



ORIGINAL

Quality of life in patients with chronic renal failure in several cities of Ecuador

Calidad de vida en pacientes con insuficiencia renal crónica en varias ciudades de Ecuador

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Cite as: Lizcano Ramírez J, García Chica AM, Saltos Intriago NS, Chávez-Arizala JF. Quality of life in patients with chronic renal failure in several cities of Ecuador. Health Leadership and Quality of Life. 2025; 4:81. <https://doi.org/10.56294/hl202581>

Submitted: 01-04-2024

Revised: 03-07-2024

Accepted: 22-09-2024

Published: 01-01-2025

Editor: Neela Satheesh 

ABSTRACT

Introduction: chronic renal failure (CRF) is a pathology in which the loss of normal functioning of the kidneys is evident, once it reaches the advanced stage it causes the accumulation of fluids, electrolytes and waste throughout the body.

Objective: to determine the quality of life of patients with chronic renal failure from various health institutions in Ecuador.

Method: this investigation was carried out under the quantitative approach since it was desired to know the level of quality of life of patients from several cities in Ecuador, in this investigation the descriptive level was used, which includes the registration, analysis and interpretation of the current nature and the composition or processes of the phenomena. It focused on prevailing conclusions and how people, groups, or things might function in the present. The descriptive research focused on concrete realities and was fundamentally characterized by providing a correct interpretation. The population consisted of 18 patients with chronic renal failure from various health institutions in Ecuador.

Results: thanks to the information collected, it was possible to reveal that the majority of the surveyed population has a good level of quality of life, while the rest of it remains between good and not so good.

Conclusion: thanks to this investigation, it was possible to determine that there are still problems with this pathology, and follow-up on these patients should continue.

Keywords: Quality of Life; Pathology; Chronic Renal Failure; Glomerular Filtration Rate.

RESUMEN

Introducción: la insuficiencia renal crónica (IRC) es una patología en la cual se evidencia la pérdida de funcionamiento normal de los riñones, una vez que esta alcanza la etapa avanzada provoca la acumulación de líquidos, electrolitos y desechos en todo el cuerpo.

Objetivo: determinar la calidad de vida de los pacientes con insuficiencia renal crónica de varias instituciones de salud de Ecuador.

Método: esta investigación se realizó bajo el enfoque cuantitativo puesto que se deseaba conocer el nivel de calidad de vida de los pacientes de varias ciudades de Ecuador, en esta investigación se utilizó el nivel descriptivo, el cual comprende el registro, análisis e interpretación de la naturaleza actual y la composición o procesos de los fenómenos. Se centró en las conclusiones predominantes y en cómo podrían funcionar las personas, grupos o cosas en el presente. La investigación descriptiva se enfocó en realidades concretas y se caracterizó fundamentalmente por proporcionar una interpretación correcta. La población estuvo conformada por 18 pacientes con insuficiencia renal crónica de varias instituciones de salud de Ecuador.

Resultados: gracias a la información recopilada se pudo dar a conocer que la población encuestada se

encuentra en su gran mayoría con un buen nivel de calidad de vida mientras que el resto de esta se mantiene entre bueno y no tan bueno.

Conclusión: gracias a esta investigación se pudo determinar que aún sigue habiendo inconvenientes con esta patología, y se debe continuar con seguimientos acerca de estos pacientes.

Palabras clave: Calidad de vida, Patología, Insuficiencia Renal Crónica (IRC), tasa de filtración

INTRODUCTION

Currently, there is a higher rate of people suffering from chronic renal failure; the article by Diaz et al.⁽¹⁾ mentions that it is above 10 % of the world population. Therefore, it is a difficulty that should be evaluated to propose strategies and palliative care plans in people with difficult recovery circumstances, better known as the terminal phase, take both primary and secondary prevention measures, promote self-care and personal hygiene, carry out health education activities that aim to adapt the primary caregiver so that he/she can provide the care required by the patient. According to Acebo et al.⁽²⁾ this condition reaches 10 % of the world population and tends to be silent because it does not present symptoms until it is advanced. It can be prevented, but there is no cure; chronic renal failure goes hand in hand with diabetes mellitus (DM), which causes people suffering from this disease to develop chronic renal failure (CRI), increasing to 45 % of the world population.

The Pan American Health Organization⁽³⁾ reports that, in 2019, throughout the region, kidney diseases were responsible for 254,028 total deaths, 131,008 deaths in men and 123,020 deaths in women. The age-adjusted mortality rate due to kidney diseases was estimated at 15.6 deaths per 100,000 inhabitants in 2019, according to Romero et al.⁽⁴⁾; in Ecuador, CKD is an important public health problem due to its high prevalence. It is estimated to affect 11 % of the adult population. Like all chronic processes, it produces high healthcare costs, conditioned by a high morbidity rate and an important consumption of pharmacological resources. Different population studies have shown that the overall mortality rate decreases significantly when an early diagnosis of hemodynamic, mineral and hormonal alterations is made.

Renal insufficiency does not have a greater information base at present in Ecuador. According to him,⁽⁵⁾ in the National Program of Renal Health, there are 19,327 patients registered in the National Registry of Dialysis and Transplantation. In Ecuador, with more than 17,89 million inhabitants, 18 % of the population has renal failure, being one of the highest mortality rates in the country since the relevant ages in this age group are from 46 to 70 years, with a figure of 59,65 % cases (11,529 patients). The data recorded up to May 2022 indicate that the male sex has a 58 % survival rate and the female sex has a 41 % survival rate.

Data from the National Registry of Dialysis and Transplantation⁽⁶⁾ concerning the Santo Domingo de los Tsáchilas province. The specific prevalence rate by province yielded exuberant data since it is the second province with the highest rate of people receiving dialysis, with a figure of 190,4 cases per 100,000 inhabitants, thus surpassing the province of El Oro, which is in third place with 168,05 cases per 100,000 inhabitants.

Torres⁽⁷⁾ describes renal failure as the progressive loss, generally irreversible, of the glomerular filtration rate that results in a set of symptoms and signs called uremia and that, in its terminal stage, is incompatible with life. Gómez et al.⁽⁸⁾ define that this disease presents after 3 months of persistent damage in the kidney, resulting in a clinical syndrome derived from the renal incapacity to carry out depurative, excretory, regulatory and endocrine metabolic functions.

Chronic kidney disease (CKD), also known as chronic renal failure (CRF), is a pathology in which the loss of normal kidney function is evidenced. Once it reaches the advanced stage, it causes the accumulation of fluids, electrolytes, and waste throughout the body.

For this reason, the authors of this research aimed to determine the Quality of life of patients with chronic renal failure in several cities in the coastal region of Ecuador.

METHOD

This research was carried out under the quantitative approach since we wanted to know the level of Quality of life of patients with CKD in several cities of Ecuador; for this purpose, this approach allowed us to obtain numerical results, which were later processed using computer tools and analyzed to obtain the results of the research.

The population was established with 18 patients diagnosed with the pathology above from different cities of the country, and the type of sampling used was non-probabilistic by convenience. The information was collected through a digital survey to evaluate their Quality of life. Since it was a virtual data collection method, including people from other cities, such as Santa Rosa, Machala, Manta, etc, was possible. Patients diagnosed with chronic renal failure were surveyed regardless of whether they suffered from other pathologies, such as arterial hypertension and diabetes; therefore, people who did not fall into this group were not evaluated.

Variables related to Quality of life in patients with chronic kidney disease were analyzed, and the dimensions were demographic data, Physical health status, Emotional status, Burden of chronic kidney disease, Clinical manifestations, and Complications. The data collection technique used in this research was a survey since it is considered as a research procedure that allows obtaining and elaborating data efficiently and quickly.

For this research, a polytomous questionnaire called KDQOL-36 was used to assess health-related Quality of life (HRQOL), which was taken from the National Kidney Foundation Kidney Disease Outcome Quality Initiative (KDOQI) which translated into Spanish means kidney disease outcome quality initiative and validated by the same, this questionnaire is used worldwide as a standard instrument to assess the Quality of life specifically in patients with chronic renal failure, this instrument measures six dimensions: Demographic data, physical condition, emotional state, disease burden, clinical manifestations and complications and consists of 38 questions, where the questions oriented to demographic data have no score, but the questions oriented to the other dimensions are assigned a score to each response option, which when added together would yield a maximum score of 100 points representing a better quality of life.

To process the information obtained from the application of the instrument, the Excel program of the office package was used for subsequent organization through statistical percentage tables for descriptive analysis. The level of Quality of life was evaluated using the KDQOL-36 scale, classifying the score from 90-100 points as very good, from 80-89 points as regular and less than 79 points as poor Quality of life.

Patient privacy was respected based on the principles stipulated by the Ministry of Public Health of Ecuador. The Institution's Ethics Committee approved the research in question.

RESULTS

Table 1 describes the gender, where it was observed that the female predominates with 77,78 %, while the male had a percentage of 22,22 %.

Gender	No.	%
Female	14	77,78 %
Male	4	22,22 %
Total	18	100,00 %

Table 2 shows that the highest percentage corresponds to the option between 20-40 years of age with 44,44 %, while ages 41-60 and over 61 have a percentage equal to 27,78 %.

Option	No.	%
20 - 40 years	8	44,44 %
41 - 60 years	5	27,78 %
61 onwards	5	27,78 %
Total	18	100,00 %

Table 3, corresponding to the limitation of activities in the questionnaire, showed that the highest value was 44,44 % for the option little limitation, while the second highest value was 38,89 % for no limitation and 16,67 % for much limitation in moderate activities, while in intensive activities the highest percentage was found in the option little limitation, followed by no limitation with 38,89 % and much limitation with a lower percentage of 16,67 %.

Indicator	Much Limitation		Little limitation		No limitation		Total	
	No.	%	No.	%	No.	%	No.	%
Moderate Activities	3	16,67	7	38,89	8	44,44	18	100
Intensive Activities	3	16,67	8	44,44	7	38,89	18	100

In table 4, which corresponds to questions six and seven of the instrument used, half of the participants answered yes to feeling satisfied with their performance, and the other half had the opposite answer; likewise, question seven establishes the work and daily limitations within which the respondents answered in great

quantity with the option no with a percentage of 55,55 % referring to not having any limitation and 44,44 % answered with the opposite option.

Indicator	Yes		No		Total	
	No.	%	No.	%	No.	%
Satisfied with its performance	9	50	9	50	18	100
Limitations in work or daily activities	8	44,44	10	55,55	18	100

Table 5 describes the impact that kidney disease has on social activities such as visiting friends or family; within this question, it is evident that the option with the highest percentage is sometimes 44,44 %, followed by the option almost always at 22,22 %, the options always, almost always and never have the same percentage of 11,11 %, finally, the option many times with 0 %.

Indicator	Always		Almost always		Many times		Sometimes		Almost never		Never		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Limitations in social activities	2	11,1	4	22,22	0	0	8	44,44	2	11,11	2	11,11	18	100

This table describes how renal disease influences the daily life of the surveyed population, it evaluates the feeling of burden and frustration, as well as the time that the person occupies in his/her disease and how he/she feels because of it, the answers of each item vary from the option totally false to totally true, where totally false includes the highest number of answers with percentages of 27,78 % in the item of hindering and in a lower amount in quite false with 5,56 %, followed by the item to use time having the highest percentage in the option of hindering with 38,89 % and the lowest amount in quite false with 5,56 %, 78 % in the hindering item and the least amount in quite false with 5,56 %, followed by the item use time having the highest percentage in the option I do not know with 38,89 % and the least amount in totally true with 5,56 %, likewise, frustration with the highest amount of responses in the option totally false with 27,78 % and the least amount in the option totally true with 11,11 % and finally, feeling of burden with 38,89 % in the false option and 5,56 % in the quite false and true options, being the options with the lowest scores.

Indicador	Absolutely true		Quite true		I don't know		Quite false		Totally false		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Obstruction in daily life	3	16,67	4	22,22	5	27,78	1	5,56	5	27,78	18	100
Spending time	1	5,56	3	16,67	7	38,89	3	16,67	4	22,22	18	100
Frustration	2	11,11	3	16,67	5	27,78	3	16,67	5	27,78	18	100
Feeling of burden	1	5,56	4	22,22	5	27,78	1	5,56	7	38,89	18	100

DISCUSSION

Regarding the general physical health status, limitations of activities and difficulties at work or in daily activities by the physical status of the respondents, their general physical health status was determined as good or moderate.

The predominance of the female sex in the study in question may be influenced, in the authors' opinion, by the small population it presents. These data are not similar to those expressed by Nápoles Zaldívar et al.⁽⁹⁾ in their research on "Health-related quality of life in patients with terminal chronic kidney disease".

In the case of the female sex, there is a higher prevalence of Chronic Kidney Disease (CKD), which may be due to their longer life expectancy and reaching the age of risk of CKD or to the inaccuracy of the formulas that estimate the FGR, which classify them in a more severe degree of the disease than the real one.⁽¹⁰⁾

The age range of onset of the disease that predominated was 20 to 40 years in this study, data that resemble those referred to by Ramirez-Reyes et al.⁽¹¹⁾ in their study, where the average age of the cases surveyed presented this pathology in this range. This may be due, although it is known that the disease can develop at

any age, to the fact that chronic kidney disease becomes more common with increasing age. After age 40, renal filtration decreases by approximately 1 % per year, in addition to the natural ageing of the kidneys.

Regarding the limitation of the patients in terms of physical activities, a higher percentage of the patients surveyed reported having such limitations. Results agree with Pinillos-Patiño *et al.*⁽¹²⁾ in their study, where the patients presented better results in those who received substitutive treatment and those who had less time to diagnose the disease.

The limitations in the labour and social aspect did not represent a problem in 55,5 % of the patients surveyed in the present study. This data is similar to that found by Garrido⁽¹³⁾ and Santos⁽¹⁴⁾ in their studies on quality of life in patients with renal disease, where most of them did not report limitations in both aspects, elements closely related to their mental performance and treatment.

About the limitations with social activity, this item was not significant, and the results were similar to those reported by Pinillos - Patiño *et al.*⁽¹²⁾

The feeling of burden and frustration are elements that were found to be highly represented in the results of this study. Similar data are reflected in Lacomba-Trejo⁽¹⁵⁾, where the presence of the psychological burden oriented to the load that they can perceive that they represent for the family and the home is evident, as well as the frustration of not being able to improve their state of health.

CONCLUSIONS

In the present study, the female sex was predominant in relation to the male sex, where the age range of the presence of the pathology was 20 - 40 years. Feelings of burden and frustration predominated, although favourable results were found concerning the limitation of physical and work activities.

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FINANCING

The authors of this research did not provide funding for this study.

CONFLICT OF INTEREST

The authors declare that there was no conflict of interest.

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