The Role of Social Support in Alleviating Anxiety in Patients with Renal Failure

Khedidja Daamache
Laboratory of Mental Health, Amar Telidji University, Laghouat, Algeria,
kh.daamache@lagh-univ.dz

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ABSTRACT:

The present study aimed to examine the role of social support in reducing anxiety among patients with renal failure undergoing hemodialysis at the "Kamal Sahiri" Center in Laghouat. The sample included 31 patients receiving dialysis treatment. A predictive descriptive method was adopted, and data were collected using the Social Support Scale (Sarason et al., 1983; translated by Mohamed El-Shenawy & Sami Abu-Biya, 1990) and the Anxiety Scale (Spielberger et al., 1970; translated by Al-Raqeeb Al-Buheiri, 1984). Conducted in 2024, the study found that social support significantly alleviates anxiety, particularly support from close family members such as spouses, parents, and siblings. Results further indicated that patients reported high levels of social support and low levels of anxiety, confirming that greater social support corresponds to reduced anxiety levels.

Keywords: *Social support, Anxiety, Patients with renal failure, Renal failure, Hemodialysis.*

1- Introduction:

Chronic diseases are among the most common and persistent health conditions affecting humans today. They are often referred to as diseases of the modern age, as they impact the daily lives of patients, causing both physical and psychological problems. They are the leading cause of disability and death, particularly in industrialised countries. These diseases typically develop gradually, and patients live with them for long periods without a definitive cure. They include a wide range of conditions such as heart disease, hypertension, cancer, diabetes, and renal failure.

Renal failure is a chronic disease that presents a major obstacle and challenge in patients' lives. It has therefore received significant attention from physicians and researchers due to its widespread prevalence across societies worldwide, including Algeria, where it is considered one of the most serious chronic diseases affecting people of all ages. Renal failure results from progressive damage to kidney tissue, leading to the destruction of nephrons and consequently impairing kidney function. This condition produces several symptoms that affect different body systems. Unlike many other chronic diseases, renal failure requires treatment through dialysis, which ties patients to regular, often lifelong sessions unless a kidney transplant becomes possible. This dependency may trigger psychological disorders. Being informed of the need for dialysis is often a devastating shock for patients, provoking fear and anxiety.

Salamon (1980), as cited in Azouz (2015, p. 27), confirmed that dialysis patients frequently experience fear, anxiety, depression, sleep disturbances, and non-compliance with treatment. Similarly, patients with renal failure often suffer from considerable psychological distress, including irritability and heightened nervousness, especially after dialysis. Anxiety tends to dominate their lives, affecting overall quality of life and manifesting in persistent fear, tension, and other psychological and physical symptoms.

This was supported by the findings of Nibal Al-Hajj Muhammad's (2018) study, which reported high levels of anxiety and pessimism among chronic renal failure patients. The study also found no significant differences in anxiety and pessimism rates across variables such as educational level, number of dialysis sessions, or duration of illness.

Anxiety is not merely a passing feeling but an emotion characterised by fear of the future, leading to distress, dissatisfaction, and impairment of cognitive processes. It manifests as discomfort, mental instability, and excessive tension, often influencing daily life. Furthermore, anxiety can elevate blood pressure—a particularly dangerous condition for kidney patients who must maintain stable levels. Elevated anxiety may also increase stress hormones such as cortisol, further impairing kidney function and

reducing treatment effectiveness. For this reason, it is essential for renal patients to adopt stress management strategies, such as relaxation, meditation, appropriate exercise, and psychological support.

Given these challenges, social support becomes crucial. Even if it does not fully enable patients to adapt to their illness, it helps reduce the anxiety they experience. Social support serves as one of the most effective buffers against stressful life events, allowing individuals to cope with painful experiences and their consequences. It provides patients with warmth, friendship, and love from those around them, enabling them to face crises and hardships. The effectiveness of this support depends on both its depth and the individual's belief in its adequacy. Social support also protects patients from isolation and deviant behaviours, fostering peace of mind and encouraging active participation in society.

Social support can take many forms—emotional, financial, or practical—and may be offered by children, family members, friends, and co-workers. According to Stroebe (1996), social support is a vital resource for coping with stress, as the presence of trusted, caring, and supportive individuals is essential for maintaining mental and physical health. Other scholars, such as Sarason, Breham, Albee, Kessler, and Kaplan, have also emphasised its importance.

Moreover, social support plays a protective role against psychological disorders and behavioural problems, enhancing psychological and social well-being (Ali, cited in Awali, 2016, p. 10). Several empirical studies support this:

- Mazhar (2021): Found a significant correlation between psychological adjustment and social support in patients with chronic renal failure.

- Jamila (2012): Showed that decreased social support is associated with increased depression, whereas stronger support alleviates depressive symptoms.

- Qasmiya & Zubia (2019): Reported a relationship between social support

and adherence to treatment, though no significant differences were found in treatment acceptance based on other variables. The study also found an association between dialysis adherence and duration of dialysis.

-Research Objectives

Our present research aims to examine the role of social support in reducing anxiety among dialysis patients with renal failure and to determine the levels of social support and anxiety within this population.

-Significance of the Study

The importance of this study lies in its focus on a particularly sensitive group—patients with renal failure—who frequently engaged with us during fieldwork, asking questions and expressing concerns about our research. While social support and anxiety have been addressed in prior studies, they have not been extensively examined together within this specific population. Thus, our work contributes to the psychological literature and may serve as a foundation for future research.

Furthermore, the study highlights the necessity of providing both material and moral support to this patient group, developing programs to alleviate anxiety, ensuring psychological support from professionals, and involving families in the treatment process.

The field study was conducted from 10 to 25 March 2024 at the Sahiri Kamal Dialysis Centre in Laghouat. The sample consisted of 31 patients with renal failure undergoing dialysis.

Based on the above, we pose the following questions:

-Research Questions

- Does social support play a role in alleviating anxiety among patients with renal failure undergoing hemodialysis?

- What is the level of social support among renal failure patients undergoing

dialysis?

- What is the level of anxiety among renal failure patients undergoing dialysis?

- Research Hypotheses

Through the review of applied theoretical literature, represented by the theoretical framework and previous studies, we were able to formulate the following hypotheses:

-Social support contributes to reducing the severity of anxiety among renal patients undergoing hemodialysis.

- The level of social support among patients with renal failure undergoing hemodialysis is high.

- The level of anxiety among patients with renal failure undergoing hemodialysis

2-Previous studies:

To the best of our knowledge, we did not find a study that matched the variables of the current research. We relied on studies that are relatively recent and that used a sample similar to the present study.

No	Author (Year)	Topic	Results
01	Tahani Abdul Fattah Faris Mazhar (2021)	Psychological adjustment and its relationship with social support among a sample of patients with chronic renal failure at Palestine Medical Complex.	A statistically significant correlation was found between psychological adjustment and social support among a sample of patients with chronic renal failure at Palestine Medical Complex.
02	Mazhar (2021)	and its relationship with social support among a sample of patients with chronic renal failure at Palestine Medical	The results showed that decreased social support leads to increased depression, while higher support alleviates it. It was also found that social support is higher among

			females than males, indicating that depression is more intense among males.
03	Amal Qasmiya and Sarah Zoubiya (2019)	Social support and its relationship with treatment adherence among patients with chronic renal failure undergoing hemodialysis.	There is a relationship between social support and treatment adherence among the study sample. No statistically significant differences were found in treatment acceptance according to the mentioned variables. However, a relationship was found between adherence to dialysis sessions and the duration of dialysis.
04	Nibal Al-Hajj Muhammad (2018)	General anxiety and pessimism among patients with chronic renal failure.	The results showed high levels of general anxiety and pessimism among patients with chronic renal failure. No significant differences were found between males and females in general anxiety and pessimism, nor were there differences according to educational level, number of dialysis sessions, or duration of illness.
05	Ikram Saadallah Msaikh (2022)	Mental health and its relationship with anxiety among patients with renal failure – a field study at Ibn Zahr Hospital, Guelma Province.	A positive correlation was found between mental health and anxiety among patients with renal failure. The study confirmed relatively low mental health levels and high anxiety levels among these patients.
06	Mashrouq Abdelkader (2015)	Assertive behavior and its relationship with coping strategies among patients with .chronic renal failure	No clear significant relationships were found between assertive behavior and coping strategies. However, significant differences were found in

			patients' tendencies toward assertiveness or coping according to personal
07	Siddiqi Fatna (No year available)	The impact of chronic renal failure on the patient's social status.	The results indicated that chronic renal failure affects the patient's status within the family more than its impact on

2-1-Commentary on Previous Studies

All the previous studies addressed patients with chronic renal failure.

It is clear from the studies we reviewed—those that examined social support, anxiety, and chronic renal failure—that some of them focused on social support and its relationship with other variables, such as the studies by Tahani Abdul Fattah Faris Mazhar (2021), Hormuz Jamila (2012), and Amal Qasmiya & Sarah Zoubiya (2019). Other studies investigated anxiety as a variable in relation to other factors, such as Nibal Al-Hajj Muhammad (2018) and Ikram Saadallah Msaikh (2022). There are also studies that examined chronic renal failure itself, such as Mashrouq Abdelkader (2015) and Siddiqi Fatna (no year available). These studies are in line with our current research. However, we did not find any studies that specifically examined both social support and anxiety together among patients with chronic renal failure.

Regarding the sample, our findings are consistent with previous studies in that they also focused on patients with chronic renal failure, though they differed in terms of study location. In our current study, we selected a sample that best serves the objectives of our research.

As for the research methodology, previous studies employed various approaches (correlational, comparative), while in our current study we adopted the predictive descriptive method. Concerning the tools used, earlier studies varied according to their specific nature, goals, and topics. In our current study, however, we relied on standardized and validated measures, namely: the Sarason Social Support Scale and the Spielberger Anxiety Scale.

3- Research Methodology:

In this study, we adopted the predictive descriptive method, as it provides information that clarifies the role of social support in determining the level of anxiety among patients with chronic renal failure.

The predictive descriptive method is defined as: "a method that helps to predict one variable through another variable

3-1- Pilot Study:

We conducted our pilot study from March 10, 2024, to March 25, 2024, at the Hemodialysis Center of the hospital. Initially, we approached the study under the title of a therapeutic program. However, the patients did not respond positively because they were all located in one large hall, and we were unable to invite them to the specialist's office, which was on the first floor, as they were unable to climb the stairs. Furthermore, when approaching the patients in the dialysis hall, some refused to participate. Therefore, we modified the study title to a descriptive approach. We also encountered difficulties in obtaining responses to the questionnaires.

3-2-Study Population

The study population consists of individuals suffering from chronic renal failure, totaling 107 individuals at the Kamal Sahiri Hospital in Laghouat.

-Participants in the Study:

A simple random sample consisting of 31 individuals was drawn randomly from this population. The sample was selected with the aim of ensuring a balanced representation of the entire group of patients with chronic renal failure. Since the patients are sensitive, instead of selecting participants individually, a simple random sampling method was used to secure fair representation of the whole patient population. This selection contributes to reducing bias and increasing confidence in the study's results.

3-3-Characteristics of the Study Participants

The researcher deemed it necessary to present the characteristics of the study participants in order to use them in interpreting the results.

Table (01): Distribution of the Sample by Gender

Gender	Frequency	Percentage
Male	15	48.4%
Female	16	51.6%
Total	31	100.0%

From the results above, we observe that the sample is distributed between 15 males (48.4%) and 16 females (51.6%).

Table (02): Distribution of the Sample by Age

Age Group	Frequency	Percentage
30 years or less	5	16.1%
31–60 years	22	71.0%
61 years or above	4	12.9%
Total	31	100.0%

From the results above, we observe that the sample is distributed between 22 participants aged 31–60 years (71%), 5 participants aged 30 years or less (16.1%), and finally 4 participants aged 61 years or above (12.9%).

Table (03): Distribution of the Sample by Marital Status

Marital Status	Frequency	Percentage
Single	11	35.5%
Married	15	48.4%
Divorced	2	6.5%
Widowed	3	9.7%
Total	31	100.0%

From the results above, we observe that the married participants constitute the majority of the sample, with 15 individuals (48.4%), followed by 11 singles (35.5%), then 3 widowed (9.7%), and finally 2 divorced (6.5%).

Table (04): Distribution of the Sample by Economic Status

Economic Status	Frequency	Percentage
Low	9	29.0%
Moderate	22	71.0%
Total	31	100.0%

From the results above, we observe that the majority of participants, 22 individuals (71%), reported having a moderate economic status, while 9 individuals (29%) reported having a low economic status.

Table (05): Distribution of the Sample by Duration of Illness

Duration of Illness	Frequency	Percentage
10 years or less	9	29.0%
11 years or more	22	71.0%
Total	31	100.0%

From the results above, we observe that the majority of participants (22 individuals, 71%) reported having been ill for 11 years or more, while 9 participants (29%) reported having been ill for 10 years or less.

3-4-Research Instruments:

The researcher used two instruments to collect data:

***First Instrument**: The Social Support Scale by Sarason et al. (1983), which was translated and standardized for the Arab context by Mohamed El-Shenawy and Sami Abu-Baya (1990). This scale consists of 27 items measuring two dimensions:

1. The number of people available for support.
2. The satisfaction with the support these people can provide.

Each situation in the scale is scored on two measures:

- The first score reflects the quantity of support, i.e., the number of people available to the individual in a given situation, ranging from 27 to 243.
- The second score reflects satisfaction with the support, ranging from 27 to 162.

The total score of the scale is obtained by summing the scores of both dimensions, with the overall total ranging from 54 to 405.

***Second Instrument**: The State-Trait Anxiety Inventory (STAI), designed by Spielberger, Lushene, and Gorsuch in 1970. It includes two separate lists of anxiety:

the State Anxiety and the Trait Anxiety scales. Both lists were translated into Arabic by Al-Raqeeb Al-Bahiri in 1984.

- State Anxiety List: consists of 20 items.
- Trait Anxiety List: consists of 20 items.

Scores on each list range from 20 (minimum) to 80 (maximum).

4-Psychometric Properties of the Data Collection Instruments

In this study, the researcher relied on calculating the psychometric properties of the data collection instruments (the Social Support Scale and the Anxiety Scale) by assessing discriminant validity and evaluating reliability using Cronbach's alpha method.

4-1-Discriminant Validity of the Social Support Scale and the Anxiety Scale

Table (06): Results of the t-test for the terminal comparison between the lower and upper groups on the study scales (Discriminant Validity of the Social Support Scale and the Anxiety Scale)

Variable / Scale	Comparison Group	N	Mean	SD	df	t-value	Sig. Level
Anxiety	Lower Group	7	46.42	5.78	12	12.738	0.000
	Upper Group	7	88.28	6.36			
Social Support	Lower Group	7	133.57	40.66	12	6.112	0.000
	Upper Group	7	243.57	24.77			

It can be observed from the table above that the T-test for the Anxiety Scale reached 12.73; while for the Social Support Scale it reached 6.11. Both values are statistically significant at the 0.01 level. Hence, we can conclude that both scales are valid at a high level of significance.

4-2-Reliability Calculation Using Cronbach's Alpha for the Anxiety Scale and the Social Support Scale

Table (07): Reliability Coefficient (Cronbach's Alpha) and Internal Consistency of the Study Scales

No.	Dimension	Number of Items	Cronbach's Alpha
01	Anxiety	31	0.917
02	Social Support	27	0.936

It is clear from the results shown in the table that the values of Cronbach's Alpha reliability coefficient are high for both scales: 0.917 for the Anxiety Scale and 0.936 for the Social Support Scale. This confirms the validity and reliability of the study questionnaire, providing full confidence in its accuracy and suitability for analyzing the results.

5-Normality Test of the Study Participants

To test the hypotheses, it is necessary to ensure the normal distribution of the study participants in order to select the appropriate statistical method.

The Kolmogorov–Smirnov test was used to determine whether the data follow a normal distribution. The results are presented in the table below:

No.	Scale	Z Test Value	p-value
01	Anxiety	0.567	0.592
02	Social Support	0.904	0.875

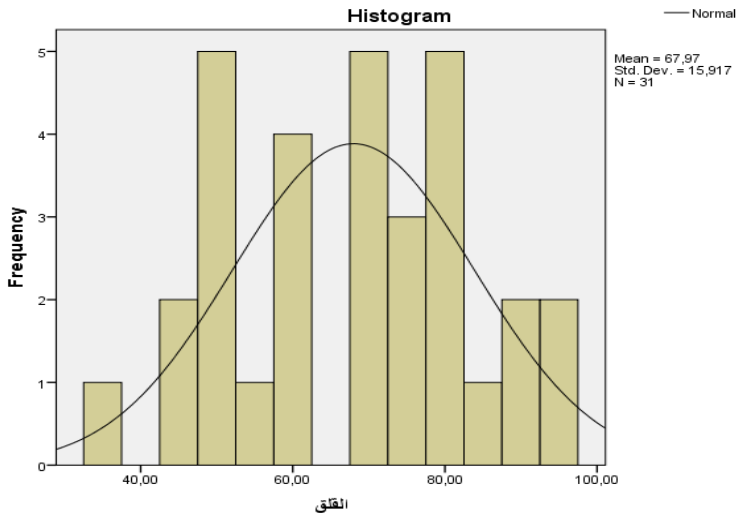


Figure (01) illustrates the normal distribution of the anxiety variable.

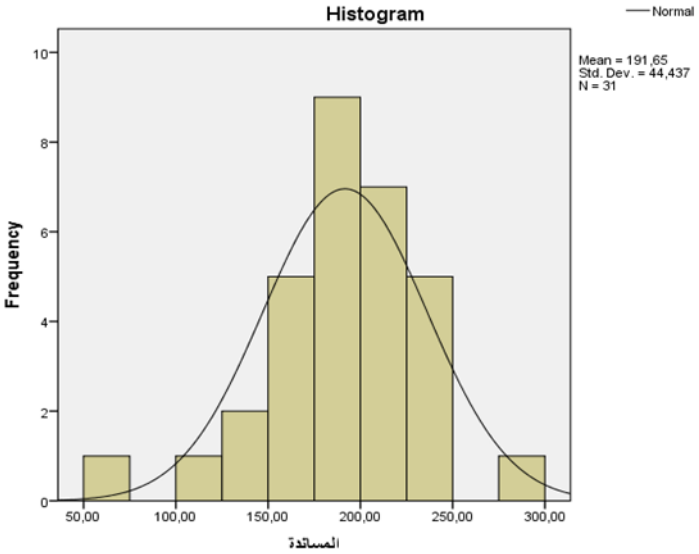


Figure (02) illustrates the normal distribution of the social support variable.

It is clear from the results shown in the table that the p-values for all study dimensions are greater than the significance level of 0.05. Therefore, the data distribution for these variables follows a normal distribution, and parametric tests were applied to test the study hypotheses.

5-Study Results

Based on the statistical results and the histograms of both scales, we can use the parametric statistical method of regression analysis, through which the main hypothesis of the study can be tested; namely, predicting the role of social support in alleviating anxiety levels among patients with renal failure undergoing hemodialysis.

*** Presentation and Interpretation of the First Hypothesis:**

Table (09): The Effect of Social Support in Reducing Anxiety among the Sample Individuals

Correlation Coefficient	Coefficient of Determination	Adjusted R^2
0.521	0.271	0.246

ANOVA Table

Model	Sum of Squares	df	Mean Square	F Value	Sig.

Regression	2061.686	1	2061.686	10.794	0.003b
Residual	5539.281	29	191.010		
Total	7600.968	30			

Coefficients Analysis

Model	Coefficients	Std. Error	Beta	t Value	Sig.
Constant	103.720	11.162		-9.292	0.000
Social Support	0.187	0.057	0.521	-3.285	0.003

From the table above, we observe that the Beta value reached 0.521, which indicates that social support contributes to reducing anxiety levels among the study participants by 52%. The coefficient of determination was 0.271, while the adjusted R^2 was 0.246, suggesting that the effect size represented by the adjusted R^2 is moderate. The F value was 10.794.

Regarding the coefficients, the constant was 103.720, and social support was 0.187. The significance level was 0.003, which is less than $\alpha = 0.05$. Accordingly, we can conclude that there is a significant effect of social support in reducing the level of anxiety among the sample individuals.

***Presentation and Interpretation of the second and third Hypothesis:**

Table: T-Test Results for Anxiety and Social Support Variables

Measured Variable	Sample	Hypothetical Mean	Arithmetic Mean	T-Test	Degree of Freedom	Significance Level
Anxiety	31	77.5	67.96	3.334	30	0.000
Social Support	31	229.5	191.64	4.74	30	0.000

Second Hypothesis: The Level of Social Support among the Sample Individuals

Table (10) illustrates the level of social support among the sample:

- The hypothetical mean of the scale: 191.64

- The sample mean229.5with a standard deviation of 44.43

- t-value: 4.74, which is statistically significant at the 0.000 level, indicating significant differences between the sample mean and the hypothetical mean.

Conclusion: The results indicate that the level of social support among the sample individuals is high, as the sample mean was higher than the hypothetical mean.

Third Hypothesis: The Level of Anxiety among the Sample Individuals

Table (11) illustrates the level of anxiety among the sample:

- The hypothetical mean: 77.5

- The sample mean: 67.96 with a standard deviation of 15.91

- t-value: 3.334, which is statistically significant at the 0.002 level, indicating significant differences between the sample mean and the hypothetical mean.

6-Discussion of the Results

First Hypothesis: The Effect of Social Support on Reducing Anxiety

Table (09) illustrates the effect of social support in reducing anxiety among the sample individuals. Let us analyze the results:

- Correlation Coefficient: Reached 0.521, indicating a moderately strong positive correlation between social support and anxiety reduction.

- Coefficient of Determination (R^2): Reached 0.271, meaning that about 27.1% of the variance in anxiety can be explained by social support.

- Adjusted R^2: Reached 0.246, which is close to the original coefficient of determination, indicating that the model fits the data well.

Coefficient Analysis:

- Beta Value: Reached 0.521, suggesting that with each one-unit increase in social support, anxiety is expected to decrease by 0.521 units.

- F Value: Reached 10.794, which is statistically significant at the 0.003 level, confirming that the model as a whole is statistically significant.

- Constant (Intercept): Estimated at 103.720, with a significance level of 0.000.

Social Support: Estimated at 0.187 with a significance level of 0.003.

Conclusion: The results indicate a significant effect of social support in reducing the level of anxiety among the sample individuals, as the significance level is less than $\alpha = 0.05$.

Conclusion: The results indicate that the level of anxiety among the sample individuals is low, as the sample mean was lower than the hypothetical mean.

Based on the findings of the first hypothesis, which stated that social support contributes to alleviating anxiety among patients with renal failure undergoing hemodialysis, the results were consistent with all the previous studies reviewed in this research. Both theoretical and empirical studies have confirmed that renal failure is a chronic disease that affects patients' physical and psychological health, posing a serious threat to their lives. This necessitates providing patients with continuous support, standing by their side, and offering them social assistance. Since renal failure is a lifelong condition, patients often experience persistent anxiety, tension, fear of death, and uncertainty about the future. This was confirmed by the study of Nibal Al-Hajj Mohammed (2018), which revealed high levels of general anxiety and pessimism among patients with chronic renal failure. Additionally, the study of Hormuz Jamila (2021) indicated that low social support leads to increased depression, whereas high levels of support help reduce it. The findings also showed that women receive more social support than men, which explains the higher prevalence of depression among male patients compared to female patients. Similarly, the study by Tahani Abdel Fattah Fares Mazhar (2021) demonstrated a significant correlation between psychological adjustment and social support among patients with chronic renal failure at the Palestine Medical Complex. Therefore, such patients are in need of psychological and social support without exception, as the absence of social support increases their levels of anxiet

As for the results of the second and third hypotheses, they indicated that anxiety levels were low, whereas social support levels were high—consistent with the first hypothesis. This outcome reflects the nature of the community to which the participants belong, namely the Laghouat community, which is characterized by solidarity and mutual support during times of hardship, whether material or emotional, particularly within families and across society at large. Accordingly, the present study has successfully achieved its objectives, and all its hypotheses have been confirmed

.6-Conclusion

Based on the results of this study, social support plays a role in alleviating anxiety levels among the study participants. These findings are consistent with all previous studies referenced in this research. Despite the suffering experienced by patients with renal failure—manifested in undergoing hemodialysis at least every two days, along with physical pain and emotional distress, which contribute to persistent anxiety and fear of the future—the presence of social support, primarily from close family members, helped reduce the anxiety experienced by this special group. Therefore, we can conclude that social support is extremely important in the lives of these patients.

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