Positive Thinking as a Mediating Variable between the Quality of Academic Life and Academic Motivation among Jazan University Students

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Abstract

The current research aims to identify the mediating role of positive thinking in the relationship between quality of academic life and academic motivation among Jazan University students. The researcher used a descriptive method, and the research sample consisted of 311 students from Jazan University, including 113 male students and 198 female students. Measures of positive thinking, quality of academic life, and academic motivation (prepared by Zakri, 2020) were used. The SPSS program, Amos program, and Hayes PROCESS macro model 4 were utilized for statistical analyses. The results showed that the levels of positive thinking, quality of academic life, and academic motivation among the students were high. The results also indicated a statistically significant positive correlation between (positive thinking and quality of academic life), (positive thinking and academic motivation), and (quality of academic life and academic motivation). Furthermore, the results revealed that positive thinking mediates the relationship between quality of academic life and academic motivation. In light of the current research results, recommendations and future studies are presented that may contribute to the development of the variables addressed.

Keywords: *Mediating Variable, Positive Thinking, Quality of Academic Life, Academic Motivation*

INTRODUCTION

The world is witnessing rapid changes in various aspects of life, and these changes have significantly impacted societies in general and the youth in particular. The university stage is considered one of the most critical phases that affect a student's future life. During this stage, students face many problems and life pressures that influence their professional and social futures. Therefore, it has become necessary to develop university students' personalities, equip them with advanced thinking skills, properly train them, and teach them to solve problems creatively and take responsibility for their decisions in various fields. This is essential to ensure their adaptation to the modern era and enable them to develop their lives to interact positively with the demands of this age (Abd Al-Latif & Abd Al-Jawad, 2020).

Thinking is an effective tool for the development and advancement of societies. The progress of any society fundamentally depends on the human capacity for thinking, which contributes to problem-solving and avoiding dangers. It enables individuals to control and manage various matters to their advantage. Suhad (2016) indicated that thinking positively means that a person can focus on what they have while being happy, feeling grateful for their thoughts about what happens to them, and being an effective member of their community who cares for others' affairs in the best possible way. Stallard (2002) views positive thinking as a form of logical, adaptive thinking that distances a person from the dangers of destructive thoughts. Positive thinking is synonymous with an optimistic outlook on life, leading individuals to achieve success and excellence through the need to improve academically. This equips students with various sciences and helps them overcome the frustration and stress they may encounter in the educational environment. Academic advancement encourages students to improve their studies, participate in academic activities, respect themselves, feel confident, and engage with friends (Al-Zoghbi, 2018).

Quality of life for university students in general and quality of academic life, in particular, is a goal that universities strive for several reasons. These include the nature of the university stage, which represents the pinnacle of the educational pyramid and plays a significant role in the life and advancement of nations (Al-Hussainan, 2015). It also contributes to developing and maintaining a competitive advantage for the university over a long period (Yousefi, 2018). Quality of academic life affects various variables both positively and

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negatively (Abdeen & El-Sharkawy, 2016) and is essential for meeting the challenges posed by the technological revolution and cultural diversity (Habib, 2016). Furthermore, it significantly contributes to the overall quality of life of individuals (Othman, 2020) and is strongly positively correlated with students' academic performance (Pedro et al., 2016).

Due to the importance of achieving quality of academic life, Al-Osaimi and Mukhaymar (2019) recommended providing suitable environments and moral and material support for university students. They suggested that universities should develop a strategy to enhance the quality of academic life of their students in all its dimensions and help them cope with the pressures they face. Alghamdi and McGregor (2021) also recommended providing a stimulating and supportive university environment free from negativity to improve students' academic lives. They suggested conducting periodic evaluations of the quality of academic life and organizing scientific seminars on ways to develop it.

Motivation is one of the key elements that influence individual behavior, drawing the attention of many researchers for its importance in explaining student behavior and the differences in their learning attitudes despite their similar capabilities. It is an internal feeling that drives student behavior toward achieving their goals (Al-Anzi, 2021). Jones et al. (2011) indicate that academic motivation is a virtual formation that refers to the feelings associated with an individual's academic performance, reflecting two fundamental components: the desire for success and the fear of failure. It involves individuals exerting maximum effort to succeed and outperform others. Abd El-Hafiz and Mansour (2020) argue that academic motivation reflects an individual's desire to engage in challenging tasks and their ability to organize and approach ideas systematically and objectively. It also reflects their ability to overcome obstacles, increase their self-esteem, compete with others, and excel over them. It also works to achieve individuals' psychological harmony as they become more accepting of themselves and more eager to achieve, which is reflected in their interactions with their communities. Academic motivation is considered one of the most important drivers directing students' behavior toward achieving success, perseverance, and academic achievement. It serves as the driving force for students, affecting their attitudes and reactions based on the circumstances surrounding them within or outside the university community, which can significantly impact the quality of the educational process and its outcomes (Al-Attas et al., 2021).

Based on the preceding discussion, literature in the Arab context lacks studies that examine the impact of positive thinking. Given this gap in the literature, the current research has tested the mediating role of positive thinking in the relationship between quality of academic life and academic motivation.

Statement of the Problem

The current research aims to construct a model illustrating the relationship among these three variables. This study is among the first, within the researcher's knowledge, to work in this direction, examining these variables collectively through the mediating role that another psychological variable can play between two psychological variables. This is achieved by using positive thinking as a mediating variable in the relationship between quality of academic life and academic motivation, as demonstrated by the proposed model based on the theoretical framework and previous studies that have indicated relationships among the three variables. These relationships can be clarified in the proposed model as follows:
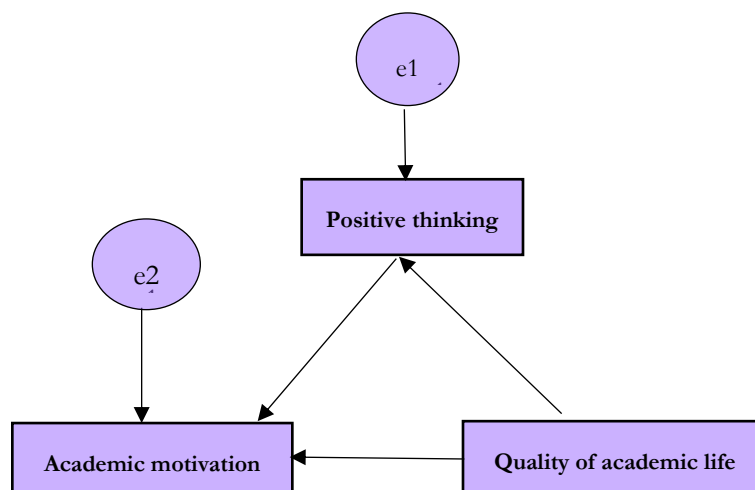
Figure 1. proposed model for the relationship among quality of academic life, positive thinking, and academic motivation

In light of the foregoing, the current research problem crystallizes in studying positive thinking as a mediating variable between quality of academic life and academic motivation by answering the following questions:

1. What are the levels of positive thinking, quality of academic life, and academic motivation among male and female students at Jazan University?

2. Is there a correlational relationship between positive thinking, quality of academic life, and academic motivation among male and female students at Jazan University?

3. Does positive thinking mediate the relationship between quality of academic life and academic motivation among male and female students at Jazan University?

Research Objectives

The current research aims to achieve the following objectives:

1. To identify the levels of positive thinking, quality of academic life, and academic motivation among male and female students at Jazan University.

2. To reveal the correlational relationship between positive thinking, quality of academic life, and academic motivation among male and female students at Jazan University.

3. To verify the proposed model for the impact of positive thinking as a mediating variable in the relationship between quality of academic life and academic motivation among male and female students at Jazan University.

Significance of the Study

The significance of the current research lies in the following aspects:

1. The current research aims to provide a scientific and theoretical background for grounding the research variables.

2. There is a scarcity of Arabic studies - within the researcher's field - that have addressed positive thinking as a mediating variable in the relationship between quality of academic life and academic motivation.

3. The results of the current research may benefit researchers in developing and enhancing positive thinking, quality of academic life, and academic motivation.

4. The research focuses on psychological variables among an important segment of society, represented by the students of Jazan University, who constitute an important pillar of development, upon whom hopes and aspirations are placed for building the community.

5. The research provides psychometric tools for researchers, including the Positive Thinking Scale, Quality of Academic Life Scale, and Academic Motivation Scale.

Delimitations of the Study

The current research has several delimitations that impact its scope and generalizability. Firstly, its focus on positive thinking as a mediating variable in the relationship between quality of academic life and academic motivation restricts the study's broader exploration of other potential mediating factors. Secondly, the research was conducted solely on students at Jazan University, which limits the applicability of its findings to other student populations. Additionally, the study's location-specific nature, being carried out only at Jazan University, may limit its relevance to other geographical regions or institutions. Conceptually, the research is confined to specific boundaries and terms relevant to its framework, potentially overlooking other important aspects of the studied phenomena. Lastly, the research's procedural limitations, such as the use of specific scales for data collection and analysis, might restrict the depth and breadth of the insights gained from the study.

Key terms of the Study

The current research defines several key concepts that are central to its investigation.

Mediating Variable: the variable through which the independent variable indirectly influences the dependent variable, shaping the outcome. If this variable is absent, the outcome is also absent (Memon, et al., 2018).

Positive Thinking: refers to a cognitive and affective process through which individuals can control their thoughts and feelings, adopting positive thoughts and feelings that make them more flexible, optimistic, and confident in their abilities. It also helps them control their emotions and accept personal responsibility when facing life's problems, leading to positive solutions (Qatata et al., 2021, p. 382). Procedurally, it is measured by the degree to which students respond to the Positive Thinking Scale used in the current research.

Quality of academic life: a general sense of satisfaction and contentment with the quality of one's academic life, enabling the satisfaction of academic needs and progress in achieving academic goals, enjoying the study process (Imran, 2022, p. 487). Procedurally, it is measured by the degree to which students respond to the Quality of Academic Life Scale used in the current research.

Academic Motivation: refers to the continuous self-motivation of students towards achieving educational goals, characterized by a state of anxiety, which is the primary internal driving force to achieve the goal. The anxiety related to the task does not end until the intended goal is achieved (Al-Bahnasawi & Ghanem, 2022, p. 35). Procedurally, it is measured by the degree to which students respond to the Academic Motivation Scale used in the current research.

REVIEW OF LITERATURE

Several studies have investigated the role of positive thinking as a mediator between different factors and outcomes related to academic life. For example, Al-Arian(2023) examined the mediating role of positive thinking in the relationship between psychological stress and happiness among widowed and divorced women who are the breadwinners of their families. The study, which included 100 participants, utilized the Positive Thinking Scale, Psychological Stress Scale, and Happiness Scale to collect data. Results indicated that positive thinking plays a mediating role in the relationship between psychological stress and happiness in this specific demographic.

In a similar vein, Abu Riyash (2023) focused on academic intrinsic motivation among Jordanian university students during the COVID-19 pandemic. The study, which included 680 participants, aimed to determine the level of academic intrinsic motivation and its relationship with the distance learning environment. Using a Distance Learning Environment questionnaire and an Academic Intrinsic Motivation scale, the study found a high level of academic intrinsic motivation among Jordanian university students. It also identified a positive correlation between the distance learning environment and academic intrinsic motivation, suggesting that the distance learning environment significantly predicts academic intrinsic motivation among this group.

On a different note, Abdullah (2023) conducted research to uncover differences between female students at Al-Qassim University with high and low levels of positive thinking regarding mental alertness and academic ambition. With a sample size of 317 female students, the study used the Mental Alertness Scale, Academic Ambition Scale, and Positive Thinking Scale. Results indicated that female students at Al-Qassim University exhibit a high level of positive thinking, an average level of mental alertness, and a high level of academic ambition. Additionally, the study highlighted significant differences in mental alertness and academic ambition between female students with high and low levels of positive thinking.

Al-Anzi (2023) explored the relationship between mental health and positive thinking among female students at Hafar Al-Batin University. Using an analytical descriptive approach and a specially designed questionnaire, the study surveyed 200 female students from the College of Applied Medical Sciences and the College of Pharmacy at the university. Results showed a statistically significant relationship between mental health and positive thinking among the participants. While the level of mental health was moderate, the level of positive thinking was high among female students at Hafar Al-Batin University.

Al-Najjar (2022) aimed to assess the levels of self-regulation skills, academic integration, and learning motivation among students in the science faculty at Palestinian universities. The study also sought to identify the nature of the relationship between self-regulation skills, academic integration, and learning motivation in the study sample, which consisted of 250 students. The study utilized the Self-Regulation Skills Scale, Academic Integration Scale, and Learning Motivation Scale. Results indicated high levels of self-regulation skills, academic integration, and learning motivation among the participants, with a significant positive correlation between academic integration and learning motivation.

In another study by Wang (2022), the focus was on enhancing the learning motivation of Chinese students learning English as a foreign language. The study, which included 490 participants, aimed to explore the impact of language enjoyment and academic integration. Using the Learning Motivation Scale and the Academic Integration Scale, the study found high levels of learning motivation and academic integration among the students. Additionally, a positive correlation was found between learning motivation and academic integration among the students.

El-Mahdy's (2022) study aimed to explore the relationship between quality of life and post-cognitive thinking skills among female university students. The study, which included 443 students from King Saud University, examined differences in quality of life and post-cognitive thinking skills based on different variables such as academic major, academic year, and GPA. The study found a statistically significant positive relationship between dimensions of quality of life and post-cognitive thinking skills, suggesting that nearly 11% of the variance in quality of life can be explained by components of post-cognitive thinking.

Saleh's study (2021) aimed to uncover the mediating role of positive thinking in the relationship between psychological stress and happiness among university students. With a sample size of 371 students from various universities and disciplines in Iraq, the study utilized the Oxford Happiness Inventory, Positive Thinking Scale (translated), and Psychological Stress Scale (translated). Results indicated that positive thinking mediated the relationship between psychological stress and happiness among the students.

Heidari et al.'s (2021) study focused on the mediating role of digital learning in the relationship between learning motivation and academic integration among students at Shiraz University during the COVID-19 pandemic. The study, which included 308 students, found high levels of academic integration and learning motivation among the participants, with digital learning serving as a significant mediator in the relationship between academic integration and learning motivation.

Chui and Chan's (2020) study aimed to explore the relationship between positive thinking, academic adaptation, and psychological well-being among high school students. The study involved 299 male students and 296 female students who completed scales assessing positive thinking and academic adaptation. The findings revealed that the level of positive thinking was average among the sample, with no significant differences based on specialization or gender. However, there was a notable positive correlation between positive thinking and the ability to adapt to academic challenges and cope with academic stress.

Mohammed's (2020) study focused on investigating the relationship between positive thinking, self-esteem, and life satisfaction among female university students in Saudi Arabia. The study found a high level of positive thinking among the participants. There was also a statistically significant negative correlation between positive thinking self-esteem and life satisfaction. Additionally, the study demonstrated that positive thinking could be predicted based on life satisfaction scores among the participants.

Sadiqand Atta's (2020) study aimed to analyze the direct and indirect causal relationships between systemic intelligence, career ambition, positive thinking, and perceived quality of life among teachers. The results showed positive direct effects of perceived quality of life and career ambition on systemic intelligence, as well as positive direct effects of perceived quality of life and positive thinking on career ambition. The study also revealed an indirect effect of perceived quality of life and positive thinking on systemic intelligence through career ambition.

Al-Osaimi's (2019) study sought to identify the quality of academic life and its relationship with academic self-efficacy among students at Umm Al-Qura University. The study found a moderate level of academic life quality and a high level of academic self-efficacy among the students. There was also a statistically significant positive correlation between academic life quality scores and academic self-efficacy scores.

Hammadneh's (2018) study aimed to determine the level of satisfaction among non-Saudi students at King Saud University regarding the quality of university life. The results indicated a high level of satisfaction among non-Saudi students in all areas. Furthermore, there were no statistically significant differences in students' satisfaction scores based on academic specialization.

Salem and Al Rabadi (2018) aimed to determine the impact of high-order thinking levels on the quality of life among students at Ajloun University. The findings revealed a moderate level of high-order thinking and quality of life among the students. Differences in high-order thinking skills and quality of life were observed based on academic specialization, favoring scientific colleges.

Mokheamer (2018) aimed to explore the relationship between the quality of university life and the motivation for learning among students of the Faculty of Education at Helwan University. The study included 400 students and applied two scales, one to measure the quality of university life and the other to measure the motivation for learning. The results revealed a statistically significant positive relationship between the quality of university life in its various dimensions and the motivation for learning.

El-Sayed (2016) uncovered the relationship between positive thinking and achievement motivation. The sample consisted of 185 students, including 100 female students and 85 male students. The Positive Thinking Scale and Achievement Motivation Scale were applied, and the results showed a statistically significant positive relationship between the scores of the sample individuals in the dimensions of the Positive Thinking Scale and their scores in the dimensions of the Achievement Motivation Scale. Additionally, statistically significant differences were found between the average scores of males and females in emotional adjustment in favor of males, while statistically significant differences were found at the 0.01 level between the average scores of males and females in the love of learning in favor of males. There was also a statistically significant difference at the 0.05 level between the average scores of males and females in the overall degree of positive thinking in favor of males, while there were no statistically significant differences between the average scores of males and females in positive expectations and general satisfaction.

Abdel Rahim and Abdel Latif (2016) aimed to identify the relationship between positive thinking and external and internal academic motivation. The sample consisted of 356 students from Sohag University. The Positive Thinking Scale and the Academic Motivation Scale were used, and the results showed statistically significant relationships between the scores of students on the dimensions of the Positive Thinking Scale and their scores on some dimensions of external and internal academic motivation.

A study by Minor and Ilias (2015) aimed to uncover the relationship between quality of life, academic behavior, and the relationship between quality of life and motivation for learning. The sample consisted of 76 teacher students in the bachelor's stage, and they were subjected to the School Life Quality Scale, the Academic Behavior Scale, the Learning Motivation Scale, and the Learning Strategies Questionnaire. The results showed no statistically significant relationship between quality of life and both academic behavior and motivation for

learning, and no statistically significant relationship was found between academic behavior and motivation for learning.

Salim's (2015) study aimed to uncover the mediating role of positive thinking in the relationship between personal traits and the rate of errors in driving. Data was collected using three tools: the Positive Thinking Scale, the Personal Traits Scale, and the Driving Error Rate Questionnaire. The results showed that positive thinking mediates the relationship between personal traits and the rate of errors in driving.

Finally, Al-Hussainan's (2015) study aimed to uncover the quality of life of university students and its relationship with some demographic variables. It was conducted on 131 male and 97 female students at Al Majmaah University. The results showed that the level of quality of university life is above average. There were statistically significant differences between males and females in the dimensions of religious life quality and social life quality among university students in favor of females. However, there were no statistically significant differences between them in the overall degree of quality of university life in its other dimensions (planning, self-efficacy, life satisfaction, family life quality, psychological life quality, academic life quality, and time management quality).

The studies presented offer valuable insights into various aspects of positive thinking, motivation, quality of life, and academic outcomes among different demographic groups and educational settings. They collectively contribute to the understanding of how these factors interplay and influence individuals' well-being and academic success. However, a notable research gap exists regarding the specific role and impact of positive thinking on academic motivation, especially in the context of specific demographics. Additionally, while some studies have explored the relationship between positive thinking and academic outcomes, there is a need for more focused research on the mechanisms through which positive thinking influences academic motivation and performance, particularly in the context of learning environments. Such research could provide valuable insights for educators and policymakers in enhancing students' academic experiences and outcomes, especially in challenging circumstances.

METHODOLOGY

The descriptive approach was used to illuminate the mediating role of positive thinking in the relationship between quality of academic life and academic motivation among male and female students at Jazan University in the current study.

Research Population and Sample

The research population comprised all male and female students at Jazan University, with a sample size of 311 students, including 113 male students and 198 female students, selected using stratified random sampling.

Research Tools

1. Positive Thinking Scale: (Prepared by Zakri, 2020) The scale consists of 67 items and possesses good psychometric properties. Construct validity was calculated, indicating that all items are valid. The reliability coefficient (Cronbach's alpha) for the scale as a whole was 0.87, signifying high reliability.

2. Quality of academic life Scale: (Prepared by Zakri, 2020) The scale consists of 30 items and possesses good psychometric properties. Construct validity was calculated, indicating that all items are valid. The reliability coefficient (Cronbach's alpha) for the scale as a whole was 0.80, signifying high reliability.

3. Academic Motivation Scale: (Prepared by Zakri, 2020) The scale consists of 30 items and possesses good psychometric properties. Construct validity was calculated, indicating that all items are valid. The reliability coefficient (Cronbach's alpha) for the scale as a whole was 0.79, signifying high reliability. The data collected through the aforementioned scales was used to answer the research questions in the current study.

Data Analysis

The means and standard deviations were used to answer the first question. After referring to the theoretical literature and previous studies, the researcher determined the level of response on a Likert scale according to the following equation:

Response Level = (n-1) ÷ n where: n is the number of responses Response Level = (4-1) ÷ 4 = 3 ÷ 4 = 0.75

The value (0.75) was added to the lowest value in the scale to determine the minimum and maximum for each rating. Table 1 illustrates the mean, percentage, and corresponding rating.

Table 1. Mean, percentage, and level

Mean	%	Level
1->1.75	25->44	Low
1.75->2.50	44->63	Medium
2.50->3.25	63->81	High
3.25-4.00	81-100	Very high

Pearson correlation coefficient was used to find the relationship between the variables of the current research, answering the second question. Additionally, the Amos program and the PROCESS Macro Hayes, Model 4 in SPSS were used to analyze the intermediate variable, answering the third question.

RESULTS AND DISCUSSION

1st research question: What are the levels of positive thinking, quality of academic life, and academic motivation among male and female students at Jazan University?

To answer this question, the researcher calculated the mean, standard deviation, and percentage for the mean. The researcher relied on the mean as a criterion to determine the level of positive thinking, academic life quality, and academic motivation among male and female students at Jazan University. The results are shown in Table 2.

Table 2. Mean and percentage for the scales of positive thinking, academic life quality, and academic motivation (N=311)

Variables	Mean	Standard deviation	%	Level
Positive thinking	3.09	0.26	%77.25	High
Quality of academic life	2.98	0.35	%74.50	High
Academic motivation	3.33	0.28	%83.25	v. high

The level of positive thinking was found to be high, with an average score of 3.09, a standard deviation of 0.26, and a percentage of 77.25%. This result aligns with the findings of Abdullah (2023), Al-Anzi (2023), Al-Wael (2021), Salem & Al-Rabadi (2018), but differs from the conclusions of Chan & Chi (2020) and Mohammed (2020). Regarding academic life quality, the study revealed a high level among students, with an average score of 2.98, a standard deviation of 0.35, and a percentage of 74.50%. This finding is consistent with the studies of Hammadneh (2018), Leito et al. (2018), and Al-Hussainan (2015), but contrasts with the results of Al-Asimi (2019), Al-Rabadi and Salem (2018), and Naesa (2012). Furthermore, the analysis indicated a very high level of academic motivation among students, with an average score of 3.33, a standard deviation of 0.28, and a percentage of 83.25%. This finding is in line with the studies of Abu Riyash (2023), Al-Najjar (2022), Wang (2022), Del Valle and Vergara (2021), and Heidari et al. (2021).

2nd Research Question: Is There a Correlational Relationship Between Positive Thinking, Quality of Academic Life, And Academic Motivation Among Male and Female Students at Jazan University?

The researcher calculated the Pearson correlation coefficient to answer this question. Table 3 below illustrates the correlation coefficients between positive thinking, academic life quality, and academic motivation among 311 male and female students at Jazan University:

Table 3. Pearson correlation coefficients between positive thinking, academic life quality, and academic motivation (N=311)

	Variables	1	2	3
1	Positive thinking			
2	Quality of academic life	0.638**		
3	Academic motivation	0.489**	0.566**	

** significance level (0.01)

Table 3 reveals several significant correlations among variables. Firstly, a positive and statistically significant relationship is observed between the total scores of the Positive Thinking and Academic Life Quality scales, with a correlation coefficient of 0.638. This implies that as positive thinking increases, so does perceived academic life quality among students at Jazan University. This result aligns with prior research by Al-Mohammadi (2022), Mohammed (2020), and Sadiq and Atta (2020). Secondly, a statistically significant positive correlation is found between the total scores of the Positive Thinking and Academic Motivation scales, with a correlation coefficient of 0.489. This suggests that students with higher levels of positive thinking tend to exhibit higher levels of academic motivation. This result is consistent with studies conducted by Al-Sayed (2016), Abdel-Rahim and Abdullatif (2016), and Abdel-Sabour and Ahmed (2013). Thirdly, there is a statistically significant positive correlation between the total scores of the Academic Life Quality and Academic Motivation scales, with a correlation coefficient of 0.566. This indicates that students who perceive higher academic life quality are more likely to be academically motivated. This result is in line with the research of Mukhaimer (2018) but contrasts with the findings of Minor and Ilias (2015).

3rd research question: Does positive thinking mediate the relationship between quality of academic life and academic motivation among male and female students at Jazan University?

To address this question, the researcher examined the mediating role of positive thinking in the relationship between academic life quality and academic motivation, verifying two conditions: the data's suitability for mediation analysis and the absence of multicollinearity between independent variables. The researcher also verified the relationship between the mediating variable (positive thinking) and the dependent variable (academic motivation), as well as the relationship between the independent variable (academic life quality) and the dependent variable (academic motivation). They ensured that the relationship between the independent and dependent variables changed when the mediating variable entered the model. The researcher verified the conditions for mediation through the following steps:

1. Suitability of Data for Mediation:

The researcher verified the data's suitability for mediation by ensuring the absence of linear collinearity between positive thinking and academic life quality variables. This was done by checking the Variance Inflation Factor (VIF), which should not exceed ten. Additionally, the researcher conducted a Tolerance test on the data and ensured that the tolerance value was greater than 0.1. Table 4 illustrates the suitability of the data for regression models.

Table 4. results of suitability of data for independent and mediating variables

Independent variable	VIF	Tolerance value
Positive thinking	1.685	0.594
Quality of academic life	1.685	0.594

The results from Table 4 indicate that the data is suitable for mediation, as the inflation factors did not reach the value of 10, and the tolerance value exceeded 0.1. This confirms the fulfillment of the data suitability condition for mediation analysis.

2. Partial correlation coefficients

To assess the contribution of both the independent and mediating variables in explaining the variance in the dependent variable, partial correlation coefficients were calculated. Table 5 illustrates the results.

Table 5. Partial correlation coefficients between variables

Independent and mediating variables	Dependent variable	Partial correlation coefficient	Sig.
Quality of academic life	Academic motivation	0.379	0.000
Positive thinking		0.202	0.000

The results from Table 5 indicate that the partial correlation coefficients were statistically significant at the 0.01 level. This implies that academic quality contributes to explaining the variance in academic motivation among male and female students at Jazan University, while excluding the effect of positive thinking. Similarly, positive thinking contributes to explaining the variance in academic motivation, while excluding the effect of academic quality. This confirms the fulfillment of the condition for the partial correlation coefficient.

After verifying the relationship between positive thinking, academic quality, and academic motivation and ensuring no data overlap, the researcher entered the data for each variable into the Amos program. The proposed model was tested as shown in Figure 1. Figure 2 illustrates the model of the relationship between academic quality, positive thinking, and academic motivation.
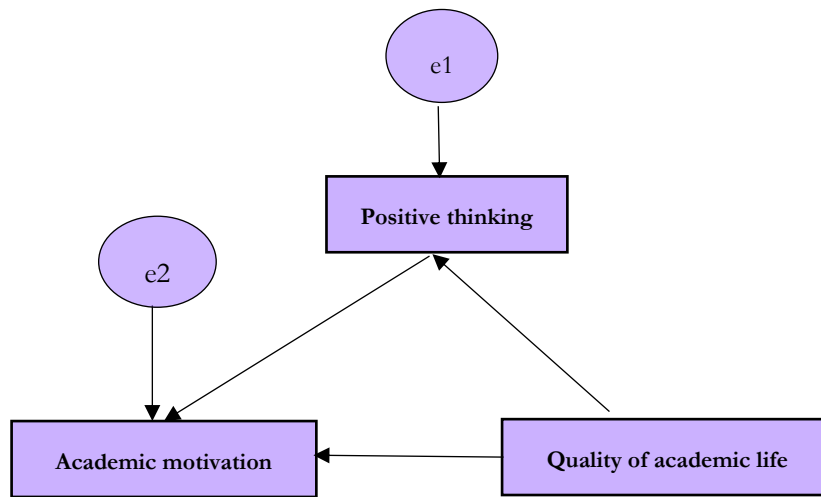
Figure 2. The relationship between academic quality, positive thinking, and academic motivation

To verify whether positive thinking mediates the relationship between academic quality and academic motivation, a mediation analysis was conducted using the PROCESS Macro Hayes, Model 4, in SPSS. The analysis relied on estimating the indirect effect and confidence intervals (Hayes, 2013; Preacher & Hayes, 2004).

Step 1: Applying the regression test to determine the relationship and impact of academic quality on positive thinking. This effect can be displayed in the following Table 6.

Table 6. The path (a) the impact of academic quality on positive thinking

Model					
Value of (f) model	R	R2	Value (f)	Level (f)	
	0.638	0.406	211.578	0.001	
Relationship					
Regression coefficient for academic quality	IF	Error	t	Sig.	Regression
	1.115	0.077	14.546	0.001	0.638

Table 6 shows that path (a) was statistically significant, with an "F" value of 211.578, significant at the 0.01 level. The coefficient of determination (R^2) was 0.406, indicating that 40.6% of the variance in positive thinking is explained by academic quality. The direct effect coefficient was 1.115, and the "t" value was 14.546, both significant at the 0.01 level. This indicates that path (a) is statistically significant, showing a positive and direct effect of academic quality on positive thinking, allowing for further testing of the mediating role of positive thinking.

Step 2: The dual influence of academic life quality and positive thinking on academic motivation

This step represents a test for paths (b) and (c), which can be clarified through the following Table 7.

Table 7. Dual impact of academic life quality and positive thinking on academic motivation

Model					
Value of (f) model	R	R2	Value (f)	Level (f)	
	0.590	0.348	82.291	0.001	
Relationship					
Regression coefficients	IF	Error	t	Sig.	Regression
Academic life quality	0.322	0.045	7.179	0.001	0.429
Positive thinking	0.093	0.026	3.614	0.001	0.216

Table 7 shows a combined effect of academic life quality and positive thinking on predicting academic motivation, with an "F" value of (82.291), which is significant at (0.01) level. The coefficient of determination (R^2) is (0.348). Regarding path (b), which is the impact of positive thinking on academic motivation, the coefficient is (0.093) with a "t" value of (3.614), which is significant at (0.01) level. As for path (c), which is the direct impact of academic life quality on academic motivation, the coefficient is (0.322) with a "t" value of (7.179), which is significant at (0.01) level.

Step 3: the total effect of the independent variable (academic life quality) on the dependent variable (academic motivation) can be shown in Table 8 below:

Table 8. Total effect of the independent variable (academic life quality) on the dependent variable (academic motivation)

Model					
Value of (f) model	R	R2	Value (f)	Level (f)	
	0.590	0.348	82.291	0.001	
Relationship					
Regression	IF	Error	t	Sig.	Regression
Total effect of the independent variable (academic life quality) on the dependent variable (academic motivation)	0.425	0.035	12.076	0.001	0.566

Table8 shows a significant total effect of academic life quality on academic motivation, with an "F" value of 82.291, significant at the 0.01 level. The coefficient of determination (R squared) is 0.348. The total effect of academic life quality on academic motivation is evidenced by a coefficient of 0.425 and a "t" value of 12.076, both significant at the 0.01 level.

Step 4: The direct effect of the independent variable (academic life quality) on the dependent variable (academic motivation) can be presented in Table 9 as follows.

Table 9. Direct effect of academic life quality on academic motivation

Model					
Value of (f) model	R	R2	Value (f)	Level (f)	
	0.590	0.348	82.291	0.001	
Relationship					
Regression	IF	Error	t	Sig.	Regression
Direct effect of the independent variable (academic life quality) on the dependent variable (academic motivation) are as follows	0.322	0.045	7.179	0.001	0.429

Table 9 shows that there was a direct effect of academic life quality on predicting academic motivation, with an F-value of 82.291, significant at the 0.01 level. The coefficient of determination (R^2) is 0.348. The direct effect of academic life quality on academic motivation is represented by a coefficient of 0.322, with a t-value of 7.179, also significant at the 0.01 level. This indicates that academic life quality has a significant direct impact on academic motivation.

Step 5: direct effect of the independent variable (academic life quality) on the dependent variable (academic motivation) can be presented in the following table (Table 10).

Table 10. Direct effect of the independent variable (academic life quality) on the dependent variable (academic motivation)

Model					
Value of (f) model	R	R2	Value (f)	Level (f)	
	0.590	0.348	82.291	0.001	
Relationship					
Regression values	IF	Error	Lowest	Highest	Sig.
Indirect effect of the independent variable (quality of academic life) on the dependent variable (academic motivation) through the mediating variable (positive thinking)	0.138	0.046	0.047	0.225	Sig.

It is evident from Table 10 that there was an indirect effect of quality of academic life on predicting academic motivation. The F-value was 82.291, which is significant at the 0.01 level. The R^2 value was 0.348. Regarding the degree of the indirect effect of the independent variable (quality of academic life) on the dependent variable (academic motivation) through the mediating variable (positive thinking), the effect coefficient was 0.138. Since the effect coefficient value falls between the minimum value (0.047) and the maximum value (0.225), with a T-value of 7.179, it is significant. The researcher concludes from the above that positive thinking mediates the relationship between quality of academic life and academic motivation among students at Jazan University. This result is consistent with the studies of Al-Arian (2023), Saleh (2021), and Salim (2015).

Recommendations

In light of the current research results, several recommendations can be made to improve the university environment. Firstly, promoting a culture of positive thinking, quality of academic life, and academic motivation is essential. This can be achieved through various programs and initiatives aimed at raising awareness and fostering a supportive atmosphere. Additionally, training students on methods to positively manage their feelings and thoughts is crucial. Workshops and seminars can be organized to equip students with the necessary skills to handle their emotions and maintain a positive outlook.

Faculty members also play a significant role in enhancing the overall academic experience. Encouraging them to diversify their teaching strategies can help boost students' positive thinking, quality of academic life, and motivation. By adopting varied and engaging teaching methods, instructors can create a more stimulating and supportive learning environment. Furthermore, it is important to involve the University Counseling Center in developing preventive programs. These programs should be designed to promote positive thinking, quality of academic life, and academic motivation among students, addressing any potential issues before they escalate. Finally, standardized measures are necessary for accurately assessing positive thinking, quality of academic life, and academic motivation. Developing these measures can provide a reliable basis for evaluating and improving these aspects within the university setting.

Based on the current research results, several future research suggestions can be proposed. Further studies should investigate the mediating role of positive thinking on other psychological variables, providing a broader understanding of its impact. Additionally, exploring the mediating role of positive thinking in different samples, such as school students and employees, can offer valuable insights. Finally, a study modeling the causal relationships between positive thinking, quality of academic life, and academic motivation among students at Jazan University would be beneficial. Such research can help in understanding the intricate connections between these variables and inform the development of effective interventions.

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