

Quality of Life in Patients with Chronic Pain

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Summary:

This study aimed to identify the level of quality of life among chronic pain patients and to reveal differences in quality of life according to the variables of gender and marital status.

The study relied on a descriptive approach, and the World Health Organization Quality of Life Scale, the short version, was applied to a sample of 40 male and female patients suffering from chronic pain, and the SPSS statistical package was used.

The results showed that the level of quality of life among chronic pain patients was low. The results also showed that there were no statistically significant differences in the level of quality of life attributable to the variables of gender and marital status.

The study concluded that it is necessary to adopt a comprehensive therapeutic approach, both medical, psychological and social, with the aim of improving the quality of life for chronic pain patients.

Keywords: quality of life, quality of life, pain, chronic pain

Introduction

Chronic pain is one of the most prominent health problems facing individuals and societies alike, as it goes beyond being just a medical symptom to being a persistent medical condition that accompanies the patient for long periods that may extend to months or years. Chronic pain is characterized by its effects, as its impact is not limited to the body only, but extends to the psychological, social, professional and economic aspects of the individual. The affected person often suffers from difficulties in movement and performing his daily activities, sleep disturbances, and constant fatigue, in addition to anxiety and depression, which leads him to a weak ability to cope with the demands of life. Global studies reveal that large percentages of adults suffer from various forms of chronic pain, such as back and joint pain and chronic headaches.

Statistics reported by the study of Zelaya and colleagues (2019) in the United States of America indicate that 20.4% of adults suffer from chronic pain and that 7.4% of them have had chronic pain limit their daily activities in the past three months.

According to Harstall & Spina (2003), the prevalence of chronic pain (such as headaches, back pain, spinal pain, etc.) is 30%, and severe pain problems constitute about 11% of the general population (Ben Qwaider Samad et al., 2023, p. 455).

Epidemiological studies indicate that the prevalence of chronic pain ranges between 15% and 20% among the adult community, and in the United States of America alone, it is estimated that between 30 and 50 million Americans suffer from some form of pain, including 28% suffering from lower back pain, 16% suffering from headaches or migraines, and 15% of them suffering from facial pain (Hadan Ibtisam, 2015).

Estimates in Germany and Sweden indicate that the percentage of people suffering from chronic pain in these countries ranges between 5 to 7 percent (Fazeli, Absi, 2022, p. 677)

Many studies have shown that individuals who suffer from chronic pain often experience a significant decrease in their quality of life compared to others, as persistent pain impairs their ability to enjoy daily activities, leads to a loss of independence, and limits their participation in social life. Continuing suffering may also lead some patients to use ineffective coping strategies (such as social withdrawal or giving in to symptoms), further deteriorating their psychological and physical well-being.

In the study of Svenaz Ataoglu et al. (Ataoglu, Ankarali, Ankarali, & Olmez, 2018), which aimed to evaluate the quality of life of 59 fibromyalgia patients, applying the World Health Organization's quality of life scale. The study found that the quality of life was low, and that there was a statistically significant relationship between gender and some dimensions of the quality of life scale, as males' scores were much higher than females, meaning that females had a lower quality of life compared to males. (Tazi, Fazeli, 2021)

Through what was reported from the literature and what was presented, this study came to try to find out the quality of life among people with chronic pain and to investigate whether there are differences in the level of quality of life among people with chronic pain based on some demographic variables such as gender and marital status. From the above, the problem of this study is crystallized in the following question :

Study problem:

What is the level of quality of life among people with chronic pain? Are there statistically significant differences in the quality of life variable attributable to gender and marital status among people with chronic pain ?

Sub-questions:

- 1- What is the level of quality of life for people with chronic pain?
- 2- Are there statistically significant differences in the variable of quality of life among people with chronic pain according to the variable of gender?
- 3 -Are there statistically significant differences in the quality-of-life variable for people with chronic pain depending on the marital status variable? ?

Hypotheses:

The level of quality of life for people with chronic pain is moderate.

-There are statistically significant differences in the quality-of-life variable among people with chronic pain depending on the gender variable.

-There are statistically significant differences in the quality of life variable for people with chronic pain depending on the social status variable.

Defining the concepts of the study:

First: quality of life

-Terminological definition :

- Defined by the World Health Organization (OMS 1995) Quality of life is an individual's awareness of his situation in life in the context of the culture and values in which he lives, and the extent to which this matches or coincides with his goals, expectations, values, interests related to physical health, his psychological state, his level of independence, his social relationships, his personal beliefs, and his relationship with the environment.

Rubin (2000) believes that quality of life is the integration and interaction between several aspects of an individual in terms of physical and psychological health and social life, including both cognitive components, which include satisfaction, and emotional components, which include happiness. (Shalabi, 2022).

According to the researcher, quality of life is an individual's perception of his life with its psychological, social and health dimensions.

-Procedural definition:

The score obtained by a patient suffering from chronic pain on the World Health Organization's quality of life scale, short version, 2004.

Second: Chronic pain:

A- Linguistic definition :

Pain means pain, and its plural is pain, and al-alim means painful, and painful torment means one who reaches the painful point of maturity. (Ibn Manzur, 1991)

B-Terminal definition :

The International Association for the Study of Pain defines pain as an unpleasant experience of sensation and feeling associated with actual or potential tissue damage or described in terms of such damage. (Ben Qweidir et al., 2023, p. 457)

- It is pain that continues beyond the normal healing time, as it continues for more than six months in the presence or absence of pathological causes. (Hadan, 2015)

Chronic pain is a state of persistent pain that is usually resistant to surgical and drug treatments, whether there is a specific injury or not. This pain may last even after the person recovers from the injury, and usually develops over a period of 3 to 6 months. The person shows emotional changes (anxiety, depression) as well as behavioral, social, familial, and professional changes. Chronic pain may also slow down cognitive, emotional, and functional abilities. Its owners are characterized by long-term use of strong painkillers. Pain that lasts for months and years will affect all aspects of a person's functioning: emotional, personal, professional and physical. Thus, successful treatment of chronic pain patients requires attention not only to the organic basis of symptoms, but also to the combination of factors that modulate the perception of pain and mitigate the experience of pain and disability. (Ben Qweidir et al., 2023)

C- Operational definition:

Chronic pain is a condition in which pain persists for more than 6 months due to rheumatic diseases.

4- The importance of the study:

The importance of the study lies in the following:

- Enriching the literature related to quality of life, especially among people with chronic pain.
- Highlighting the role of social variables (gender and marital status) in explaining differences in the quality of life variable among people with chronic pain.

5- Study objectives:

The current study aims to achieve the following:

- Detecting the level of quality of life among people with chronic pain.
- Identifying differences in quality of life according to gender among people with chronic pain.
- Identifying differences in the quality of life according to the social status of people with chronic pain

6- Limitations of the study:

The limitations of the study were as follows:

- Spatial borders: Algiers
- Time limits: between July and December 2025.
- Human limits: The study was applied to 40 male and female patients suffering from chronic pain.

7- Search procedures

Study Methodology: Since the subject of our study is the quality of life among people with chronic pain, the descriptive approach was adopted because it suits the subject of our study. The descriptive approach aims to report the characteristics of a particular situation, that is, describe the apparent factors. (Dwidar, 2007, p. 76)

Study tools

- Quality of life measure

Scale description:

Prepared by the World Health Organization in 2004. It consists of 26 phrases with 7 alternatives.

Psychometric properties of the scale:

Reliability: The reliability of this scale was calculated using the internal consistency method using the Cronbach's alpha coefficient, which was found to be equal to 0.94, and therefore the scale enjoys stability.

Regarding the validity of the scale, the internal consistency method was used, where the Pearson correlation coefficient was calculated. Looking at the values of the Pearson correlation coefficient, we notice that they were all statistically significant at the alpha significance level ($=0.01$), where the Pearson correlation coefficient was estimated between the total score of the first axis (physical health) with the total score of the scale as a whole (0.87), and as for the correlation of the total score of the second axis (mental health) with the total score of the scale as a whole (0.92). As for the correlation of the total score of the third axis (environmental health) with the total score of the

scale as a whole (0.78), and as for the correlation of the total score of the fourth axis (social relations) with the total score of the scale as a whole (0.88), in general it can be said that this scale is valid because all its axes are consistent with each other and with the scale as a whole.

Study sample: Our research sample was chosen intentionally, based on the following criteria: People with chronic pain, both sexes.

In this context, our study sample consists of (40) people with chronic diseases, distributed according to the following characteristics :

3- Study sample and its characteristics

-Gender variable

Table No. (01): Shows the distribution of study sample members according to the gender variable

Sex	Number of individuals	Percentage
Male	12	30
Females	28	70
Total	40	100,0

The number of males suffering from chronic pain was 12, representing 30%, and the number of females suffering from chronic pain was 28, representing 70%, with a total of 40 suffering from chronic pain.

-Marital status variable :

Table No. (02): Shows the distribution of study sample members according to marital status

Marital status	Repetition	Percentage
Single	07	17.5
Married	23	57.5
Absolute	02	5.0
A widower	08	20.0
Total	40	100

The study sample members were distributed according to the marital status variable into four categories: single, married, divorced, and widowed.

Through the results of Table No. (02), it was found that: The single category was 07 individuals, representing 17.5%, the married group was 23, accounting for 57.5%, the divorced group was 02, accounting for 5%, and the widower was 08, accounting for 20%.

- Verifying the fairness of the distribution of study data:

جدول رقم (03): نتائج اختبار Shapiro-Wilk و Kolmogorov-Smirnov^a للتأكد من طبيعة توزيع البيانات

Statistical decision	Significance level	Test Kolmogorov-Smirnova	Significance level	Test Shapiro-Wilk	Sample size	Total score
The distribution is not normal	0.015	0.156	0.000	0.862	40	Quality of life measure

From Table No. (03), we notice that the data related to quality of life **“does not follow a normal distribution, so it is preferable to use non-parametric tests in the statistical analysis of this data.”**.

-Statistical methods used in the study

The most important characteristic of field research is the use of statistical techniques and methods, regardless of the type of study and the nature of our study that requires that objective description, as its goal is to arrive at quantitative indicators that help us in analysis and interpretation. (Laboz, 2002, p. 128)

To address the results of the current study, we relied on the Statistical Program for the Social Sciences (SPSS 26), through which we processed:

Arithmetic mean: Calculating the arithmetic mean of the sample members' score on the test items and scales. It is one of the measures of central tendency that shows how close the scores are to each other and how close they are to the average. It is the set of scores obtained by the total sample members.

Standard deviation: One of the most important measures of dispersion. It is known as the square root of the average of the squares of values over their mean. The standard deviation helps us know the extent of its harmony in the distribution of the sample members. Arithmetic averages and standard deviations were calculated for the sample members' responses to the phrases of the tools used for the purpose of making a preliminary comparison between the results of schooled adolescents of both sexes on the basis of these averages, the calculation of which will help in the statistical treatment of tests of the significance of differences between the sample members, and their calculation will help in the statistical treatment.

Mann-Whitney test for the significance of differences between two unrelated means to determine the extent to which there are statistically significant differences, as well as to confirm the significant differences between the means of each group.

Nonparametric test (Kruskal-Wallis Test) To compare three or more groups, the Kruskal-Wallis test is used to rank the means of the groups.

Present and discuss the results

First hypothesis:

In the first hypothesis, we expected the following: The level of quality of life among people with chronic pain is moderate.

Through the results of statistical processing, the following was reached :

Table No. (04): Shows a description of the arithmetic mean and standard deviation of the quality-of-life scores among the study sample members

Quality of life average score	quality of life	Standard deviation
67,05	40	37,368

Through Table No. (04), we find that the average quality of life score for the study sample was 67.05 degrees, with a standard deviation of 37,368 degrees.

The arithmetic mean was 67.05, which is less than the theoretical mean of the scale of 104, which indicates a low level of quality of life for people with chronic pain. It agrees with the results of the study of Hadi et al (2019), Elliott et al (2003), Alshareef et al (2025), and Anselmo, G., et al (2024). The result can be explained by several reasons. Chronic pain changes the functioning of the patient's nervous system, making him feel pain from the simplest movements. This causes the patient to suffer from constant fatigue and sleep problems, which makes the patient unable to practice his daily activities normally. Hadi et al (2019) found that chronic pain patients suffer from a clear decline in all aspects of quality of life compared to healthy people, and that pain directly affects movement, sleep, and mood. (Hadi et al. 2019). Chronic pain may also lead to depression and anxiety, and the patient may lose his social role, which weakens his self-confidence. Since pain is invisible, the patient feels that no one understands his suffering.

The decreased quality of life in chronic pain patients is not due to one single cause alone, but rather is the result of the intersection and interaction of biological, psychological, and social factors. This is why we must rely on multidisciplinary treatment, as multidisciplinary treatment improves the physical, psychological, and social function of chronic pain patients, by increasing the efficiency of dealing with pain (ROMM, M.B., ET AL 2021).

Multidisciplinary treatment also improves pain, depression, anxiety, and health-related quality of life (Dong et al, 2022).

The second hypothesis:

In the second sub-hypothesis, we expected the following: There are statistically significant differences in the quality of life among the study sample due to gender

Through the results of statistical processing, the following was reached :

Table No. (05): Shows the results of the differences of the Mann-Whitney test among sample members for their scores in perceived social support according to gender.

Resolution Statistician	Significance level	U De Mann-Whitney	Z	Average rank	Sample size	Sex	Quality of life
The difference is not statistically significant	0.220	126.500	1.226	23.96	12	Males	
				19.02	28	Females	

From Table No. (07), we notice that the Mann-Whitney value is a statistically non-significant value at the alpha significance level (0.05) regarding the difference between the female group and the male group in quality of life.

There are no statistically significant differences between males and females in the quality of life among the study sample.

This agrees with the results of Tazi's study. Fazili (2021). It differs from the results of Abdel Salam's study (2024), which found that there is a difference in favor of males.

This contradicts studies such as the study of Svenaz Ataoglu et al. (Ataoglu, Ankarali, Ankarali, & Olmez, 2018), which aimed to evaluate the quality of life of 59 fibromyalgia patients, by applying the World Health Organization's quality of life scale. The study found that the quality of life was low, and that there was a statistically significant relationship between gender and some dimensions of the quality of life scale, as males' scores were much higher than females, meaning that females have a lower quality of life compared to males. (Tazi, Fazeli, 2021) as well as the study of Fernández, A et (2021) al.

The results of the current study showed that there are no statistically significant differences in the level of quality of life among chronic pain patients due to the variable gender (males/females). This result is consistent with scientific trends that indicate that the profound consequences of chronic pain have an impact that transcends demographic and individual differences.

Chronic pain causes disturbances in the nervous system and the vital functions of the body, which is reflected in the form of similar physical, psychological, social and occupational restrictions in both sexes. Symptoms such as physical exhaustion, sleep disturbance, and a decline in the body's ability to withstand effort are considered an inevitable biological result that the patient experiences regardless of his gender, and this is what limits the sexual differences in the face of the patient's daily physical suffering.

Psychologically, this equivalence can be explained by the shift in the form of suffering from perception of pain to adaptation to it and its effects. Despite the discrepancy in the nature of pain tolerance between the sexes due to the specificity of each sex, this discrepancy decreases when

this pain turns into a chronic condition, which directly affects the quality of life. The patient's psychological response becomes linked to deeper personal variables such as psychological toughness and self-efficacy, in addition to the extent of the patient's acceptance of the disease and its psychological and social effects. The ability to adapt to chronic pain and determine The level of quality of life becomes an individual personal skill that is not related to gender. The shift in social roles and modern cultural norms also contribute to explaining this result. With the change in social roles and the increase in mutual economic and social pressures, the job burdens resulting from illness have become a similar source of psychological stress for both sexes. The patient who suffers from chronic pain faces a threat to his professional and social role. These pressures are equal in intensity and psychological weight to the difficulty the patient faces in reconciling social and professional obligations with the limits of her exhausted physical ability.

The development of societal awareness and the decline in the severity of the psychological stigma associated with expressing suffering has provided both sexes with equal opportunities to disclose their pain and seek appropriate psychological and medical support, which has led to a decline in the traditional gap in how to deal with stress and evaluate the dimensions of quality of life between the sexes .

The third hypothesis

In the third hypothesis, we expected the following: There are statistically significant differences in the quality of life among the study sample due to the marital status variable.

Through the results of statistical processing, the following was reached :

Table No. (06): shows the differences between sample members in quality of life according to marital status according to the results of the Kruskal-Wallis test

Statistical decision	Statistical significance	Degree of freedom	Kruskal-Wallis	Sample	variable
Not a sign	0.607	3	1.838	40	Marital status

As for the results of the Crucial-Wallis test, it is clear that the value is not statistically significant, as it is greater than 0.05. Therefore, we can say that: There are no statistically significant differences in the quality of life according to the marital status of the study sample.

The results of the current study showed that there are no statistically significant differences in the level of quality of life among chronic pain patients due to the variable of social status. This result is consistent with much of the literature in the field of health psychology, as it can be explained based on the nature of chronic pain as a very important variable that strongly imposes itself on the patient's life.

Chronic pain is not just a physical symptom, but rather an experience that entails psychological, professional, personal and social burdens. These accumulated daily pressures and their effects on the quality of sleep and mood, for example, affect all patients equally and directly, making the impact of pain so great that it overwhelms the effect of demographic variables such as marital

status. On the other hand, marital status expresses the legal framework and the apparent form of the relationship only. It does not necessarily reflect the type and quality of direct social support that the patient receives. Being in a marital relationship does not mean receiving adequate psychological support, especially if the partner lacks an understanding of the nature of invisible chronic pain, which may create additional pressure on the patient. On the other hand, we find that unmarried patients, such as singles, divorcees, and widows, usually compensate for the absence of a partner by building extended and strong social support networks that include family, friends, and psychological and social support groups. These networks play an equivalent and pivotal role in strengthening the psychological resources of the injured person, and help him achieve a level of quality of life similar to what a married patient might achieve. We can also interpret this result in light of the primacy of psychological and adjustment variables, as psychological studies have confirmed that the quality of life of chronic pain patients is determined to a large extent by the patient's internal psychological factors and not by his external social circumstances. Variables such as the degree of pain tolerance, strategies for coping with pain, and the patient's sense of self-efficacy in managing his disease are basic determinants of his level of quality of life.

These skills and psychological characteristics are distributed among patients based on personal differences and personal experiences and are not limited to a specific social group. Quality of life levels tend to be equal among different social groups.

We cannot ignore the methodological and statistical interpretation of the results of our study, which may be due to the characteristics of the study sample itself. Since the sample members are similar in levels of pain intensity and duration of time, there is a state of homogeneity that restricts the chances of statistically significant differences appearing between the groups .

General conclusion

The current study found that the quality of life for chronic pain patients is low, and this decline includes physical, psychological, social, and professional aspects. This result confirmed the findings of previous studies such as the HADI ET AL study. (2019) and ELLIOTT et al. (2003) which showed that patients with chronic pain experience lower levels of quality of life compared to healthy controls and even compared to patients with other chronic diseases. The study also showed that gender and marital status are not factors affecting the level of quality of life for this group. This means that chronic pain is considered a factor that transcends individual differences. When pain reaches the stage of chronicity, its impact becomes so great that it cancels out any differences that may exist according to gender or social status .

Conclusion

Quality of life is an essential indicator for evaluating the impact of chronic pain on a patient. This study showed that chronic pain patients suffer from a significant decline in their quality of life. This may be explained by the interaction between biological factors such as nervous sensitivity, psychological factors such as anxiety and depression, and social factors such as loss of role, withdrawal and isolation.

The study also found that gender and marital status were not influential factors, which indicates that chronic pain does not differentiate between males and females or between single, married, divorced, and widowed people in its impact on the quality of life. This confirms that therapeutic intervention must be integrated and comprehensive, focusing on the biological, psychological, and social aspects together, and not being limited to drug therapy alone. Multidisciplinary treatment improves the physical, psychological, and social function of chronic pain patients, by increasing the efficiency of dealing with pain..

Recommendations

- Including programs aimed at strengthening social ties and enhancing psychological support within health care plans for chronic patients.
- Encouraging patients to engage in support groups and social communities to enhance their sense of belonging and psychological safety.
- Including periodic assessment of quality of life within the routine follow-up of chronic pain patients as it is an important indicator of the effectiveness of therapeutic interventions.
- Providing educational workshops for patients that explain to them good coping strategies for pain, and the role of social support in improving their psychological and physical well-being.
- Expanding studies with larger and more diverse samples to verify the results.
- Studying mediating variables such as psychological hardiness, self-efficacy, anxiety and depression, life satisfaction, optimism and pessimism, and others.

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