several studies have identified the level and nature of emotional regulation in different samples. For example, Eliwa (2018) investigated the nature of the correlation between emotional regulation strategies and psychological disorders (psychological anxiety, stress, and perfectionism) among gifted adolescents. Similarly, Al-Harithi (2021) explored the most common cognitive-emotional regulation strategies among female students at Taif University. Ladis et al. (2023) investigated emotional regulation, and its strategies, and multiple regulation strategies.

Studies have also addressed the decision-making ability. For example, Al-Hawari (2012) investigated the relationship between emotional intelligence and decision-making among students at Mu'tah University in Jordan. Additionally, Al-Dosari (2020) investigated habits of mind and their relationship with decision-making among female college students of Education at Princess Nourah University depending on the variables of students' academic level and their parents' educational level. Al Muftah (2024) also explored decision-making methods during crises among a sample of administrative leaders at King Saud University.

Recently, some studies have addressed the relationship between emotional regulation and the decision-making ability, such as Basyouni (2019), who has explored the relationship between emotional regulation strategies and their relationship with problem-solving abilities in gifted female students at middle and secondary levels in Jeddah. Likewise, Márquez-Cervantes and Gaeta-

González (2018) analyzed the relationship between emotional regulation and responsible decision-making in the pre-adolescent stage to consolidate teachers and parents. This may assist students in solving problems and in challenging dangerous events. Liu et al. (2022) recognized the impact of emotional regulation and self-efficacy on ethical decision-making in a new generation of employees. Francesconi et al. (2022) examined the decision-making difficulties that mediate the relationship between poor emotional regulation and eating disorder symptoms among adolescents. Similarly, Al-Haretheyyah et al. (2023) explored the effect of emotion regulation strategies (reappraisal and expressive suppression) as mediators between emotions and rational decision making within the classroom among first-year teachers in Oman. However, no research has explored the relationship between emotional regulation and decision-making capabilities in adolescents. While there is substantial literature on emotional regulation and decision-making in general, there is a notable scarcity of focused research specifically examining how these dynamics operate within university students. Most studies do not isolate this demographic or consider the unique stressors they face during their academic journey. Although some research touches on the neural mechanisms underlying emotion regulation and decision-making, there is a gap in understanding these processes specifically in university students. Investigating the neural correlates of emotional regulation strategies could provide deeper insights into how these strategies influence decision-making at a cognitive level. Moreover, there is limited exploration into targeted interventions designed to improve emotional regulation skills among university students and their subsequent impact on decision-making abilities.

Most interventions focus on general populations or specific issues like mental health without linking these directly to decision-making processes.

Terminologies of the Study:

Emotional Regulation:

Gross (2015, 50) defined emotional regulation as the processes that occur when an individual attempts to influence the type or amount of emotion that they or others around them experience and how those emotions are expressed. In the current study, it was determined procedurally using an emotional regulation scale.

Decision making:

According to Khater (2001, 256) decision-making is the process of deciding or giving preference to one side over another or finding a solution to reach the approval or stability of a certain thing. In the current study, it was procedurally determined using a decision-making scale.

Materials and Methods:

Design:

The study adopted a descriptive, correlational approach because of its suitability for the research objectives.

Population and Sample

The sample consisted of 240 female students from a university in Saudi Arabia. The samples were drawn from the original population using a simple random sampling method. The characteristics of the study participants were determined based on specialization and educational level as follows:

Table (1) Features of the study sample

No.	Variable	Characteristic	Number
1	Specialization	Computer Sciences	90
		Tourism and Hospitality	70
		Administrative Sciences	80
		Total	240
2	Educational level	First	66
		Second	104
		Third	70
		Total	240

The study was explained to the sample and written informed consent was obtained from them. The sampling method used ensured that every individual in the population had an equal chance of being included in the sample. This method was crucial for minimizing selection bias and enhancing the representativeness of the sample, thereby allowing for more generalizable findings across a broader population of female university students in the region. A complete list of registered female students in the first, second, and third year was obtained from the university administration. This list served as the sampling frame from which the participants were selected. The participants were mostly aged between (18) and (21) years. This age range is typical of undergraduate students at their first, second, and third year of

university life, and reflects the target demographics of the study. This diversity allows a comprehensive understanding of opinions and experiences across different fields of study and academia.

Instruments:

The Emotional Regulation Scale:

An emotional regulation scale consisting of 45 statements across nine dimensions was prepared. The scale was verified through several stages until it was suitable for application to the research sample.

Scale Design:

Based on the existing literature, such as Garnefski and Kraaij (2007), Gross and Thompson (2007), Eliwa (2018), Basyouni (2019), and Ladis et al. (2023), the scale was developed with two parts: *the first section* relates to the personal data of the respondents in terms of specialization and academic level and *the second section* relates to identifying the level of emotional regulation. The scale consists of 45 statements across nine dimensions: cognitive reassessment, suppression of emotional expression, rumination, focus on planning, self-blame, blaming others, acceptance, positive refocus, and social participation. A 5-point Likert scale was used with the following options: always, often, sometimes, rarely, and never.

Table (2) Description of the scale and its dimensions

Scale dimensions	N
Cognitive reassessment	5
Suppression of emotional expression	5
Rumination of ideas	5
Focus on Planning	5
Self-Blame	5
Blaming Others	5
Acceptance	5
Refocusing positively	5
Social Participation	5
Total score	45

Each level obtained a degree as illustrated in the following table:

Table (3) Criteria for calculating the scale scores

Statement	Levels of measuring				
I take part with others in reaching solutions for problems	Never	Rarely	Sometimes	Often	Always
Degree	1	2	3	4	5
Mean	From 1 to less than 1.8	From 1.8 to less than 2.6	From 2.6 to less than 3.4	From 3.4 to less than 4.2	From 4.2 to 5

Reliability of the scale:

The reliability of the questionnaire was determined through internal consistency using the correlation coefficients between each item of the questionnaire's domains and the total domain score. A positive and statistically significant correlation coefficient indicated the reliability and internal consistency of the questionnaire. The results are summarized in the following table:

Table (4) Correlation coefficients of the dimensions of the emotional regulation scale on the total score of the axes

Scale dimensions	Pearson correlation coefficient	Moral significance
Cognitive reassessment	0.082	0.01
Suppression of emotional expression	0.075	0.01
Rumination of ideas	0.086	0.01
Focus on Planning	0.071	0.01
Self-Blame	0.089	0.01
Blaming Others	0.080	0.01
Acceptance	0.74	0.01
Refocusing Positively	0.089	0.01
Social Participation	0.089	0.01

Cronbach's α was also used to calculate the overall and questionnaire's axes' reliability coefficients. The results are summarized in the following table:

Table (5) Scale reliability coefficients

Scale dimensions	N	Alpha reliability coefficient
Cognitive Reassessment	5	0.80
Suppression of Emotional Expression	5	0.74
Rumination of Ideas	5	0.85
Focus on Planning	5	0.72
Self-Blame	5	0.85
Blaming Others	5	0.82
Acceptance	5	0.71
Refocusing Positively	5	0.81
Social Participation	5	0.73
Total	45	0.85

Considering the reliability coefficients of the sub-axes and the total scores, it is evident that the scale has a high reliability.

Validity of the scale:

- Arbitrators: The scale was presented to seven university professors, two Saudis and five Arabs. Amendments were made according to their views.
- The value of the scale's validity coefficient was calculated in the following manner:

Exploratory Factor Analysis: An exploratory factor analysis was conducted on the 45 scale items. The following steps were performed:

- Ensuring the adequacy of the sample for factorial analysis by reviewing the Kaiser-Meyer-Olkin (KMO) and Bartlett's test, where the KMO value of the measure of sampling adequacy test was (0.626), and Bartlett's test of sphericity test was significant at (0.001). This indicated the adequacy of the sample for conducting an exploratory factor analysis.
- Ensuring that all commonality coefficients of the items exceed or are equal to 0.05. Hence, no items were deleted or reanalyzed.
- Using the diagonal cell matrix, we ensured that all diagonal cell values (Xa) exceeded or were equal to 0.05.

The Decision-Making Ability Scale:

A decision-making ability scale consisting of 24 statements was prepared. The tools' applicability to the research sample was confirmed through the following stages.

Scale Design:

After reviewing the literature, such as Al-Hawari (2012), Khattab (2012), Al-Dosari (2020), and Al Muftah (2024), the scale was divided into two parts: *the first section* relates to the personal data of the respondents in terms of specialization and academic level and *the second section* identifies the level of decision-making ability. The scale consisted of 24 statements, rated on a 5-point Likert scale as follows: always, often, sometimes, rarely, and never. Each level received a grade as shown in Table 3. Negative statements have degrees opposite to those of positive statements.

Reliability of the scale:

The reliability of the questionnaire was confirmed through internal consistency. The correlation coefficients between each item of the questionnaire's domains and the total score for the domain were calculated. A positive and statistically significant correlation coefficient indicated the reliability and internal consistency of the questionnaire. The findings are shown in the following table:

Table (6) Correlation coefficients of the statements of the decision-making ability scale and the total score

Statement number	Correlation coefficient	Significance level	Statement number	Correlation coefficient	Significance level
1	0.73	0.01	13	0.91	0.01
2	0.67	0.01	14	0.89	0.01
3	0.80	0.01	15	0.88	0.01
4	0.85	0.01	16	0.84	0.01
5	0.77	0.01	17	0.89	0.01
6	0.75	0.01	18	0.90	0.01
7	0.76	0.01	19	0.72	0.01
8	0.68	0.01	20	0.66	0.01
9	0.77	0.01	21	0.69	0.01
10	0.67	0.01	22	0.91	0.01
11	0.70	0.01	23	0.89	0.01
12	0.73	0.01	24	0.88	0.01

The split-half method was also used to calculate the overall resolution reliability coefficient. The findings are shown in the following table:

Table (7) Scale reliability coefficients

Scale	Alpha coefficient, first part	Alpha coefficient, second part	Spearman-Brown coefficient	Guttman coefficient
Total scale score	0.810	0.921	0.810	0.793

Table 7 shows that the reliability of the scale was high for the total scale score. Moreover, the alpha coefficients for both parts of the scale were 0.810 and (0.921), respectively, which were acceptable for their reliability. Pearson's coefficient was (0.810) and Guttman's coefficient was (0.793), indicating the stability of the scale.

Validity of the Scale:

- Arbitrators: The scale was reviewed by seven university professors—two Saudis and five Arabs, and amendments were made according to their reviews.
- The value of the scale's validity coefficient was calculated in the following manner.
- Exploratory Factor Analysis: An exploratory factor analysis was conducted on the 24 scale items. The following steps were performed:
 - a) Ensuring the adequacy of the sample for factorial analysis by reviewing the Kaiser-Meyer-Olkin (KMO) and Bartlett's test, where the KMO value of the measure of sampling adequacy test was (0.785), and the Bartlett's Test of Sphericity test was significant at (0.001). This indicates the adequacy of the sample to conduct the exploratory factorial analysis.
 - b) Ensuring that all commonality coefficients of the items exceed or are equal to 0.05. Hence, no items were deleted or reanalyzed.
 - c) Using the diagonal cell matrix, we ensured that all diagonal cell values (Xa) exceeded or were equal to 0.05.

Procedures of Application:

After obtaining the necessary administrative approval to apply the research tools, the Emotional Regulation Scale and Decision-Making Ability Scale were administered. The paper copy of each scale was converted into electronic forms for ease of sharing and monitoring. A total of 240 students completed the scales.

Statistical Methods

- The statistical program SPSS was used to analyze the data.
- The arithmetic means and standard deviations were used to recognize the level of emotional regulation and decision-making ability of the research sample.

- A two-way analysis of variance was used to investigate the differences between the averages emotional regulation and decision-making level according to specialization and academic level.
- Pearson's correlation coefficient was used to calculate the relationships between the variables in the research sample.

Discussion and Analysis:

The analysis was based on the data presented earlier in Table 4, which describes the calculation of the scores.

First Research Question:

The first question was, "What is the level of emotional regulation in female students at the university"?

Arithmetic means and standard deviations were used to calculate the degree of availability for each of the nine dimensions of emotional regulation as shown in the following table:

Table (8) Means of emotional regulation scores

Scale dimensions	Mean	Standard deviation	Level	Rank
Cognitive Reassessment	4.09	0.48	High	2
Suppression of Emotional Expression	3.90	0.41	High	3
Rumination of Ideas	4.11	0.44	High	1
Focus on Planning	3.18	0.57	Average	7
Self-Blame	2.97	0.68	Average	8
Blaming Others	2.97	0.68	Average	8
Acceptance	3.25	0.60	Average	6
Positive Refocusing	3.79	0.40	High	4
Social Participation	3.42	0.48	High	5
Total mean	3.25	24	High	

The research sample had a high degree of emotional regulation (average = (3.52), standard deviation = 0.24). Considering the sub-dimensions of the scale, it is noteworthy that rumination scored the highest (average = 4.11), followed by the cognitive reappraisal (average = 4.09), and blaming oneself and blaming others (both average = 2.97), indicating a moderate degree.

Second Research Question:

The second question was, “Does emotional regulation differ depending on specialization and academic level?”

A two-way analysis of variance was used to determine the differences between the participants’ responses to the variables as shown in the following table:

Table (9) Differences between responses to emotional regulation according to academic level and specialization

Variable	Source of variance	Sum of squares	df	Mean of squares	F value	Significance level
Emotional regulation	Academic level (1 st - 2 nd - 3 rd)	0.280	2	0.140	2.386	0.094
	Specialization (Computer Sciences, Tourism and Hospitality, and Administrative Sciences)	0.289	2	0.144	2.463	0.087
	Academic level-specialization	0.000	0			
	Error variance	13.782	235	0.059		
	Total variance	2995.85	240			

There were no statistically significant differences between the emotional regulation responses according to specialization and academic level. The overall level of emotional regulation in the sample was high.

Third Research Question:

The third question was, “What is the level of decision-making ability in female students at the university?”

Arithmetic means and standard deviations were used to calculate the degree of decision-making availability in the research sample as shown in the following table:

Table (10) The average decision-making ability level in the research sample

No.	Decision-making	Number of statements	Mean	Standard deviation	Level of ability
	Total average	24	3.56	0.53	High

The research sample had a high degree of decision-making ability (average = 3.56, standard deviation = 0.53).

Fourth Research Question:

The fourth question was, “Does decision-making ability differ depending on specialization and academic level?”

A two-way analysis of variance was used to determine whether there were differences between the participants’ responses to these variables sample as shown in the following table:

Table (11) Bivariate analysis of the differences between participants’ decision-making ability according to educational level and specialization

Variable	Source of variance	Sum of squares	df	Mean of squares	F value	Significance level
Decision-making ability	Academic level (1st- 2nd- 3rd)	0.473	2	0.236	0.823	0.440
	Specialization (Computer Sciences, Tourism and Hospitality, and Administrative Sciences)	0.300	2	0.150	0.523	0.593
	Academic level-specialization	0.000	0			
	Error variance	67.499	235	0.287		
	Total variance	3123.53	240			

There were no statistically significant differences in the level of decision-making ability according to specialization and academic level. The decision-making ability of the sample was high.

Fifth Research Question:

The fifth question was, “Is there a correlation between emotional regulation and the decision-making ability of the research sample?”

Pearson’s correlation coefficient was used as shown in the following table:

Table (12) Pearson’s correlation coefficient between emotional regulation and decision-making ability in the sample

Emotional regulation	Correlation coefficient	Significance
Decision-making ability	0.82	0.00

There was a statistically significant correlation between the emotional regulation and decision-making ability levels of the participants. The Pearson's correlation coefficient for the total degree was 0.82, indicating a strong relationship with a significance level of 0.000.

Results:

The study found that the study sample had a higher degree of emotional regulation, reflected through the overall average. In the sub-dimensions of the emotional regulation scale, rumination strategy was the highest, followed by the cognitive reappraisal strategy. This is consistent with the findings of Al-Harithi (2021) in that the most common cognitive-emotion regulation strategy among Taif University students was positive reappraisal. Similarly, Basyouni (2019) found a high level of emotional regulation and problem-solving ability in gifted female students at the middle and secondary levels in Jeddah.

Furthermore, this study found no statistically significant differences, based on specialization and academic level, between the participants' responses regarding the level of emotional regulation. These results are consistent with those of Márquez-Cervantes and Gaeta-González (2018), who found no statistically significant differences in emotional management between students across three academic years.

This study found that the study sample had a high degree of decision-making ability, as indicated by the average of the participants' responses. This is inconsistent with Al-Hawari's (2012) finding that the level of decision-making ability did not increase among students at Mu'tah University in Jordan. In contrast, Al-Dosari (2020) concluded that decision-making abilities increased among students of the College of Education at Princess Nourah Bint Abdulrahman University, Saudi Arabia.

Additionally, the findings showed that there were no statistically significant differences between the participants' responses on their level of decision-making ability according to specialization and academic level. Similarly, Al-Hawari (2012) found no differences in decision-making ability due to specialization among students at Mu'tah University in Jordan. Conversely, Al-Dosari (2020) concluded that fourth-year female students were superior to second-year female students in terms of their habits of mind and decision-making abilities. In other words, decision-making abilities

differed based on academic level among female students at the College of Education at Princess Nourah Bint Abdulrahman University.

The study also found a noticeable correlation between emotional regulation and decision-making ability of female students at an academic institution in Saudi Arabia. This is consistent with the findings of Márquez-Cervantes and Gaeta-González (2018), who found a statistically significant relationship between emotional regulation and responsible decision-making in pre-adolescence. The findings of this study also support the results of Liu et al. (2022), who indicated that emotional self-efficacy had a significant positive impact on ethical decision making.

Conclusion:

The findings highlight the crucial role of effective emotional regulation in enhancing decision-making skills in university students in Saudi Arabia. Students who exhibited higher levels of emotion regulation tended to make more informed and rational decisions, particularly in high-stress academic environments. The ability to manage emotions effectively not only mitigates the negative impact of stress, but also fosters a conducive atmosphere for academic engagement and cognitive processing.

Moreover, this study emphasizes the importance of integrating emotional intelligence training into university curricula. Such initiatives can equip students with the necessary tools to navigate emotional challenges, thereby improving their overall academic performance and decision-making abilities. As emotion regulation has emerged as a vital skill in both personal and professional contexts, fostering these competencies within educational frameworks can significantly contribute to the development of well-rounded individuals who are prepared for future challenges.

In summary, enhancing emotion regulation among university students in Saudi Arabia is crucial for improving their decision-making efficacy, academic success, and future employability.

Recommendations for future research include investigating the effectiveness of Cognitive Behavioral Therapy (CBT)-based interventions, mindfulness practices, or emotion regulation group therapy sessions. Qualitative studies should explore the cultural distinctions in emotional expression and coping. Longitudinal studies should examine the mediating

role of factors like social support or coping styles and consider moderators such as gender or field of study.

Furthermore, studies should focus on specific academic decisions like career planning to determine if the impact of emotional regulation varies across contexts. Universities should create supportive environments, such as accessible counseling services. Finally, research should investigate technology-based interventions and EMA techniques. Policy makers should consider funding programs which promote emotional regulation. By addressing these areas, we can significantly contribute to the development of well-rounded individuals prepared for future challenges.

References:

- Abu El-Ela, L. (2013). *Concepts and Visions in Educational Administration and Leadership between Authenticity and Modernity* (1st ed.). Al Manhal, Jordan.
- Ahmed, S. P., Bittencourt-Hewitt, A., & Sebastian, C. L. (2015). Neurocognitive bases of emotional regulation development in adolescence. *Developmental Cognitive Neuroscience*, 15, 11-25.
- Al Muftah, F. (2024). Decision-making methods during crises: A field study on a sample of administrative leaders at King Saud University in the Kingdom of Saudi Arabia. *Arab Journal of Management*, 24, 35-54.
- Al-Dosari, F. (2020). Habits of mind and their relationship to decision-making ability among female students at the college of education at Princess Nourah University (in Arabic). *Journal of Taiz University-Educational Sciences and Humanities*, 4(9), 45-71.
- Al-Haretheyyah, A. S., Al-Harthi, I. S., & Imam, M. M. (2023). Effect of Emotion Regulation Strategies on Emotions and Rational Decision-Making among Female Teachers in the First Cycle Schools in the Sultanate of Oman. *Journal of Educational Sciences – Qatar University*, 21(21).
- Al-Harithi, Nourah Dakhil Abdullah Ali. (2021). Strategies for regulating emotions cognitively and their relationship to academic resilience among female students at Taif University. *Scientific Journal of the Faculty of Education*, Assiut University, 1(27), 241-311.
- Al-Hawari, Maryam Saleh. (2012). The relationship of emotional intelligence to decision-making among students at Mu'tah University, unpublished master's thesis, College of Education, Mu'tah University, Jordan.

- Al-Tammam, Abdullah bin Ali. (2020). The extent to which students at the Islamic University of Medina practice decision-making skills and its relationship to organizational citizenship behavior from their point of view. *Journal of Scientific Research, Girls College of Arts and Sciences*, Ain Shams University, 20(9), 61-118.
- Bassiouni, Suzan Sadaqa. (2018). Emotional regulation strategies and their relationship to problem-solving ability among gifted female students in the city of Jeddah. *King Abdulaziz University Magazine of Arts and Humanities*, 27(4), 51-98.
- Beling, C., & Wild, G. (2024). The association between emotional intelligence and decision-making for pilots. *Journal of Air Transport Management*, 114, 1-20.
- Berking, M., Whitley, B., Berking, M., & Whitley, B. (2014). The adaptive coping with emotions model (ACE model). *Affect regulation training: a practitioners' manual*, 19-29.
- Bullemor-Day, P. (2015). Emotional regulation, attention and mindfulness in adolescents with social, emotional and behavioral difficulties (Doctoral dissertation, Royal Holloway, University of London).
- Burrus, B., Leeks, K. D., Sipe, T. A., Dolina, S., Soler, R., Elder, R., ... & Achrekar, A. (2012). Person-to-person interventions targeted to parents and other caregivers to improve adolescent health: A community guide systematic review. *American Journal of Preventive Medicine*, 42, 316-326.
- Dias, P. C., & Cadime, I. (2017). Protective factors and resilience in adolescents: The mediating role of self-regulation. *Psicologia educativa*, 23(1), 37-43.
- Eliwa, Siham Ali Abdel Ghaffar. (2018). Emotional regulation strategies and their relationship to some psychological disorders among gifted adolescents. *Journal of the College of Education in Benha*, 116(4), 1-50.
- Francesconi, M., Flouri, E., & Harrison, A. (2022). Decision-making difficulties mediate the association between poor emotional regulation and eating disorder symptoms in adolescence. *Psychological Medicine*, 1-10.
- Garnefski, N., & Kraaij, V. (2007). The Cognitive Emotional Regulation Questionnaire. *European Journal of Psychological Assessment*, 23(3), 141-149.
- Gross, J. J. (2002). Emotional regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39(3), 281-291.

- Gross, J. (2015). Emotional regulation: status and future prospects. *Psychological Inquiry*, 26, 1-26.
- Gross, J. J., & Thompson, R. A., (2007). Emotional regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotional regulation*. New York, NY: Guilford Press.
- Ho Kuen, Y. (2016). The Effect of Issue-enquiry Teaching on the Development of decision-making skills of secondary school students on socio-scientific issues. unpublished doctoral dissertation, The Chinese University of Hong Kong.
- Johnson, C. E. (2019). *Meeting the Ethical Challenges of Leadership: Casting Light or Shadow*. Sage Publications.
- Khasawneh, Amna Hikmat Ahmed. (2020). Emotional regulation and its relationship to positive thinking among Yarmouk University students, unpublished master's thesis, College of Education, Yarmouk University.
- Khater, Ahmed Mustafa. (2001). *Management in Social Institutions*. University Library for Publishing and Distribution, Alexandria, Egypt.
- Khattab, Karima Sayed. (2012). The relationship between demographic determinants, menstrual cycle symptoms, and decision-making ability among university girls. *Journal of Psychological Studies*, 22(2), 303-330.
- Kobylińska, D., & Kusev, P. (2019). Flexible emotional regulation: How situational demands and individual differences influence the effectiveness of regulatory strategies. *Frontiers in Psychology*, 10, 7.
- Ladis, I., Toner, E. R., Daros, A. R., Daniel, K. E., Boukhechba, M., Chow, P. I., ... & Ford, B. Q. (2023). Assessing Emotion Polyregulation in Daily Life: Who Uses It, When Is It Used, and How Effective Is It? *Affective Science*, 4(2), 248-259.
- Lerner, J. S., Li, Y., Valdesolo, P., & Kassam, K. S. (2015). Emotion and decision making. *Annual review of psychology*, 66, 799-823.
- Liu, B., Yang, T., & Xie, W. (2022). Emotional Regulation Self-Efficacy Influences Moral Decision Making: A Non-Cooperative Game Study of the New Generation of Employees. *International Journal of Environmental Research and Public Health*, 19(23), 16360.
- Mahmoud, Hanan Hussein. (2016). Emotional regulation and metacognitive beliefs and their relationship to test anxiety among a sample of female university students, *Journal of Educational Sciences*, Egypt, 24(4), 69-117.

- Márquez-Cervantes, M. C., & Gaeta-González, M. L. (2018). Emotional Competencies and Responsible Decision Making in Pre-Adolescents with the Support from Teachers, Fathers, and Mothers: A Comparative Study in 4th to 6th-Grade Students of Primary Education in Spain. *Revista Electrónica Educare*, 22(1), 176-200.
- Martin, L. N., & Delgado, M. R. (2011). The influence of emotional regulation on decision-making under risk. *Journal of Cognitive Neuroscience*, 23(9), 2569-2581.
- Mitchell, D. G. (2011). The nexus between decision making and emotional regulation: a review of convergent neurocognitive substrates. *Behavioural Brain Research*, 217(1), 215-231.
- Modecki, K. L., Zimmer-Gembeck, M. J., & Guerra, N. (2017). Emotional regulation, coping, and decision making: Three linked skills for preventing externalizing problems in adolescence. *Child Development*, 88(2), 417-426.
- Morawetz, C., Mohr, P. N., Heekeren, H. R., & Bode, S. (2019). The effect of emotional regulation on risk-taking and decision-related activity in prefrontal cortex. *Social Cognitive and Affective Neuroscience*, 14(10), 1109-1118.
- Ndawo, G. (2021). Facilitation of emotional intelligence for the purpose of decision-making and problem-solving among nursing students in an authentic learning environment: A qualitative study. *International Journal of Africa Nursing Sciences*, 15, 1-8.
- Özdeş, A. (2020). Aging and Decision-Making Processes: The Role of Emotional Regulation. *Psikiyatri Guncel Yaklasimlar*, 12(3), 382-395.
- Perach, R., Rusted, J., Harris, P. R., Miles, E., & Determined Team. (2021). Emotional regulation and decision-making in persons with dementia: a scoping review. *Dementia*, 20(5), 1832-1854.
- Pishghadam, R., & Abbasnejad, H. (2017). Introducing emotioncy as an invisible force controlling causal decisions: A case of attribution theory. *Polish Psychological Bulletin*, (1).
- Santos, A., Wang, W., & Lewis, J. (2018). Emotional intelligence and career decision-making difficulties: The mediating role of career decision self-efficacy. *Journal of Vocational Behavior*, 107, 295-309.
- Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and

- assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and psychological measurement*, 69(3), 493-525.
- Snow, N. L., Ward, R. M., Becker, S. P., & Raval, V. V. (2013). Measurement invariance of the difficulties in emotional regulation scale in India and the United States. *Journal of Educational and Developmental Psychology*, 3(1), 147.
- So, J., Achar, C., Han, D., Agrawal, N., Duhachek, A., & Maheswaran, D. (2015). The psychology of appraisal: Specific emotions and decision-making. *Journal of Consumer Psychology*, 25(3), 359-371.
- Yaqoub, Haider Mazhar. (2011). Emotional regulation of outstanding students in Diyala Governorate. Diyala University. Iraq, *Eighth Arab Scientific Conference for the Care of the Gifted and Talented*, 2, 451-467.
- Zahran, Hamed Abdel Salam. (2005). *Mental Health and Psychotherapy*, 3rd edition, World of Books for Publishing and Distribution, Cairo.