## **Migration Letters**

Volume: 20, No: 6, pp. 1089-1102

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

# Thinking Patterns and their Impact on Coping with Psychological Stress among Jordanian Public University Students

Dr. Imen Khelil<sup>1</sup>, Dr.Zeyad Saleh Abdallah Altarawneh<sup>2</sup>, Dr. Mohamad Ahmad Saleem Khasawneh<sup>3</sup>

#### **Abstract**

The study aimed to identify the prevalent thinking patterns among Jordanian public university students and their impact on coping with psychological stress. The study relied on the descriptive correlational approach. The sample included 993 students from public Jordanian universities, for which a questionnaire was administered to them as an instrument for the study. The findings showed that thinking patterns are highly prevalent, and the level of psychological stress came to a low degree. The results also showed that there is an inverse correlation between thinking patterns and psychological stress among Jordanian public university students and that there is a statistically significant effect of thinking patterns in facing psychological stress.

**Keywords:** thinking patterns, psychological stress, students.

## 1. Introduction

Human thinking has been characterized by development since the formation of societies and its emergence, and it is increasing day after day, which requires developing the necessary thinking skills for individuals so that they become able to solve their current and future problems in socially acceptable ways. The current era is a period of human intelligence and excellence, which forms societies that are keen to develop individuals' thinking. Because the current era is characterized by the modern technological revolution and scientific progress, individuals must have multiple thinking styles to confront the problems and psychological pressures that individuals are exposed to (Al-Azzawi, 2020).

Modern lifestyles are a primary source of psychological pressure, as these pressures cause various forms of physiological, social, and psychological problems, which create various dangers in society due to the pressures that individuals suffer. It is worth noting that the effect of psychological pressures varies from one individual to another, and it also varies from person to person. The individual himself depends on the developmental stage, age, and mood state he is experiencing. Psychological pressures may affect the child, but we do not find the same effect on young people or the elderly (Al-Naimat & Al-Arabiyat, 2021).

## 1.1. Problem statement

<sup>&</sup>lt;sup>1</sup> Assistant Professor of Accounting, Prince Sultan University-Riyadh-KSA, ikhelil@psu.edu.sa

<sup>&</sup>lt;sup>2</sup> zeyad\_zst1979@yahoo.com

<sup>&</sup>lt;sup>3</sup> Assistant Professor, Special Education Department, King Khalid University, Saudi Arabia, mkhasawneh@kku.edu.sa, https://orcid.org/0000-0002-1390-3765

Psychological stress and the various negative effects they produce on all aspects of students' personality are among the topics that have a direct negative impact on students and their thinking patterns. Therefore, it has become necessary to search for thinking patterns that help to confront psychological pressures. Thinking patterns refer to students' perceptions and methods of analysis to reduce the psychological pressures they are exposed to. Those who are organized and creative can face psychological pressures efficiently and effectively, while students who have a chaotic thinking style are less able to face psychological pressures.

## 1.2. Questions of the study

The study attempted to answer the main question: "What are the prevailing patterns of thinking among students at Jordanian public universities and their impact on coping with psychological stress?"

The following sub-questions emerge from this question:

- 1. What are the prevailing patterns of thinking among students at Jordanian public universities?
- 2. What is the level of psychological stress among students at Jordanian public universities?
- 3. Is there a relationship between prevailing thinking patterns and psychological stress among students at Jordanian public universities?
- 4. What is the impact of prevailing thinking patterns among students at Jordanian public universities in facing psychological pressures?
- 1.3. Objectives of the study

The main objective of this study is to "identify the prevailing patterns of thinking among students at public Jordanian universities and their impact on coping with psychological pressures"

The following sub-objectives emerge:

- 1. Identifying the prevailing patterns of thinking among students at Jordanian public universities.
- 2. Determine the level of psychological stress among students at Jordanian public universities.
- 3. Detecting the relationship between prevailing thinking patterns and psychological stress among students at Jordanian public universities.
- 4. Detecting the impact of prevailing thinking patterns among students at Jordanian public universities in facing psychological pressures.
- 1.4. Significance of the study

This study enriches scientific research that addresses the topic of thinking patterns and psychological stress. It helps in identifying the patterns of thinking that are linked to the ability to cope with psychological pressures that may motivate students to develop them and pay attention to them, which reflects positively on the psychological state of students and their ability to overcome the psychological pressures to which they are exposed. There is a scarcity of research and studies that examine the impact of thinking patterns and psychological stress. The study contributes to identifying the relationship between prevailing patterns among students and coping with psychological pressures, and also explaining the impact of thinking patterns in coping with psychological pressures. The results provide a set of recommendations that educational institutions in general and universities, in particular, can benefit from to know the importance of thinking patterns to

1091 Thinking Patterns and their Impact on Coping with Psychological Stress among Jordanian Public University Students

confront psychological pressures, which leads to improving students' level of academic performance.

## 1.5. Study limitations

- 1. Thematic limits: The study was limited to addressing the topic of "thinking patterns and their impact on coping with psychological pressures."
- 2. Human limits: students of Jordanian public universities in the Hashemite Kingdom of Jordan.
- 3. Spatial limits: university students in the Hashemite Kingdom of Jordan.
- 4. Time limits: The study was applied during the year 2023.

## 2. Literature Review

## 2.1. Thinking Patterns

There have been several definitions that address thinking patterns, and the reason for this is the variation and complexity in thinking processes and the connection between thinking and the human mind. Eid (2022, p. 140) defined thinking patterns as "the methods or strategies that an individual uses while communicating with others and relies on them to confront difficult daily situations and find a solution to them, as each individual has his strategy." Ghalib (2020, p. 91), defined it as "the preferred ways and methods of individuals in employing their abilities, acquiring their knowledge, and organizing and expressing their ideas in a way that is compatible with the tasks and situations that confront them." Moreover, Al-Obaidi (2019, p. 471) defined thinking patterns as "the individual's preferred way of thinking when performing work, which is not an ability, but rather a choice to use the abilities and falls between personality and abilities (personality, thinking styles, abilities). Hamid (2019, p. 290) defined thinking patterns as "a set of processes and methods that distinguish individuals, and are considered evidence of the process by which the experiences experienced by individuals are received in their knowledge stock and then used in the process of adapting to the environment."

Different theories classify thinking patterns. Harrison & Bramson's theory was adopted, which classifies thinking into five dimensions: (Al-Shehri, 2017). First, synthetic thinking refers to an individual's ability to communicate to build original, new, diverse ideas that are different from what others do. The person with this thinking seeks to synthesize ideas and things through integration and integration. The person who has this thinking is characterized by being inclined to change and contemplation, they love debates and discussions, and they do not conform and have an integrative outlook. Second, idealistic thinking refers to thinking about the future and goals, and this is what makes the views on things broad, and focuses on setting high standards to reach what matters to him and benefits him socially and personally. Third, practical thinking refers to the individual's ability to verify what is wrong or right through the use of current direct personal experiences and address problems gradually. The person with this thinking is characterized by action and the search for quick solutions, with an interest in finding new methods of doing things based on what is It is available to him, and those who think are flexible, arrogant, and have a high degree of planning.

Fourth, analytical thinking refers to the individual's ability to pay attention to details to solve the problems facing him and is based on logical and systematic methods. People with this style make their decisions in solving problems based on planning and relying more on information. Finally, realistic thinking refers to the individual's ability to experiment observe, and focus on raw facts and data, as the reality of things is related to feeling or feeling them. People with this thinking are characterized by completing work accurately and consistently with the conviction that the work will be correct, and this

style of thinking has a relationship with analytical thinking, both of them are realistic in their tendency to use objectivity and accuracy, and they differ in the method of reasoning. The method of reasoning in thinking is analysis and deduction, while realistic thinking is induction.

Thinking patterns are characterized by a set of features (Thabet, 2018). Thinking styles express a preferred way of thinking and are not an ability. They are a set of methods and techniques that a person prefers over others when processing information and they are related to the nature of the situation to which the person is exposed. A person's use of several styles of thinking changes from time to time. They help in identifying people's cognitive and linguistic preferences and their level of flexibility in dealing with others and working. They are more stable and general than strategies for developing thinking.

## 2.2. Psychological stress

Mahmoud (2022, p. 360) defined psychological stress as "a condition that occurs when an individual faces an event that he realizes threatens his psychological and physical existence and is unsure of his ability to deal with these events." Ashkeeb (2022, p. 357) also defined psychological stress as "a state of emotional tension that arises from situations and events that cause shock in the lives of individuals." Belhadif and Bouzazoua (2021, p. 205) defined psychological stress as "the sum of the internal and external stressful sources to which the individual is exposed in his life, resulting in a weakening of his ability to produce an appropriate response to the situation. It is considered a result of the individual's interaction with the environment, as it arises when the individual assesses the situation as threatening and exceeding his resources., personality, and capabilities, and that he does not have an appropriate and effective direct response, then he experiences physiological changes, emotions, and changes in behavioural patterns that threaten his health." Moreover, Al-Shuwayat and Al-Sharaa (2021, p. 263) defined it as "a type of change due to confusion and lack of security, as well as an adjustment disorder as a result of social, academic, economic, family, and emotional problems that afflict the individual, and his reaction depends on his ability to tolerate the stressful situation."

Al-Akashi et al. (2021) listed different sources of psychological stress. Social stress arises through relationships between colleagues, friends, and neighbours, differences in orientations and inclinations, differences in values, generational conflict, differences in traditions, customs, and cultures, and differences in social classes. Personal stress arises from congenital problems in the body and may sometimes include death. Study stress arises from tests, educational curricula, school and university regulations, and punishments imposed on students. Family stress arises from family control and is usually experienced by adolescents and occurs as a result of the divorce between parents or the loss of one of them. Health stress arises due to physiological problems and diseases that affect individuals and prevent them from performing the work they are trying to do.

### 2.3. Previous studies

Atta (2023) identified the relationship between thinking patterns and the performance of quality work among faculty members at the University of Hail. The descriptive approach was used and the study sample consisted of (212) males and females. The questionnaire was relied upon as an instrument for collecting data. The results of the study showed that the levels of thinking were highly rated, except for realistic thinking, rated moderately, and the level of performance of quality work was rated high. The results also showed that there is a direct correlation between all thinking methods and the performance of quality work among faculty members, except for the realistic thinking method.

Fouda (2023) explored the relationship between psychological stress and behavioural problems. The comparative descriptive approach was used, and the study sample consisted of (37) mothers of hearing-impaired children and the questionnaire was relied

upon as a tool for collecting data. The results of the study showed that psychological pressures were high, and the level of behavioural problems was high, and the results also showed that there was a positive relationship.

Al-Badia (2022) investigated the relationship between psychological stress and mental health among teachers in Al Dhahirah Governorate in the Sultanate of Oman. The descriptive approach was used and the study sample consisted of (400) male and female teachers. The questionnaire was relied upon as an instrument for collecting data. The results of the study showed the level of psychological stress. Moderate, and the level of psychological health was high. The results also showed that there is a direct correlation between psychological stress and mental health among teachers and that mental health can be predicted through psychological stress among teachers.

Al-Shawashra and Ali (2022) explored the thinking styles that predict personality disorders among university students. The descriptive approach was used and the study sample consisted of (395) male and female students. The questionnaire was used as an instrument for collecting data. The results of the study showed that the levels of thinking styles were low. The level of personal disorders was moderate, and the results showed that there is a direct correlation between thinking styles and personality disorders among university students and that the most closely related thinking style is analytical thinking.

Hassan (2022) identified the relationship between thinking styles and self-stigma among parents of children with mental disabilities. The descriptive, correlational approach was used. The study sample consisted of (100) fathers and mothers, and the questionnaire was relied upon as a tool for collecting data. The results of the study showed that the levels of methods were low, and the level of self-stigma was high. The results showed that there is an inverse relationship between thinking styles and self-stigma.

Al-Anazi (2022) investigated the relationship between psychological stress and the quality of school life. The descriptive, correlational approach was used. The study sample consisted of (50) male and female students. The questionnaire was relied upon as a tool for collecting data. The results of the study showed that the level of psychological stress was low and that the level of quality of life was high, and the results showed that there is a statistically significant inverse correlation between psychological stress and its dimensions and the quality of school life among secondary school students.

Hu & Cheng (2019) predicted religious beliefs through the thinking styles of university students. The descriptive, correlational approach was used. The study sample consisted of (522) male and female students in universities in China. The questionnaire was relied upon as evidence for collecting data. The results showed that the students who have different thinking styles and can create creativity, and those who prefer a thinking style over other thinking styles are less religious, and those who tend to think scientifically are more in favour of standards and more knowledgeable and organized.

Busari (2018) explored the relationship between motivation, achievement, anxiety, and psychological stress as factors that predict academic boredom. The descriptive, correlational approach was used. The study sample consisted of (310) Nigerian university students. The questionnaire was relied upon as a tool for collecting data. The results of the study showed that there was a correlation between motivation, achievement, anxiety, and psychological stress as factors that predict academic boredom, and psychological stress was considered one of the most important factors that contribute to predicting academic boredom.

# 3. Methodology

The descriptive, correlational approach was used to achieve the objectives of the study. This approach is defined as "the study of the present and current conditions of

phenomena in terms of their characteristics, forms, relationships, and factors influencing them, and it includes forecasting processes for the future of the phenomena and events that it studies" (Al-Mahmoudi, 2019, p. 58).

## 3.1. Sampling

The study population consisted of all students at Jordanian public universities, and the study sample consisted of (993) male and female students, who were selected using the facilitated sampling method.

Table 1. Distribution of sample members according to gender and specialization

Variable	Category	Frequency	Percentage
Gender	Male	396	39.9
	Female	597	60.1
Specialization	Scientific	356	35.9
	Humanities	637	64.1

# 3.2. Instrument of the study

To measure the impact of thinking patterns on psychological stress among students at Jordanian public universities, and after reviewing many previous studies and Arab and foreign questionnaires related to the subject of the study, the study designed the questionnaire from three main parts. The first part was personal data, consisting of (gender, and specialization). The second part was the patterns of thinking, which consisted of (15) items distributed over three dimensions (executive, judicial, and hierarchical), and each dimension may consist of (5) items. The third part covered the psychological stress and consisted of (12) items.

To determine the criterion adopted in the study, the length of the cells in the five-point Likert scale was used as shown in the following table.

Table 2. The criterion adopted in the study

Level	Mean average	Level of application
1	1.80-1	very low
2	More than 2.60-1.80	Low
3	More than 3.40-2.60	Medium
4	More than 4.20-3.40	High
5	More than 5-4.20	Very high

#### 3.2.1. Validity and reliability

The questionnaire was presented in its initial form to a group of 11 experienced faculty members in Jordanian universities to determine the validity of the questionnaire in terms of content and the soundness of the wording of its paragraphs and their suitability, to ensure that the objectives of the study were covered. The opinions and comments were modified as necessary in light of the suggestions presented, thus finalizing the questionnaire.

Internal consistency validity is intended to find the association of each paragraph of the questionnaire with the dimension to which it belongs. The internal consistency of the "thinking patterns" part is presented in the following table.

Table 3. Internal consistency results in the "Thinking pattern"

The first executive this		The second judicial think		The third hierarchical t	
Т	Correlation coefficient	Т	Correlation coefficient	Т	Correlation coefficient
1	.793**	1	.875**	1	.769**
2	.831**	2	.863**	2	.721**
3	.768**	3	.897**	3	.730**
4	.714**	4	.824**	4	.775**
5	.822**	5	.873**	5	.802**

It is noticed from the table that the correlation coefficient for each item of the Thinking Pattern Questionnaire and the total score for the dimension to which it belongs have acceptable scores and are statistically significant at the significance level (0.01). Thus, the dimension is considered true to its purpose. The internal consistency of the "psychological stress" part is presented in the following table.

Table 4. Internal consistency results in "Psychological Stress"

Т	Correlation coefficient	Т	Correlation coefficient
1	.800**	7	.734**
2	.780**	8	.792**
3	.648**	9	.749**
4	.762**	10	.742**
5	.815**	11	.766**
6	.826**	12	.787**

The table above shows that the correlation coefficient for each item of the psychological stress axis and the total score of the axis to which it belongs has acceptable degrees and is statistically significant at the significance level (0.01). Thus, the dimension is considered true to its purpose.

The reliability of the study instrument was verified by using Cronbach's Alpha, as shown in the following table.

Table 5. Results of the Cronbach's alpha coefficient test for the study instrument

Dimension	No. of items	Cronbach's alpha coefficient
The first part: thinking patterns	15	.884
The first dimension: executive thinking	5	.811
The second dimension: judicial thinking	5	.872
The third dimension: hierarchical thinking	5	.880
The second part: Psychological Stress	12	.879

The results of the table indicate that the values of Cronbach's alpha coefficient were high for each dimension of "thinking styles" and the axis as a whole. The value of Cronbach's alpha coefficient in the "psychological pressures" axis was high, and this indicates that the study instrument has a high degree of reliability, and can be conducted.

## 3.3. Data analysis

The Statistical Package for the Social Sciences (SPSS) program was used to analyze the data collected from the study sample, and the following statistical treatments were used:

- 1. Descriptive statistics: frequencies, percentages, arithmetic means, and standard deviations.
- 2. 2. Pearson Correlation Coefficient.
- 3. 3. Cronbach's Alpha coefficient
- 4. Simple Linear Regression
- 5. Multiple linear regression

## 4. Results and Discussion

#### 4.1. Results of the first question

To answer this question, mean scores and standard deviations were used for the prevailing thinking patterns, arranged according to the degree of application.

Table 6. The mean scores and standard deviations for the prevailing thinking styles among students at Jordanian public universities

Dimension	Mean score	Standard deviation	Level
executive thinking	3.89	.741	High
judicial thinking	3.88	.736	High
hierarchical thinking	3.72	.786	High
Total	3.83	.718	High

It is clear from the table that the general mean score for the thinking patterns was (3.83) with a high degree of application. This indicates that thinking styles are highly prevalent among university students. Judicial thinking came first with a score of (3.89), and in second place the executive thinking, with a score of (3.88), and in third place was hierarchical thinking, with a score of (3.72). This result agrees with Atta (2023) and differs with Al-Shawashra and Ali (2022) and Hassan (2022).

This result can be explained by the fact that students care about the opinions and viewpoints of others to form ideas that contribute to the decision-making process. They are keen to organize and arrange their ideas to reach solutions that help solve their problems efficiently and effectively. Students also can identify good ideas to get rid of all problems and obstacles from within a group of heterogeneous ideas. Students seek to verify all the ideas that are presented to them that they do not believe in, and this helps them verify the validity and realism of those ideas. This result also reflects that the students have a good understanding of ways to address problems once and for all without being exposed to the risk of repeating them.

Table 6. The mean scores and standard deviations of executive thinking among students at Jordanian public universities

Item	Mean score	Standard deviation	Level
I take into account the opinions of others	3.98	.901	High

when making a decision			
I check which method to use before starting a task or project	3.95	.933	High
I understand how to solve a problem by following specific rules	3.86	.826	High
I prefer projects that have a clear structure, purpose, plan, and specificity	3.85	.981	High
I enjoy completing tasks that I can do according to instructions and guidelines	3.78	.932	High
Total	3.88	.736	High

It is clear from the table that the mean score of the executive thinking dimension was equal to (3.88 out of 5), and this means that the degree of executive thinking among students at Jordanian public universities was highly applied. The item that states "I take into account the opinions of others when making a decision" came in the first place, with a mean of (3.98) while the item that states, "I enjoy completing tasks that I can do according to instructions and guidelines," came in last place, with a mean of (3.78).

Table 7. The mean scores and standard deviations of judicial thinking prevailing among students at Jordanian public universities

Item	Mean score	Standard deviation	Level
I decide which idea to choose when faced with contradictory ideas	4.16	.822	High
I investigate other people's viewpoints that differ from my own	3.88	.921	High
I prefer assignments that enable me to evaluate other people's designs and ways of doing things	3.84	.883	High
I prefer projects that enable me to examine other people's different ideas and viewpoints	3.82	.977	High
I criticize other people's approaches to topics when discussing or writing down ideas	3.72	.975	High
Total	3.89	.741	High

It is clear from the table that the mean score of the judicial thinking dimension was equal to (3.89 out of 5), and this means that the degree of judicial thinking among students of Jordanian public universities was highly applied. The item that states, "I decide which idea to choose when I encounter contradictory ideas" came in first place, with a mean of (4.16) while the item that states, "I criticize others' methods of dealing with topics when discussing or writing some ideas," came in last place, with a mean of (3.72).

Table 8. The mean scores and standard deviations of hierarchical thinking prevailing among students at Jordanian public universities

Item	Mean score	Standard deviation	Level
I pay attention to how you will connect ideas when discussing or writing ideas	3.99	.954	High
I am well aware of the order in which	3.78	.942	High

several things need to be done			
I understand how task elements will relate to the overall task objective when undertaking a task	3.71	.968	High
I prioritize the things that need to be done before I start implementing them	3.58	.0411	High
I am well aware of the seriousness of the problems I address and in what order they are addressed	3.56	.0221	High
Total	3.72	.786	High

It is clear from the table that the mean score of the hierarchical thinking dimension was equal to (3.72 out of 5). This means that the degree of hierarchical thinking among students of Jordanian public universities was highly applicable. The item that states "I pay attention to the mechanism by which ideas will be linked together when discussing or writing ideas" came in first place, with a mean of (3.99) while the item that states, "I am well aware of the seriousness of the problems I deal with and in what order they are dealt with" came in last place, with a mean of (3.56).

# 4.2. Results of the second question

To answer this question, the mean scores and standard deviations were used for psychological stressors, arranged according to the degree of application.

Table 9. The mean scores and standard deviations of the psychological stress prevailing

among students at Jordanian public universities

Item	Mean score	Standard deviation	Level
I try to focus on my work to forget about my problems	3.43	1.088	High
I blame myself when I get things done wrong	3.37	1.101	Low
I feel so tired and unable to handle problems that I feel like I want to explode	3.29	1.113	Low
When I am under the influence of stress, I notice negative changes in my behavioural patterns	3.17	1.146	Low
I focus on the negative aspects of my life rather than the positive aspects	2.95	1.191	Low
I tell my frustration and anger to those close to me	2.91	1.591	Low
I feel that the role I play inside the house is worthless	2.62	1.145	Low
I feel comfortable when I deal with new situations	2.59	1.060	Low
I respond seriously to personal criticism	2.50	1.122	Low
I feel rushed even if I'm not stressed	2.48	1.126	Low
I feel guilty if I sit for an hour or more without getting anything done	2.41	1.092	Low
I avoid expressing my true feelings, whether	2.39	1.099	Low

at home or at university			
Total	2.84	.972	Low

It is clear from the table that the mean score of the psychological stress dimension was equal to (2.84 out of 5). This means that the degree of psychological stress among students at Jordanian public universities came to a small degree. This result agrees with Al-Anazi (2022) and differs with (Fouda, 2023; Al-Badia, 2022).

This result can be explained by the fact that university students have mental abilities that enable them to think positively while they are exposed to various psychological pressures and that they make their decisions after studying them well to avoid mistakes. This result also expresses the students' ability to control their behaviour even when they are exposed to psychological pressures to maintain good relationships with others, they believe that experiences increase their experience and ability to live life without focusing on the negatives, and they try to enhance the positives to get rid of all psychological disorders that consequently lead to psychological pressures that reduce their ability to adapt to their environment and others.

## 4.3. The result of the third question

To answer this question, the Pearson correlation coefficient was used, and the following table shows the results.

Table 10. Correlation coefficients between the study variables

Variable	correlation coefficient	Probability value	Sig.
The correlation coefficient between executive thinking and psychological stress	.677-	.000	Statistically significant
The correlation coefficient between judicial thinking and psychological stress	.751-	.000	Statistically significant
The correlation coefficient between hierarchical thinking and psychological stress	.695-	.000	Statistically significant
Correlation coefficient between thinking styles and psychological stress	.758-	.000	Statistically significant

It is clear from the table that the probability values are less than the level of significance ( $\alpha \ge 0.01$ ) between the study sample members' estimates of thinking styles and the level of psychological stress among students at Jordanian public universities. This indicates the existence of a statistically significant inverse correlation between thinking styles and psychological stress, that is, the more thinking patterns reduce the level of psychological stress, and vice versa.

#### 4.4. The result of the fourth question

To answer this question, simple linear regression analysis and multiple linear regression analysis are used. The following tables show the results.

Table 11. Results of simple linear regression analysis to demonstrate the effect of thinking

patterns on coping with psychological stress

Variable	T value	Beta	B value	Sig.
Fixed amount	13.895		1.652	.000
Thinking patterns	17.418	.758	.604	.000
Correlation coefficient (R)			.758ª	
Coefficient of determination R <sup>2</sup>			.575	
F value			303.394	
Sig.			.000 <sup>b</sup>	

The table shows that the correlation coefficient was (R=.758) and the adjusted coefficient of determination was (R2=.575). This means that (57.5%) of the change in psychological stress among students at Jordanian public universities was explained by the linear relationship, and the remaining percentages may be due to other factors. The value of the calculated (F) test was (303.394), and the level of significance was equal to (.000). This indicates that the regression is significant, meaning that there is a statistically significant effect of thinking styles in confronting psychological stress among students at Jordanian public universities. -The value of (T) in the constant amount was (13.895), the level of significance was equal to (.000), the value of (T) for the thinking styles axis was (17.418), and the level of significance was equal to (.000). This indicates the possibility of predicting the degree of psychological stress through the total score of thinking styles among students at Jordanian public universities.

Table 12. Results of multiple linear regression analysis to demonstrate the effect of

thinking patterns on coping with psychological stress

Variable	T value	Beta	B value	Sig.	
variable	1 value	Deta	D value	Sig.	
Fixed amount	12.854		1.573	.000	
executive thinking	7.117	.614	.497	.000	
judicial thinking	6.599	.515	.410	.000	
hierarchical thinking	3.192	.257	.175	.002	
Correlation coefficient (R)			.771ª	.771 <sup>a</sup>	
Coefficient of determination R <sup>2</sup>			.595	.595	
F value			108.802	108.802	
Sig.			.000b	.000 <sup>b</sup>	

The table shows that the correlation coefficient was (R=.771) and the adjusted coefficient of determination was (R2=.595). This means that (59.5%) of the change in psychological stress among students at Jordanian public universities was explained by the linear relationship, and the remaining percentages may be due to other factors. The value of the calculated (F) test was (1108.802), and the level of significance is equal to (.000). This indicates that the regression is significant, meaning that there is a statistically significant effect between the dimensions of thinking styles in confronting psychological stress among students of Jordanian public universities. The value of (T) in the fixed amount was (13.895), the level of significance was equal to (.000), and the value of (T) in the field of "executive thinking" was (.497). This indicates its linear importance in predicting psychological stress, that the value of (T) in the field of "judicial thinking" reached (6.599), and that the level of significance was equal to (.000). The results indicate its linear importance in predicting psychological stress, and that the value of (T) in the field 1101 Thinking Patterns and their Impact on Coping with Psychological Stress among Jordanian Public University Students

"Hierarchical thinking" reached (3.192), and the level of significance was equal to (.002), and this indicates its linear importance in predicting psychological stress.

## 5. Recommendations

The study recommends the necessity of including in curricula at all university levels ways to enhance thinking patterns and how to use them in different life situations among university students. It is important to enhance university students' thinking patterns to know and investigate facts and direct them toward knowledge because it helps them to receive facts, information, and new concepts and benefit from them. Faculty members should diversify the learning and teaching styles and strategies to suit the thinking styles of their students. Universities should develop a set of guidance and educational plans within university courses to help students overcome their emotional and psychological problems to provide them with normal behaviours on campus. It is also important to develop self-confidence and competence among students, which enhances the spirit of social and group cooperation and leads to a greater reduction in the level of psychological pressure.

#### Acknowledgments

The author would like to thank Prince Sultan University for their support. The authors extend their appreciation to the Deanship of Scientific Research at King Khalid University for funding this work through Small Research Groups under grant number (RGP.2 / 293 /44).

#### References

- Al Badia, S. (2022). Psychological stress and its relationship to mental health among a sample of teachers in Al Dhahirah Governorate. Scientific Journal of Educational Sciences and Mental Health, 4(5), 199-224.
- Al Shehri, A. (2017). The prevailing patterns of thinking among secondary school students in Al-Qurayyat Governorate according to the theory of Harrison and Bramison. Journal of Educational Science Studies, 44(4.9), 247-255.
- Al-Anazi, R. (2022). Psychological pressures and quality of school life (concept and coping strategies). Journal of the Faculty of Education in Psychological Sciences Ain Shams University, 46(3), 93-130.
- Al-Azzawi, N. (2020). Thinking styles of secondary school counselors. Journal of Arts, Literature, Humanities and Sociology, 59, 150-165.
- Al-hasoun, M. (2021). Psychological stress among people with learning difficulties. Arab Journal of Disability and Giftedness Arab Foundation for Education, Science and Arts, 5(17), 100-122.
- Al-Mahmoudi, M. (2019). Scientific research methods (3rd ed.). Dar Al-Kutub for Publishing and Distribution.
- Al-Majali, M. (2019). The prevailing thinking styles among academically outstanding university students and their relationship to some variables: a psychological-counseling-analytical study. Journal of Social Sciences Kuwait University, 47(1), 71-104.
- Al-Naimat, M., & Arabiyat, A. (2021). Psychological stress among a sample of orphans in Aqaba Governorate and its relationship to their psychological toughness and quality of life. Arab Journal of Science and Research Publishing Journal of Educational and Psychological Sciences, 5(37), 99-126.
- Al-Obaidi, H. (2019). Thinking styles and their relationship to habits of mind among mentally gifted students. Journal of Intelligence Research, 13(28), 467-502.

- Al-Shawashra, O., & Ali, S. (2021). Thinking styles that predict personality disorders among university students. Muta Research and Studies-Humanities and Social Sciences Series, 36(4), 13-50.
- Al-Shuwayat, A., & Al-Sharaa, H. (2021). The contribution of elements of psychological capital and ego strength in predicting psychological stress among mothers of children with autism spectrum disorder in Jordan. Al-Quds Open University Journal for Educational and Psychological Research and Studies, 12(34), 258-269.
- Atta, I. (2023). Thinking styles and their relationship to quality work performance among faculty members at the University of Hail. Journal of the Faculty of Education Al-Azhar University, 42(197), 141-184.
- Belhadif, M., & Bouzazoua, M. (2021). The relationship between coping strategies and both psychological stress and post-traumatic stress disorder among civil protection men. Ideas and Horizons Magazine, 9(4), 199-226.
- Busari, A. O. (2018). Motivation, stress, anxiety and emotions as predictors of academic boredom among degree students of National Teachers' Institute Osogbo, Osun State, Nigeria. World Scientific News, (112), 165-179.
- Eid, D. (2022). Thinking patterns and their relationship to achievement motivation among university administrative employees: a field study in Algerian universities. Ideas and Horizons Magazine, 10(2), 135-156.
- Fouda, H. (2023). Psychological stress among mothers of hearing-impaired children and its relationship to behavioral problems. Childhood Journal Cairo University, 44(1), 1158-1188.
- Ghalib, S. (2020). Preferred thinking methods at the College of Education, Taiz University. International Specialized Educational Journal, 9(2), 90-108.
- Hameed, N. (2019). Thinking styles among displaced and non-displaced university students: a comparative study. Journal of Humanities Tikrit University, 26(10), 287-301.
- Hassan, M. (2022). Thinking styles and their relationship to self-stigma among a sample of parents of children with mental disabilities. Journal of the New Valley College of Arts, 8(16), 859-902.
- Hu, X., & Cheng, S. (2019). Thinking styles predict religious belief among subgroupings of university students. Journal of Beliefs & Values, 40(1), 77-87.
- Ishkib, A. (2022). Psychological stress among mothers of autistic children in the city of Zliten. Journal of Physical Education and Other Sciences, 10, 355-375.
- Khasawneh, M. A. S. (2022). The level of motivation among teachers of learning disabilities in English language in light of the COVID-19 pandemic. Science and Education, 3(4), 664-677. https://openscience.uz/index.php/sciedu/article/view/3026
- Khasawneh, M. A. S. (2022). The level of practicing organizational trust among teachers of learning disabilities in English language from their point of view. Science and Education, 3(2), 481-491. https://orcid.org/0000-0002-1390-3765
- Khasawneh, M. A. S. (2022). Work pressures among teachers of learning disabilities in English language from their point of view. Science and Education, 3(2), 510-529. https://orcid.org/0000-0002-1390-3765
- Mahmoud, A. (2022). Psychological stress and its relationship to social isolation among middle school students: displaced students as a model. Al-Ustad Journal for Humanities and Social Sciences, 61(3), 355-377.
- Thabet, E. (2018). The prevailing thinking patterns among ordinary students and those with learning difficulties and their relationship to learning styles and achievement goal orientations. Educational Journal Sohag University. 53, 575-626.