

Psychological Hardiness Among University Students After the COVID-19 Pandemic

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Abstract:

The objective of the present study was to investigate the levels of psychological hardiness and analyze the differences in psychological hardiness in relation to gender and age. The study sample consisted of 412 male and female students, who were selected through a cross-sectional approach from Constantine University (2). The researcher employed the psychological hardiness scale developed by Imad Mekhemar (2011), which was subsequently adapted to the Algerian context by Bashir Ammaria. The findings revealed that the level of psychological hardiness was above average. Additionally, the results indicated that there were no statistically significant differences in psychological hardiness between genders, while significant differences were observed based on age.

Keywords: Psychological Hardiness, Commitment, COVID-19 Pandemic, University Students.

1. Introduction

The global population has endured, and continues to endure, exceptional and challenging circumstances due to the widespread outbreak of the "COVID-19 Pandemic." This event has profoundly impacted daily life and significantly increased the level of psychological distress among individuals. Confronting the threat of COVID-19 has become one of the most significant challenges faced worldwide today.

In response to the pandemic, e-learning was adopted as an alternative educational solution to ensure the continuity of education in light of the exceptional health crisis, particularly in Algeria, stemming from the emergence and spread

of the COVID-19 virus. However, these measures were deemed insufficient, prompting the Ministry of Higher Education and Scientific Research to announce the return of university students to complete the academic year, subject to precautionary and organizational measures.

As the pandemic continued to unfold, feelings of fear and anxiety heightened among students, accompanied by numerous negative psychological repercussions such as phobias, heightened fears, recurring concerns about infection, and the daily tally of deaths at both local and global levels. This situation prompted the researcher to focus on the behavioral indicators that serve as protective factors against life's stressful events. Such protective factors are particularly significant in the context of mental health.

Previous studies and research have demonstrated that individuals often face psychological pressures and life challenges due to their inability to cope effectively with life's adversities. Daily stressors, which account for approximately 90% of life's events, are significantly associated with individual stress levels. The issue of life's stressful events has become a pertinent topic across various domains and for numerous groups. Modern individuals now navigate

a psychological and cognitive framework that lacks essential components such as willpower, optimism, rationality, resilience, and patience—all of which are integral to the concept of psychological hardiness, as defined by Kobasa (1982).

According to existential psychology, a philosophical movement that emerged during the crises of World War I and II, existential thought emphasized the principles of hope, willpower, humanity, challenge, support, and empathy.

Kobasa (1982) defines psychological hardiness as "a set of personality traits that serve as a resistance source in facing life's stressful events" (Dukhan, 2003, p. 122). Psychological hardiness can also be conceptualized as an individual's overarching belief in their capacity and effectiveness, as well as their ability to draw upon all available psychological and environmental resources to perceive, interpret, and manage stressful life events effectively. A substantial body of research has highlighted the critical role of psychological hardiness in individuals' lives. For instance, Ganellen (1987) discovered that both social support and psychological hardiness function as buffers against stress, thereby alleviating its impact.

Similarly, Kash (1987) conducted a study in the United States and confirmed that

psychological hardiness plays a crucial role as a mediator in resisting stress and preventing psychosomatic illnesses. In a similar vein, Adakin's (1987) research revealed that psychological hardiness among spouses and male children functions as a motivating factor to mitigate the negative effects of life stress.

This study demonstrated a dynamic interaction between personal hardiness and healthy work performance, where both factors influence one another. Furthermore, Garson's (1998) research clarified that there exists an inverse relationship between psychological hardiness and stress. Specifically, students with lower psychological hardiness scores experienced higher levels of stress compared to those who scored higher in terms of psychological hardiness (Mekhemar, 2002, p. 114).

Al-Hilu's (1990) study provided evidence that insufficient psychological hardiness leads to poor psychological and social adjustment, confusion in work, lack of mental focus, and both mental and physical fatigue. Additionally, Haroubi's (2005) study highlighted that the level of psychological hardiness serves as a key indicator of the maintenance of both mental and physical health.

The findings above underscore the fact that low psychological hardiness among

individuals is a significant contributor to various psychological problems and disorders. This is particularly evident among university students, who frequently encounter the stressors associated with academic life. These stressors include adhering to academic schedules, completing assignments and practical tasks, and the anxiety regarding their future. At this stage, students often lack the experience, knowledge, and coping skills required to navigate these challenges effectively, which hinders their ability to lead a stress-free life.

In this context, Erikson stresses the importance of several personality traits, such as hope, willpower, hardiness, purpose, love, care, and wisdom, in overcoming crises. These qualities enable individuals to rise above feelings of despair and helplessness, motivate them to actively confront difficult circumstances, and liberate them from internal conflicts, thereby enhancing their capabilities and fostering the highest levels of mental well-being.

2. Study Problem

In light of the foregoing, the problem of this study is centered on addressing the following research questions:

- What is the level of psychological hardiness among the study sample?

- _ Are there statistically significant differences in psychological hardiness based on gender within the study sample?
- _ Are there statistically significant differences in psychological hardiness based on age within the study sample?

3. Study Hypotheses

Building upon the research questions, along with the theoretical and psychological framework of the study's variables, the following hypotheses have been proposed:

- _ The level of psychological hardiness among the study sample is above average.
- _ There are no statistically significant differences in psychological hardiness based on gender within the study sample.
- _ There are statistically significant differences in psychological hardiness based on age within the study sample.

4. Study Importance

The significance of this study is derived from both its theoretical and practical dimensions, as outlined below:

From a theoretical perspective, this study highlights the concept of psychological hardiness as a key

component of positive psychology. The importance of the study lies in its focus on psychological hardiness, which serves as a critical modifying and protective factor that safeguards the human personality from psychological stress and collapse, particularly within the context of the COVID-19 pandemic—a highly stressful and exceptional situation. This study is particularly relevant to the field of positive psychology, which seeks to enhance human well-being by fostering the development of positive psychological traits. By contributing to the understanding and improvement of mental health, this study advances the field of positive psychology.

From a practical perspective, the study offers a valuable addition to the body of psychological research. Its findings are expected to assist professionals within both theoretical and applied psychology fields in developing guidance programs or training courses that aim to enhance psychological hardiness, ultimately contributing to better mental health outcomes. Furthermore, the study provides a preliminary understanding of the influence of psychological hardiness on the educational and professional experiences of individuals within the study sample during the COVID-19 pandemic. The results may also serve as a tool for evaluating the impact of the

COVID-19 outbreak on higher education in Algeria.

5. Study Objectives

The primary objectives of the current study are as follows:

- To assess the level of psychological hardiness among the study sample.
- To explore the differences in psychological hardiness scores among the study sample, with particular attention to gender and age.

6. Definition of Study Concepts

6.1 Psychological Hardiness

Kobasa defines psychological hardiness as a set of characteristics that reflect an individual's overarching belief in their own effectiveness and ability to utilize available psychological and environmental resources to perceive and interpret stressful life events in a manner that is neither skewed nor distorted. This allows individuals to approach these events with a sense of realism, objectivity, and logic, and to cope with them in a positive and adaptive way. Psychological hardiness encompasses three dimensions: commitment, control, and challenge (Radi, 2008, p. 37).

For the purposes of this study, psychological hardiness is operationally defined as the score that individuals in the study sample obtain on the psychological hardiness scale utilized in this research.

6.2 University Students

University students, in the context of this study, refer to individuals who hold a baccalaureate certificate and are currently enrolled in the LMD system at all academic levels at the University of Abdelhamid Mehri Constantine-2, within the academic year 2021-2022.

6.3 COVID-19 Pandemic

The COVID-19 pandemic, which began in 2019, is a new global health crisis initially referred to as the "novel coronavirus" by health experts. It was subsequently named COVID-19, standing for "Coronavirus Disease 2019." This respiratory illness is caused by the SARS-CoV-2 virus, which attacks the respiratory system and leads to symptoms such as fever, cough, and difficulty breathing. In severe cases, it can result in death, with a reported mortality rate of 2.5% among those infected, according to World Health Organization (WHO) statistics (Khwalid&Bouzareb, 2020).

7. Theoretical Framework and Previous Studies

7.1 COVID-19 Pandemic

COVID-19 is a contagious disease caused by a newly discovered virus within the coronavirus family. Prior to its outbreak in December 2019 in Wuhan, China, this virus and its associated disease were unknown. Since then, it has evolved into a global pandemic, affecting numerous countries worldwide. The virus is commonly referred to as the "coronavirus," a term derived from the Latin word for "crown" or "halo," which refers to the virus's distinctive appearance under an electron microscope. This appearance, characterized by surface protrusions, gives the virus the look of a royal crown or solar corona.

According to the World Health Organization (WHO), the declaration of the disease as a pandemic was not solely due to the alarming rates of its spread and severity, but also because of the widespread failure to implement necessary precautions to mitigate the danger posed by the disease. The neglect or downplaying of the seriousness of the disease in any nation would have far-reaching global consequences.

These concerns were echoed during the G20 summit on March 26, 2020, when member states committed to collaborating with the WHO and UN agencies to address the pandemic and its

global risks. Less than a month after the WHO's declaration of the virus as a pandemic, it had spread to more than two continents. By April 6, 2020, the virus had reached three continents and continued to wreak havoc across all continents except Antarctica (Majid, 2020, pp. 4-5).

Among the key characteristics of this virus is its prolonged incubation period, lasting approximately two weeks, and its high transmissibility between individuals. During the incubation period, the virus carrier typically does not exhibit obvious symptoms, making it easier for the infection to spread to others through contact. As a result, health experts universally agree that physical distancing is the most effective preventive measure (Omar, 2020, p. 32).

The primary danger of the virus lies in its rapid transmission among individuals. It spreads primarily through droplets expelled from the nose during sneezing, talking, coughing, or exhaling. These droplets pose a significant risk to objects and surfaces, and can be directly transmitted to individuals by touching the nose, eyes, or mouth. Common symptoms of the disease include fever, severe cough, breathing difficulties, low blood oxygen levels, nasal congestion, sore throat, and a runny nose.

From a psychological perspective, COVID-19 represents a highly stressful and unprecedented situation that threatens both physical and mental well-being, with severe negative impacts on individuals' personal, economic, social, and even professional and academic lives.

The repercussions of the new coronavirus have been particularly devastating for the educational sector, effectively removing nearly 1.4 billion students from schools and universities worldwide. In response, governments, nations, and educational institutions were forced to adopt a range of measures and solutions to ensure the continuation of the learning process. One of the key strategies was the shift to remote learning via digital platforms and other methods to prevent the total disruption of education during the pandemic (Houari, 2020).

Schools, universities, and colleges were closed at both the national and local levels in 190 countries, affecting approximately 83.5% of students worldwide. Similarly, Algeria found itself confronting the COVID-19 virus by implementing a complete closure of schools, universities, and other educational institutions. In response, the Ministry of Higher Education and Scientific Research established precautionary measures aimed at ensuring the continuity of remote lessons in the event of further

COVID-19 outbreaks in Algeria. This initiative focused on ensuring that students could continue their education remotely (Mami&Dramchya, 2020, p. 20).

Research indicates that transferring just one hour of classroom instruction to an electronic format requires more than ten actual hours of effort from the instructor. Therefore, the need for an alternative plan to transition from traditional classroom learning to remote education during a COVID-19 outbreak necessitates that decision-makers be fully informed about the intricacies of electronic education and the essential requirements for its successful implementation. This shift relies on modern theories related to the design of electronic educational resources (Jamal Ali, 2020).

The COVID-19 pandemic can be viewed as an academic threat to universities, not only due to the closure of educational institutions and the anxiety it has caused among affected individuals—particularly those in critical educational stages such as graduating students, postgraduate students, and those whose work is tied to research labs—but also because many higher education institutions, including those in Algeria, had not previously relied on electronic education.

This is in contrast to the educational processes in universities around the world, which have advanced alongside technological developments and the widespread adoption of electronic education. As a result, the pandemic presents a new challenge for Algerian universities, which were compelled to adopt online education as an alternative solution. Consequently, it is no longer viable to aim for a return to pre-pandemic conditions. Instead, this pandemic should be regarded as a turning point in the shift toward fully embracing electronic education, necessitating the restructuring of universities to accommodate this transition and a re-evaluation of their infrastructure. Universities must invest in their resources more effectively and avoid repeating past mistakes, relying on strategic planning to identify alternative methods of delivering education.

7.2 Psychological Hardiness

Funk (1992) defines psychological hardiness as a general personality trait shaped and developed by various environmental experiences from an early age. It plays a crucial role in protecting individuals from the effects of life stressors, making them more adaptable, optimistic, and resilient in the face of challenges. Furthermore, psychological hardiness serves as a protective factor against both physical illnesses and mental

disorders. Kobasa provided several explanations to elucidate why psychological hardiness helps mitigate the intensity of stress that individuals experience. This relationship can be understood by examining the impact of stress on individuals (Kamech, 2018, p. 389).

Kobasa's study concluded that psychological hardiness is an individual's general belief in their effectiveness and ability to utilize all available psychological and social resources to perceive, interpret, and effectively cope with stressful life events. According to the existing literature, psychological hardiness consists of a set of psychological traits, including commitment, control, and challenge. In the context of the COVID-19 pandemic, one manifestation of psychological hardiness is the individual's ability to leverage their potential and capabilities to face the challenges and difficulties imposed by the pandemic.

This includes controlling the crises and problems resulting from the pandemic and managing them effectively. It also involves positive adaptation to the crisis's consequences on various aspects of life, contributing to reducing the spread of the virus by adhering to necessary preventive measures. This is achieved through the individual's correct understanding of the

global health situation and their ability to resist adversity, avoid frustration, and steer clear of factors that weaken their capacity to confront challenges and negatively impact their mental and physical health.

- **Commitment**

Zainab Radi defines commitment as the adoption of specific values, principles, beliefs, and goals by the individual, their dedication to these principles, and the assumption of responsibility for both themselves and their community, which reflects the level of psychological hardiness (Radi, 2006, p. 24). Individuals with high psychological hardiness are more adept at making personal commitments, adhering to rules, and remaining dedicated to others, according to the psychological framework of psychological hardiness dimensions.

In this study, one manifestation of commitment is the adherence to preventive measures due to the spread of the COVID-19 pandemic. The initial official commitment imposed by governments was the lockdown, a preventive measure aimed at limiting the virus's spread.

- **Control**

Kobasa (1989) defines control as the individual's belief in their ability to

manage the events they encounter and take personal responsibility for what transpires. Perceived control represents the mindset of feeling capable of influencing and addressing life's diverse situations, rather than yielding to feelings of helplessness in the face of crises and emergencies. Control involves the belief in one's ability to manage stressful situations effectively.

One manifestation of control in this study is the heightened awareness of individuals' behaviors, particularly in regulating their emotions during the COVID-19 pandemic, and acting with mindfulness and alertness. This includes avoiding reckless or impulsive behavior when confronting challenges brought about by the pandemic, including instances where the individual or a family member contracts COVID-19. It also reflects the individual's ability to direct their actions toward positive responses to the changes imposed by the pandemic.

- **Challenge**

Challenge represents an individual's ability to adapt to new life situations and their inherent fluctuations, whether these changes are positive or negative, recognizing them as natural occurrences essential for personal growth and development. The capacity to confront problems effectively aids individuals in

adapting swiftly to stressful and painful life events and fosters a sense of optimism in embracing new experiences (Radi, 2006, p. 32).

In this study, one manifestation of challenge is combating the psychological pressure resulting from the spread of the COVID-19 pandemic by avoiding stress-inducing sources, cultivating positive thinking, resisting panic and fear, steering clear of negative thoughts, maintaining psychological balance, and exploring alternatives for developing new learning skills.

7.3 Previous Studies

- **Study by Maheshwari & Jutta (2020)**

This study aimed to investigate the impact of the COVID-19 pandemic on the relationship between optimism and resilience among Indian university students. The research assessed optimism and resilience in 100 university students (36 male, 64 female) using the Optimism-Pessimism Scale and the Brief Resilience Scale. Employing digital survey methods to reach students aged 18-23, the study found a positive correlation between optimism and resilience during the challenging times of the pandemic.

- **Study by Wang et Zhao (2020)**

This study aimed to assess the impact of COVID-19 on anxiety levels among Chinese university students. Conducted with a sample of 3,611 university students (both male and female) aged 18-24, using the Self-Assessment Anxiety Scale (SAA), the study found that Chinese students exhibited high levels of anxiety due to COVID-19, with significant differences in anxiety levels between male and female students.

- **Study by Salman et al. (2020)**

This study focused on Pakistani university students and aimed to examine the psychological impact of COVID-19 and how students cope with it. The study utilized Google Forms to distribute questionnaires assessing anxiety (AD-7), depression (PHQ-9), and sources of distress (14 items) along with coping strategies (Brief-COPE). The results indicated that a significant percentage of students experienced moderate to severe anxiety and depression, with the primary sources of distress stemming from changes in daily life caused by the ongoing pandemic. As for coping strategies, the majority of respondents adopted religious/spiritual coping mechanisms, followed by acceptance.

- **Study by Odriozola-González et al. (2020)**

The aim of this study was to analyze the psychological impact of COVID-19 within the university community during the initial weeks of lockdown. A cross-sectional study was conducted using the Depression-Anxiety-Stress Scale (DASS-21) alongside an emotional impact assessment using the Event Impact Scale. The study was carried out through an online survey involving 2,530 members of the University of Valladolid in Spain. The findings revealed moderate to very severe levels of anxiety, depression, and stress due to the outbreak of the disease. In terms of coping strategies, the majority of respondents employed mechanisms centered on resilience and commitment.

- **Study by Dhar, Ayithey, & Sarkar (2020)**

This study aimed to explore the psychological effects of the COVID-19 pandemic on university students. The research was conducted on 15,543 participants from both public and private universities in Bangladesh, utilizing a series of questionnaires based on the Generalized Anxiety Disorder Scale (GAD-7). The results revealed that 44.59% of participants experienced severe anxiety, 48.41% had moderate anxiety, and only 3.82% reported mild anxiety. The study found a positive correlation between pandemic-related stressors—such as economic impacts,

daily life disruptions, academic delays, and changes in social support—and increased anxiety levels.

Commentary on Previous Studies

The majority of previous studies have concentrated on the negative psychological outcomes related to the fear of contracting COVID-19 among university students, with prominent symptoms including anxiety, depression, and moderate to high levels of psychological stress. The fear of COVID-19 was found to be influenced by various demographic factors such as gender, age, and economic status.

Some studies, however, have indicated a relationship between COVID-19 and certain positive psychological variables, such as optimism, resilience, and the readiness to engage in remote learning. The current study draws on the theoretical foundations established by previous international research.

This study distinguishes itself by addressing the positive variable of psychological hardiness in the context of COVID-19 among university students, recognizing this group as a key segment of society. Notably, few studies—both Arab and international—have focused on this variable within this specific demographic. Psychological hardiness is a vital personality trait that protects

individuals from the effects of various life pressures, making them more resilient, optimistic, and better equipped to overcome stressful challenges. It also serves as a protective factor against both physical illnesses and mental disorders, particularly during a crucial phase of life that requires specific growth demands.

The implementation of this study on a sample of Algerian university students, who have been psychologically and academically impacted by the pandemic, holds particular significance. Algeria's unique psychological, social, and cultural context further underscores the importance of this research. COVID-19 has posed a health, social, and academic threat to Algerian universities, leading to the closure of institutions and causing widespread anxiety among individuals dependent on this sector, especially students at critical educational stages.

8. Study Procedures

8.1 Study Methodology

This study adopted a descriptive approach to meet its objectives. This methodology involves studying the phenomenon as it exists in reality, with a focus on providing a detailed quantitative and qualitative description of the phenomenon. It also aims to explain the extent of the phenomenon and its degree of correlation with other phenomena.

8.2 Sample and Its Characteristics

The study was conducted on a sample of 412 students, both male and female, selected using a cross-sectional method from Constantine University (2). The participants' ages ranged from 17 to 32 years. The following tables present the distribution of the sample according to gender and age.

Table 1: Distribution of the Sample by Gender

Gender	Number	Percentage
Male	162	39.32%
Female	250	60.68%
Total	412	100%

Source: Prepared by the researcher (2024)

From Table 1, we observe that the number of females exceeds that of males, with males representing 39.32% of the sample, while females represent 60.68%. The following table shows the total sample distribution by age group.

Table 2: Distribution of the Sample by Age

Age Group	Number	Percentage
17-25	250	60.68%
26-32	162	39.32%
Total	614	100%

Source: Prepared by the researcher (2024)

From Table 2, we see that the age group of 17-25 years, with 250 participants, represents 60.68% of the sample, while the 26-32 years age group, with 162 participants, accounts for 39.32% of the sample.

8.3 Study Tools

Psychological Hardiness Scale

In this study, the researcher utilized the psychological hardiness scale developed by Imad Mohammed Mekhemar (2011), which comprises three dimensions:

- **Commitment:** This dimension consists of 16 items, with a higher score indicating a greater level of commitment to oneself, one's goals, and others.
- **Control:** This dimension pertains to an individual's belief in their ability to control the events they encounter and take personal responsibility for the outcomes. It includes 15 items, with a higher score reflecting a stronger belief in one's ability to control events.
- **Challenge:** This dimension represents an individual's belief

that life changes are stimulating and necessary for personal growth, rather than being perceived as threats. It includes 16 items, with a higher score indicating a greater ability to embrace challenges.

Adapting the Psychological Hardiness Scale for the Algerian Context

The psychological hardiness scale was adapted to the Algerian context by Bashir Ammaria, who added an additional item to the control dimension, increasing the total number of items to 48 instead of 47. Participants' responses were scored according to four alternatives:

- **No:** 0 points
- **Slightly:** 1 point
- **Moderate:** 2 points
- **Much:** 3 points

Thus, each participant's score theoretically ranges from 0 to 144, with a higher score reflecting greater psychological hardness.

The sample for the adaptation process comprised 392 individuals, including 191 males and 201 females. The male participants' ages ranged from 15 to 50 years, with a mean age of 21.64 years and a standard deviation of 6.14 years. The female participants' ages ranged from 15 to 40 years, with a mean age of 20.73 years and a standard deviation of 4.78 years.

The male and female samples were drawn from secondary education institutions in Batna, as well as from the faculties of the

University of Hajj Lakhdar – Batna, which included students, staff, and professors. The study was conducted during January, February, and March of 2011. The questionnaire achieved high validity and reliability scores.

Reliability and Validity Calculations in the Current Study

The psychometric properties of the tool were confirmed by administering the questionnaire to a sample of 60 university students. The results were as follows:

Reliability:

The reliability coefficient was calculated using Cronbach's alpha, and the split-half method was also applied:

Table 03: Cronbach's Alpha Coefficient

Cronbach's Alpha	Number of Items	Sample Size	Scale
0.92	48	60	Psychological Hardiness

Source: Prepared by the researcher (2024)

From Table 3, it is evident that the Cronbach's alpha coefficient of 0.92 indicates a high level of reliability for the scale.

Validity

Discriminant Validity: To calculate this type of validity, the extreme groups method was employed, comparing two groups selected from the sample ($n = 60$), with each group containing 27% of the total sample. The results of this comparison are shown in the following table:

Table 04: Discriminant Validity Comparison

Variable	Number	Mean	Standard Deviation	Difference Value	Significance	Degrees of Freedom	Significance Level	Decision
Low Values	16	73.50	13.02	13.03	0.00	3.0	0.01	Significant
High Values	16	122.87	122.87	6.56				

Source: Prepared by the researcher (2024)

From Table 4, it is evident that the tool effectively distinguishes between extreme values, thus confirming its validity.

8.4 Statistical Methods Used in the Study

The researcher processed and analyzed the data for the current study using the Statistical Package for the Social Sciences (SPSS). The following statistical methods were employed:

- Percentages
- Mean
- Standard Deviation

- Pearson Correlation Coefficient
- T-test
- Chi-Square Test

9. Presentation, Analysis, and Discussion of Results

9.1 Presentation, Analysis, and Discussion of the First Hypothesis

The first hypothesis posits: "There is an above-average level of psychological hardiness among the study sample." The following tables present the distribution of the study sample according to their psychological hardiness levels:

Table 05: Distribution of the Study Sample by Psychological Hardiness Level

Psychological Hardiness Level	Frequency	Percentage
High	170	41.26%
Moderate	242	58.74%
Low	-	-
Total	412	100%

Source: Prepared by the researcher (2024)

Table 06: Psychological Hardiness Level by Chi-Square Test for the Study Sample

Variable	Number	Level	Frequency	Chi-Square Value	Degrees of Freedom	Significance Level
Psychological Hardiness	412	High	170	86.03	2.0	0.01
		Moderate	242			

Source: Prepared by the researcher (2022)

Table 6 shows that 58.74% of the sample exhibited above-average psychological hardiness, while 41.28% demonstrated high psychological hardiness. Table 7 indicates that the psychological hardiness level in the sample is moderate, with a Chi-square value of 86.03 and a degree of freedom of 2.0.

The researcher explains that this study was conducted shortly after students returned to university following the abrupt interruption caused by the COVID-19 pandemic, in an environment still fraught with fear and anxiety as the pandemic remained ongoing. This situation resulted in a moderate level of psychological hardiness among students, which reflects the negative psychological effects of COVID-19 on university students. This can be further explained in the following points:

The result can be interpreted as the study sample having a slightly above-average

belief in their ability to influence the course of stressful life events. However, this belief has also led to several negative psychological consequences, such as anxiety, mood swings, and emotional instability. These outcomes may be attributed to the psychological and educational development of both the individual and their society. An educational culture that instills values such as willpower, commitment, and challenge fosters the development of a resilient personality, equipped with a rational and coherent cognitive framework for dealing with life's stressors in a balanced and thoughtful manner.

University students, having achieved a certain level of physical, psychological, social, and mental maturity, are able to attain a significant degree of social and intellectual freedom. This freedom cultivates a sense of willpower and challenge, as reflected in their

engagement in sports, cultural activities, participation in clubs, and the establishment of positive social relationships with peers. Conversely, the absence of responsibilities beyond their personal studies allows for a level of psychological comfort, meaning that they have not yet faced particularly difficult or highly stressful situations that would more clearly reveal their psychological hardiness. In other words, each individual displays varying levels of psychological hardiness, which are influenced by the circumstances or time period they are experiencing.

This result aligns with the studies conducted by Dukhan and Al-Hajjar (2005), Yousfi (2013), and Haroubi (2005), all of which concluded that a resilient personality plays a critical role in resisting stress and preventing both psychological and physical illnesses. However, this finding contrasts with the results of Al-Birqadar (2012), which indicated a low level of psychological hardiness within the sample. The level of psychological hardiness observed in the study sample can be viewed as an optimistic indicator for the potential continuation of psychological hardiness in later stages of life.

The researcher notes that, among the consequences of the COVID-19 pandemic, there was a widespread

dissemination of rumors, speculations, and misinformation, coupled with sudden changes in daily routines and social relationships. The pandemic created new patterns of social interaction, which may have introduced additional stress within the university environment, particularly among students. Psychological hardiness cannot be fully understood without considering the psychological pressures, threatening situations, and life problems that often accompany it. Individuals exhibiting high psychological hardiness tend to respond positively to adversities and crises, demonstrating a remarkable ability to adapt to the changes these challenges require. They also perceive the negative effects of these crises as opportunities to gain greater experience and maturity in life. These characteristics collectively form the personality type referred to by Kobasa as the "hardy personality" or "resilient personality."

The COVID-19 pandemic clearly highlighted the differences in how individuals responded to the negative effects caused by the virus's spread. Some individuals were overwhelmed by anxiety and fear, which led to depression and social withdrawal, while others made efforts to adapt, hoping that the situation would improve on its own. Additionally, there were individuals who effectively confronted these pressures and crises,

viewing each problem as relative and believing that the current hardships would eventually pass. These individuals relied on their past skills and experiences, coupled with positive thinking, to transform the challenging situations they faced. In doing so, they regained their psychological balance and returned to emotional calm and equilibrium. They adjusted their perceptions of stressful situations, seeing them not as threats, but as opportunities for growth, and they

handled them with acceptance, optimism, and positive expectations, as evidenced in the context of the COVID-19 pandemic.

9.2 Presentation, Analysis, and Discussion of the Second Hypothesis

The second hypothesis states: "There are no differences in psychological hardiness based on gender in the study sample." The following table illustrates the values and significance of the differences observed.

Table 7: Significance of Differences Between the Sample Members in Psychological Hardiness Based on Gender

Gender	Sample Size	Mean	Standard Deviation	T Value	Degrees of Freedom	Significance Level
Male	162	77.16	11.225	3.15	410	Not Significant
Female	250	77.61	11.033			

Source: Prepared by the researcher (2024)

Table 7 shows that the mean for males is close to the mean for females, with a t-value of 3.15, which is not statistically significant. This may be attributed to social upbringing and gender stereotyping from early childhood through to young adulthood, as well as the emphasis on certain characteristics associated with societal norms that are appropriate for both males and females in the modern era, such as encouragement to embrace challenge, control situations, independence, and courage. The broad life field exposes both genders to situations that require confrontation and

strength, making hardiness an integral part of their personalities. This result contrasts with the findings of Al-Hilu (1990) and Mekhemar (2002), but aligns with the study conducted by Kobasa (1989) on a sample of 157 male lawyers. Psychological hardiness does not only affect how individuals perceive stressful events but also how they cope with them. Moss & Holman (1985) indicated that hardiness and social support can mitigate the impact of stressful events. A study conducted on a sample of 267 males and females showed that men were more self-confident and more resilient than women,

while women tended to seek social support more when facing stress.

Despite these studies confirming men's better ability to cope with stress than women and their preference for social support, this tendency was affected by the implications of the COVID-19 pandemic. The pandemic imposed restrictions on social interactions, leading individuals to shift towards more solitary behavior, avoiding others, which, in turn, affected their psychological characteristics and reduced their psychological hardiness, particularly among women when compared to men.

The researcher believes that due to the negative effects of psychological stress on individuals (both male and female) in the context of the COVID-19 pandemic, such as difficulty in rational thinking, reduced self-efficacy, and associated physical and mental health issues, individuals may differ in the strategies they use to cope with those stresses. Thus, individuals' beliefs about their self-efficacy play a significant role in

determining their motivation for performance and achievement.

The higher the positive self-assessment, the more effective the goals they set for themselves, and the stronger their determination to achieve them. In this context, relying on one's sense of efficacy makes individuals more understanding of their interests, future goals, and behavior. They set goals for themselves and put effort into overcoming failure. Achieving positive behavioral changes depends on having positive beliefs. Individuals with high psychological hardiness can better cope with stressful events, and their expectations about their efficacy are strongly linked to adaptive behaviors, particularly emotional balance, especially in the context of the ongoing pandemic.

9.3 Presentation, Analysis, and Discussion of the Third Hypothesis

The third hypothesis states: "There are differences in psychological hardiness due to age among the study sample." The following table shows the value and significance of the differences recorded.

Table 8: Significance of Differences in Psychological Hardiness Based on Age Group

Age Group	Sample Size	Mean	Standard Deviation	Calculated t	Degrees of Freedom	Significance Level
17-25	250	71.72	10.924	8.18	410	Significant 0.01
26-32	162	80.73	10.127			

Source: Prepared by the researcher (2024)

Table 8 shows that the mean for the 17-25 age group is lower than the mean for the 26-32 age group, with a t-value of 8.18,

which is statistically significant at the 0.01 level. This indicates that there are differences in psychological hardiness

due to age, meaning that age contributes to an increase in psychological hardiness. This can be explained by the life experience possessed by older individuals compared to younger ones, as well as the mental, cognitive, and physiological maturation that comes with age.

These differences among the study sample confirm the existence of a substantial and statistically significant difference. This result aligns with studies by Dukhan (2005), Aouda (2010), and Hamada Abdel Latif (2002), which concluded that there are age-related differences, attributed to social, cultural, and economic differences among university students. There are also psychological variables that influence the level of psychological hardiness, such as stress, support, personality traits, and coping strategies.

The researcher believes that the differences due to age, despite the similar social, economic, and academic conditions, can be attributed to the specific life stage of university students, particularly those nearing graduation. Students in this stage tend to feel a sense of urgency and ambition, aiming to achieve their future goals and aspirations.

University students' issues are often centered around academic success, opportunities to continue their studies,

difficulty finding suitable employment, and dealing with various psychological pressures, such as the demands of study, emotional stress, and physiological pressures related to late adolescence. This stage, marked by activity, risk-taking, boldness, courage, challenge, and high hopes, is pivotal in shaping their psychological hardiness. Thus, it can be concluded that age plays a significant role in cognitive, physiological, and experiential maturation, which increases psychological hardiness.

Experience in dealing with familiar situations helps individuals develop effective coping skills. Psychological hardiness is also closely linked to several factors, the most important of which are an individual's personal capabilities and their ability to learn from traumatic experiences (Al-Nadi, 2019, p. 110). Additionally, university students' psychological hardiness has been affected by the circumstances of the COVID-19 pandemic, due to uncertainty about the progression of the disease, rumors about a second wave of the virus, and the lack of sufficient medical data regarding the disease's progression and the potential availability of a vaccine.

Furthermore, the possibility of the virus reaching developing communities, such as ours, has contributed to a growing sense of threat. The ongoing spread of the

virus represents a significant threat to university students, which leads to feelings of frustration, involving a sense of danger or harm that individuals believe is imminent. The perception of threat depends on the cognitive appraisal of the situation, which also influences the evaluation of certain personality traits. This was explained by Lazarus's model, one of the most important psychological models for understanding psychological hardiness (Radi, 2008, p. 38-39).

Mekhemar (2002) emphasized that mental health and psychological disorders depend on the individual's psychological and social resources. Specifically, in the university phase, an individual's belief in their psychological hardiness and ability to commit, control, and embrace challenges, if combined with a strong and deep relationship with others, contributes to both physical and mental well-being. On the other hand, if an individual believes in their ineffectiveness or feels they will face stress and crises alone, this belief can increase anxiety regarding the future and the crises it may bring (Mekhemar, 2002, p. 14).

General Conclusion of the Study

The central issue of this study was to explore the general level of psychological hardiness among university students in

light of the COVID-19 pandemic and to identify any differences in the level of psychological hardiness based on gender and age. The study successfully examined the topic and, at the same time, uncovered new aspects, which led to the formulation of new research questions.

The descriptive and analytical methodology used in the study yielded a set of scientifically valuable results, both theoretically and practically. These findings can be summarized as follows: a level of psychological hardiness close to above average, no significant differences in psychological hardiness based on gender (since both males and females in the modern era require encouragement in facing challenges, taking control, independence, and courage), and the vast life field both genders experience, which leads them to face situations that demand confrontation and strength, making hardiness an integral part of their personalities.

The study also found significant differences related to age, as older age groups tend to have more experience in dealing with familiar situations, which helps them develop active coping skills. This is linked to several factors, most notably an individual's personal capabilities and the ability to learn from traumatic experiences. When an individual's belief in their psychological

hardiness, along with their ability to commit, control, and challenge, is combined with a strong, healthy relationship with others, they tend to be healthier both physically and psychologically due to the aging process.

The developmental demands of this age, which is marked by activity, initiative, courage, challenge, and high hopes that students seek to achieve and satisfy, are closely tied to their personality type. Hence, the increase in psychological hardiness is closely related to the progression of age.

Conclusion

In light of the COVID-19 pandemic and the ongoing waves of threat and anxiety, the negative effects on students' mental health have led to a decline in their sense of self-efficacy, which plays a central role in determining their control over anxiety-inducing thoughts and influences their irrational, illogical thinking patterns regarding psychological stress. This is a psychological condition that affects all individuals, regardless of gender or age group, as the diverse sources of psychological stress on university students often present a shared crisis.

As such, psychological hardiness remains fairly consistent across groups, but is necessarily influenced by social, economic, and cultural contexts.

Furthermore, an individual's cultural framework, geographic location, and social status significantly impact their beliefs and perceptions of stressful life events, enabling them to handle these events objectively and cope with them positively.

Therefore, the researcher proposes a set of recommendations that could have significant scientific and practical value and open new avenues for further research:

- Strengthening and supporting educational guidance for university students to help them build and plan their future.
- Activating and promoting programs to assist students in preparing their life projects based on rational, logical, and realistic foundations, which can lead to an increase in their psychological hardiness.
- Focusing on career and academic guidance policies to meet students' aspirations, goals, and personal and future needs, addressing the difficulties they face.
- Conducting numerous studies on psychological hardiness, linking it to other psychological and social variables across different environments.

- Establishing specialized centers for psychological counseling and social services in universities to help students develop their skills and discover their abilities, thus improving their mental health.
- Organizing lectures, seminars, and workshops, and fostering discussions with university students about psychological hardiness, implementing measures and methods to enhance it.

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