

Analysis of the degree of satisfaction with the choice of renal replacement therapy

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ABSTRACT

Introduction: Involving people with advanced chronic kidney disease in decision-making about their treatment promotes their autonomy and guarantees their free choice of treatment. This educational process culminates in selecting a treatment modality that should be consistent with their values, preferences, and lifestyle. However, little is known about their satisfaction with their choice once treatment has begun.

Objective: To determine the degree of satisfaction of the renal patient with the renal replacement therapy chosen.

Material and Method: A quantitative, cross-sectional, descriptive observational study was conducted in the Dialysis Unit of the Complejo Asistencial Universitario de León in 2024. We included chronic dialysis patients who had visited the Advanced Chronic Kidney Disease Unit for information on treatment options and had been on treatment for more than one month. Demographic and clinical variables and satisfaction with the choice were studied.

Results: Fifty-eight patients were studied. 67.24% were men. Mean age 67.1±13.98 years and median 69.5 years. The mean time on treatment was 30.64±31.67 months, 74.14% were on haemodialysis, and 98.3% were satisfied with their choice. We found no statistically significant differences in patient satisfaction between the dialysis options ($p=0.551$).

Conclusions: The percentage of regret was low, only 1.7%. Assessing patient satisfaction with their dialysis treatment can help to verify whether they are satisfied and/or wish to change the modality.

Keywords: chronic kidney disease; shared decision-making; dialysis; patient satisfaction.

RESUMEN

Análisis del grado de satisfacción con la elección de tratamiento renal sustitutivo

Introducción: Implicar a las personas con enfermedad renal crónica avanzada en la toma de decisiones sobre su tratamiento, fomenta su autonomía y garantiza la libre elección del mismo. Este proceso educativo, culmina con la elección de modalidad de tratamiento, que debe ser coherente con sus valores, preferencias y estilo de vida. Sin embargo, poco sabemos sobre su satisfacción con la elección realizada, una vez iniciado el tratamiento.

Objetivo: Conocer el grado de satisfacción del paciente renal con el tratamiento renal sustitutivo elegido.

Material y Método: Estudio cuantitativo, observacional descriptivo transversal, realizado en la Unidad de Diálisis del Complejo Asistencial Universitario de León en 2024. Se incluyeron pacientes crónicos en programa de diálisis, que hubieran pasado por la Unidad de Enfermedad Renal Crónica Avanzada para información sobre opciones de tratamiento, y llevaran más de 1 mes en tratamiento. Se estudiaron variables demográficas, clínicas y satisfacción con la elección.

Resultados: Se estudiaron 58 pacientes. El 67,24% fueron hombres. La edad media 67,1±13,98 años y mediana de 69,5

años. El tiempo medio en tratamiento $30,64 \pm 31,67$ meses, el 74,14% estaban en Hemodiálisis y el 98,3% estaban satisfechos con su elección. No hemos encontrado diferencias estadísticamente significativas en la satisfacción de los pacientes, entre las diferentes opciones de diálisis ($p=0,551$).

Conclusiones: El porcentaje de arrepentimiento fue bajo, solo el 1,7%. Valorar la satisfacción del paciente con su tratamiento dialítico, puede ayudar a verificar si está satisfecho y/o desea cambiar de modalidad.

Palabras clave: enfermedad renal crónica; toma de decisiones compartidas; diálisis; satisfacción del paciente.

INTRODUCTION

One of the priority objectives of Advanced Chronic Kidney Disease (ERCA) Units is to inform patients about the possibilities of renal replacement therapy (RRT) or conservative care and to prepare them, in a planned way, to receive the therapeutic option that is most appropriate for their needs¹.

It is advisable that this information be provided through a shared decision-making process between the patient (and/or family members), the physician, and the nurse, thus promoting patient participation and involvement². During this process, professionals must provide the patient with complete, impartial, and neutral information on all RRT modalities, based on scientific evidence, using simple language, support materials, and Decision Aid Tools, taking into account the risks and benefits of the different therapeutic options³.

The multidisciplinary team of the ERCA unit provides individualized information, helping the patient to carefully consider the treatment options, anticipating how each one may affect their lifestyle, and promoting participation, reflection, and/or analysis of the different modalities. This educational process culminates in the choice of treatment modality, which should be consistent with the patient's values, preferences, and lifestyle^{4,5}.

There is evidence that participating in decision-making regarding RRT increases patient satisfaction by making them feel more involved, improves decision quality, and leads to greater confidence in the treatment chosen^{3,5-9}.

However, we know little about their satisfaction with the choice once treatment has started, or whether they regret the decision made.

Therefore, the objective of this study was to determine the degree of satisfaction of renal patients with the renal replacement therapy they have chosen.

MATERIAL AND METHOD

Design and study period: We conducted a quantitative, observational, descriptive, cross-sectional study in the Dialysis Unit of Complejo Asistencial Universitario de León (León, Spain) during the first half of 2024.

Sample: All chronic patients who, at the time of data collection, were in a dialysis program—peritoneal dialysis (PD), home hemodialysis (HHD), and in-center hemodialysis (HD)—were included, provided they had passed through the ERCA Unit to receive information on treatment options and had been on treatment for more than one month. Patients who were unable to complete the questionnaire or who declined to participate were excluded. At the time of data collection there were 62 chronic HD patients and 30 on home therapies (HT).


Variables and measurement instruments: The variables studied were age, sex, time on dialysis, treatment modality, and satisfaction-with-choice questionnaire.

The “Satisfaction with the choice” questionnaire¹⁰ is part of the decision-aid tools documentation set used in ERCA and is endorsed by the following Scientific Societies: Spanish Society of Nephrology (SEN), Spanish Society of Nephrology Nursing (SEDEN), Andalusian Society of Nephrology, National Transplant Organization (ONT), and the renal patient associations ALCER and ADER.

It consists of 6 yes/no questions. The first three refer to the quality of the educational process and the last three to satisfaction with the option chosen (**figure 1**). Questionnaires were voluntary, self-administered, and anonymous.

Data collection: Data collection was conducted using the questionnaire during the first half of 2024. The questionnaire was handed out by the nurses participating in the study in the Dialysis Unit, after written informed consent had been obtained. The purpose of the study and how to complete the questionnaire were explained, they were informed that participation was voluntary, that they would not receive any advantage or disadvantage if they declined to participate, and that their anonymity would be guaranteed.

Data analysis: Data were collected using the Versia® software platform and analyzed with the JASP statistical package. Measures of central tendency and dispersion were calculated for quantitative variables and expressed as mean, standard deviation, median, and range. For qualitative variables, absolute frequencies and percentages were calculated. The Shapiro–Wilk test was used to assess normality. The non-parametric chi-square test was used to compare qualitative variables, and Student's t test and the Mann-Whitney U test were used to compare qualitative and quantitative variables. A p value <0.05 was considered statistically significant, with a 95% confidence interval.



Adapt dialysis to your life,
not your life to dialysis

Satisfaction with the choice

Date: Patient:

Do you clearly understand the benefits and the points to take into account in the option you have chosen? Yes No

Do you feel that you have had enough support and counselling to make your decision? Yes No

Do you know that you will be able to change treatment whenever you wish, provided there are no clinical reasons that prevent it? Yes No

Do you feel that you have chosen the option that best aligns with your preferences and lifestyle? Yes No

Do you feel SAFE with the option you have chosen? Yes No

Do you feel SATISFIED with the option you have chosen? Yes No

Figure 1. Template of the satisfaction-with-choice questionnaire.

Ethical aspects: Questionnaires were voluntary, self-administered, and anonymous to avoid participants feeling coerced in their responses.

Informed consent was obtained from patients, ensuring voluntary participation and the confidentiality of the information obtained. No personal data were included that could directly or indirectly identify patients, in accordance with universal ethical principles, international data protection standards, and current Spanish legislation. The research complied with the Declaration of Helsinki and took into consideration the current ethical and legal aspects in the field of biomedical research, in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018, as well as Organic Law 3/2018 of 5 December on Personal Data Protection and Guarantee of Digital Rights.

RESULTS

A total of 62 questionnaires were distributed. Ultimately, 58 were correctly completed and 4 were returned blank, all of which belonged to the HT group. The participation rate was 71.74%, and the questionnaire response rate was 93.55%. Among respondents, 68.96% (n=40) were men (HD=28, HT=11). The mean age was 67.12±13.98 years (HD=68.83±14.81; HT=62.2±10.15), with a median age of 69.5 years (HD=72; HT=64) and a range from 19 to 92. Fifty percent of patients were older than 70 years. The mean time on treatment since receiving the information was 30.64±31.67 months (HD=35.69±34.75; HT=16.14±12.56), with a median of 21 months (HD=22.93; HT=12.17). Patient origin was as follows: 56.45% from the ERCA clinic, 24.2% from transplant, and 19.35% started HD as acute patients. Overall, 74.14% (n=43) of patients were on HD and 25.86% (n=15) on home therapy (PD and HHD).

When comparing the age of patients on HD and HT, we did not find statistically significant differences between the two modalities (p=0.114), although HT patients were on average younger. HD patients had been on treatment significantly longer (p=0.038). The overall results of the satisfaction questionnaire are shown in **figure 2**. No statistically significant differences were found between dialysis modality and satisfaction with the option chosen (p=0.551). We were unable to compare age and time on treatment with satisfaction with the choice, since only one patient reported not being satisfied. Results by therapy are shown in **table 1**.

DISCUSSION

The choice of renal replacement therapy is an important decision that determines patients' quality of life and survival⁹.

People with advanced CKD face a particularly complex decision-making process. Multiple treatment options, each with its advantages and disadvantages, the opinions of family and/or healthcare professionals, and the identification of patient preferences and values make it a complex decision, and it is not uncommon for patients sometimes to feel they have made a mistake and regret the decision taken¹¹. Decisional regret is a negative emotion that arises when patients feel that an alternative choice might have resulted in a more favorable outcome than their current option^{12,13}.

According to published surveys, the prevalence of regret about the chosen RRT modality among patients with advanced CKD ranges from 7% to 61%¹⁴⁻¹⁶. In our cohort, the percentage of regret was lower than reported in the literature; only 1.70% stated that they were not satisfied with their decision.

It is possible that these favorable results are related to having undergone a shared decision-making process, receiving

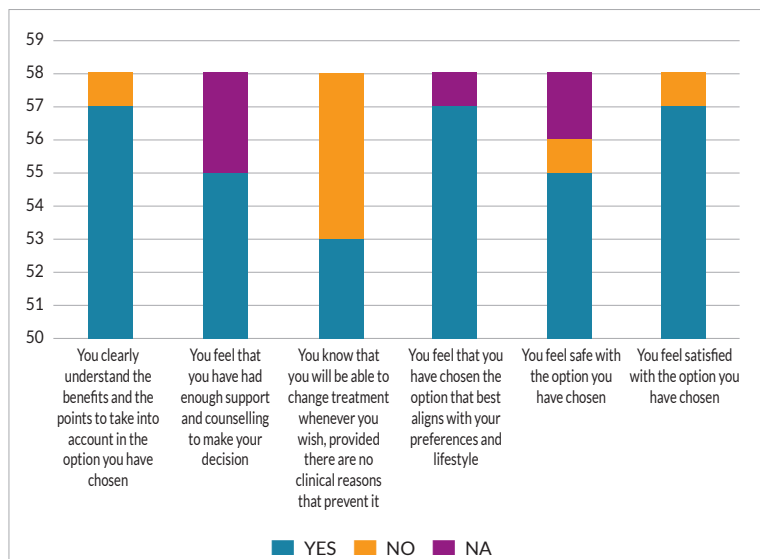


Figure 2. Results of the satisfaction-with-choice questionnaire for therapy selection.

* NA= No answer.

comprehensive information, and actively participating in the choice of treatment. According to previous studies, factors associated with regret include a decision-making process that reflects the preferences of family members and the physician, as well as suboptimal preparation and understanding of the dialysis process^{13,16,17}.

Another factor that we believe may have contributed to the low rate of regret is the advanced age of our patients, since half of those who responded were older than 70 years. However, we couldn't perform a comparative statistical analysis to confirm this, as only one person reported not being satisfied with their current treatment. This association was, however, confirmed in the study by Berkhout-Byrne et al., which reported the results of a Dutch National Survey

examining regret about the decision to start dialysis and found an association between older age and less regret and greater satisfaction with treatment^{16,17}. For the same reason, we were also unable to relate time on dialysis treatment to satisfaction with the choice made. Nonetheless, numerous publications support the high degree of satisfaction of dialysis patients in general, mainly associated with the quality of care and perceived safety^{18,19}.

Regarding the results of the questions related to the quality of the information provided, most patients reported having sufficient information and knowledge to make their decision. This, together with the low rate of regret and high level of satisfaction, highlights the importance of pre-dialysis education and shared decision-making in choosing renal replacement therapy. This finding is consistent with other published studies that found a direct association between insufficient information and a higher risk of regret^{17,20}.

We found no significant differences when comparing satisfaction between patients who chose a home therapy and those who chose in-center hemodialysis. This finding is noteworthy, as numerous studies have reported greater satisfaction in patients dialyzing at home, possibly due to a perceived sense of greater normality and not having to visit the hospital as frequently^{14,21,22}.

The Quality Standards for Pre-dialysis Education⁵ highlight the importance of regular follow-up to verify whether the patient remains satisfied and/or wishes to change to another modality or to conservative care. Such follow-up may be particularly important after major life changes (for example, the death of a spouse) or early problems with the chosen modality that may prompt patients to reevaluate their choice⁵.

Table 1. Results of the survey of satisfaction by treatment modalities.

	HD			DP			p value
	YES	NO	NA	YES	NO	NA	
Has clear the benefits and the points to take into account of the option they have chosen	42	1	0	15	0	0	0.551
Feels they have had enough support and counselling to make their decision	40	3	0	15	0	0	0.293
Knows they can change treatment whenever they wish, provided there are no clinical reasons that prevent it	38	5	0	15	0	0	0.167
Feels they have chosen the option that best matches their preferences and lifestyle	42	0	1	15	0	0	0.551
Feels safe with the option they have chosen	41	0	2	14	1	0	0.168
Feels satisfied with the option they have chosen	41	1	0	15	0	0	0.551

* NA= No answer.

Limitations

One of the limitations of this study was the anonymity of questionnaire completion, which prevented us from knowing the characteristics of those who answered “no” to any question or did not respond. However, anonymity allowed patients to answer freely and may have contributed to the high response rate (93.55%).

Another limitation is the small sample size, which reflects the reality of a single center.

We must also consider the possibility that these results may conceal a response bias, due to the exclusion of patients who were unable to complete the questionnaire because of their clinical condition, potentially leading to an overly positive picture of our results.

Practical considerations

It would be useful to implement the “satisfaction questionnaire” individually and systematically for all incident and prevalent dialysis patients. Adapting treatment to changes in the patient’s life and environment could improve their adjustment to treatment, autonomy, and quality of life.

In light of our results, we can see that the percentage of regret among our dialysis patients is low.

We found no differences in satisfaction with the choice of home therapy versus in-center hemodialysis.

Assessing patient satisfaction with their dialysis treatment may help to identify shortcomings in the educational process, as well as to verify whether the patient is satisfied and/or wishes to change treatment modality, particularly when there are changes in their life or environment.

Conflicts of interest

None declared.

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