

Optimism and Psychological Flexibility among Basic Education Students during COVID-19 Pandemic

Bilal Mohamad Salah, Nayef Fadous Alhamad, Waleed Soliman Hayajneh, Mahmoud Ali Rababah

Article Info	Abstract
Article History Received: April 1, 2026 Accepted: July 1, 2026 Keywords : Basic education stage, Coronavirus (COVID-19) pandemic, Jordan, Optimism, Psychological flexibility. DOI: 10.5281/zenodo.21075557	<i>This study investigated the relationship between optimism and psychological flexibility in a random sample of 487 Jordanian basic stage students who have faced a lot of challenges during the outbreak of Coronavirus (COVID-19) pandemic which has affected the formation of their personality, social relationships, psychological and physical health, academic achievement and more importantly their optimism and psychological flexibility. A descriptive analytical approach was used to analyze the data. The results showed that the levels of optimism and psychological flexibility were moderate among students, and there was a positive statistically significant correlation between them in favor of females. The study recommended parents and school teachers and decision-makers to develop the students' skills of psychological flow and academic self-efficacy through therapeutic and training counseling programs because there is a strong positive relationship between the effect of psychological flow and academic self-efficacy. It also recommended conducting similar studies on optimism and psychological flexibility through employing different qualitative methods such as observation and structured interviews to obtain thick and authentic information about the students' real behaviors and perspectives to understand the impact of Coronavirus pandemic on their optimism and psychological flexibility levels.</i>

Introduction

Optimism and psychological flexibility greatly affect the formation of individuals' personality, their social relationships, psychological and physical health and their academic achievement as well. An optimistic person normally expects happiness and success. Commonly, he succeeds in achieving psychological and social compatibility, and looks at life with a positive perspective. Besides, he is more optimistic about the future and what is around it (De Meza & Dawson, 2021). Psychological flexibility is one of the main determinants of students' success or failure in various situations. It enables them, when it is high, to effectively perform the appropriate response that fits the situation. On the other hand, its weakness is the most obstacle in the way to the compatibility of individuals with others (Liu et al., 2014; Zaheer, 2015).

The pains and suffering that have prevailed in the educational environment as a result of the Coronavirus pandemic has left clear effects on students' psychological status, represented in the emergence of emotional and psychological effects, and grumbling about life due to the existing conditions. The ability to tolerate these situations is one of the indicators of low level of mental health and psychological optimism which is one of the most important factors that help to advance students' educational achievement and psychological and mental stability (Marbah & Bilal, 20017). As a consequence, this requires a degree of optimism and psychological flexibility on the part of the students to enable them to pass this stage safely (Liu et al., 2014).

Study Background

The outbreak of the Coronavirus (COVID-19) pandemic through the world has caused billions of people to be confined in their homes, especially after the World Health Organization's announcement that the virus epidemic had risen to the level of a pandemic. The COVID-19 pandemic has become currently a global health threat because of its negative impact on mental health and well-being of people globally (Arslan et al., 2020). As most sectors, education have panicked and worried about the outbreak of COVID-19 pandemic negative effects, as an increasing number of schools around the world have suspended or canceled most events and activities that used to be carried out on school sites. Schools have taken extensive measures to prevent the spread of this dangerous virus and protect students from this highly contagious disease. As a result, teaching staff members have been forced to move from face-to-face teaching to online teaching platforms (UNESCO, 2020). Thus, schools all around the world have faced various challenges due to the COVID-19 outbreak, most notably the shift from face-to-face education to online platforms although some schools have already started preparing their plans for teaching online for students as online teaching is not a new method in many schools (UNESCO, 2020).

The study of students' optimism and its relation with psychological flexibility has become of great importance due to their association with human mental health (Marbah & Bilal, 2017), and for their role in perseverance, achievement and positive outlook on life (Reed, 2016). Optimism means to have an optimistic outlook towards the future, which makes an individual expect the best, wait for the good to happen, and yearn for success (Marbah & Bilal, 2017). Psychological optimism is important in the psychological life of students, their behavior and their relations with others (Brisette et al., 2002), and it has an effective impact on the students' good mood and plans for the near and far future (Tan, 2010). Psychological optimism is a voluntary psychological process that generates thoughts and feelings of contentment, endurance, hope and confidence, and drives away thoughts and feelings of despair, defeatism and helplessness (De Meza & Dawson, 2021). An optimistic person often understands crises well, and instills in himself security and reassurance to deal with obstacles. Psychological optimism also activates the psychological and physical immune systems, and this makes psychological optimism a path to health and happiness in life (Emad, 2019; Liu et al., 2014). Optimism is a generalized emotional and cognitive readiness and tendency to believe or respond emotionally to others. It is the attitudes of thinking in a positive and promising way and the expectation of good and beneficial results of the future (Hassan, 2019). An optimist individual is more inclined to believe that good things will happen and he tends to be cheerful and pleasant (Liu & Bates, 2014).

Psychological flexibility is one of the psychological phenomena that has good and positive effects on individuals (Mohammed, 2019), despite of some threatening factors that may hinder adaptation or growth that an individual may go through during the stages of his life (Zaheer, 2015). It is an essential aspect of health. Achieving mental healthy life is one of the most vital goals of human existence (Fredrickson & Losada, 2005) and this reflects the variances between individuals in response to threat and stress factors. There are some individuals who respond in a positive way to their difficult circumstances. On the other hand, there are those who are affected by these circumstances, and consequently they reflect negatively on their life (Zautra et al., 2010).

Psychological flexibility refers to the idea of the individual's tendency to remain stable and maintain his calm and self-balance when exposed to stress or uneasy situations (Zautra et al., 2010) along with his ability to effectively adapt and positively confront pressures and upsetting situations (Wendling, 2012). This tendency requires an individual to be able to positively conform these pressures and inconveniences. Thus, this may speed his recovery and quickly overcome stressful situations, return to the normal purposeful state and make him consider disturbing or a stressful situation as an opportunity to strengthen oneself and immunize it against pressures and stressful situations in the future (Liu et al., 2014).

Psychological flexibility is the individual's ability to effectively face different situations and respond rationally (Reich et al., 2012). It establishes good relations with others based on friendliness, mutual respect and acceptance of others (Marshall & Brockman, 2016). It is the process of good adjustment and positive response to difficulties, shocks, calamities or normal psychological pressures that human beings face, such as family problems, problems with relationships with others, health problems, and work pressures (Zautra et al., 2010). It is a critical component in determining the way in which individuals react and deal with stress. There is a wide range of traits associated with flexibility which are related to positive manifestations and strengths of an individual's mental state (Ciarrochi et al., 2010).

Problem Statement

Basic stage students in Jordan have faced a lot of challenges during the outbreak of Coronavirus (COVID-19) pandemic which has affected the formation of their personality, their social relationships, psychological and physical health, their academic achievement and more importantly their optimism and psychological flexibility. Studying optimism and psychological flexibility is of a great importance due to their relationship to human mental health (Ruthig et al., 2009). They have a role in the positive outlook on life among school students. School students suffer from developments and mood swings that may make them in a state of turmoil and confusion or a change in their perception. They may form misperceptions that make them focus on the negative aspects of everything surrounding them (Allam, 2021). Hence, there is a need to study both optimism and psychological flexibility as positive concepts.

The results of previous relevant literature study indicated that stress caused by Coronavirus had significant negative predictive effects on optimism, pessimism and persons' low flexibility (e.g., Arslan et al., 2020). It also revealed a positive correlation between personality factors and psychological optimism, extroversion, openness to experience and dedication (e.g., Ibrahim, 2020). As such, they found that flexibility and optimism are closely related and the interaction between them is significant (e.g., Reed, 2016). In order to pass this stage successfully, they must exert effort and perseverance and bear the stage requirements. And they should be ready to face the pressures of life. They should have appropriate levels of optimism and psychological flexibility that enable them to cross this stage and overcome the obstacles that stand in the way of their studies under the great challenges that people face due to the spread of the Coronavirus pandemic.

Research Questions

The study aimed to answer the following questions:

1. What is the level of optimism and psychological flexibility among basic education stage students during COVID-19 outbreak?
2. Does the degree of psychological optimism and psychological flexibility among students of the basic education stage differ according to gender?
3. Is there a statistically significant relationship between optimism and psychological flexibility due to gender among basic education students?

The Limits of the Study

- Objective limits: They have been determined in light of the concepts and terms used which were optimism and psychological flexibility among students of the basic education stage in light of the Coronavirus pandemic. And the study was determined by the tools it used and its psychometric properties.
- Human limits: This study was conducted on a sample of basic education stage students.
- Spatial boundaries: These boundaries are defined in the schools of basic education stage in the city of Irbid.
- Time limits: the study was set to be implemented during the academic year 2020/2021.

Literature Review

Several studies have attempted to examine the relation between optimism and psychological flexibility. For instance, Nu'man (2020) investigated the relationship between optimism and orientation towards life among university students in Iraq. He found that there was a significant correlation between optimism and orientation towards life, and that the level of optimism as well as the level of orientation towards life were average. The results also revealed that there were no differences in optimism level with regard to the variables "gender" and "specialization".

Arslan et al. (2020) examined the correlation of optimism, pessimism, low psychological flexibility with stress caused by the Coronavirus and psychological problems it incurred. The results indicated that stress caused by the Coronavirus had a significant predictive effect on optimism, pessimism, low psychological flexibility, and psychological problems. Ibrahim (2020) examined optimism and pessimism and their relationship to five personality factors, namely, psychological optimism, extroversion, and openness to experience, dedication and gentleness of a sample of secondary school students in Baghdad in Iraq. The results revealed a positive, statistically significant correlation between the degrees of these personality factors. Huda (2020) studied the level of optimism and its relationship to psychological flexibility among school students in Mosul in Iraq and its relationship to the five factors of personality. The results revealed a positive correlation between optimism and psychological flexibility, and between degrees of personality factors and extroversion factors, openness to experience, dedication, gentleness, optimism and flexibility.

Emad (2019) investigated optimism and pessimism among university students in Aleppo in Syria. He found that nearly two-thirds of the total sample of the participants were moderately pessimistic. The statistical results did not show the existence of statistically significant differences between the averages of males and females in the trait of psychological optimism-pessimism. Hassan (2019) examined the relationship between optimism, pessimism and psychological hardness among secondary school students in Mansoura in Egypt. The results of the study showed that the level of optimism came to a high degree, and that there were no differences between students' responses in the concepts of optimism and pessimism depending on the academic level. The results also revealed a positive correlation between optimism and psychological toughness.

Omar's (2019) study looked at the relationship between psychological stress and optimism and pessimism experienced by secondary school students in Iraq. The study concluded that secondary school students have an average level of psychological stress, and there was a negative correlation between psychological stress and psychological optimism while there was a positive correlation with statistical significance between psychological stress and pessimism. Reed (2016) explored the relationship between flexibility in dealing with optimism and mental health, which was measured by perceived stress and life satisfaction. The study found that flexibility and optimism were closely related, and the interaction between them was large. And it found that optimism affect the relationship between flexibility with stress and life satisfaction.

The increasing demands of life as a result of scientific and technological development and the urgent psychological impulse to meet and go along with them have made students live in a state of positive and negative conflict at the same time. The positive aspect, which is psychological optimism, is considered a motivating factor to continue work and effort to look forward to a better future and a better life through the optimistic outlook that it should be in the framework of an individual's perception, and it is the motivating factor towards achieving someone's goals.

Methods

Population and Sample of the Study

The study relied on the descriptive analytical correlative approach to achieve its objectives. The study population consisted of all students of the basic education stage in Irbid city schools. The sample of the study

consisted of (487) students (291 females and 196 males). The study was conducted in the first semester during the first semester 2020/2021.

Study Tools

Two tools were used in the current study to measure the levels of optimism and psychological flexibility among the study sample members:

Optimism Scale

The study adopted Scheier and Carver's (1985) and Scheier et al.'s (1994) optimism scale. The scale was translated into Arabic by Al-Ansari (2003). The scale consisted of (10) items in its final form. It was designed according to Likert Scale of evaluative estimates with five alternatives for each item (never, rarely, sometimes, often and always) which were graded (1, 2, 3, 4, and 5) respectively. The scale was applied to an exploratory sample of (61) male and female students. The reliability of the scale was estimated in two ways: (i) internal consistency through using Cronbach's Alpha equation, and its value was (0.89); and (ii) retesting through calculating Pearson's correlation coefficient, and its value was (0.83). Both of the values were acceptable for the purposes of the study. The construct validity of the scale was also verified by calculating the corrected item-total correlation coefficient for the correlation of each item of the scale with the total score of the scale, the values of which ranged between (0.44) and (0.71), and all of them were acceptable.

Psychological Flexibility Scale

This scale was developed by referring to the theoretical literature and previous studies (e.g., Al-Sheikh, 2017; Huda, 2020; and Shaqoura, 2012). The scale consisted of (39) items which were suitable for the purpose of the study. The scale was first applied to an exploratory sample of (61) male and female students. And the stability of the internal consistency was estimated using Cronbach Alpha equation and its value was (0.95). The test was retested by calculating Pearson's correlation coefficient and its value was (0.87). These values were acceptable for the purpose of the study. The construct validity of the scale was also verified by calculating the corrected item-total correlation coefficient for the correlation of each item of the scale with the total score of the scale, the values of which ranged between (0.27) and (0.77). All of them were acceptable values.

Statistical Standard

To find out the level of optimism and psychological flexibility among the study sample members, the following statistical criterion was used: individuals whose means of responses was between (1 - less than 2.34) were considered to have a low level of optimism and psychological flexibility; and individuals whose means of responses were between (2.34 - less than 3.67) were considered to have a medium level of optimism and psychological flexibility. And individuals whose means of responses lied between (3.67-5) were considered to have a high level of optimism and psychological flexibility. The means, standard deviations, t-test for independent samples, Pearson's correlation coefficient, and Cronbach's alpha (internal consistency) were calculated.

Results

The results were presented according to the research questions as follows:

The Level of Optimism and Psychological Flexibility

Q 1. What is the level of optimism and psychological flexibility among basic education stage students during COVID-19 outbreak?

To answer the first question, the means and standard deviations of the responses of the study sample members were calculated on each item of the optimism scale and on them together as shown in Table 1.

Table 1. Students' Responses on each Item of the Optimism Scale and on them Together

Item	Rank	Mean	SD.	Degree
Q2	1	4.13	1.04	High
Q4	2	4.06	1.05	High
Q5	3	4.01	1.08	High
Q3	4	3.96	1.09	High
Q10	5	3.87	1.13	High
Q1	6	3.77	1.11	High
Q7	7	2.40	1.27	Medium
Q6	8	2.39	1.21	Medium
Q8	9	2.33	1.17	Low
Q9	10	2.26	1.21	Low
Optimism		3.32		Medium

It is noted from Table 1 that the level of optimism among students of the basic education stage in Coronavirus pandemic was average with a mean of (3.32), where the means of students' responses ranged between (4.13) for item (2), which states "I am always optimistic about my future" at a high level, and between (2.26) for item (9) which states "I never expected things to go in my favor" at a low level.

To measure the level of psychological flexibility, the means and standard deviations of the responses of the study sample members were calculated on each item of the optimism scale and on them together as shown in Table 2.

Table 2. *Students' responses on Each of the Items of the Psychological Flexibility Scale and on them Together*

Item	Rank	Mean	SD.	Degree
Q13	1	4.42	0.81	High
Q23	2	4.24	0.87	High
Q38	3	4.15	1.05	High
Q34	4	4.07	1.10	High
Q43	5	4.07	1.08	High
Q36	6	4.06	1.04	High
Q40	7	4.03	1.11	High
Q46	8	4.00	1.13	High
Q14	9	3.98	1.09	High
Q19	10	3.97	1.14	High
Q47	11	3.95	1.18	High
Q18	12	3.94	1.11	High
Q49	13	3.93	1.12	High
Q35	14	3.92	1.13	High
Q15	15	3.90	1.17	High
Q21	16	3.90	1.06	High
Q48	17	3.90	1.16	High
Q26	18	3.88	1.12	High
Q16	19	3.87	1.18	High
Q11	20	3.86	1.17	High
Q17	21	3.84	1.14	High
Q24	22	3.83	1.09	High
Q27	23	3.82	1.19	High
Q20	24	3.81	1.12	High
Q22	25	3.78	1.18	High
Q31	26	3.77	1.19	High
Q29	27	3.74	1.25	High
Q12	28	3.69	1.19	High
Q39	29	3.14	1.51	Medium
Q33	30	3.01	1.46	Medium
Q45	31	2.96	1.42	Medium
Q32	32	2.94	1.43	Medium
Q42	33	2.93	1.45	Medium
Q44	34	2.87	1.44	Medium
Q30	35	2.72	1.41	Medium
Q37	36	2.67	1.41	Medium
Q28	37	2.54	1.33	Medium
Q41	38	2.54	1.36	Medium
Q25	39	2.38	1.33	Medium
Psychological Flexibility		3.62	0.48	Medium

Table 2 showed that the level of psychological flexibility among students of the basic education stage under the Coronavirus pandemic was (medium) with a mean (3.62), where the means of their responses ranged between (2.38) which was for item (25) which states "whatever the obstacles are, I strive to achieve my goals". And it was (4.42) and item (13) which states "When I solve a problem, I find pleasure in moving to another problem" at a high level.

Degree of Optimism and Psychological Flexibility Due to Gender

Q 2. Does the degree of psychological optimism and psychological flexibility among students of the basic education stage differ according to gender?

To answer the second question, T (Two Independent Sample t-test) was applied on the means of the responses of the study sample members on the scale of optimism as a whole, and psychological flexibility as a whole according to the gender variable as illustrated in Table 3.

Table 3. *Students' Responses on the Scale of Optimism and Psychological Flexibility as a Whole due to the Gender*

Gender	N	Mean	SD	T	DF	Sig. (2-tailed)
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Optimism	Male	196	3.27	0.40	-1.712	485	0.088
	Female	291	3.35	0.53			
Psychological Flexibility	Male	196	3.65	0.52	1.365	485	0.173
	Female	291	3.59	0.45			

Table 3 showed that the responses of the study sample on the optimism scale amounted to ($t = -1.712$) with a statistical significance of (0.088), which is greater than ($\alpha=0.05$). This indicated that there was no statistically significant difference in the optimism of the sample members study due to their gender. With regard to the responses of the study sample members on the psychological flexibility scale, the results showed that it had the value of ($t = 3.365$) which was statistically significant (Sig. = 0.173). It was greater than ($\alpha = 0.05$) which indicated that there was no statistically significant difference in the psychological flexibility of the study sample members according to their social type.

Pearson's correlation coefficient was calculated between the estimates of the study sample on the scale of optimism as a whole, and their estimates on the items of the scale of psychological flexibility as a whole, which amounted to ($r = 0.511$) with statistical significance (Sig. = 0.000), which is less than ($\alpha = 0.05$). This indicated the existence of a positive statistically significant relationship between optimism and psychological flexibility among basic education students. In this sense, with the increase of optimism level among students of the basic education stage, their psychological flexibility will increase.

Difference between Optimism and Psychological Flexibility Relationship Due to Gender

Q 3. Is there a statistically significant relationship between optimism and psychological flexibility due to gender among basic education students?

To answer the third question, Z-Fisher's test (Cohen, & Cohen, 1983; Eid, Gollwitzer & Schmidt, 2011; Lenhard & Lenhard, 2014) was used to detect the statistical significance of the difference in Pearson correlation coefficient between the estimates of the study sample members on the scale optimism as a whole, and their estimates on the items of the psychological flexibility scale as a whole, according to gender as shown in Table 4. *Table 4. Students' Estimates on Optimism Scale and Psychological Flexibility Scale as a Whole, According to Gender*

	Gender	N	Psychological Flexibility		
			Pearson correlation	z-value	Sig.
Optimism	Male	196	0.44	-2.045	0.040
	Female	291	0.58		

Table 4 showed that the value of ($z=-2.045$) was statistically significant (Sig.=0.040), which was less than ($\alpha=0.05$). This indicated the difference in Pearson's correlation coefficient between the estimates of the study sample members on the scale of optimism as a whole, and their estimates on items that measure psychological flexibility as a whole according to gender, which was in favor of females. This means that females have a stronger relationship between optimism and psychological flexibility than males.

Discussion

The results of the study showed that the level of optimism among students of the basic education stage in the shadow of the Coronavirus pandemic came to a medium degree, with a total mean of (3.32). They showed that the level of psychological flexibility among students came to a medium degree as well, and with a total mean of (3.62).

In light of this result, it could be interpreted as logical and commensurate with the age stage that basic education students go through. It is the beginning of the adolescence stage that extends between childhood and adulthood. This stage is characterized by physical changes, psychological, social and moral developments, a feeling of the need for independence and self-formation, and a weak emotional connection of the adolescents with their parents. Hamdawi (2015) stated that adolescents constantly seek to obtain their personal independence, as well as work on their own uniqueness in building their independent personality. Also, this stage is characterized by disparity in the speed of physical changes and increase in feelings of anxiety and insecurity.

The general atmosphere of the students' environment is normally responsible for their personality and self-confidence, along with the compatibility between their ambition level and abilities and competencies levels. Al-Ansari (2003) pointed out that psychological optimism is a positive outlook and appetite for life and it is the belief that good side of things, rather than the bad side, is likely to happen. Psychological optimism is a readiness that lies within an individual, centered in the general expectation that good or positive things will happen, that is, the expectation of positive outcomes for upcoming events. Perhaps, this is because of the availability of factors that are expected to help students feel optimistic, such as social and family circumstances, which make them feel as important individuals, strengthen them, raise their morale, and enable them to face the psychological effects of difficulties they may experience during their study (Ruthig et al., 2009). As such, this may refer to some of the positive personality traits among students which enable them to assess situations, and make good use of the available psychological and social resources, especially the students reach to the stage of

basic education is considered a qualitative leap in their life. This often helps them to assess and confront potential threatening problems due to their psychological compatibility and mental health. Al-Zoubi (2007) revealed that adolescents become much moody and exaggerated in their ways of expressing feelings of sadness and distress, and they often suffer at this stage from the psychological incompatibility problem that is reflected in their behavior and manners.

Among the many family factors that affect student's feeling of optimism are the methods of upbringing, including parent-student relations, sibling relations, achieving psychological needs, developing abilities, teaching social interaction and psychological adjustment, social roles, forming attitudes, standards of behavior and sound behavioral habits. Al-Fifi (2017) pointed out that adolescents believe that they are the focus of attention of others, whether to those who are close to them or those who are far from them. They have the lack of thinking about the future while their focus on moral and ethical thinking is great.

Furthermore, the role of society affects optimism. The society in which the students live, with its various institutions, affect their mental health, as it functions well when all the institutions of society work hard to achieve mental health of individuals by creating a safe social environment dominated by sound relations and social justice. School also has the greatest role in taking care of students in various aspects, including psychological and social aspects in order to achieve their mental health.

Consequently, optimism means to have an optimistic look towards the future that makes students expect the best, and it is a trait that makes the students' expectations and attitudes towards life more positive in general, and be optimistic about the future. It makes them enjoy the present, and have hope for a brighter and better future. Optimism leads to a feeling of mental health and happiness, a positive outlook on life and the desired interpretation of its events, and supports good physical health. At the same time, good psychological health leads to the expectation of the best in life. That is, there is an interaction between health and psychological optimism. And that individuals who have an optimistic outlook on life in general tend to be happier, more successful and healthier ones (Tan, 2010).

Likewise, environmental and cultural factors have a major role in determining optimism and mental health across gender (i.e., between males and females), and thus in expressing one's opinions and trends. Undeniably, this creates a kind of hope and optimism for the future. Students would enjoy more opportunities and choices because they have the decision to decide their own fate, whether in terms of continuing education or even in various aspects of their lives.

Optimism and psychological flexibility are considered important orientations towards life amongst students of the basic education stage. Psychological health is a necessity that has to be achieved in all aspects of students' basic stage because it is a distinct stage in their lives, in which their ideas get mature and opens their mind for the future. It has the tools of development, progress, change and advancement. This stage is one of the stages in which adolescents are habitually exposed to psychological problems and conflicts which affect the building of their personalities and maintaining their balance. As a result, paying attention to problems students challenge in this critical stage is recommended to eradicate obstacles in the face of development and progress of a civilization.

Psychological flexibility is often positively related to a number of normal variables such as mental and physical health, life satisfaction, happiness, effective confrontation (Fresco et al., 2006), successful problem solving, job performance, good academic performance, extroversion, self-control. As well, it has a great impact on the development of adolescents' personalities and future plans for their development and growth, especially at this critical stage during the current circumstances in the world (Kashdan & Rottenberg, 2011). Kapikiran (2012) stated that students who enjoy psychological flexibility and optimism often have a sense of self-worth, efficiency and happiness, and they tend to evaluate their performance in a positive way, and they often have strong feelings of joy, and have a good sense of self-satisfaction, and happiness about life in general.

Psychological flexibility plays a significant role in determining student's ability to adapt to difficulties and stressful situations they face in their life (Copeland, 2007). It helps them to consciously challenge the various conditions and crises in their life. Psychological flexibility is habitually linked to a number of features of students' positive personality, including orientation towards life due to optimism, hope and openness to life in a positive and effective manner. Al-Sheikh (2017) found a positive correlation between psychological flexibility and life satisfaction. Zaheer (2015) also found an important role of psychological flexibility in the mental health and schoolwork of adolescents who had social, emotional, and behavioral problems. Thus, the results of the aforementioned studies indicated that students who enjoy a high level of flexibility do not leave a room for negative events and life pressures to defeat them and crush the elements of their psychological flexibility when they face crises. Psychological flexibility increases their optimism and hardness in the face of life pressures. According to Marshall and Brockman (2016), there is a significant positive relationship between empathy, self-esteem and various aspects of psychological flexibility. In consequence, psychological flexibility helps students to develop realistic plans and ability to take the necessary steps to follow, to improve confidence in strengths and abilities, to expand communication and problem-solving skills, and to raise the ability to manage strong

impulses and emotions. This contributes in general to optimism and orientation towards life (Zautra et al., 2010).

Significantly, the relationship between optimism and psychological flexibility among students of the basic education stage varies according to gender, and it was in favor of females as the results showed. In this sense, the relationship between optimism and psychological flexibility in females is stronger than in males due to the psychological characteristics of females. There are biological, psychological and behavioral differences between males and females which refer to the biological law that governs the actions of each of them in the simplest and most valuable things (Leslie et al., 2015). The female's brain grows and develops in a balanced manner. It can use both halves of the brain well and it works all the time which gives her more versatility to do several things at once (Colom et al., 2002). And the female's brain secretes a greater amount of Serotonin Hormone which is a neurotransmitter that curbs aggression, unlike the boy's brain, which secretes the Testosterone Hormone that controls nervousness and releases it (Feng et al., 2007). As a consequence, females are seen to have doing their needs much more quickly, and they can perform activities that generate tension and pressure in better ways than males can do (Frederick, 2005). Thus, the contrast in the characteristics of the male and female's personalities has been also reflected in the field of social interaction (Stoet & Geary, 2015).

Conclusion

Optimism and psychological flexibility are among the important aspects of student's personality, social relationships, psychological and physical health. They are important in achieving their psychological and academic compatibility, and being more optimistic about the future. The results of the study showed that the level of optimism and the level of psychological flexibility among students of the basic education stage in the shadow of Coronavirus pandemic came to a medium degree. The results also showed that there were no differences between males and females in the level of optimism and psychological flexibility. Nonetheless, the relationship between optimism and psychological flexibility in females was stronger than in males.

The study recommended parents and school teachers to improve their students' positive psychological aspects that can enhance their optimism and psychological flexibility levels. Educators and decision-makers should seek to develop the skills of psychological flow and academic self-efficacy among students through therapeutic and training counseling programs because there is a strong positive relationship between the effect of psychological flow and academic self-efficacy.

It also recommended conducting similar studies on optimism and psychological flexibility on different samples from different school stages and employing different qualitative methods such as observation and structured interviews to obtain thick and authentic information about the students' real behaviors and perspectives to understand the relationship between optimism and psychological flexibility with various psychological disorders regarding the impact of Coronavirus pandemic on their psychological flexibility.

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Author Information

Bilal Mohamad Salah

Al-Balqa Applied University, Jordan

Nayef Fadous Alhamad

Al-Balqa Applied University, Jordan

Waleed Soliman Hayajneh

Al-Balqa Applied University

Mahmoud Ali Rababah

Al-Balqa Applied University
