



Role of Psychological Resilience in Predicting Emotional Regulation among Students of King Faisal University in Al-Ahsa Governorate

Abdulaziz Mohammed Alismail¹, Mazen Omar Almulla²

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ABSTRACT

Purpose: This study aimed to determine the level of psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa, and to reveal the relationship between them and the differences in both according to the variables of gender, academic study and specialization. **Method:** The study used the descriptive, predictive approach; the sample was selected by a simple random method. The study sample consisted of 380 male and female students at King Faisal University. The study used the Psychological Resilience and Emotional Regulation Scales.

Findings: The results showed a high level of psychological resilience and emotional regulation among students and a positive relationship between psychological resilience and emotional regulation. The results showed differences in psychological resilience due to gender, specialization, and academic study year, while there were no differences in emotional regulation due to these variables. The results also showed an apparent effect of psychological resilience on emotional regulation. **Conclusions and Recommendations:** The study implies educating students on how to enhance psychological resilience and increase their emotional regulation. The study recommends to design counseling programs to enhance psychological resilience and emotional regulation among university students and conduct a study on the relationship between psychological resilience and emotional regulation at other universities.

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¹ Corresponding Author: King Faisal University, Saudi Arabia,
e-mail: amaalismail@kfu.edu.sa, ORCID: <https://orcid.org/0009-0005-5972-3320>

² King Faisal University, Saudi Arabia,
e-mail: moalmulla@kfu.edu.sa, ORCID: <https://orcid.org/0009-0009-1952-3083>

Introduction

In an educational environment, psychological resilience is the students' ability to deal with difficult situations, challenges, and emotional pressures faced during studies. The university life is one of the critical stages in students' lives, when they undergo continuous difficulties. The reactions to those difficult situations and events are characterized by exaggeration, when students make negative interpretations of these situations, in addition to emotional reactions (Hindawi, 2023). Psychological resilience is closely related to emotional regulation, as it enables individual to face and adapt to events and control emotions calmly, improving students' psychological health and academic performance. It enables them to adapt to university life and face challenges. Researchers have defined *emotional regulation* as the healthy control of thoughts, feelings, and behaviors, analyzing emotions and changing negative thoughts into positive ones, promoting positive behaviors, and dealing with psychological stress to improve mental health and relationships (Al-Asimi & Ali, 2018).

Individuals with high psychological resilience have the necessary qualities and skills to adapt to challenges and difficulties. These qualities include high self-confidence, emotional balance, the ability to learn and work in a team, creativity, and the ability to form positive relationships. This has given rise to positive psychology which reflects the individual's ability to adapt to others psychologically and his constant pursuit of positive adaptation based on his abilities in facing life's challenges, difficulties, which contributes to enhancing the mental health of the individual and improving his quality of life.

Theoretical Framework and Review of Literature

• *Psychological Resilience*

Newman (2002) defines psychological resilience as the process of coping well and facing positive adversity to difficulties, traumas, threats, or various psychological pressures such as family problems, serious health problems, work pressures, or financial problems. Hindawi (2023) points out psychological resilience refers to a positive term for life and mental health, as it means the individual's ability to psychologically adapt to adverse situations and the individual's constant pursuit of what is best for him to achieve. It is a kind of positive adaptation depending on an individual's abilities in the face of threats and difficulties. Al-Qalali (2016) considers psychological resilience as an essential feature in individuals' psychological and social development. It helps form their personality and is considered a primary property that manifests in emotional balance. Psychological resilience also comes from two major sources: the emotion-regulation approach, and the stress and coping approach. Each approach yielded important insights but is limited by (a) a lack of conceptual clarity and (b) a lack of integration of the two approaches (Troy et al., 2023).

Psychological resilience can be understood by explanatory theories linked with Freudian psychoanalytic theory and Eric Erickson's theory of ego and personality. Freudian psychoanalytic theory sees personality as consisting of three central systems: Id, Ego, and Superego, with all three systems interacting closely despite their autonomy in function. Id is the original system of personality, which consists of everything inherited

and present in the individual from birth, and continually seeks to satisfy instinctive needs based on the principle of pleasure. The ego is considered as is the executive director of the personality and acts to mediate between the cherished demands of the individual and the demands of the external environment, and with the help of the superego, transforms the strong desires into weak desires accepted by the ego, using sublimation and reverse formation. Superego encompasses one's ideals and represents the supreme side of life, helping the ego curb its desires, especially those related to gender and aggression (Shennawy, 2007). However, the school of psychoanalysis believes that the pressures suffered by the individual are an expression of a conflict between conflicts and desires within an individual or with the external environment when instinctive tendencies collide with the prohibition of the social environment or psychological control represented by (superego) lead to the emergence of defensive mechanisms (Nawaisa, 2013).

The Eric Erickson theory, on the other hand, sees personality as a developing entity continually dealing with various stages of "life crises" in the growth of an individual. Each stage of growth has its requirements and conflicts that need appropriate adaptive solutions and psychological resilience to adapt to reality, and success or failure in this adaptation affects growth in these stages. Much of Eriksson's work is seen as a description of the social and historical forces that affect the strength, resilience or weakness of the ego (Badsey, 2019).

- **Emotional Regulation**

Mihic and Novak (2018) define Emotional Regulation as the ability to make successful internal adjustments to emotional arousal with the intention of good social adaptation and harmonious performance with others. Perry et al. (2020) define it as biological and behavioral processes that help us control emotional experiences and deal with them effectively to achieve goals. It is an essential part of emotional competence. The university has ample opportunities to enhance the regulation of emotions in students and qualify them with the skills to learn and succeed, as participation in university activities helps in acquiring positive attitudes and dealing with feelings correctly and effectively, and this helps to improve psychological and social life, academic achievement and develop the individual's ability to make decisions.

Emotional regulation can be best understood by the Gross model (Gross, 1998), widely recognized as one of the most commonly used models for interpreting the dynamics of emotional regulation in individuals. The Gross model suggests that the ability to regulate emotions is demonstrated through an individual's capacity to re-evaluate the emotional situation. This re-evaluation is reflected in the individual's resulting behavior, which should provide a positive emotional response commensurate with the situation causing the emotion.

Several previous studies have emphasized the importance of the concepts of psychological resilience and emotional regulation among students. For instance, Al-Asimi and Ali (2018) showed a statistically significant effect of psychological resilience and gender on emotional regulation in favor of males with high psychological resilience and a statistically significant effect of both psychological resilience and gender on emotional regulation. Baran et al. (2019) indicated that people with high psychological resilience feel

more positive trends and their self-confidence is high. In addition, a positive relationship was found existing between psychological resilience and emotional regulation. In specific contexts, Ismail's study (2017) found low levels of psychological resilience among students of the College of Education, while Droubi's study (2022) showed high psychological resilience among students at the Faculty of Education, University of Damascus. However, no statistically significant differences were found between male and female students' scores on the psychological resilience scale.

Similarly, Al-Wafi and Hamad (2022) found no statistically significant differences in psychological resilience scores based on gender or academic specialization. Al-Khidr (2022) though detected a high level of psychological resilience among the sample of the study, with statistically significant differences observed in psychological resilience based on academic year, favoring first-year students. However, there were no statistically significant differences observed in psychological resilience based on gender or academic specialization. In another context, Al-Sabawi and Khader's (2022) showed that students at the University of Mosul exhibited a high level of psychological resilience. They found no significant differences in emotional repression or psychological resilience based on academic specialization, academic year, or gender. The study of Khasawneh (2020) showed that students' emotional regulation level came at an average evaluation level. However, the results indicated no difference in the level of emotional regulation and the level of positive thinking according to the different variables of gender, specialization, and school year.

The aforementioned studies have made it evident that psychological resilience and emotional regulation are crucial factors for university students. While psychological resilience enhances both psychological and social compatibility, and helps students cope with the challenges and difficulties they may face during their university studies, emotional regulation is important for mental health and academic success, as it helps students their emotions effectively. However, despite a very good coverage of both theoretical and empirical aspects, these studies have still shown constraints towards role of mental health towards achievement of positive academic results. A need was therefore felt to examine the psychological aspects of university students to determine what leads to enhance their mental health and achieve positive academic results. This study thus contributes to the domain by making a more focused study to determine the relationship between university students' psychological resilience and emotional regulation.

In order to clarify the problem statement of this study in the given context, following questions were formulated:

1. What is the level of psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate?
2. Is there a correlation between psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate?
3. Are there statistically significant differences in psychological resilience and emotional regulation due to the variables (gender, academic specialization, and university year) among students of King Faisal University in Al-Ahsa Governorate?
4. Does psychological resilience contribute to predicting emotional regulation among students of King Faisal University in Al-Ahsa Governorate?

Research Methodology

- *Research design*

The current study used the descriptive approach (correlational, and predictive) for its suitability to the nature of the study and its objectives, in order to investigate a large number of the study population, provide an accurate description of the studied phenomenon, and to know the level of relationship between psychological resilience and emotional regulation, and to identify differences in light of the study variables, which were: gender, academic specialization, university year, and to predict emotional regulation through psychological resilience.

- *Sampling and population*

The study population consisted of all regular students at King Faisal University in Al-Ahsa Governorate during the academic year (2023) for the bachelor's degree in scientific disciplines and theoretical disciplines, numbering a total of (32077), according to the electronic portal of King Faisal University, shown in [Table 1](#):

Table 1

Distribution of study population by gender

Specialization	Total	Ratio
Male	12704	40%
Female	19373	60%
Total number	32077	100%

The sample was selected in a simple random way, as the number of members of the primary study sample, which was subject to application, reached (380) students enrolled in the bachelor's degree at King Faisal University in Al-Ahsa Governorate for the third semester of the academic year (2023), with (218) male and (162) female students. The members of the study sample are characterized by several characteristics, which are shown in [Table 2](#):

Table 2

Distribution of study sample according to their demographic characteristics

Variables	Categories	Duplicate	Percentage
Gender	Male	218	57.4
	Female	162	42.6
Specialization	Scientific	93	24.5
	Theoretical	287	75.5
Academic year	First Year	186	48.9
	Second Year	50	13.2
	Third Year	64	16.8
	Fourth Year	80	21.1
	Total	380	100.0

- **Research Instrument and procedure:**

To achieve the objectives of the study and answer questions, two scales were used: psychological resilience scale and emotional regulation scale. The psychological resilience scale was developed by Sing & Nan Yu and first codified in the Saudi environment by [Al-Mohwi \(2021\)](#). The scale in its final form consisted of (25) statements distributed on four dimensions, namely hardness statements from (1-7), optimism statements from (8-14), multiple sources statements (15-20), and purpose or goal statements (from 21-25). The the emotional regulation scale was first standardized in the Saudi environment by [Al-Salami \(2022\)](#), the scale in its final form consisted of (32) phrases distributed over five dimensions, namely; emotional awareness statements (1-8), emotional control statements (9-14), cognitive organization statements (15-21), emotional suppression statements (22-27), and emotional infection statements (27-32). The Likert five-point scale was used to rate the responses on the scale, and the scores ranged from (1) to (5) according to the choice: (Always - grade 5), (Often - grade 4), (Sometimes - grade 3), (Slightly - grade 2), (Never - grade 1), and reverse in the case of negative statements (4-10-12-13-14-15-17-22-24-25-26-28-30-31-32).

The research procedures to achieve the objectives of the current study can be summarized as follows:

1. Theoretical and empirical studies related to the variables of the study were searched and analyzed.
2. A study sample was defined on which the study standards could be applied.
3. Appropriate study scales were chosen, that were standardized in the Saudi environment (e.g., psychological resilience scale and emotional regulation scale).
4. Scientific research ethics approval was obtained from the King Faisal University.
5. The study tools were applied to an exploratory sample consisting of (30) students, to verify the psychometric properties of the study tools.
6. The researchers adopted the electronic application of the study standards, and they were distributed to the study sample via an electronic link.
7. The metrics were sorted to determine the extent to which they met the required data, verifying their validity for emptying, and excluding invalid ones.
8. The scales were corrected and grades were extracted.

Data Analysis

Several statistical methods were used to answer the study questions, as follows:

1. Pearson's correlation coefficient to calculate the validity of the internal consistency of the study tool, as well as to identify the relationship between psychological resilience and emotional regulation.
2. Cronbach's alpha coefficient to calculate the reliability coefficient of the different dimensions of the study instrument.
3. One Sample T-Test (Independent Sample T-Test) was used to identify psychological resilience and emotional regulation levels.
4. One Way ANOVA analysis was used to identify differences in psychological resilience and emotional regulation for variable of school year.
5. Multiple regression analysis was used to identify how psychological resilience predicts emotional regulation in the study sample.

Results and Discussion

- **Psychometric properties of the psychological resilience scale:**

To verify the psychometric properties of the scale, the researchers verified the apparent truthfulness (interrater validity), internal consistency, and stability as follows:

A- Face Validity:

Right at the outset, to verify the apparent truthfulness, the psychological resilience scale was presented in its initial form to a group of specialists in the field of psychology at Um Al-Qura University to express their opinions and observations on the extent to which the items belong to each dimension, the appropriateness of its linguistic formulation, and what they see adding or modifying it.

B- Internal Consistency

The validity of the internal consistency of the psychological resilience scale was confirmed using the Pearson correlation coefficient by applying it to a pilot sample of (30) students, where the correlation coefficient between the score of each statement of the scale was calculated with the total degree of the dimension to which the phrase belongs, as shown in the [Table 3](#).

Table 3

Pearson's correlation coefficients for statements and dimensions of psychological resilience scale (n = 30)

Hardness		Optimism		Multiplicity of sources		Purpose or objective	
M	Correlation coefficient	M	Correlation coefficient	M	Correlation coefficient	M	Correlation coefficient
1	0.561**	8	0.638**	15	0.761**	21	0.718**
2	0.629**	9	0.651**	16	0.502**	22	0.593**
3	0.669**	10	0.616**	17	0.613**	23	0.727**
4	0.643**	11	0.611**	18	0.659**	24	0.678**
5	0.633**	12	0.696**	19	0.702**	25	0.744**
6	0.607**	13	0.587**	20	0.691**	-	-
7	0.587**	14	0.597**	-	-	-	-
0.892**		0.896**		0.865**		0.856**	

** p at 0.01

[Table 3](#) shows that all the correlation coefficients of phrases and dimensions function at the level of (0.01), where the values of the correlation coefficients for dimensions ranged between (0.856 and 0.896), and this gives an indication of the high internal consistency coefficients and also indicates high and sufficient truthfulness indicators that can be trusted for employing as an investigating tool of the current study.

C- Reliability of the psychological resilience scale:

Next, the reliability of the psychological resilience scale was measured using the Cronbach alpha coefficient. [Table 4](#) shows the stability coefficient of the scale dimensions:

Table 4

Cronbach alpha coefficient measuring the stability of the psychological resilience scale (n = 30)

M	Dimensions	Number of ferries	Coefficient of stability
1	Hardness	7	0.818
2	Optimism	7	0.769
3	Multiplicity of sources	6	0.779
4	Purpose or objective	5	0.794
	Total	25	0.917

Table 4 shows that the study scale has statistically acceptable stability, as the value of the total reliability coefficient (alpha) was (0.917), and the stability coefficients of the study tool ranged between (0.769 and 0.818), which can be trusted in the application of the current study tool.

• *Psychometric characteristics of the emotional regulation scale*

To verify the psychometric properties of the scale, the apparent truthfulness (interrater validity), internal consistency, and reliability verified.

A- *Face Validity:*

To verify the validity of the scale, the emotional regulation scale was presented in its initial form to (13) interrater specialized in education, psychology, measurement, and evaluation, who were faculty members in Saudi universities, to determine the extent to which the phrases belong to the dimensions and represent them to students. The appropriateness of the phrase in terms of the integrity of the linguistic formulation, its suitability for the study sample, and the percentages of agreement of the interrater on the emotional regulation scale in its initial form were (100%) on all phrases.

B- *internal consistency:*

The validity of the internal consistency of the emotional regulation scale was confirmed using the Pearson correlation coefficient by applying it to a pilot sample of 30 students, where the correlation coefficient between the degree of each statement of the scale was calculated with the total degree of the dimension to which the phrase belongs, as shown in Table 5.

Table 5

Pearson's correlation coefficients for the statements and dimensions of emotional regulation scale (n = 30)

M	Emotional awareness	Emotional control		Cognitive organization		Emotional suppression		Emotional infection	
	Correlation coefficient	M	Correlation coefficient	M	Correlation coefficient	M	Correlation coefficient	M	Correlation coefficient
1	0.671**	9	0.558**	15	0.522**	22	0.535**	28	0.698**
2	0.679**	10	0.754**	16	0.638**	23	0.562**	29	0.595**
3	0.896**	11	0.645**	17	0.529**	24	0.674**	30	0.704**
4	0.537**	12	0.635**	18	0.587**	25	0.684**	31	0.724**
5	0.644**	13	0.709**	19	0.619**	26	0.602**	32	0.647**
6	0.506**	14	0.676**	20	0.737**	27	0.553**	-	-
7	0.690**	-	-	21	0.711**	-	-	-	-
8	0.630**	-	-	-	-	-	-	-	-
	0.832**		0.836**		0.812**		0.828**		0.771**

** p at 0.01

It is clear from Table 5 that all the correlation coefficients of the phrases and dimensions of the emotional regulation scale were a function at the level of (0.01), where the values of the correlation coefficients for the dimensions ranged between (0.771 and 0.836), and this gives an indication of the high internal consistency coefficients, and also indicates high and sufficient credibility indicators that can be trusted in the application of the current study tool.

C- Reliability of the emotional regulation scale:

Finally, the reliability of the emotional regulation scale was measured using the Cronbach alpha reliability coefficient. Table 6 shows the reliability coefficient of the scale dimensions:

Table 6

Cronbach alpha coefficient to measure the reliability of the psychological resilience scale (n = 30)

M	Dimensions	Number of ferries	Coefficient of stability
1	Emotional awareness	8	0.769
2	Emotional control	6	0.702
3	Cognitive organization	7	0.733
4	Emotional suppression	6	0.749
5	Emotional infection	5	0.710
	Total	32	0.907

Table 6 shows that the emotional regulation scale has a statistically acceptable reliability, as the value of the total reliability coefficient (alpha) is seen 0.907, and the reliability coefficients of the study tool range between 0.702 and 0.769, which suggests that the application of the current study tool can be trusted.

These results have made several things evident pertaining to the research questions of the study. The following account presents and analyzes the results of the field study and answers of the participants to the research questions:

1. Research question 1: What is the level of psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate?

To identify the level of psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate, the (T) test was used for one sample, as shown in Table 7:

Table 7

Level of psychological resilience among students of King Faisal University in Al-Ahsa Governorate

Dimensions	N =380	Hypothetical average	Arithmetic mean	Standard deviation	Value of t	Significance level
Hardness	380	21.0	27.56	4.49	23.255	0.001
Optimism	380	21.0	25.97	3.54	17.463	0.001
Multiplicity of sources	380	18.0	25.35	4.35	32.897	0.001
Purpose or objective	380	15.0	20.83	4.18	27.193	0.001
Total Grade	380	75.0	99.71	11.21	27.969	0.001

It is clear from [Table 7](#) that the level of psychological resilience among students of King Faisal University in Al-Ahsa Governorate came with a high degree with a general arithmetic average of (99.71) compared to (75.0) as a hypothetical average, where it comes after hardness in first place with an arithmetic mean (27.56) and a standard deviation (4.49). This is followed by optimism with an arithmetic mean (25.97) and a standard deviation (3.54), and in third place comes after the multiplicity of sources with an arithmetic mean (25.35) and a standard deviation (4.35), and in the end comes after the purpose or goal as the least dimension of psychological resilience among students of King Faisal University in Al-Ahsa Governorate with an arithmetic mean (20.83) and a standard deviation of (4.18). In general, the results of the current study agreed with the result of the studies of [Al-Zuhairi \(2012\)](#), [Droubi \(2022\)](#), [Al-Sabawi and Khidr \(2022\)](#), [Ismail \(2017\)](#), and [Al-Khidr \(2022\)](#).

The researchers attribute this result to the positive educational environment at King Faisal University, as it contributes to developing psychological resilience and skills among students through psychological guidance and counseling programs and how professors interact with them, enabling students to adapt to challenges efficiently to achieve their goals.

[Table 8](#) shows the level of emotional regulation among students of King Faisal University in Al-Ahsa Governorate.

Table 8

Level of emotional regulation among students of King Faisal University in Al-Ahsa Governorate

Dimensions	Number	Hypothetical average	Arithmetic mean	Standard deviation	Value of t	Significance level
Emotional awareness	380	24.0	29.69	3.24	17.618	0.001
Emotional control	380	18.0	22.02	3.01	15.611	0.001
Cognitive organization	380	21	28.22	3.21	26.995	0.001
Emotional suppression	380	18.0	22.97	3.59	21.075	0.001
Emotional infection	380	15.0	21.17	3.12	23.067	0.001
Total	380	96.0	124.07	12.49	25.452	0.001

The results in [Table 8](#) show that the level of emotional regulation among students of King Faisal University in Al-Ahsa Governorate comes with a high degree with a general arithmetic average of (124.07) compared to (96.0) as a hypothetical average, where it comes after emotional awareness in first place with an arithmetic mean (29.69) and a standard deviation (3.24). This is followed by emotional regulation with an arithmetic mean (28.22) and a standard deviation (3.21), and in third place comes after emotional suppression with an arithmetic mean (22.97) and a standard deviation (3.59), followed by emotional control with an arithmetic mean (22.02) and a standard deviation (3.01). In the end comes emotional infection as the least dimension of emotional regulation among students of King Faisal University in Al-Ahsa Governorate with an arithmetic mean (21.17) and a standard deviation (3.12).

The result of the current study agrees with the result of study of [Ayyash and Faiq \(2016\)](#), which found that the students of the University of Baghdad have a good level of emotional regulation, while it differed with the result of the study of [Khasawneh \(2020\)](#), which found that the level of emotional regulation among Yarmouk University students came at an average level. Moreover, the result of the current study differed with the result of the study of [Al-Salami \(2022\)](#), which concluded that the level of emotional regulation among um Al-Qura University students came at an average level.

The researcher attributes this result to the effectiveness of teaching methods and psychological guidance and counseling programs at King Faisal University, which develop students' communication skills and self-awareness, which helps them understand and express their feelings healthily and control their emotions.

2. *Research question 2: Is there a correlation between psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate?*

To identify the relationship between psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate, Pearson's Correlation coefficient was used, as shown in [Table 9](#):

Table 9

Relationship between psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate.

M	Psychological resilience	Emotional regulation					Total Grade
		Emotional awareness	Emotional control	Cognitive organization	Emotional suppression	Emotional infection	
1	Hardness	0.581**	0.295**	0.481**	0.374**	0.279**	0.03**
2	Optimism	0.647**	0.417**	0.503**	0.468**	0.368**	0.598**
3	Multiplicity of sources	0.612**	0.372**	0.541**	0.428**	0.318**	0.566**
4	Purpose or objective	0.607**	0.426**	0.538**	0.437**	0.392**	0.596**
	Total degree of psychological rotation	0.696**	0.426**	0.583**	0.485**	0.383**	0.641**

** p at (0.01)

It is clear from [Table 9](#) that there is a statistically significant positive relationship at the 0.01 level between the total degree of psychological resilience and its sub-dimensions (hardness, optimism, multiplicity of sources, and purpose or goal) and the total degree of emotional regulation and its sub-dimensions (emotional awareness, emotional control, cognitive organization, emotional suppression, and emotional infection) among students at King Faisal University in Al-Ahsa Governorate. The Pearson's correlation coefficient values for the total degree of psychological resilience with the dimensions of emotional regulation were 0.696, 0.426, 0.583, 0.485, and 0.383, respectively.

The correlation coefficient between the total degree of psychological resilience and the total degree of emotional regulation is seen 0.641. These results suggest that an increase in

psychological resilience contributes to an increase in emotional regulation among students at King Faisal University in Al-Ahsa Governorate, and vice versa. These findings are consistent with those of Al-Asimi and Ali (2018), who found a statistically significant relationship between emotional regulation and psychological resilience among eleventh-grade students. They also align with the results of Baran et al. (2019), who found a positive relationship between psychological resilience and emotional regulation in students.

It is clearly evident that psychological resilience helps students adapt to the pressures and challenging situations they may face during their university studies, which develops their emotional regulation skills.

3. *Research question 3: Are there statistically significant differences in psychological resilience and emotional regulation due to the variables (gender, academic specialization, and academic year) among students of King Faisal University in Al-Ahsa Governorate?*

— Differences according to the gender variable:

To identify the differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate according to the gender variable, the t-test was used for two independent samples as shown in Table 10:

Table 10

T-test results for two independent samples of differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate between male and female.

Dimensions	Gender	Number	Arithmetic mean	Standard deviation	Value of t	Significance level
Hardness	Male	218	28.71	4.06	4.898	0.001
	Female	162	26.00	3.69		
Optimism	Male	218	26.85	3.24	3.633	0.001
	Female	162	24.79	3.74		
Multiplicity of sources	Male	218	26.15	4.09	4.244	0.001
	Female	162	24.27	4.48		
Purpose or objective	Male	218	21.22	4.28	2.137	0.033
	Female	162	20.30	4.00		
Total degree of psychological resilience	Male	218	102.93	9.22	4.335	0.001
	Female	162	95.36	10.62		
Emotional awareness	Male	218	30.66	4.42	3.524	0.001
	Female	162	28.39	5.0		
Emotional control	Male	218	22.21	4.24	0.880	0.372
	Female	162	21.75	4.70		
Cognitive organization	Male	218	28.48	4.60	1.186	0.249
	Female	162	27.86	4.64		
Emotional suppression	Male	218	23.28	4.88	1.498	0.135
	Female	162	22.56	4.17		
Emotional infection	Male	218	21.19	5.55	0.062	0.950
	Female	162	21.15	4.75		
The total degree of emotional regulation	Male	218	125.81	12.08	1.843	0.066
	Female	162	121.72	14.98		

It is clear from [Table 10](#) that there are statistically significant differences at the level of (0.05) in the total degree of psychological resilience and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the gender variable, in favor of the male participants with an arithmetic average of (28.71) for the dimension of hardiness, an arithmetic average of (26.85) for the dimension of optimism, an arithmetic average of (26.15) for the dimension of multiple sources, an arithmetic average of (21.22) for the dimension of the purpose or goal, and an arithmetic average of (102.93) for the total degree of psychological resilience. These previous results indicate that male participants have a higher level of psychological resilience. However, the result of the current study differs with the result of the study of [Al-Zuhairi \(2012\)](#), which found that there were no statistically significant differences in the level of psychological resilience among university students according to the gender variable. In addition, results of the current study showed a difference with the result of the study of [Al-Asimi and Ali \(2018\)](#), which found significant differences in the total degree of psychological resilience among eleventh grade students in Suwayda Governorate according to the gender variable.

Result of the current study differed with the result of the Al-Khader's study ([2022](#)), which found that there were no statistically significant differences in the level of psychological resilience among students of the Faculty of Education at Tartous University according to the gender variable, and the result of the current study differed with the result of the study of [Al-Sabawi and Khidr \(2022\)](#), which found no differences in the level of psychological resilience among students of the University of Mosul according to the gender variable. The results also show that there are statistically significant differences at the level of (0.01) in the emotional awareness of students of King Faisal University in Al-Ahsa Governorate according to the gender variable, in favor of the male study sample members with an arithmetic average of (30.66). The previous result indicates that the male members of the study sample have a higher level of emotional awareness than the female members, while the results in [Table 10](#) show that there are no statistically significant differences in the total degree of emotional regulation and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the type variable,

The result of the current study is consistent with the result of the study of [Ayyash and Faiq \(2016\)](#), which found that there were no differences in emotional regulation among students of the University of Baghdad according to the gender variable. The result of the current study is also in line with the result of the Khasawneh's study ([2020](#)), which found that there were no differences in the level of emotional regulation among Yarmouk University students according to the gender variable. However, the result of the current study differs with the result of the study of [Al-Asimi and Ali \(2018\)](#), which found that there were statistically significant differences in the total degree of emotional regulation among eleventh-grade students in Suwayda Governorate according to the gender variable in favor of males.

It is clearly evident that the presence of social and psychological factors limits the ability of females to develop psychological resilience and acquire emotional awareness. In contrast, males' possession of a higher level of resilience and emotional awareness is attributed to their ability to adapt to stress. In contrast, males and females are equal in their ability to regulate emotions, which indicates that they possess emotional management skills.

— Differences according to the variable of academic specialization

To identify the differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate according to the variable of academic specialization, the (T) test was used for two independent samples (Independent Sample T-Test), as shown in Table 11.

Table 11

Results of the t- test for two independent samples of differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate, according to the variable of academic specialization

Dimensions	Specialization	Number	Arithmetic mean	Standard deviation	Value of t	Significance level
Hardness	Scientific	93	26.39	3.86	2.373	0.018
	Theoretical	287	27.93	3.33		
Optimism	Scientific	93	24.74	4.18	2.474	0.014
	Theoretical	287	26.37	4.39		
Multiplicity of sources	Scientific	93	24.80	4.03	1.408	0.160
	Theoretical	287	25.53	4.19		
Purpose or objective	Scientific	93	20.19	4.14	1.698	0.090
	Theoretical	287	21.04	4.09		
Total degree of psychological resilience	Scientific	93	96.12	10.16	2.325	0.021
	Theoretical	287	100.87	9.77		
Emotional awareness	Scientific	93	29.53	4.48	0.286	0.775
	Theoretical	287	29.74	4.25		
Emotional control	Scientific	93	22.42	4.00	0.893	0.373
	Theoretical	287	21.89	4.02		
Cognitive organization	Scientific	93	28.51	5.07	0.616	0.538
	Theoretical	287	28.12	5.01		
Emotional suppression	Scientific	93	22.86	4.55	0.267	0.789
	Theoretical	287	23.01	4.62		
Emotional infection	Scientific	93	21.13	5.12	0.095	0.924
	Theoretical	287	21.19	5.04		
Total degree of emotional regulation	Scientific	93	124.44	12.58	0.193	0.847
	Theoretical	287	123.94	13.17		

Table 11 shows that there are statistically significant differences at the level of (0.05) in the total degree of psychological resilience and its sub-dimensions represented in (hardness, optimism) among students of King Faisal University in Al-Ahsa Governorate according to the variable of academic specialization, in favor of the members of the study sample who specialize in theory with an arithmetic average of (27.93) for the hardness dimension, an arithmetic average of (26.37) for the optimism dimension, and an arithmetic average of (100.87) for the total degree of psychological resilience. The results also show no statistically significant differences in the level of psychological resilience, about each of multiple sources, purpose, or goal, among students of King Faisal University in Al-Ahsa

Governorate according to the variable of academic specialization. Table 11 also shows that there are no statistically significant differences in the total degree of emotional regulation and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the variable of academic specialization.

The result of the current study resonate with the result of the study of Ayyash and Faiq (2016), which found that there were no differences in emotional regulation among students of the University of Baghdad according to the variable of specialization. The result is also in line with the result of the study of Khasawneh (2020), which found that there were no differences in the level of emotional regulation among students of Yarmouk University according to the variable of specialization. This result is attributed to the differences in psychological resilience between students of theoretical and scientific disciplines to the ability of theoretical disciplines to develop critical thinking, and the absence of differences in emotional regulation according to the difference in specialization indicates that students from different disciplines have similar abilities to regulate their emotions.

— Differences according to the variable of the academic year

To identify the differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate according to the variable of the academic year, a single variance analysis (One-way ANOVA) was used, as shown in Table 12.

Table 12

Results of the analysis of single variance for differences in psychological resilience and emotional regulation among students of King Faisal University in Al-Ahsa Governorate, according to the variable of the academic year

Dimensions	Groups	Sum of squares	Degrees of freedom	Average squares	F value	Significance level
Hardness Optimism	Between groups	436.402	3	145.467	4.969	0.002
	Inside groups	11007.438	376	29.275		
	Total	11443.839	379			
Multiplicity of sources	Between groups	275.101	3	91.700	3.026	0.030
	Inside groups	11395.581	376	30.307		
	Total	11670.682	379			
Purpose or objective Total degree of psychological resilience	Between groups	160.479	3	53.493	2.864	0.037
	Inside groups	7023.669	376	18.680		
	Total	7184.147	379			

Emotional awareness	Between groups	248.120	3	82.707	4.878	0.002
	Inside groups	6375.101	376	16.955		
	Total	6623.221	379			
Emotional control Cognitive organization	Between groups	4197.938	3	1399.313	4.864	0.002
	Inside groups	108169.051	376	287.684		
	Total	112366.989	379			
Emotional suppression	Between groups	95.867	3	31.956	0.805	0.492
	Inside groups	14923.491	376	39.690		
	Total	15019.358	379			
Emotional infection	Between groups	8.903	3	2.968	0.117	0.950
	Inside groups	9521.002	376	25.322		
	Total	9529.905	379			
Dimensions Hardness	Between groups	38.382	3	12.794	0.469	0.704
	Inside groups	10251.923	376	27.266		
	Total	10290.305	379			
Optimism Multiplicity of sources	Between groups	51.786	3	17.262	0.815	0.486
	Inside groups	7960.896	376	21.173		
	Total	8012.682	379			
Purpose or objective	Between groups	32.346	3	10.782	0.394	0.757
	Inside groups	10284.191	376	27.352		
	Total	10316.537	379			
Total degree of Emotional awareness	Between groups	467.047	3	155.682	0.335	0.800
	Inside groups	174646.308	376	464.485		
	Total	175113.355	379			

It is clear from Table 12 that there are statistically significant differences at the level of (0.05) in the total degree of psychological resilience and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the variable of the academic year. This is further supported by results of the Scheffe test for differences in psychological resilience according to the variable of the academic year, as presented in Table 13.

Table 13

Results of the Scheffe test for differences in psychological resilience according to the variable of the academic year (n =380)

Dimensions	Academic Year	n	Arithmetic mean	Standard deviation	First	Second	Third	Fourth
Hardness	First Year	186	28.37	5.03	-	2.7**	2.2**	
	Second Year	50	25.70	5.91	-2.7**	-		-2.3**
Optimism	Third Year	64	26.14	5.76	-2.2**	-		-1.8*
	Fourth Year	80	27.95	5.65	-	2.3**	1.8*	-
Multiplicity of sources	First Year	186	26.61	5.25	-	2.0*	1.9*	-
	Second Year	50	24.62	5.81	-2.0*	-		
Purpose or objective	Third Year	64	24.73	6.10	-1.9*	-		
	Fourth Year	80	26.31	5.39	-	-		
Total degree of psychological resilience	First Year	186	25.75	4.15	-	1.9**		
	Second Year	50	23.84	4.27	-1.9**	-		-1.8*
	Third Year	64	24.97	4.94	-	-		
Dimensions	Fourth Year	80	25.66	4.21	-	1.8*		
Hardness	First Year	186	21.46	3.75	-	1.8**	1.9**	-
	Second Year	50	19.64	4.40	-1.8**	-		-1.5*
Optimism	Third Year	64	19.59	4.81	-1.9**	-		-1.5*
	Fourth Year	80	21.11	4.15	-	1.5*	1.5*	-
Multiplicity of sources	First Year	186	102.19	15.82	-	8.4**	6.8**	-
	Second Year	50	93.80	18.11	-8.4**	-		-7.2**
Purpose or objective	Third Year	64	95.44	18.60	-6.8**	-		-5.6*
	Fourth Year	80	101.04	17.42	-	7.2*	5.6*	-

** p at (0.01)

* p at (0.05)

Table 13 shows the results of dimensional comparisons of the total degree of psychological resilience and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the variable of the academic year, where it is clear that these differences came between students in the first year and students in other years, in favor of students in the first year with an arithmetic average of (28.37) for the dimension of hardness, an arithmetic average of (26.61) for the dimension of optimism, an arithmetic average of (25.75) for the dimension of multiple sources, an arithmetic average of (21.46) for the dimension of purpose or goal, and an arithmetic average of (102.19) for the total degree of psychological resilience. Previous result indicates that students in the first university year have a higher level of psychological resilience compared to other years.

The result of the current study agrees with the result of the Droubi's study (2022), which found that there are statistically significant differences in the level of psychological resilience among a sample of students of the Faculty of Education at Damascus University according to the variable of the academic year in favor of the fifth year, and the result of the current study agreed with the result of the study of Al-Khidr (2022), which found statistically significant differences in the level of psychological resilience among students of the Faculty of Education at Tartous University according to the year variable in favor of the first year.

While the results in Table 13 reveal that there are no statistically significant differences in the total degree of emotional regulation and its sub-dimensions among students of King Faisal University in Al-Ahsa Governorate according to the variable of the academic year, where the value of the level of significance for the sub-dimensions (0.492, 0.950, 0.704, 0.468, 0.757), and for the total degree (0.800), all of which are values greater than (0.05), i.e. not statistically significant, and the previous result indicates the convergence of the level of emotional regulation among the members of the study sample at King Faisal University in King Faisal Governorate. The result of the current study agrees with the result of the study of Ayyash and Faiq (2016), which found that there were no differences in emotional regulation among students of the University of Baghdad according to the grade variable.

The researchers attribute first-year students' high level of psychological resilience to their enthusiasm and optimism toward university studies. In contrast, this level decreases with time due to increased academic pressure. While there were no differences in the emotional regulation according to the school year, which indicates the ability of students of all years to regulate their emotions, and this confirms the need to develop resilience and emotional regulation from the first year.

4. *Research question 4: Does psychological resilience contribute to predicting emotional regulation among students of King Faisal University in Al-Ahsa Governorate?*

To identify the extent to which psychological resilience contributes to predicting emotional regulation among students of King Faisal University in Al-Ahsa Governorate, multiple regression analysis was used as shown in Table 14.

Table 14

Multiple regression analysis of the contribution of psychological resilience in predicting emotional regulation among students of King Faisal University in Al-Ahsa Governorate.

Future variable (Psychological Resilience)	Dependent variable (Emotional Regulation)				
	Value B	Standard error	Beta values	Rate T	Morale level
Hard	44.818	5.100	?	8.788	0.001
Hardness	1.269	0.174	0.203	3.324	0.001
Optimism	1.258	0.247	0.325	5.090	0.001
Multiplicity of sources	0.752	0.307	0.152	2.446	0.015
Purpose or objective	1.559	0.315	0.303	4.950	0.001
Total degree of psychological resilience	0.800	0.049	0.641	16.246	0.001

f value = 73.083 Significance level = 0.001 Coefficient of determination = 0.432

Table 14 indicates that the increase or decrease in the level of psychological resilience among students of King Faisal University in Al-Ahsa Governorate affects significantly the level of their emotional regulation.

Conclusion

This study made evident that that students with a high level of psychological resilience can better adapt to difficult situations and can control and express their emotions positively. Students with a low level of psychological resilience, however, have difficulty coping with difficult situations and are less able to control and express their emotions positively. Four core research questions were discussed in this research on psychological resilience and emotional regulation by considering various ways these questions could be answered. The research approach was located within a conceptual space. It was aimed to explore the level of psychological resilience and emotional regulation among students of King Faisal University, to find out whether there is a correlation between psychological resilience and emotional regulation, and whether there are statistically significant differences in psychological resilience and emotional regulation due to the variables (gender, academic specialization, and university year) among students.

The study found that the level of psychological resilience among students of King Faisal University in Al-Ahsa Governorate came with a high degree; that there was a statistically significant positive relationship between psychological resilience and emotional regulation regarding the variables of the study. This study found a statistically significant difference in psychological resilience and emotional regulation on the gender variable, in favor of the male participants. This was made evident that the presence of social and psychological factors limits the ability of females to develop psychological resilience and acquire emotional awareness. The main reason for a higher level of resilience and emotional awareness among males is attributed to their ability to adapt to stress. Next, according to the variable of academic specialization, too, a statistically significant difference was seen in psychological resilience, in favor of those who specialize in theory subjects; however, no statistically significant differences were seen in the degree of emotional regulation in the variable of academic specialization. According to the variable of the academic year, finally, however, there were statistically significant differences in both psychological resilience and emotional regulations.

These results are attributed to the effectiveness of teaching methods and psychological guidance and counseling programs at King Faisal University. This developed students' communication skills and self-awareness, which helps them understand and express their feelings healthily and control their emotions. The first-year students' high level of psychological resilience is also attributed to their enthusiasm and optimism toward university studies.

In light of the research results, the study recommends the need to pay attention to providing a university environment that promotes healthy emotional regulation among university students, and that this environment be supportive of the students' psychological resilience. We also recommend the need to provide guidance programs that develop psychological resilience and emotional regulation strategies for students. In order to make the university environment a healthy learning environment that supports academic

success. It is also recommended to conduct a study on the relationship between psychological resilience and emotional regulation in other universities, and conduct a study on psychological resilience as a mediator in the relationship of psychological stress and emotional regulation among students of King Faisal University in Al-Ahsa Governorate.

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