

Anxiety and Depression in Patients Hospitalized With Chronic Kidney Disease in Barranquilla Clinics, Colombia

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Abstract

The purpose of this study is to determine the levels of anxiety and depression in patients aged between 18 and 70 years, hospitalized with chronic kidney disease in a clinic entity of the city of Barranquilla.

The type of research is descriptive, presenting the information through the indicators and statistical tables, the Hospital Scale of Anxiety and Depression of, Zigmond & Smith (1983), which evaluates the detection of depressive and anxious disorders in the non-psychiatric hospital context. The application of the Scale was performed in the hospital entity of the city of Barranquilla to 50 patients with Chronic Kidney Disease. The results they are beneficial in the short term, because they create new research proposals applied to another population group diagnosed with chronic diseases, especially for the evaluation and intervention in the area of health psychology. In the long term, new theories, methods of intervention and evaluation applied to the population of patients with chronic kidney disease will be studied. In the same way, the results show marked trends related to depression, an aspect that is consistent with the deterioration that affects the individual in the course of the disease and also show a positive correlation of the study variables, depression and anxiety disorders in patients with CKD can be due to a symptomatology or consequence of psychological burnout.

Keywords: anxiety, depression, chronic kidney disease, hospitalization

Key Message: chronic kidney disease affects approximately 10% of the world population; therefore, describing the depressive and anxious states in people who suffer from it would have public health implications, as it would be possible to detect on time the possible psychological alterations that may deteriorate the quality of life of these individuals. These new findings cover the need and allow to design promotion and prevention programs for coping with symptoms in this health-disease process, generating new intervention management techniques for hospitalized patients with chronic kidney disease.

1. Introduction

According to the World Health Organization, “public health is the science and art of preventing disease, prolonging life, and promoting health and efficiency through the organized effort of the community”, which is why knowledge on basic science is applied to natural and social phenomena. (Blanco, 2005, p. 6)

Chronic kidney disease affects about 10% of the world's population. It can be prevented, but it has no cure, it is usually progressive, silent and does not present symptoms until advanced stages, when solutions such as dialysis and kidney transplantation are already highly invasive and expensive. Many countries lack sufficient resources to acquire the necessary equipment or to cover these treatments for all the people who need them and the number of available specialists are also insufficient. (OMS, 2016; Depine & Aroca, 2018, p.24)

The available data suggest a negligence in access to treatment for chronic kidney disease in our region, with a clear disadvantage for the countries and populations with lower incomes stated. Pedro Orduñez, Regional Advisor on

prevention and control of chronic diseases of the Pan American Health Organization, (OPS, 2015) and warned that If you do not have an account for the prevention of the disease, the probability of increasing the number of people suffering from this disease and therefore the high costs of medical care will rise. He also warned about the need to promote tactics that reduce the gap that separates patients from the treatment that can prolong and save their lives, encouraging actions to raise the rate of renal function replacement to 700 patients per million inhabitants in each country.

Other authors had already pointed out the need for establishing models of prevention and control of chronic renal disease, generating good accessibility and avoiding premature deaths. (Aroca, 2017; Burgos & Depine, 2005; Burgos & Depine, 2010)

From the clinical point of view according to the manual of psychiatric diagnoses, DSM5, anxiety can be defined as a state of mind in which the subject, faced with the possibility of facing some danger or misfortune in the future, feels markedly negative, apprehensive and with the corporal manifestations of tension and depression appear as a set of symptoms of affective predominance (pathological sadness, apathy, anhedonia, despair, decay, irritability, subjective sensation of discomfort and impotence before the exigencies of life), although to a greater or greater extent. They also present symptoms of cognitive, volitional and somatic type, so we could talk about a general psychic and physical affectation, with special emphasis in the affective sphere.

With regard to mental health, it refers to the current or epidemiological situation of anxiety and depression disorders, which is due to a public health problem, the burden that generates it and the disability that it produces. In the same way, it is estimated that there are 350 million people in the world who are affected by depression; the worst outcome of the disease is suicide, and it is estimated that each year 800,000 people committed suicide worldwide, being the age group most affected by people between 15 and 29 years of age (Ministry of Social Protection, 2005). Studies epidemiological indicate a lifetime prevalence of at least 5% of it. (Boyd & Weissman, 1981)

In the meantime, depression and anxiety disorders are diagnosed with relative frequency in patients with chronic diseases. These mental disorders can be symptoms or manifestations of some chronic diseases, or consequences of the psychological burnout of suffering from them. As soon as depression is considered within the category of mood disorders of the APA (American Psychiatric Association, 1994), which includes disorders that are characterized by mood dysfunction, a prolonged emotion that shades the psychic life in general, accompanied by manic or depressive syndromes.

Returning to the expressions of anxiety and depression, anxiety is a state of mind that clinically can occur in a variety of disorders, namely, panic disorder, agoraphobia, generalized anxiety disorder, and it has a prevalence throughout life of 10% to 20% in the general population. In this way it has been verified in studies that over time, the relatives and friends of the patient who is under hemodialysis treatment, begin to consider him unable, weak and ill. This can make patients feel helpless and with little emotional and social support, in an emotional and psychological pain state. (Winokur, Clayto, & Reich, 1969)

In studies carried out, physical symptoms associated with anxiety and depression, which are mistaken with the symptomatology of the CKD have been found; because of this, it is important to carry out a comprehensive evaluation by the nephrologist and the psychologist so that they can evaluate, diagnose and provide tools for coping and resilience, with the objective of providing improvement strategies to optimize the quality of life of these patients. (Atencio, Nucette, Sumalave, Gomez, & Hinestroza, 2004)

Following the order of ideas and in relation to the symptoms associated with depression and anxiety, it is worth mentioning what was argued in the study by Picariello, Moss-Morris, Jain, Macdougall, & Chicot (2016) which found that fatigue is another common symptom and debilitating that affects 42 -89% of patients with end-stage renal disease and that anxiety, depression and subjective experience of sleep contribute to the experience of fatigue in kidney patients because these variables have strong associations with fatigue beyond the demographic or clinical factors.

Therefore, in the study of the psychopathological cognitive profile of patients diagnosed with chronic kidney failure, marked depressive states were found. The anxiety is a feature characterized by a tendency to suffer from it due to several reasons, among which are having a personality characteristic, such as perceiving situations as dangerous or threatening, demanding to be approved by others, which generates concerns, Self-demanding to be competent and succeed in everything and low tolerance to frustration. (Sierra & Benítez, 2013)

Following the frame of reference, De los Rios, Santiago, & Avila (2012) it was conducted a study regarding anxiety and depression on therapeutic adherence in patients with renal disease; the relationship between depression

and anxiety was evaluated in 31 patients with CKD between 18 and 69 years in treatment with renal replacement; the results showed that the patients had symptoms of depression (48 %) and anxiety (35 %), the depression was related with less adherence.

Rojas-Villegas, Ruiz-Martinez, & Gonzalez-Sotomayor (2017), described the anxious and depressive states, detecting on time these affective disorders that can deteriorate the quality of life of these patients with chronic kidney disease. The results showed that patients had a high adherence (67%), as well as depressive symptoms (48%) and anxious symptoms (35%). Depression was associated with less adherence, especially in the control of food/fluid intake and medical follow-up. The emotional impact of the disease and the need for psychological support are discussed.

When reviewing the literature, it is worth mentioning research that have yielded relevant data that can be contrasted in the discussion of the results of this study; one of them argues the prevalence of anxiety and depression in chronic patients and their emergence as a second condition of comorbidity (Álvarez-Ude, Fernández-Reyes, Vázquez, Mon, Sánchez, & Rebollo (2001). The fact that in existing studies, a quarter of patients presented anxiety, while the other half presented cognitive symptomatology of depression is also discussed (Álvarez-Ude & Galán, 1997). In other studies, Untas et al. (Untas, Chauveau, Leguen, Combe, & Rasclé, 2009), and Taylor (1999) observed that depression in chronic renal patients is significantly related to non-adherence to treatment.

Taking into account the previous theoretical references and specifying the purpose of this study, which is to determine the levels of anxiety and depression that have 50 patients aged between 18 and 70 years diagnosed with chronic kidney disease, hospitalized in a clinic, is why these results are significant, because in the long term we can design health promotion and prevention programs for coping with symptoms in this process of the disease, patients can become sensitive, fragile and manifest traits depressive, anxious or other pathologies such as delusions or suicidal ideas (Ganong, 2014).

Finally, knowledge will be provided to the BIOMEDICAL Research Center of the Simón Bolívar University, as well as to the Nephrology research groups. The research will show new hypotheses that will provide the basis for future research and new intervention management techniques for patients hospitalized with CKD.

2. Materials and Methods

A cross-sectional study was carried out. The instruments were applied in a single encounter with each patient. The non-probabilistic sample consists of 50 patients between 18 and 70 years of age hospitalized in the nephrology service of the Clínica de la Costa. In the cross-sectional studies, the data were collected in a single moment. Its purpose is to describe variables and their incidence of interrelation at a given time (Hernandez, 2014).

The inclusion criteria take into account adult patients with chronic kidney disease hospitalized in the nephrology service of the Clínica de la Costa. Patients with incapacity to understand instructions, patients with chronic pain and mental disorders (psychosis) were excluded from the study.

The procedure began with the selection of patients who met the inclusion criteria. A semi-structured interview that included personal data was conducted to those patients who agreed to participate in the study, after signing an informed consent approved by the ethics committee of the health care entity; next, it was applied the Zigmond & Snaith hospital anxiety and depression scale (HAD), (Zigmond & Snaith, 1983) which is an instrument that evaluates the variables of anxiety and depression and it consists of two subscales. The depression subscale is centered on the concept of anhedonia as the main symptom that primarily differentiates anxiety from depression. It has four answer options that score from 0 to 3, for a total of 0 to 21. This scale has shown a high internal consistency, high reliability and an adequate validity, showing ranges of sensitivity between 0.74 and 0.84, specificity between 0.78 and 0.80; These applications were conducted by psychologists, who interviewed patients over 18 years who entered the Nephrology Service from February two (2) to April twenty-eight (28) 2018, on Tuesdays, Thursdays and Saturdays.

The data obtained from the studied variables were described. Once the data were codified, transferred to a matrix, saved in a file and cleaned of errors, we proceeded to investigate them. At first instance, the statistical program SPSS 23 was selected for the analysis of the data.

The data were analyzed descriptively by variable. It was assessed the reliability and that the validity of the measurement instrument used was the hospital anxiety and depression scale of Zigmond & Snaith (1983).

3. Results

Sixty patients were admitted to the Nephrology Service, of them, 10 were excluded because of: inability to

understand instructions (2 persons), negativity to perform the test (4 persons) and 4 because they were minors (children).

As stated in this research, the results to be presented correspond to those issued in the hospital anxiety and depression scale by, Zigmond & Smith (1983), which evaluates anxiety and depression. In this sense, we proceeded to present, initially, the analysis of Cronbach and, later, the description of the different areas of study, starting with the sociodemographic variables. The analysis was conducted using the SSPS 23.

For the analysis of socio-demographic variables, personal variables such as: sex, age, schooling, marital status and religiosity were taken into account. With respect to personal variables, the sample has a gender distribution of 23 men and 27 women, representing 46% and 54%, respectively. In terms of age, there is a greater representation in the group younger than or equal to 40 years (34.0 %), followed by the group between 41 and 63 years (34 %) and finally, the group over 63 years with a percentage of 32 %. This predominance in age indicates that the majority of the population is in an adult stage between 40 and 65 years, where it reaches maturity.

Within the occupation, there is a representative sample of housewives with greater percentage, maintaining a 36%. Only two people were unemployed, with a percentage of 4% of the sample.

Of the hospitalized patients with CKD, 32% finished primary school; 36% finished basic secondary, only 16% have university studies, 8% technical studies and 8% are studying a professional career.

Of the sample comprised of 23 people, 46% are married, 24% are single, 14% live in a consensual union, 8% are separated and 8% are widowed.

Of the general study population, 84 % of people belong to the Catholic religion, and 16 % are devoted to a Christian religion.

3.1 Dimension of the Anxiety

At the level of anxiety, it obtained scores of great relevance in reference to the population and the subject studied. The 7 questions and answers related to the dimension of anxiety included in the test are: I feel tense or nervous, I feel a kind of fear as if something bad was going to happen, My head is full of worries, I can stay calm and relaxed, I experience an unpleasant sensation of "nerves and tingling" in the stomach, I feel restless as if I could not stop moving.

Suddenly I experience sensations of great anguish or fear: From the point of view of the descriptive statistics, the mean is 1.38, the standard deviation .697, the kurtosis of 1.032, which indicates that the distribution of this variable tends to a normal distribution with positive kurtosis, where values tend to cluster towards the left of the curve.

Table 1. Anxiety

	Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Normal range	37	74.0	74.0
	Probable case	7	14.0	88.0
	Case of anxiety	6	12.0	100.0
	Total	50	100,0	100,0

The population under study prevails with 74% found within a normality range, followed by an incidence of 14% which presented the characteristics of a probable case of anxiety, as can be seen in Table 1, and finally 12% that reflected the characteristics of anxiety.

3.2 Dimension of the Depression

The 7 questions and answers related to the dimension of depression are: I still enjoy things as usual, I can laugh and see the fun side of things, I feel happy, I feel slow and clumsy, I have lost interest in my personal appearance, I hope things with enthusiasm, I can enjoy a good book or a good radio or television program.

From the point of view of the descriptive statistics, the mean is 1.92, the standard deviation .778, the kurtosis of -1.315, which indicates that this variable tends to a normal distribution with negative kurtosis, where values tend to cluster towards the right of the curve. In table 2, the scores of the depression dimension are shown.

Table 2. D1 (grouped)

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Normal range	17	34.0	34.0	.34.0
	Probable case	20	40.0	40.0	74.0
	Case of depression	13	26.0	26.0	100.0
	Total	50	100.0	100.0	

The population under study prevails with 40% in a range of possible cases of depression, we found an incidence of 34% that showed a normal range, and finally, 26% reflects the characteristics of depression in the test.

Table 3. Correlations

		A1 (grouped)	Religion	D1 (grouped)	Age (grouped)	Occupation
A1 (grouped)	Pearson correlation	1	-.082	.321*	.014	-.093
	Sig. (bilateral)		.570	.023	.925	.523
	N	50	50	50	50	50
D1 (grouped)	Pearson correlation	.321*	-.096	1	.189	.023
	Sig. (bilateral)	.023	.506		.188	.875
	N	50	50	50	50	50

*. The correlation is significant at the 0.05 level (bilateral).

By means of the data related to the study carried out and correlating the variables, it can be deduced that there are factors that intersect each other, such as those presented by the variables of depression and anxiety, where they are proportionally correlational, because people with high levels of anxiety can become depressed and vice versa, since in people with depressive status the levels of anxiety are present.

From the results obtained, the following relationships were obtained from the results obtained: anxiety with age; positive association with depression; Depression is related to age and occupation. Positive association with anxiety. As shown in Table 3.

4. Discussion Results

Chronic kidney disease and its treatment generate high levels of stress generating other emotional states such as anger, guilt, irritability, fear and negativity, generating conflicting situations, not only for the patient but also for the people around him, affecting the quality of life for the patients, the patients who suffer it.

The results of this project show marked tendencies toward depression, an aspect that is consistent with the impairment perceived by the individual in the course of chronic kidney disease.

It is important to mention that in the literature, it is argued that depression prevails in patients with chronic diseases (Vásquez et al., 2016). In this study it was established that, when determining the psychological factors in patients undergoing hemodialysis treatment, depression was found in 27.7 % of the population studied.

In comparison with the present study with hospitalized patients with chronic disease, it was found that 40% of the cases are within a range of possible cases of depression, 34% are within the normal range, and finally 26.0% of the cases, reflects depression.

On the other hand, the prevalence and frequency of anxiety in patients with chronic kidney disease also assume an importance in the present study, only 12.0% have severe levels of anxiety, approximately 74.0% showed a normal level of anxiety and 14.0% of probable cases of anxiety. Results comparable to the study conducted by, Cabrales-Arreola et al. (2017) that found an anxiety reference of 4.1%, which reveals the existence of few severe levels of anxiety, approximately half of the patients (51%).) Showed a moderate level, including some with a severe level. Comparing these two studies, respectively, it can be inferred that depression continues to prevail over the anxiety variable with respect to chronic kidney disease, however, these psychological alterations are present in these study populations.

In the study with chronic renal patients carried out by De los Ríos et al. (2012) marked depressive states were found in 80% of the population and with anxiety, 60%, average scores, while only 20% obtained high levels of anxiety.

However, in comparison with the present study of anxiety and depression in hospitalized patients, it was specified that both variables are related, so these patients tend to show higher levels of depression, noting that among the probable cases and cases of depression, the present study showed 66% and 26% represented in probable cases and cases of anxiety, for which this previous analysis argues and reiterates that the variable of depression continues to prevail in cases of chronic renal patients.

The review of the literature indicates that the prevalence of anxiety and depression in patients appears as a second condition of comorbidity, Álvarez-Ude et al, 2001. Other authors argued that only a quarter of patients presented anxiety and the other half had cognitive symptoms depression, depression is associated with a decrease in cognitive functions in a variety of areas, including attention, memory and executive functions (Alvarez-Ud et al., 1997). On the other hand, Kimmel (2000) inferred that some of the symptoms associated with anxiety and depression are confused with those of the same kidney disease, which makes it difficult to determine if there is an organic cause of psychological alterations, it is also argued that the studies performed by Untas et al. (2009), and Taylor (1999) determine that depression in chronic kidney patients is due to lack of adherence to treatment, which in turn generates anxiety before treatment.

In this order of ideas, what is found in the literature is reiterated, that when it is difficult to find an organic cause of psychological disorders, the symptoms of depression and anxiety can be confused with those of kidney disease. causes of depression that is sometimes difficult to establish the origin of emotional disorder. It is known about endogenous depression, post-traumatic depression and many other types of depression whose causes are sometimes concrete and sometimes not.

The depression closely linked to the disease, which is determined by medical causes, is organic depression or somatoform depression.

Organic depression or somatological depression occurs as a result of the physical symptoms of a disease or the effects of certain medications. It is not about the non-acceptance of the disease, but rather that the symptoms of the disease produce depression.

This organic depression can also be produced by certain medications, including anxiolytics.

This type of organic depression is very difficult to diagnose because the symptomatology can be confused with the symptoms of the disease that is being suffered, something that in turn makes treatment difficult. (Fernandez, 2009)

These three variables, such as: depression, adherence to treatment and anxiety arise as an adaptive response to coping with kidney disease, the discussion arises supporting the inference that anxiety can influence depression and depression can generate anxiety states in the presence of renal disease, that is, one would go to review the incidence of one variable in the other, and thus propose research that generates and contrasts results focused on the respective correlation of the variables in question, against chronic kidney diseases.

It is recommended to conduct studies aimed at investigating psychosomatic aspects associated with depression, relating the studies of Massana, (1983), in the exploration of new hypotheses on this subject; They offer their psychosomatic patients pharmacological antidepressant medications and conclude that an improvement was observed in these patients. It should be considered that other authors have found that depression is associated with other factors such as cellular immunity. Other data show that the adverse effects of depression on cellular immunity may be associated with sleep disorders and it would be important to carry out research projects on these variables, Peterson, Kimmel, Sacks, Mesquita, Simmens, & Reiss, (1991). These authors conclude that cognitive depression is an important early indicator of a severe prognosis in patients treated for CKD. Early recognition and therapeutic efforts aimed at the treatment of depression could modify the outcome in patients with CKD.

Following the order of ideas in relation to the psychosomatic aspects associated with depression and anxiety worth mentioning the study conducted by Picariello et al. (2016), found that fatigue is another of the frequent and debilitating symptoms that affects 42–89% of patients with disease renal and that anxiety, depression and subjective experience of sleep contribute to the experience of fatigue in renal patients because these variables have a strong association with fatigue beyond demographic or clinical factors.

In terms of the implications for public health, it can be argued that according to the results of this study and others related to chronic kidney disease it would be worthwhile to open the discussion to support and encourage new research that will generate significant findings on possible alterations. psychological in patients with chronic renal

failure, which can deteriorate their quality of life, these new findings would cover the need to design strategies for improving the quality of life by addressing the different dimensions: physical (corporal-environmental), subjective (cognitive-emotional) and interpersonal (social), to deal with the symptoms. (Oblitas, 2010)

According to the literature, there is a high prevalence of depression and anxiety in the hospital context, however, it is pertinent to raise the need to include findings that allow studying the hospitalization variable and its incidence in the development of psychological alterations to catalog this premise, not as inferences, but as theoretical findings that broaden the discussion of studies that have already been carried out in relation to the physical, psychological and social factors associated with CKD in this context.

From this perspective, every doctor should become familiar with the symptoms of the most frequent mental disorders caused by chronic diseases, taking into account this statement, we can detect a physical ailment in a timely manner and/or motivate the appearance of a psychiatric disorder and/or intervention. psychological that will result in an increase in the quality of life of patients with this type of disease (Oblitas, 2010).

Finally, it is important to consider a different perspective of knowledge, such as kabala discipline, which for them, depression is the result of our unsatisfied desires. We have nothing only wishes; If these desires are satisfied, we feel joy. If they are partially satisfied, we feel partial dissatisfaction, a state in which we are all the time and to which we have become accustomed. We try to neutralize this dissatisfaction in different ways: watching movies, playing football, taking pills, using drugs, etc., and in this way we stay afloat in some way.

Any investigation into the opinion of the Kabala on any subject should begin with an analysis of what the Torah says about it, anxiety is mentioned in the Bible in the verse of the book of proverbs 1 “Anxiety in the heart of the Abbe man” more the good word makes him happy. The abbe has two messages that ignore it and articulate it, so there are three different regulations regarding the proposal associated with anxiety: suppress it, ignore it and articulate it (Rab Itzak Ginsburgh, 2018).

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Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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