

## The Predictive Ability of Emotional Regulation and Life Quality in Psychological Capital among the University Youth in Jordan

Fadia Aied Alsmeheen\*

Department of Counseling and Mental Health, Faculty of Educational Sciences, The World Islamic Sciences & Education University  
W.I.S.E, Amman, Jordan

Received: 22/7/2024  
Revised: 11/8/2024  
Accepted: 3/9/2024  
Published online: 1/8/2025

\* Corresponding author:  
[fadia\\_a2013@yahoo.com](mailto:fadia_a2013@yahoo.com)

Citation: Alsmeheen, F. A. (2025).  
The Predictive Ability of Emotional  
Regulation and Life Quality in  
Psychological Capital among the  
University Youth in Jordan. *Dirasat:  
Human and Social Sciences*, 53(1),  
8401.  
<https://doi.org/10.35516/Hum.2025.8401>



© 2026 DSR Publishers/ The University  
of Jordan.

This article is an open access article  
distributed under the terms and  
conditions of the Creative Commons  
Attribution (CC BY-NC) license  
<https://creativecommons.org/licenses/by-nc/4.0/>

### Abstract

**Objectives:** This study aims to identify the levels of emotional regulation, life quality and psychological capital among youth at universities, in addition to probing the predictive effectiveness of emotional regulation and life quality on psychological capital.

**Methods:** The study uses the descriptive approach and predictive correlation. The study was applied to a sample of 600 students from the University of Jordan enrolled during the academic year (2023-2024). The researcher adopts the metrics of emotional regulation, life quality, and psychological capital.

**Results:** The study's findings revealed that the levels of emotional regulation and life quality were medium, while the level of psychological capital was high among students. Furthermore, the results demonstrated that emotional regulation and life quality contributed to explaining the level of psychological capital among university youth.

**Conclusions:** The study recommends intensifying counseling programs that promote positive concepts and enhance psychological health in the light of increased academic stressors among youth at universities.

**Keywords:** Emotional regulation, life quality, psychological capital, university youth.

### القدرة التنبؤية للتنظيم الانفعالي وجودة الحياة في رأس المال النفسي لدى الشباب الجامعي في الأردن

فادية عايد السميحين\*

قسم الإرشاد والصحة النفسية، كلية العلوم التربوية، جامعة العلوم الإسلامية العالمية، عمان، الأردن

#### ملخص

**الأهداف:** فحصت الدراسة مستويات التنظيم الانفعالي وجودة الحياة ورأس المال النفسي لدى الشباب الجامعي، كما كشفت الدراسة عن القدرة التنبؤية للتنظيم الانفعالي وجودة الحياة في رأس المال النفسي.

**المنهجية:** استخدمت الدراسة المنهج الوصفي الارتباطي التنبؤي. شارك في الدراسة (600) طالبا وطالبة من طلبة المرحلة الجامعية في الجامعة الأردنية المسجلين في العام الجامعي 2024/2023 وتم تطبيق مقاييس التنظيم الانفعالي، جودة الحياة، رأس المال النفسي.

**النتائج:** وأوضحت النتائج أن مستويات التنظيم الانفعالي وجودة الحياة كانت متوسطة، في حين جاء مستوى رأس المال النفسي لدى طلبة الجامعة مرتفعاً، وتوصلت النتائج إلى أن التنظيم الانفعالي وجودة الحياة ساهمت في تفسير درجة رأس المال النفسي لدى الشباب الجامعي.

**الخلاصة:** وقدمت الدراسة توصيات تتمثل في تكثيف البرامج الإرشادية التي تعزز المفاهيم الإيجابية وتدعم الصحة النفسية في ظل تزايد وتيرة الضغوطات والأعباء الدراسية لدى الشباب الجامعي.

**الكلمات الدالة:** التنظيم الانفعالي، جودة الحياة، رأس المال النفسي، الشباب الجامعي.

## 1. Introduction

Emotional regulation has an important role in communication and relationships between individuals in the community. Emotional regulation is a basic skill for achieving development in the various mental, emotional and social domains, in addition to being a real indicator for psychological health and social adjustment. Indeed, the disturbance of social relationships is closely related to disturbances in emotional life, and the individual's success or failure depends significantly on emotional factors (Ibrahim et al. 2022; Ye, et al. 2023).

Rech et al. (2023) defined emotional regulation as a comprehensive framework for a set of perceived methods as well as internal and external processes that individuals use to deal with emotional responses, such as expressing emotions and controlling them, as well as modifying emotional responses and increasing positive emotions to enhance the feelings of happiness. Emotional regulation is represented by the individual's attempts to control the state of emotional stimulus, redirect and improve it to adapt with life situations (Yadav & Chanana, 2018).

Emotional regulation consists of a wide range of behavioral and cognitive strategies that aim to monitor, develop and redirect self-regulated emotions according to the individual's targeted objectives and his responses to the environmental variables, where those emotions include the skill of expressing emotions and modifying responses in accordance with the situation as well as focusing on the positive events and the warm emotions accompanying them. The strategies of emotional regulation are represented by cognitive reassessment and the strategy of response modification that is affected by emotional situations (Campbell et al. 2022; David & Fodor, 2023).

Eddosa & You et al. (2017) suggested that emotional regulation is a multi-dimensional structure that depends on the stage of growth and is affected by the individual's age, where the older individuals use the strategies of cognitive reassessment with negative emotions, and have the ability to change the way they think in the emotionally-arousing situations.

The features of emotional regulation are manifested based on the individual's positive role in achieving emotional balance and allowing the individual to experiment a wide range of emotions that are distinguished and accepted, rather than being oppressed which, in turn, enhances self-care and social-psychological skills (Le Rhun, et al. 2023).

### **The dimensions of emotional regulation:**

First, expressing emotions: this is considered as a main factor in reducing psychological stressors, and refers to the emotional feelings that reflect the individual's psychological state which is expressed either verbally or by facial expressions. Abdul-Ghaniet al. (2022) suggested that females have more ability to express their emotions as compared to males. Second, emotional awareness: the extent to which the individual knows his emotions and feelings and distinguishes between them, in addition to realizing his emotional state and its meaning. Third, emotional control: it refers to controlling emotions and dealing flexibly with situations (Kim et al. 2023). Fourth, positive evaluation: it refers to thinking about the positive experiences and pleasant events and avoiding thinking of negative and stressful events as well as coming up with positive interpretations to reduce stress and anxiety in stressful situations (Habibi-Kaleybar & Dehgani, 2021).

### **Quality of life:**

Psychologists have been interested in investigating the positive self-experiences, personal traits and positive habits, since they contribute to improving the quality of life, give value and importance to life and make a barrier that protects individuals against psychological stressors. Indeed, life quality is a reflection to the psychological level and quality, and a scale that enables individuals to adopt a lifestyle that satisfies their needs. Life quality is viewed as one of the topics of positive psychology that allows individuals to make positive decisions, show their innovative capabilities in the various domains, and help them invest their positive energy to overcome obstacles (Beigrezaei et al. 2023 & Jenson et al. 2004).

The quality of life is defined as the individual's realization to the value of self-luxury and his feelings of life satisfaction. It is a multi-dimensional concept that determines the standards of social, mental, physical and emotional health. The quality of life is a basic element in an individual's happiness and good life (Wahid et al, 2023 & Jozefiak et al, 2023).

The individual's realization to life quality is related to a number of cultural, social and personal variables. Indeed, self-

realization is viewed as a basic element in life quality, where the individual's realization to the stimuli determines the degree of his feelings with his life quality. Self-motivation plays a prominent role in achieving life quality by satisfying the basic psychological needs (the need to affiliation, efficacy, and autonomy), where satisfying these needs leads to a state of self-luxury and personal development. Also, the methods of parental treatment and family communication patterns affect the individual's aspirations about his life (Roman et al. 2015 & Wahid et al. 2020).

The quality of life is considered as a wide concept with various interrelated subjective and objective domains closely related to health and psychological state, which is composed of several measurable indicators based on physical health, social relationships, satisfaction, personal growth efficacy. (Bou-Hamed et al. 2023).

The quality of life refers to the degree to which an individual feels that there is a continuous improvement in the domains related to his mental and physical personality, his personal beliefs and interaction with the environment accompanied by adopting the philosophy of development and improvement to face crisis. It also refers to the individual's realization of his position or state in life in the context of the culture or system in which he lives and according to his objectives, expectations, standards and interests (Bashir et al, 2023 & Flølo et al. 2022).

The features of life-quality among university students are manifested in the extent of their achievement motivation, feelings of satisfaction concerning university life, achievement of academic adaptation, interest in scientific and social activities, ability to control their emotions, ability to make decisions independently, ability to continue achieving meaningful objectives in life, and establishing social relationships with others (Rezaee et al. 2019; YU et al. 2023).

The dimensions and elements of life quality:

1-The health dimension: it is represented by the individual's satisfaction of his health as well as adaptation with cases of disease.

2-The psychological dimension: it is manifested based on the individual's focus on his psychological state as well as the general realization for psychological and emotional stability.

3-The social dimension: it includes the social interaction with others, establishing relationships, as well as achieving harmony with the surrounding social community.

4-Family dimension: the state of family stability and his satisfaction with his relationships with parents and siblings, and the extent to which he copes with the aspirations of his family.

#### **Psychological capital:**

This term is derived from positive psychology, and dates back to Martin Selgman, who mainly focused on the determinants of happiness, positive traits, and life satisfaction (Xu & Choi, 2023). Psychological capital has been described as a positive psychological state for the individual's growth and development, where it represents the psychological power and capacity related to life situations and events as well as the ways for adapting with them. Psychological capital consists of the following psychological abilities: optimism, hope, self-efficacy, and psychological resilience (Zhang et al. 2023).

Optimism refers to the extent to which the individual views life positively in the present and the near future. It is just like a structure that is based on a certain objective. Indeed, optimistic individuals are characterized by holding positive expectations that enable them to realize obstacles as opportunities for learning and as challenges that motivate them to view failure as a power that pushes them towards more success and self satisfaction (Deng, et al. 2023 & Chen et al. 2023).

Hope is defined as the skill of redirecting paths towards the objectives of success. Hope represents a state of positive motivation in order to achieve a previously-determined objective by following various methods, such as developing certain cognitive behavioral strategies to achieve the targeted objectives and activating subjective initiatives to overcome risks (Nadiger et al. 2023 & Deng et al. 2023).

Bandura suggested that the concept of self-efficacy is related to individuals' self-confidence and their ability to activate their cognitive abilities and act based on the situation. In this vein, individuals have a way of thinking that enables them to make positive choices and face challenges (Yilmaz, 2023).

Psychological resilience refers to the individual's adaptation with the different stressors, as well as his ability to overcome challenges based on positive strategies. The individuals with high psychological resilience are more able to deal

with the stressors, and thus they can achieve better outcomes (Moqsoom et al. 2023). Psychological resilience was also defined as the individual's ability to recover quickly from stressful experiences and invest in failure to achieve success (Deng et al. 2023).

### **The study problem:**

The university stage is considered as one of the most important transitional stages in the individual's life. Indeed, this stage is accompanied by several emotional, social and psychological changes, where the severity of psychological stressors and emotional disturbances increase which, in turn, affects the feelings of the university youth and the way of their thinking and social behavior (Martins et al. 2023).

In this vein, Fernandes et al. (2023) suggested that depression and anxiety among the university youth is closely related to lower quality of life among them. Therefore, we can say that universities are considered as the environments that include the vast majority of the youth who need to regulate their emotions and require more reinforcement to their internal positive motives, such as hope, optimism and efficacy to engage more effectively in social and academic life. Accordingly, this study aimed to identify the importance of the variables and concepts of positive psychology (psychological capital, emotional regulation, life quality) due to their role in constructing the individual's personality, controlling his emotions, directing his behaviors and improving his life quality, by answering the following questions:

- 1-What is the level of emotional regulation and its dimensions among the university youth?
- 2-What is the level of life quality and its dimensions among the university youth?
- 3-What is the level of psychological capital and its dimensions among the university youth?
- 4-What is the extent to which emotional regulation and life quality contribute to predicting psychological capital?

### **The study importance**

The importance of this study lies in addressing an important category in the community which is the university youth, where they represent the foundation stone for the future and are considered as the human energy that affects the societal fabric, as this category determines the community's identity and aspirations. The current study also highlights the variables of (psychological capital, emotional regulation, life quality) that affect the social, emotional, and psychological development among the university youth, where paying attention to these variables is necessary in the light of the stressors, problems and challenges facing university students during their academic course. The study provides a theoretical framework that contributes to giving a comprehensive image about the nature of the study variables and helps the principals in the educational institutions to make the suitable decisions that guide the youth towards their objectives and enhance them to invest their energy to achieve more prosperity and progress to their community.

### **Research Objectives**

- 1- Identifying the level of emotional regulation and its dimensions among the university youth.
- 2- Identifying the level of life quality and its dimensions among the university youth.
- 3- Identifying the level of psychological capital and its dimensions among the university youth.
- 4- Identifying the extent to which emotional regulation and life quality contribute to predicting psychological capital.

### **Literature review**

The relationship between psychological capital, quality of life and emotional regulation :

As for psychological capital, it is reinforced by developing and training individuals, where it motivates them to perform tasks effectively. Psychological capital is viewed as a critical strategy that reduces emotional and intellectual stress (Haejun et al. 2023). Psychological capital is the outcome of the individual's belief in himself and his ability to achieve success in his future life based on his insistence to increase his efficacy and develop his skills to achieve the targeted objectives. The individuals who receive more psychological support can overcome social isolation and negative emotions, and find solutions to their problems (Yilmaz, 2023 & Wu et al, 2023).

Psychological capital contributes to improving emotional state, where the optimistic and confident individuals are less emotionally disordered. It also provides more hope for those with frustrated feelings, and provides them with a clear image to view their future, where this feeling of hope represents a strong protection against negative thinking, enhances

psychological resilience, supports positivism, regulates emotions, keeps mental health, and promotes positive feelings (Liu et al. 2023). Psychological capital also represents a source of power to individuals, and manifests their ability to recover quickly from frustration and negative situations, where it is considered as a state of positive development that increases the individual's success opportunities and is positively related to the indicators of psychological health, such as emotional regulation (Calvo & García, 2021). The previous studies addressed the relationship between emotional regulation and several psychological variables and personality traits.

In a study by Rech et al. (2023), the researchers confirmed that there is a positive relationship between the variables of positive psychology (hope, resilience, optimism, efficacy) and emotional regulation among university students in Brazil. The findings revealed that the students with lower level of emotional regulation have psychological stressors. (Yw et al. 2023) investigated the effect of personality traits (friendship, trust, self-awareness) and the skills of emotional expression on university students in Japan. The results revealed that individuals with high levels of trust and social skills enjoy higher levels of emotional expression, whereas there was a decline in the level of positive expression among the sample individuals, as they feel anxious in life situations, and have several negative emotional expressions due to Corona pandemic. Moreover, Kobylńska, et al (2020) confirmed the mediating role of emotional regulation in the relationship between personality traits and self-luxury. The results revealed that there is a correlation relationship between the strategies of emotional regulation and self-luxury. In a similar vein, Kim et al. (2023) aimed to identify the relationship between self-regulation and psychological resilience and identify the psychological stressors among university students. The results revealed that the students with high psychological resilience have more ability to regulate and control their emotions and are more recoverable from psychological stressors.

Furthermore, Yea and Ho, (2023) suggested that the students with higher levels of confidence, social skills and emotional regulation also have higher levels of self-luxury and use positive expressions effectively. In a study by Lacombe et al. (2023) about the correlation between social anxiety and emotional expression, the researchers suggested that the individuals suffering from social anxiety have difficulties in expressing emotions. (Mercan, et al, 2023) confirmed that individuals' cognitive distortions affect their way of communicating their feelings to others and increase their anxiety.

Ibrahim et al. (2022) aimed to identify the relationship between emotional expression and changes in life quality among university students in Lebanon. The results revealed that emotional expression are related to changes in life quality, where positive expression skills decline among those suffering from changes in their health lifestyle.

#### **Studies about life quality:**

Several previous studies addressed the factors affecting life quality among university students in several ways, including the assessment of stress and its resources. In a study by Naiyar et al. (2023), it was found that the most prominent factors affecting life quality was feeling lonely, the lack of social communication and health problems. The study revealed that (50%) of emotional problems and life stressors affected life quality, and that stressing life events and watching violence are amongst the most influential factors on life quality (Jozefiak et al. 2023). Similarly, Jang et al. (2023) revealed that psychological problems, such as depression and anxiety affect life quality. In another study, Beigrezaei et al. (2023) confirmed that the adolescent girls that obtained high scores in life quality were less likely to be affected by depression.

Bou-Hamed et al. (2023) revealed that religion, high income and healthy nutrition systems are considered amongst the factors affecting students' life quality, whereas depression and excessive use of the internet negatively affected life quality. The results revealed that there is a positive correlation relationship between self-efficacy and preventive healthy behaviors with life quality among students, where those with higher self-efficacy have better life quality (Kusol et al. 2023). According to Yu et al. (2023), males have more ability to encounter problems as compared to females, and that behavioral interventions related to enhancing healthy sleeping habits contribute to having a better life quality. Similarly, Xiang et al. (2023) revealed that healthy lifestyles were related to higher improvements in life quality.

In previous studies, life quality was correlated with academic stressors, as in (Wahid, et al, 2023) which revealed that high academic performance is related positively to life quality, where those with supportive educational environment and better life quality had a better academic performance. Moreover, Flølo, et al. (2022) revealed that satisfaction with

educational curriculum is positively related to total quality of life, whereas satisfaction levels decreased as academic stressors increased. Finally, Bashir et al. (2023) revealed that the level of life quality among students was medium in the domains of health and social relationships.

### **Psychological capital**

The studies of psychological capital investigate the indicators that enhance the psychological variables among students. For example, Kaur and Kaur. (2023) revealed that psychological capital is a positive indicator of academic motivation and participation, where it contributes to enhancing the student's personality. Also, psychological capital is considered as an effective instrument for achieving adaptation with academic life (Nadiger et al., 2023). In their study, Yang et al. (2023) aimed to investigate the impact of the psychological capital on life stressors among university students. The results revealed that the dimensions of psychological capital are considered as strategies for adapting with life stressors. Furthermore, A study Xu and Choi, (2023) found that psychological capital has a mediating role between participation in university activities and life satisfaction. Also, the results revealed that encouraging students to participate in university activities contributed to enhancing their psychological capital, and that emotional regulation affects psychological capital.

Moreover, Nimet and Ersin. (2023) suggested that culture, as well as social and economic level contributed to enhancing psychological capital. Also, the individuals' emotional experiences are considered as an important resource for information, as they enhance the multiple components of psychological capital, where those components are effective in promoting the individuals' efforts towards achieving the targeted objectives (Khodaei & Moczodini, 2023). In their study, Liu et al. (2023) confirmed that there is a strong relationship between self-empathy and psychological capital, and that digital media and integrative effects of positive psychology contributed to reducing suicidal ideation. Also, the basic motive of psychological capital among students plays an important role in their university choices, where it is viewed as a mediating factor between previous learning experience and the present time (Chen et al. 2023).

In a study conducted by Yao, et al. (2023), the correlation between psychological capital, depression and health among the university students was verified. The results revealed that psychological capital contributed to improving students' health and increased their determination to achieve more excellence. Furthermore, Sood and Puri (2023) revealed that psychological capital was related positively to mental health, and that the students with strong and high internal motives, such as hope and optimism are more likely to achieve success (Banda, 2023).

After reviewing the previous studies, it is obvious that the current study has been conducted in an attempt to understand the nature of its variables by investigating the degree of emotional regulation, the level of life quality, and the extent to which the variables of psychological capital exist among the university youth who are considered as a real wealth that should be invested for the benefit of the whole community. The study aimed to investigate the predictive ability of the variables of emotional regulation and life quality in psychological capital which, in turn, contributes to setting the policies and developing plans to activate the role of the youth in university life and construct their personality to be productive and effective individuals in the community.

## **2. Methodology**

The study used the predictive correlation descriptive approach, being the most appropriate to achieve the study objectives. This approach was used to identify the levels of emotional regulation, life quality and psychological capital, and detect the predictive ability of emotional regulation and life quality in psychological capital among the university youth.

### **2.1 Participants:**

The study sample consisted of (600) male and female University students from the University of Jordan of those enrolled during the academic year (2023-2024) as illustrated in table1, who were selected by using the available method and agreed to participate voluntarily in the study, and in collaboration with faculty members, the questionnaire was distributed electronically. The community of the University of Jordan is a cultural one that represents all the categories of the Jordanian community, in terms of social and intellectual diversity, and that contributes to achieving the study objectives.

**Table 1: Sample Members by Gender Variable**

Variable	Number	Percentage
Male	138	%23
Female	462	%77
	600	%100

## 2.2 Data Collection Tools:

The study included 3 main scales: First: the scale of emotional regulation, which consisted of (20) items and was developed based on reviewing the previous studies, including (Kim et al. 2023, Kobylńska et al, 2020) and included the following dimensions (expressing emotions, emotional awareness, positive assessment, emotional control). The validity and reliability of the used scales were verified by introducing them to (12) specialists in educational and psychological counseling in the Jordanian Universities. In order to ensure the clarity of the items. Internal validity was verified by calculating Pearson correlation coefficients for each item in the scale of emotional regulation and the total score, where their values ranged between (0.336-0.624), and all these values are statistically significant at ( $\alpha=0.05$ ). To ensure the stability of the scale, as depicted in Table 2

**Table 2: The value of the stability coefficient for the dimensions**

Dimensions	Cronbach alpha
expressing emotions	0.73
emotional awareness	0.70
positive assessment	0.75
emotional control	0.72
Total degree of the scale	0.82

In table 2 These values ( 0.70- 0. 75) suggest that the degrees of reliability for the scale are acceptable

The second is the scale of life quality that consisted of 20 items and included (4) dimensions (health, family, psychological, social), which was developed based on reviewing the previous studies, including (Bou-Hamed et al. 2023 & Kobylńska et al. 2020).

**Table 3: The value of the stability coefficient for the dimensions**

Dimensions	Cronbach alpha
health	0.70
Family	0.70
Psychological	0.77
social	0.71
Total degree of the scale	0.81

Table 3 highlights that the values ranged between (0.70 - 0.77 ), indicating that the scale of life quality effectively measures .

The third scale is psychological capital that consisted of (20) items that measure the variables of (psychological resilience, hope, optimism, self-efficacy), which was developed based on reviewing the previous studies, including (Yao, et al. 2023; Yang et al. 2023). and Pearson correlation coefficients were calculated for each item in the scale of psychological capital and the total score, where their values ranged between (0.516-0.650), and all these values are statistically significant at ( $\alpha=0.05$ ). Also, Cronbach alpha was calculated for The scale , as illustrated in table 4

**Table 4: The reliability scores for the psychological capital scale**

Dimensions	Cronbach alpha
psychological resilience	0.78
Hope	0.75
Optimism	0.74
	0.71
Self-efficacy	
Psychological capital (Total)	0.90

### 2.3 Data collection:

The researcher obtained a written consent by the council of institutional review to conduct the study. The data were collected from the sample individuals based on an electronic questionnaire that included the study scales: emotional regulation, life quality, and psychological capital, and in collaboration with faculty members, the questionnaire was distributed electronically after securing the approval of all participants. and the responses were rated using Likert 5-point scale ranging between (1) never to (5) all the time. and a total score was computed on the emotional regulation, life quality, and psychological capital scale, ranging between 20 and 100. Then, an average score was determined for paragraphs, based on the following criteria:  $(\text{Highest value} - \text{lowest value}) \div \text{Number of levels} = 5 - 1 \div 3 = 1.33$ , Thus the degree 2.33 and less (Low), 2.34 -2.66 (Medium), and 3.67 and more (High).

### 2.4 Data analysis

The descriptive statistics were used to identify the levels of emotional regulation, life quality and psychological capital as required by the first three questions, where the means and standard deviations were calculated, while multiple regression analysis was used to identify the predictive ability of emotional regulation, life quality and psychological capital.

## 3. Findings

RQ1: What is the level of emotional regulation and its dimensions among the university youth?

In order to answer this question, descriptive statistical means and standard deviations were calculated for the responses of the sample individuals to emotional regulation scale. as indicated in Table 5

**Table 5: The descriptive statistics for the emotional regulation scale.**

Number	Dimension	Mean	SD	Level
1	Emotional awareness	3.51	0.67	Medium
2	Emotional control	3.37	0.76	Medium
3	Positive assessment	3.33	0.80	Medium
4	Expressing emotions	3.28	0.77	Medium
Emotional regulation (total)		3.37	0.54	Medium

Table 5 presents that the level of emotional regulation scale was medium, The dimension of emotional awareness was in first place with a mean of (3.51) with a medium degree. This finding can be explained based on the factors that affect the level of emotional regulation among the university youth, represented by the characteristics of the age category of the university students, the requirements of the university stage, such as academic stressors, the burden of academic courses as well as the nature of the university environment, where the university students are exposed to many situations and emotional variables which require an appropriate response to the various situations away from impulsive reactions. Also, the university student is in a stage of maturity and emotional regulation, which qualifies him to be more aware of his emotions and able to demonstrate, manage and express them; therefore, he can adapt to urgent developments. University students also have a good knowledge, social skills and mental abilities that enable them to manage and coordinate their emotions, and help them control their emotions, and behave positively in embarrassing and stressful situations. This finding agrees with (Campbell,



et al, 2022), which shows that the cognitive and behavioral strategies that the individual uses to monitor, develop, and redirect self-emotions contribute to achieving emotional regulation to students. This result also agrees with (Yw, et al., 2023), which revealed that university students with high levels of confidence and social skills have a higher level concerning the skills of emotional expression. Additionally, Emotional regulation has an important role in communication and relationships between individuals in the community. Emotional regulation is a basic skill for achieving development in the various mental, emotional and social domains, in addition to being a real indicator for psychological health and social adjustment (Ibrahim et al. 2022; Ye, et al. 2023). Moreover, (Mercan, et al, 2023) revealed Individuals' cognitive distortions affect the way through which they communicate their feelings to others and increase their anxiety which, in turn, confirms that cognitive immaturity adversely affects emotional regulation.

RQ2: What is the level of life quality among the university youth?

In order to answer this question, descriptive statistical means and standard deviations were calculated for the responses of the sample individuals to the scale of life quality. Table 6 shows the descriptive statistics for the scale of life quality.

**Table 6: Means and standard deviations for the scale of life quality**

Number	Dimension	Mean	SD	Level
1	Psychological dimension	4.23	0.75	High
2	Family dimension	3.87	0.73	High
3	Social dimension	3.72	0.65	High
4	Health dimension	2.77	0.74	Medium
Life quality		3.65	0.51	Medium

Table 6 highlights that the average of life quality scale was medium with a mean of (3.65). This finding is attributed to the fact that the students in this stage are characterized by autonomy and self-confidence, where they control their personal life. This is derived from their self-efficacy, as they have the beliefs and abilities that enable them to face the challenges and achieve the targeted objectives. These results are compatible with Shatnawi (2019) and Kusol et al. (2023) which confirmed that with a high degree of self-efficacy tend to enjoy a better quality of life. Furthermore, university students have good knowledge outcomes that they acquired through the lectures they receive in their university courses, or via the educational seminars held by the university, which motivate them to maintain their psychological health, stay away from stressful events, and overcome the feelings of anxiety, so that such a positive university environment is considered as a motivation to students that encourages them to maintain the quality of their psychological life. This finding was confirmed by Wahid et al. (2023) which revealed that the positive and supportive educational environment contributes to improving the students' quality of life. This result agrees with Jang et al. (2023) which showed that psychological problems, such as anxiety, depression, and stressful life events affect the quality of life among university students. Bou-Hamed et al. (2023) revealed that religion, high income and healthy nutrition systems are considered amongst the factors affecting students' life quality, whereas depression and excessive use of the internet negatively affected life quality. This finding can also be explained based on the fact that family life is the most important domain of life quality. In this vein, the psychological and social atmosphere that university students experience, which is closely related to the way of family upbringing and parental treatment based on love and respect, contributed to improving the university students' quality of life, and their ability to establish healthy relationships which, in turn, enhances the concept of life quality among students. However, the weak family relationships and the failure to make friendships can adversely affect the quality of life among individuals. This finding was confirmed by Naiyar, et al. (2023) who revealed that feeling lonely, and the lack of social and family communication are amongst the factors that adversely affect the youth's quality of life.

RQ3: What is the level of psychological capital among the university youth?

This study extracted average scores, standard deviations in table 7

**Table 7: Means and standard deviations for the responses of the sample individuals to the scale of psychological capital**

Number	Dimension	Mean	SD	Level
1	Hope	4.30	0.61	High
2	Optimism	4.20	0.66	High
3	Psychological resilience	3.99	0.70	High
4	Self-efficacy	3.89	0.69	High
Psychological capital		4.09	0.56	High

Table 7 illustrates that the level of psychological capital was high, and it came after hope which scored first. This result is attributed to the fact that the students pass through a stage that is viewed as a turning point in their life, in terms of shaping their future. Therefore, during university stage, students feel positive and willing, and have more energy to continue achieving their ambitions and desired objectives; this case applies in light of the multicultural society that university provides to students which, in turn, provides them with opportunities to learn and invest in their failure experiences that motivate them to achieve success. This finding agrees with Nimet and Ersin (2023), Chen et al. (2023) and Deng et al (2023). Also, the university's atmosphere creates an opportunity to live new experiences and acquire diverse experiences which, in turn, increases the individual's self-efficacy and his ability to cope with life developments and adapt to new changes. Therefore, this allows students to have new horizons towards the future and increases their future ambitions. This finding agrees with Xu and Choi (2023), which revealed that students' participation in university activities promotes their psychological capital. Furthermore, the students' possession of academic qualifications and practical experiences that were provided to them through lectures motivates them to be optimistic and positive which, in turn, enhances their ability to continue their academic success. This finding agrees with Nadiger. et al. (2023), Banda (2023) which revealed that psychological capital is considered as an effective tool and internal motivator for achieving more academic success. Also The individuals with high psychological resilience are more able to deal with the stressors, and thus they can achieve better outcomes (Moqsoom et al. 2023).

**RQ4:** What is the extent to which emotional regulation and life quality contribute to predicting psychological capital?

Multiple linear regression analysis was used based on the stepwise method in order to determine the predictive ability of the variables that predict emotional regulation and life quality in the psychological capital among university youth. Table 8 shows the results.

**Table 8: The findings of multiple linear regression analysis**

Variables	Regression coefficient	Standard error	f-value	f-significance	$\beta$	t-value	t-significance	Change in the vlue of $R^2$
Fixed	1.574	0.140	165.849	0.000		11.277	0.000	
Life quality	0.447	0.044			0.411	10.219	0.000	0.312
Emotional regulation	0.264	0.041			0.257	6.373	0.000	0.043
$R^2=\overline{\gamma}$								0.355

Table 8 revealed that multiple linear regression analysis based on using stepwise maintained the variables of (life quality and emotional regulation). The results showed that the regression model is significant, where (f-value) was (165.849) at (0.000). Given the total sum of ( $R^2$ ) of (0.355), the variables of (life quality, emotional regulation) account for (35.5%) of variance in psychological capital. The value of ( $R^2$ ) for the variable of life quality was (0.312), which means that life quality account for (31.2%) of variance in psychological capital. Also, the value of ( $R^2$ ) for the variable of emotional regulation

was (0.043), which means that life quality account for (4.3%) of variance in psychological capital. Furthermore, the value of ( $\beta$ ) which demonstrates the relationship between life quality and psychological capital was (0.411), which is statistically significant, where ( $t=10.219$ ) at the significance level (0.000). This means that when the level of life quality improves by one unit, the level of psychological capital improves by (0.411) unit. Also, the value of ( $\beta$ ) for the variable of emotional regulation was (0.257), which is statistically significant, where ( $t=6.373$ ) at the significance level (0.000). This means that when the level of emotional regulation improves by one unit, the level of psychological capital improves by (0.257) unit. This finding is attributed to the nature of the environment provided by the university, which is supportive for several activities and experiences that contribute to shaping the students' personality and developing their skills as well as providing them with knowledge that enables them to face the stressful events and come up with positive explanations and justifications to reduce the negative effects of stressful events which is, in turn, reflected positively on life quality. These factors, collectively, affect psychological capital, in addition to their effect on the level of the student's positive expectations, aspirations and psychological resilience. This finding agrees with Rech et al. (2023) which revealed that there is a positive correlation relationship between the variables of positive psychology and emotional regulation. Also, the students with high psychological resilience and have the ability to organize their emotions have a high level of recoverability from psychological stressors (Kim, et al. 2023). Khodaei & Moczzodini (2023) confirmed that the individuals' emotional experiences contribute to enhancing the various components of psychological capital, where these components are effective in forming the individuals' luxury. Also, life quality contributes to enhancing psychological capital. This finding agrees with Xu & Choi (2023) which revealed that encouraging students to participate in activities contributed to enhancing their psychological capital, and that emotional regulation is considered amongst the factors affecting psychological capital. Additionally, it is easy to predict the success of the students with strong internal motives (Banda, 2023). Ibrahim, et al. (2022) suggested that there is a correlation between emotional expression and the changes in life quality, either positively or negatively, where positive expression declined among the individuals who suffer from changes in their health lifestyle. These results confirmed by the Yea and Ho (2023) study.

#### **4. Conclusion and Recommendations**

The study aimed to investigate the levels of emotional regulation, life quality and psychological capital among the University youth, and identify the predictive ability of life quality and emotional regulation in psychological capital. The results revealed that the levels of life quality and emotional regulation were medium, whereas psychological capital was high, which means that the students have internal motives that contribute to regulating their emotions and improving their life quality which is, in turn, reflected positively on their psychological capital. This positive psychological capital stems from the students' emotional, intellectual and cognitive maturity, in addition to the experiences that they acquired during their university study- this confirms the study results, which revealed that emotional regulation and life quality predict psychological capital.

The study was limited to the students of the University of Jordan during the academic year (2023/2024), where the participants' responses were collected by using an electronic questionnaire. The study recommended the necessity of training students about emotional skills, which include expressing, controlling, understanding and interpreting emotions, in addition to holding guidance lectures that contribute to constructing the students' personality and improving their life quality in the light of life changes and developments, as well as developing the University activities to satisfy the needs of all the culturally-diverse students and provide them with the experiences that enhance their self-efficacy and psychological resilience and improve their life.

## REFERENCES

- Abdul-Ghani, E., Kim, J., Kwon, J., Hyde, K., & Cui, Y. (2022). [over or like: gender effects in emotional expression in online reviews](#). *European Journal of Marketing*, 56(12), 3592-3616. <https://doi.org/10.1108/EJM-01-2021-0064>.
- Banda, C. (2023). Psychological capital influences the intrinsic motivation for university students from northwestern Mexico. *Interdisciplinary: Revista de Psicología y Ciencias Afines*, 40(2), 169-180. 12p. <https://doi.org/10.16888/interd.2023.40.2.10>.
- Bashir, R., Alam, B. F., Nayab, T., & Fahim, F. (2023). Post COVID-19 pandemic assessment of quality of life of dental students using the WHOQOL-BREF questionnaire. *Work*, 74(2), 425-433. 10.3233/WOR-211351
- Beigrezaei, S., Darabi, Z., Davies, IG., Mazidi, M., Ghayour-Mobarhan, M; Khayatzadeh, S (2023). [Higher global diet quality score is related to lower prevalence of depression and poor quality of life among adolescent girls](#), *BMC psychiatry* BMC Psychiatry, 23 (1), 886. <https://doi.org/10.1186/s12955-023-02201-2>.
- Bou-Hamad, I., Hoteit, R., Hijazi, S., Ayna, D., Romani, M., & El Morr, C. (2023). [Coping with the COVID-19 pandemic: A cross-sectional study to investigate how mental health, lifestyle, and socio-demographic factors shape students' quality of life](#). *PLoS ONE*. 7, 18(7), 1-15. 15p. <https://doi.org/10.1371/journal.pone.0288358>.
- Calvo, A., & García, M. (2021). The influence of psychological capital on graduates' perception of employability: the mediating role of employability skills. *Higher Education Research & Development*, 40(2), 293-308.
- Campbell, L., Swaab, L., Freeman, E. E., McCormack, L., Simon, T., Angkustsiri, K., & McCabe, K. (2022). [The Importance of Understanding Individual Differences of Emotion Regulation Abilities in 22q11.2 Deletion Syndrome](#). *Journal of Autism & Developmental Disorders*, 52(7). <https://doi.org/10.1007/s10803-021-05172-9>
- Chen, P., Lin, C., Lin, I., & Owen, C. (2023). [The Mediating Effects of Psychological Capital and Academic Self-Efficacy on Learning Outcomes of College Freshmen](#). *Psychological Reports*, 126(5), 2489-2510. 22p. <https://doi.org/10.1177/00332941221077026>.
- David, O., & Fodor, L. (2023). [Are gains in emotional symptoms and emotion-regulation competencies after the RETHink therapeutic game maintained in the long run? A 6-month follow-up](#). *European child & adolescent psychiatry*, 32 (10), 1853-1862. <https://doi.org/10.1007/s00787-022-02002-w>.
- Deng, J., Xu, Y., Li, Q., Yang, W., & Deng, H. (2023). The relationship between psychological capital, patient's contempt, and professional identity among general practitioners during COVID-19 in Chongqing, China. *PLoS ONE*. 18(10), 1-15. <https://doi.org/10.1371/journal.pone.0287462>.
- Edossa, A., Schroeders, U., Weinert, S., & Artelt, C. (2017). The development of emotional and behavioral self-regulation and their effects on academic achievement in childhood. *International Journal of Behavioral Development*, 42(2), 192-202. <https://doi.org/10.1177/0165025416687412>
- Fernandes, M., Mendonça, C., da Silva, T. de Abreu, L., & Noll, M. (2023). [Relationship between depression and quality of life among students: a systematic review and meta-analysis](#). *Scientific Reports*. 413 (1), p1-17. 17p. DOI: 10.1038/s41598-023-33584-3.
- Flølo, T., Gjeilo, K., Andersen, J., Haraldstad, K., Hjelmeland, J., Iversen, M., Løyland, B., Norekvål, T., Riiser, Ki., Rohde, G., Urstad, K., Utne, I., & Beisland, E. (2022). [The impact of educational concerns and satisfaction on baccalaureate nursing students' distress and quality of life during the Covid-19 pandemic: a cross-sectional study](#). *BMC Nursing*, 21(1), 1-13. 13p. <https://doi.org/10.1186/s12912-022-00962-7>
- Habibi-Kaleybar, R., & Dehghani, S. (2021). [The Effectiveness of Training Emotional Regulation Skills in Reducing Addiction Ability in Male High School Students](#). *Journal of Research & Health*, 11(2), p105-111. 7p. <https://doi.org/10.32598/JRH.11.2.1721.3>.
- Haejun, C., Sujin, S., & Kim, S. (2023). [Effects of Clinical Nurses' Responses to Violence on Burnout: The Moderating Role of Positive Psychological Capital](#). *Korean Journal of Adult Nursing*, 35(4): 406-417. 12p. DOI: [10.7475/kjan.2023.35.4.406](https://doi.org/10.7475/kjan.2023.35.4.406).
- Ibrahim, J., Fares, C., & Bader, R. (2022). [Relationship between emotional expressions and lifestyle changes among university students during COVID-19 lockdown in Lebanon](#). *Journal of Infection in Developing Countries*, 16(7), p1148-1158. <https://doi.org/10.3855/jidc.16081>.

- Ivan, N., Lydia, T., & Ad Vingerhoets, H. (2004). [Emotional Expression and Health: Advances in Theory, Assessment and Clinical Applications](#). East Sussex: Routledge.
- Jang, S., & Lee, H. (2023). [Social jetlag and quality of life among nursing students during the COVID-19 pandemic: a cross-sectional study](#). BMC Nursing, 22(1), 1-10. <https://doi.org/10.1186/s12912-023-01223-x>
- Jenson, W. R., Olympia, D., Farley, M., & Clark, E. (2004). Positive psychology and externalizing students in a sea of negativity. Psychology in the Schools, 41(1), 67-79. <https://doi.org/10.1002/pits.10139>
- Jozefiak, T., Wallander J., & Lydersen, S. (2023). [Change Over 11-13 Year Periods in Quality of Life, Emotional Problems and Negative Stressful Life Events Among 13-17 Year Old Students](#). Child Psychiatry & Human Development, 54, 1415–1424. <https://doi.org/10.1007/s10578-022-01325-8>.
- Kaur, J., & Kaur, L. (2023). [Psychological Capital as a Predictor of Academic Engagement and Academic Motivation among College Students](#). Indian Journal of Positive Psychology, 14 (3), 343-346.
- Khodaei, A., & Moezzodini, Sh. (2023). [Modeling Relationships Between Teacher Emotions, Psychological Capital and Job-Related Affective Well-Being in Teachers](#). Quarterly Journal of Applied Psychology / Faṣḥnāmah-i Ravān/shināsī-i Kārburdī, 17(3), 169-189. <https://doi.org/10.48308/APS.Y.2022.224383.1198>.
- Kim, K., Lee, J., & Yoon, J. (2023). [Effects of Emotional Regulation, Resilience, and Distress Disclosure on Post-Traumatic Growth in Nursing Students](#). International journal of environmental research and public health, 20(4). <https://doi.org/10.3390/ijerph20042782>.
- Kobylnska, D., Zajenkowski, M., Lewczuk, K., Jankowski, K., & Marchlewska, M. (2020). The meditational role of emotion regulation in the relationship between personality and subjective well-being current psychology. <https://doi.org/10.1007/s12144-020-00861-7>.
- Kusol, K., & Kaewpawong, P. (2023). [Perceived Self-Efficacy, Preventive Health Behaviors and Quality of Life Among Nursing Students in Nakhon Si Thammarat Province, Thailand During the COVID-19. Pandemic](#) Patient Preference & Adherence, 17, 1989-1997. <https://doi.org/10.2147/PPA.S424611>.
- Lacombe, C., Simoneau, K., Elalouf, K. & Collin, C. (2023). [The Impact of Social Anxiety Disorder on Emotional Expression Recognition: A Meta-analysis](#). Cognitive Therapy & Research, 47(5), 732-751. <https://doi.org/10.1007/s10608-023-10376-7>.
- Le Rhun, A., Caillet, P., Lebeauvin, M, Duval, M., Guilmault, L., Anthoine, E., Borghi, G., Leclère kV Moret, L. (2023). [Ind-body and art therapies impact on emotional regulation in patients with chronic diseases: a pragmatic mixed-methods randomized controlled trial](#). BMC complementary medicine and therapies, 23(1), 344. <https://doi.org/10.1186/s12906-023-04173-8>.
- Liu, C., Chen, H., Zhang, A., Gong, X., Wu, K., Liu, C., & Chiou, W (2023). [The effects of short video app-guided loving-kindness meditation on college students' mindfulness, self-compassion, positive psychological capital, and suicide ideation](#). Psicologia: Reflexão Crítica, 36(1), 1-12. <https://doi.org/10.1186/s41155-023-00276-w>.
- Martins, M., & Ángel, M. (2023). [Factores psicológicos de los estudiantes universitarios y calidad de vida: Una revisión sistemática prepandemia](#). Interdisciplinaria: Revista de Psicología Ciencias Afines, 40 (1), 25-41. <https://doi.org/10.16888/interd.2023.40.1.2>.
- Maqsoom, A., Ashraf, H., Alaloul, W., Salah, S., Alaa, U., Fahim, G., Maria, M., & Muhammad, A. (2023). [The Relationship between Error Management, Safety Climate, and Job-Stress Perception in the Construction Industry: The Mediating Role of Psychological Capital](#). Buildings, 13(6), 1528. <https://doi.org/10.3390/buildings13061528>.
- Mercan, N., Bulut, M., & Yüksel, Ç. (2023). [Investigation of the relatedness of cognitive distortions with emotional expression, anxiety, and depression](#). Current Psychology, 42(3), 2176-2185. <https://doi.org/10.1007/s12144-021-02251-z>.
- Nadiger, S., Raut, P., & Tagad, P. (2023). [cross sectional study on psychological capital and its relation with academic adjustment among medical students](#). International Journal of Pure Medical Research, 8 (6), p1-4. 4p.
- Naiyar, I., Masud, R., Ashfaq, A., Faheem, A., Anjum, A., Farogh, H., & Shoaib, N. (2023). [Factors affecting Quality of Life \(QOL\) in students during study in medical institution](#). Professional Medical Journal., 30 (10), p1355-1361. 7p. <https://doi.org/10.29309/TPMJ/2023.30.10.7632>.
- Rezaee, R., Pabarja, E., & Mosalanejad, L. (2019). Students' Academic Quality of Life and Learning Motivation in Iran Medical

- University-pilot from south Iran. *Pakistan Journal of Medical and Health Sciences*, 13(2), 570-576.
- Rech M., Diaz, G., Schaab L., Rech C., Calvetti, P., & Reppold C. (2023). Association of Emotional Self-Regulation with Psychological Distress and Positive Functioning Dimensions in Brazilian University Students during the COVID-19 Pandemic. *International journal of environmental research and public health*, 20(14). <https://doi.org/10.3390/ijerph20146428>
- Rodríguez, R., Quintero, A., Paddison, B. (2020). [The direct and indirect influence of experience quality on satisfaction: the importance of emotions.](https://doi.org/10.1080/13683500.2019.1668917) *Current Issues in Tourism*, 23 (22), p2779-2797. <https://doi.org/10.1080/13683500.2019.1668917>.
- Sood, S., & Puri, D. (2023). [Psychological capital and positive mental health of student-athletes: Psychometric properties of the sport psychological capital questionnaire.](https://doi.org/10.1007/s12144-022-03272-y) *Current Psychology*. 42 (25), p21759-21774. 16p. DOI: 10.1007/s12144-022-03272-y.
- Wahid, M., Sethi, M., Shaheen, N., Javed, K., Qazi, I., Osama, M., Ilah, A., & Firdos, T. (2023). [Effect of academic stress, educational environment on academic performance & quality of life of medical & dental students; gauging the understanding of health care professionals on factors affecting stress: A mixed method study.](https://doi.org/10.1371/journal.pone.0290839) *PLoS ONE*, 18 (11), p1-14. <https://doi.org/10.1371/journal.pone.0290839>.
- Wu, C., He, C., Yan, J., Zhang, H., Li, L., Tian, C., Chen, N., Wang, Q., Zhang, Y., Lang, H. (2023). [Psychological capital and alienation among patients with COVID-19 infection: the mediating role of social support.](https://doi.org/10.1186/s12985-023-02055-6) *Virology Journal*, 20(1) 10.1186/s12985-023-02055-6.
- Xiang, H., Feng, X., Lin, L., Luo, S., Liu, X., Chen, D, KGuo, X., Chen, W; Guo, VY.(2023). 16. [Association between healthy lifestyle factors and health-related quality of life among Chinese adolescents: the moderating role of gender.](https://doi.org/10.1186/s12955-023-02201-2) *Health and quality of life outcomes*, 21 (1). <https://doi.org/10.1186/s12955-023-02201-2>.
- Xu, J., & Choi, M. (2023). Can Emotional Intelligence Increase the Positive Psychological Capital and Life Satisfaction of Chinese University Students? *Behavioral Sciences*,13(7). <https://doi.org/10.3390/bs13070614>.
- Yadav, E., & Chanana, S. (2018). Emotional regulation and well-being among elderly. *International Journal of Scientific and Research Publications*, 8(2), 196-200.
- Yang, M., Hsueh, K., Chang, C., & Hsieh, H. (2023). [The Influences of Sports Psychological Capital to University Baseball Athletes' Life Stress and Athlete Burnout.](https://doi.org/10.3390/bs13080617) *Behavioral Sciences*, 13(8). <https://doi.org/10.3390/bs13080617>.
- Yao, Y, Yao, J., Chen, S., Zhang, Xi., Meng, H., Li, Y., & Lu, L. (2023). [Psychological Capital and Self-Acceptance Modified the Association of Depressive Tendency with Self-Rated Health of College Students in China during the COVID-19 Pandemic.](https://doi.org/10.3390/bs1307055) *Behavioral Sciences*, 13(7). <https://doi.org/10.3390/bs1307055>.
- Ye, S., Wakabayashi, H., & Khan, M. (2022). The relationships between users' negative tweets, topic choices, and subjective well-being in Japan.; *Handbook of Research on Foundations and Applications of Intelligent Business Analytics*. Hershey, 288–300. <https://doi.org/10.4018/978-1-7998-9016-4.ch013>
- Ye, S., Ho, K., Wakabayashi, K., & Kato, Y. (2023). [Relationship between university students' emotional expression on tweets and subjective well-being: Considering the effects of their self-presentation and online communication skills.](https://doi.org/10.1186/s12889-023-15485-2) *BMC Public Health*, 23(1), 1-12. <https://doi.org/10.1186/s12889-023-15485-2>.
- Yilmaz, R. (2023). [Comparison of psychological capital and self-compassion in terms of generations: a research on aviation companies.](https://doi.org/10.17755/esosder.1267092) *Electronic journal of social sciences*, 22(88), 1597-1614. <https://doi.org/10.17755/esosder.1267092>
- You, X., Ju, C., Wang, M., Zhang, B., & Liu, P. (2017). Age differences in the influence of induced negative emotion on decision-making: The role of emotion regulation. *The Journals of Gerontology: Series*, 74(5), 796-805. <https://doi.org/10.1093/geronb/gbx137>
- Yu, L., Wu, Y., Guo, Ci., Qiao, Q., Wang, X., & Zang, S. (2023). [Latent profile analysis for health-related quality of life, sleep quality, morning and evening type, and internet addiction among medical students.](https://doi.org/10.1038/s41598-023-38302-7) *Scientific Reports*, 13(1), 1-10. <https://doi.org/10.1038/s41598-023-38302-7>.
- Zhang, G., Tian, W., Zhang, Y., Chen, J., Zhang, X., Lin, W., Li, H., Sun, L., Cheng, B., Ding, H., & Song, G.(2023). [The mediating role of psychological capital on the relationship between authentic leadership and nurses' caring behavior: a cross-sectional study.](https://doi.org/10.1186/s12912-023-01610-4) *BMC Nursing*, 22(1),1-9. 9p. <https://doi.org/10.1186/s12912-023-01610-4>.