

The level of psychological Hardiness in diabetic patients

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Abstract:

The current study aimed at identifying the level of psychological hardiness among a sample of diabetic patients who were randomly selected in some states of Algeria, it consisted of 30 diabetic patients. In order to achieve the objectives of the study, the descriptive approach was used, in addition to the psychological hardiness scale which was standardized by Bashir Maamari on the Algerian environment, the results showed a high level of psychological hardiness among diabetic patients. Furthermore, it was found that there are no statistically significant differences in the level of psychological hardiness among diabetic patients due to the variable of gender, social status and type of diabete.

Keywords: Diabetes; Diabetic patients; Psychological hardiness; Level of psychological hardiness.

INTRODUCTION

Chronic diseases are among the physical ones that accompany a person throughout his life, as diabetes is one of them that recorded high rates in different groups of society, recently in Algeria, the prevalence of diabetes among adults was estimated at 14.4%, or about 2.8 million people, therefore this disease ranks third among chronic diseases, after vascular and heart diseases and then cancer, thus it has been recognized by the Algerian Ministry of Health that diabetes is a disabling and chronic disease, exposing families, individuals and even

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countries to serious dangers. It should be noted that individuals with diabetes respond with different psychological and behavioral reactions, for instance feeling exhausted, psychological pressure and many psychological problems, as well as losing emotional support to diabetic patients, this causes an internal conflict that may develop into a state of depression and a feeling of helplessness. Thus, these responses become even more acute especially at the beginning of their illness which leads to a rise in blood sugar levels. Therefore, it is important for the patient to know the effects of their responses in order to deal positively (Al-Marzouki, 2008, p. 15)

This group of disorders is evidently an interactive relationship between the body and the psyche. The latter with its factors and conditions affect the body, in addition to its functions and growth, and vice versa, where the body also affects the psyche. (Sharqi, 2014, p. 203)

Despite having the same disease and experiencing the same conditions of events and stress, patients with diabetes respond in different ways to the disease or stressful situation. Some people collapse while others respond to events with more control and challenge, the reason for this difference is that there are patients who have some traits which act as a protective personality from stress, such as psychological hardiness. (Zaghir and al., 2019, p.731)

The latter has received great attention, as one of the personality variables that is likely to alleviate the effects of stress and pressure on mental and physical health (Paula and all, 1992, p.238), which S. Kobasa (1982) introduced and defined it: “a constellation of personality characteristics of (commitment, control and challenge), that function as a resistance resource in the encounter with stressful life events. (Kobasa and all, 1982, p.392)

(Bartone 2000) says that individuals with high resilience tend to interpret stressful events in positive and constructive ways, and

The level of psychological Hardiness in diabetic patients

interpret events as challenges and valuable educational opportunities (Barton and all, 2014, p125).

In a study by Kobasa and al. 1982 on the effect of psychological hardiness and its components as a psychological variable on the impact of stressful events on physical and psychological health, the results showed that people who suffer from severe stress remaining in good health have a set of characteristics more than the ones who get sick, these traits are :

- a- The belief that they have the ability to control and influence events
- b- The ability to feel deeply involved in being engaged in their life activities
- c- Anticipating change as a challenge and opportunity for growth (Kobasa, 1979, p414), as Hanton (2004) pointed out that the individual who enjoys psychological hardiness uses evaluation and coping strategies effectively, this means that individual has a high level of self-confidence, thus appreciates stressful situations as less threatening and then reconstructs it in a more positive image. (Zaghirand al., 2019, p.733)

According to Kobaza, individuals with high resilience are more able to bear the negative effects of life stresses, therefore they are less likely to get sick than individuals with low resilience, according to Kobaza, it is assumed that their resistance to disease is the result of perceiving life changes as less stressful, or the presence of resources in a person which enables him to deal with these changes with the least possible damage

In view of the foregoing considerations, this study gives attention to diabetes patients as a chronic disease in which the patient needs a basic trait presented through psychological hardiness that plays a significant role in diabetes and a key factor in improving health and preventing, treating or coexisting with the disease. The research problematic is determined by the following main question:

What is the level of psychological hardiness in diabetic patients?

Sub-questions :

- Are there statistically significant differences in the level of psychological hardiness among diabetic patients that differ according to gender?
- Are there statistically significant differences in the level of psychological hardiness among diabetic patients that differ according to social status?
- Are there statistically significant differences in the level of psychological hardiness among diabetic patients that differ according to the type of diabetes?

2. Study hypotheses

The main hypothesis :

Diabetics have a low level of psychological hardiness

Sub - hypotheses: They are:

- There are statistically significant differences in the level of resilience among diabetic patients that differ according to gender.
- There are statistically significant differences in the level of psychological hardiness among diabetic patients that differ according to social status
- There are statistically significant differences in the level of psychological hardiness among diabetic patients that differ according to the type of diabetes

3. The importance of the study: The importance of the case study is evident in the following points:

- Highlighting the concept of psychological hardiness and its forms.

The level of psychological Hardiness in diabetic patients

- Shedding light on the category of diabetic patients and the importance of psychological hardiness in reducing the effects of the disease and its complications or facing the disease.
- It is possible for psychologists and workers with diabetes, including doctors and specialists, to identify the importance of psychological hardiness and its impact on patients, thus they create psychological and health programs to promote or build psychological hardiness for them.

4. The study objectives:

- Identifying the level of psychological hardiness in diabetic patients.
- Identifying the differences in the level of psychological hardiness of the research sample according to the variables (type of diabetes - marital status - gender).

5. Terms definition :

- **Psychological hardiness:** is defined procedurally as the degree that a diabetic patient obtains on the psychological hardiness scale and its three dimensions: commitment, control, and challenge.
- **Diabetes:** Diabetes or diabetes mellitus is a chronic disease that occurs when the pancreas is unable to produce insulin (in sufficient quantity or when the human body is unable to effectively use the produced insulin in order to absorb glucose by the cells of the body which causes glucose to accumulate in the blood, leading to increase the concentration of sugar in the blood.

6. Theoretical Part :

6.1. diabetes:

Diabetes was known about two thousand years ago , it was called in the second century AD as (Diabetes Mellitus), which is a Latin expression , the word (Diabetes) means passing something, while (Mellitus) means honey, this is an indication of the generation of large quantities of sweet urine, as the disease Diabetes is a case in which the level of blood sugar “glucose” exceeds a certain limit

because of a deficiency in the body's ability to benefit from carbohydrates due to any reason. The causes of diabetes range from viral infections and environmental factors such as the use of medications and hormones that affect insulin, as well as advanced age which is at high risk. Furthermore, obesity and an increase in body fat percentage, in addition to the heredity factor and genetic predisposition to the disease (Ayesh Mokbel, 2010, pp. 29-31)

The World Health Organization defines it as a chronic condition resulting from high blood sugar level , this may result from a combination of environmental and genetic factors, as insulin is the main regulator of glucose concentration in the blood, it may direct the blood sugar level to the lack of insulin. (Al-Marzouqi, 2008, pg. 23).

Salman Issa (2015) defines it as a group of metabolic disorders in the body characterized by high blood glucose levels resulting from a defect in the secretion of the hormone insulin. (Salman Issa, 2015, p. 29)

Thus, diabetes can be defined as a chronic disease with multiple causes, characterized by an abnormally high level of sugar in the blood which leads to a defect in the secretion of insulin in the pancreas.

6.1.1. Types of diabetes:

Branner and Sudarth indicate that diabetes has several types, namely:

- **The first type:** is called Mellitus Insulin Dependent Diabetes: as there is no insulin secreted through the pancreas or its secretion is very weak and almost negligible.
- **The second type:** is called Non-Insulin Dependent Diabetes Mellitus: It constitutes about 90% of those who suffer from diabetes and a type caused by a defect in the tolerance of sugar, as it is a rise in blood sugar, but intermittently.
- **Gestational Diabetes Mellitus:** which occurs in some pregnancies as a result of the necessary requirements during pregnancy, some call this type "intolerance to carbohydrates in the blood".

The level of psychological Hardiness in diabetic patients

- **Diabetes Mellitus associated with other conditions or syndromes:** is dependent on taking medications, diseases, or hormonal disorders. (Radwan Mohammed, 2002, p. 65)

6.1.2. Symptoms of diabetes and its complications: Symptoms of diabetes vary according to its type, as the symptoms are often as follows:

- **Physical symptoms:** include increased thirst, constant hunger, frequent urination, weight loss, severe itching, rapid feeling of fatigue, pain in the fingers and toes, change in visual acuity, slow wound healing.

- **Psychological symptoms:** They are psychological disorders, such as anxiety, sleep disturbance, difficulty in compatibility and fear, especially at the beginning of the disease discovery, memory impairment, rapid excitement and despair of life.

-As for the complications of diabetes, it may appear in the short term, infections of the skin, gums, teeth and urinary tract, complications on the nervous system and the work of the kidneys, changes in blood vessels, high blood pressure, eye diseases and other chronic complications. (Al-Marzouki, 2008, p. 33)

6.2. Psychological Hardiness :

Positive psychology is one of the terms coined by Martin EP Seligman in 1998. This term represents a movement in psychology that is concerned with everything which is positive in human personality more than what is negative. It is at the forefront of the path to resistance, in order to maintain mental and physical health, performance and increase productivity.

6.2.1. Definition of psychological hardiness:

- **According to Oxford (2008):** Psychological hardiness is able to withstand hard and cold conditions, etc.. (oxford,2008,p202)

- **According to Kobasa (1979):** Psychological hardiness consists of commitment versus alienation, control versus powerlessness, and challenge versus threat. People with high psychological hardiness

commit themselves in everything they do (commitment), believe and act as if they can influence on the events obstructing their lives (control), as they consider change not only natural but also a barrier to development and evolution (challenge). (**Kobasa ana Maddi, zola, 1983, p42**)

- **Mkhimer** defines it: “It is one of the most important variables of prevention and psychological resistance to the negative effects of stress, crises, shocks and frustrations.” (**Mkhimer, 2002, pg. 5**)

- As for **Maddi 2004**: Psychological hardiness is a combination of those situations that provide courage, motivation and strength to transform stressful conditions from potential problems to opportunities for personal growth (**Maddi, 2017, p154**).

6.2.2. Dimensions of psychological hardiness: its importance appears through the studies carried out by Kobaza, on individuals enjoying high psychological hardiness making them having positive effects in the course of events they are going through, this is through the three dimensions that make up them: commitment, control and challenge (**Ghalid, 2019, p. 213**)

The concept of three dimensions is explained as follows :

- **Commitment:** Kobasa (1979) defines it as a clear feeling by the individual who has values, goals, and abilities in which he believes in, its importance, commitment rather than alienation from oneself, which is the individual’s tendency to participate in activities rather than alienation. (**kobasa, 1979, p420**)

- **Control:** “refers to the extent to which the individual believes that he can have control over the events he encounters, and bears personal responsibility for what happens to him.”

The control includes:

A- The ability to make a decision and test it among several alternatives

The level of psychological Hardiness in diabetic patients

b- Cognitive control over the ability to interpret and evaluate stressful events

C- The ability to exert effort and great motivation for achievement and effective confrontation (Mkhimer, 2002, p. 18)

- **Challenge:** Kobasa (1979) defines it as the individual's ability to deal with the pressures of external life, without considering them as a threat for him (Kobasa, 1979, p420).

6.2.3. Psychological hardiness theories:

-**Kobasa Theory:** Kobasa (1979) is considered the first to propose a theory about the hard personality type (psychological hardiness) as a source of positive resistance to the negative effects of stressful life events on mental and physical health (Kobasa and all, 1982, p392).

She conducted a study on executives who work at the middle and upper levels of management, and divided the two groups into two categories: managers who were subjected to a lot of pressure during the past three years, and managers who were subjected to less pressure, it focused on the first group , and then compared both groups who suffer from diseases and those who have a small percentage ones.

Kobaza has managed to conclude that the three characteristics namely commitment, control and challenge which enable the individual to maintain mental and physical health despite exposure to stress , she called it hardiness. (Kobasa,1979,p 413-419)

- **The Lazarus Model (1961):** is one of the most important models that this theory relied on, as it was discussed through its association with a number of factors and identified them in three main factors, namely:

1- The individual's internal environment

2- The cognitive system

3- The feeling of threat and frustration (Al-Zidan, 2017, p. 25).

Lazarus stated that the occurrence of the experience of stressful events is determined by the extent to which the individual perceives the event. Besides, he considers it as a situation that

can be coexisted . As perception is what causes individuals to differ in their response to stressful events.

Therefore, Kobaza was influenced by this “cognitive trend” which sees that stressful life is important in determining the adaptive method of man. As the individual’s assessment of his abilities negatively and considering them ineffective, weak and inappropriate to deal with life pressures makes him fall prey to depression and turmoil and vice versa (Halka, 2016). , p. 20)

7. Field of study part

7.1. Study Methodology

Within the framework of the objectives of the study aimed at identifying the differences in the level of psychological hardiness among diabetic patients according to some demographic variables, it was found that the descriptive approach is the most appropriate , Which is defined as a method of analysis focused on sufficient and accurate information about a specific phenomenon or topic and for known periods of time, In order to obtain scientific results, accordingly, this method is the most common and widespread in psychological studies in particular and social studies in general. As the qualitative description gives us a description of the phenomenon and defines its characteristics, while the quantitative description gives us a numerical description that shows the amount or size of this phenomenon and the degree of its connection with other phenomena. (Doudri, 2000, p. 183)

7.2. Study Limitations :

- Spatial limitations : This study was limited to some states of Algeria.
- Time limitations: The study is determined by the time context in which it was conducted, during the month of July of the year 2020.

The level of psychological Hardiness in diabetic patients

- Human limitations: were on diabetic patients distributed in some northern states of Algeria

7.3. Study community: This term refers to all observations and vocabulary under study. As for the study sample, it is that sub-group of the study community which is selected in an appropriate manner to reflect the same characteristics of the community, in order to conduct the study on it and then use those results, and circulate them to all the original community of the study.

-Study sample: We relied in selecting the sample on the purposive one which consisted of 30 diabetic patients.

- Demographic characteristics of the study sample: The demographic factors of the sample are related to the personal characteristics of its members, therefore they can be measured and known by analyzing the characteristics and distinguishing traits of the sample members such as, gender, marital status, age... and others.

The demographic factors of the studied sample can be detailed as follows:

- Distribution of the study sample by gender variable: The statistical distribution of the sample by gender variable can be clarified as follows:

Table1: Distribution of study sample members by gender variable

| N° | Variable | Category | Frequency | percentage% |
|----|----------|--------------|-----------|-------------|
| 01 | | Male | 20 | 66.67% |
| 02 | Gender | Female | 10 | 33.33% |
| | | Total | 30 | 100% |

Table No. 01 shows that the majority of the sample members are males, with a percentage of 66.67%, while females constitute only 33.33% of the study sample.

- Distribution of the sample according to the type of diabetes: The statistical distribution of the sample according to the type of diabetes can be clarified as follows:

Table 2. Distribution of study sample members by type of diabetes

| Variable | Category | Frequency | percentage% |
|----------------------|--------------------|-----------|--------------|
| diabetes type | First type | 17 | 56.7% |
| | Second type | 13 | 43.3% |
| Total | | 30 | 100% |

The results shown in Table (02) related to the type of diabetes for the sample members, where the percentage of type 1 diabetes category was estimated at 56.7%, which is the highest percentage, while the percentage of type 2 diabetes was estimated at 43.3%

-Distribution of the sample according to family status: The statistical distribution of the sample according to family status can be clarified as follows:

Table3. Distribution of study sample members by family status

| Variable | Category | Frequency | percentage% |
|----------------------|-----------------|-----------|--------------|
| family status | Married | 18 | %33.3 |
| | Single | 10 | %60 |
| | Divorced | 02 | %6.67 |
| Total | | 30 | %100 |

The results of the family situation in Table (03) for the sample members show that the percentage of singles was the highest,

The level of psychological Hardiness in diabetic patients

estimated at 60%, followed by the married with a rate of 33.3%, and the divorced category was 6.67%, which was the last percentage.

7.4. Study tool: To collect study data and to achieve its objectives, and answer its questions, the psychological hardiness scale was used, it was prepared by Mohammed Ahmad Mkhimer (2002) it originally consisted of 47 items, distributed over three dimensions: A- Commitment is measured by 16 items. B- Control is measured by 15 items, moreover, Dr. Bashir Maamari added to this dimension one item, which is No. 47, so the number became 16 items, C- Challenge and measured by 16 items. The number of items in the entire list became 48, which are answered in a declarative manner, as the answers of the examinees are corrected within four alternatives : No gets zero, a little gets one degree, an average one gets two degrees, a lot gets three degrees. Thus, the score of each subject theoretically ranges between: 0-144, and a higher score means a higher psychological hardiness.

Table 4. Shows the distribution of items on the three dimensions

| Dimensions | expressions numbers |
|----------------------|--|
| 1- Commitment | -40-37-34-31-28-25-22-19-16-13-10-7-4-1 46-43 |
| 2- Control | -41-38-35-32-29-26-23-20-17-14-11-8-5-2 47-44 |
| 3- Challenge | -42-39-36-33-30-27-24-21-18-15-12-9-6-3 48-45 |

Dr. Bashir Maamari calculated the validity and reliability of this questionnaire through the discriminant validity of the sample of males and females, as it had a great deal of distinction between who are high and low in psychological hardiness, then calculated the agreement validity by applying the list of psychological hardiness with a set of questionnaires, including the commitment questionnaire Personality, social support, the ladder of habit, motivation for achievement and self-confidence, which showed him that the psychological hardiness

list is characterized by high validity coefficients, then calculate the correlations between the dimensions of the questionnaire and the overall score at the level of 0.01, then the contradictory validity with the pessimism questionnaire and Beck's list, which is shown to be characterized by high validity coefficients and then stability by re-applying the test and alpha coefficient, which showed that the list of hardiness is characterized by high psychometric conditions on the Algerian environment samples. (Maamaria, 2019, pp. 56-60)

7.5. Statistical methods and tools used: In order to test the presented hypotheses, and to reach the desired objectives of the study, a different set of statistical methods are used that serve the study and enable analysis, linkage and objectively extrapolation of results. So as to obtain accurate statistical results, the Statistical Program for Social Sciences (SPSS) version No. (25) is used, which enables the application of various statistical tests that serve this study, and provides accurate results.

With regard to the statistical tests used, they are mainly represented in:

- **Alpha de Cronbach coefficient:** is used to estimate the reliability of the study which means the accuracy of the results and their degree of compatibility in the event that the study is repeated at another time or by another researcher. That is, it reflects the generalizability of the results.

- **The face validity and the stability of the study tool:** The validity of the questionnaire means the use of expressions and questions that actually measure what it was prepared for and not any other subject. Thus, the scale used (the psychological hardiness scale) is valid for analyzing the results, answering the study questions and testing its hypotheses, and its results are generalizable.

In order to assure the extent of the reliability of the study tool, the Alpha Cronbach scale is used, as was previously indicated, the closer its value is to one, the higher the reliability, that is, the higher the possibility of obtaining the same results if the tool is applied to the

The level of psychological Hardiness in diabetic patients

same sample. By applying this measure to the study tool by **the program used (SPSS)**, similar results were obtained in the following table:

Table 5. The value of the Alpha Cronbach . general stability coefficient

| Variables N ^o | Cronbach's alpha value |
|--------------------------|------------------------|
| 48 | 0.969 |

The results in the above table show that the value of the general Alpha Cronbach coefficient for the study tool reached 0.969, which exceeds the value of the good average for this coefficient (0.8), from this it can be said that the reliability of the study tool is excellent. Thus, the Psychological Hardiness Scale is valid for analyzing the results, answering the study questions and testing its hypotheses.

7.6. Testing and discussing hypotheses:

After presenting the study procedures and stages, clarifying everything related to the research community and the studied sample, as well as ensuring the validity of the tool and the reliability of the data, then comes the stage of discussing the hypotheses related to this study and drawing conclusions, as follows:

7.6.1. Discussion of the main hypothesis: The main hypothesis states that the diabetic patient has a low level of psychological hardiness

After calculating the arithmetic mean shown in the following table:

Table 6. Shows the arithmetic mean of the sample members

| Sample dimension | Arithmetic Mean of sample's members | Level of psychological hardiness |
|------------------|-------------------------------------|----------------------------------|
| 30 | 109.56 | High |

The results in Table (06) indicate that the average scores of the sample members were 109, therefore the result approaches 144, the high score in the score scale of the psychological hardiness scale means the presence of a high level of psychological hardiness, therefore we reject the main hypothesis that states that there is a low level of psychological hardiness of a diabetic.

This result indicates that the study sample of diabetic patients has a mixture of interaction between their commitment to the necessary examinations and treatment, control of their blood sugar level and the various psychological and physical symptoms they are exposed to, in addition to the challenge of pathophysiological changes resulting from diabetes. Therefore, psychological hardiness gave them meaning for life and existential courage, this is what existential psychologists indicated that life is suffering, but the important thing is that we find meaning in life. It also gave them self-efficacy through which they were able to realize their selves and their latent potentials as well as finding meaning for their lives and their belief in their ability to do and confront despite being subjected to pressures and frustrations of illness.

7.6.2. Discussion of the first sub - hypothesis:

The first hypothesis of this study states that there are statistically significant differences in the level of psychological hardiness among diabetic patients due to the variable of gender, with regard to the size of the study sample, it is 30 diabetic patients, therefore ANOVA can be used to verify the validity of this hypothesis (according to the law of central limits). The use of this test showed the following results:

The level of psychological Hardiness in diabetic patients

Table 7. Results of the analysis of variance in the level of psychological hardness among diabetic patients according to the gender variable

| The level of psychological hardness in diabetic patients | |
|--|--------|
| ANOVA F | 0.0000 |
| SIG | 1.0000 |

The results in Table (07) show that the level of significance of the ANOVA test for analysis of variance for the presence of statistically significant differences in the level of psychological hardness among diabetic patients due to the variable of gender, the level of significance of this test is higher than 0.05, thus the acceptance of the hypothesis H_0 for the absence of significant differences between the average answers of the sample under study about the level of psychological hardness among diabetics due to the gender variable.

The result of this hypothesis indicates that whatever the difference in the physical nature of males from females, both gender of the sample members have the ability to bear burdens, they also have equal coping skills to transform conditions from difficult and promote performance and health. Furthermore, perhaps socialization and the nature of the relationship with parents play a role in the growth of psychological hardness of both genders. The children's awareness of love, warmth, and a sense of value, and encouraging parents for them to make decisions on their own and solve problems appropriate for their age, and encourage them to challenge, break into and explore, this makes them more solid.

7.6.3. Discussion of the second sub - hypothesis

The second hypothesis of this study states that there are statistically significant differences in the level of psychological hardness among diabetic patients due to the marital status variable. ANOVA test was used to verify the validity of this hypothesis in the same way as the first, the following are the results are obtained:

Table 8. Results of the analysis of variance in the level of psychological hardiness among diabetic patients according to marital status

| The level of psychological hardiness in diabetic patients | |
|---|-------|
| ANOVA F | 0.161 |
| SIG | 0.852 |

The results in Table (08) show that the level of significance of the ANOVA test for analysis of variance for the presence of statistically significant differences in the level of psychological hardiness among diabetic patients due to the variable of family status, that the level of significance of this test is higher than 0.05, therefore the acceptance of the hypothesis H0 for the absence of significant differences Statistical significance between the average answers of the sample under study about the level of psychological hardiness of diabetic patients due to the variable of social statu.This result is consistent with the study of Talaat Mansour 1982, who conducted a study on the mental health of people of different gender and belonging to different social, economic and cultural levels, to a number of manifestations and distinctive characteristics of the characteristics of the personality enjoying mental health, including self-acceptance, acceptance of reality, orientation towards life, will, responsibility and continuity in personal growth. This indicates that diabetics, regardless of their marital status, are married or single, have high psychological hardiness.Although many studies confirm that social cohesion in our society helps with strength and will, especially if there is a person with whom to share life, all the positive aspects that have formed in the personality of diabetic patients from single to married and even divorced in the different stages of their life growth, through which they learned to adapt facing difficult circumstances.

The level of psychological Hardiness in diabetic patients

7.6.4. Discussion of the third sub - hypothesis

The third hypothesis of this study states that there are statistically significant differences in the level of psychological hardiness among diabetic patients due to the type of diabetes variable. ANOVA test was used to verify the validity of this hypothesis in the same way as the first, the following are the results obtained:

Table 9. Results of the analysis of variance in the level of psychological hardiness of diabetic patients according to the type of diabetes

| The level of psychological hardiness in diabetic patients | |
|---|-------|
| ANOVA F | 0.421 |
| SIG | 0.522 |

The results presented in Table (09) show that the level of significance of the ANOVA test for analysis of variance in the presence of statistically significant differences in the level of psychological hardiness of diabetic patients due to the variable type of diabetes that the level of significance of this test is higher than 0.05, thus the acceptance of the hypothesis H_0 for the absence of statistically significant differences between the average answers of the sample under study about the level of psychological hardiness of diabetic patients due to the variable of diabetes type, this result is due to the existence of parallel health and psychological institutional efforts supportive of patients according to their type of diabetes, also an emphasis on the amount of tolerance to the disease and difficult conditions despite the individual differences between them and the type the disease.

CONCLUSION : As a conclusion , this study aimed to shed light on the category of diabetic patients and search for their level of psychological hardiness and find differences in the level of psychological hardiness according to the variable of gender, marital status and type of diabetes. The results revealed a high level of psychological hardiness among diabetics.

Suggestions: In light of the results of the current study, the following can be recommended:

- The necessity to shed light on the studies that dealt with various chronic diseases and pay attention to them and identify the problems they face.
- The necessity of promoting the psychological hardiness of all diabetics and patients with other chronic diseases and providing the appropriate capabilities and mechanisms for its development through training courses adopted by public and private hospital institutions.

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The level of psychological Hardiness in diabetic patients

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