



## Quality of life of patients with chronic renal insufficiency undergoing dialysis treatment

*Qualidade de vida de pacientes portadores de insuficiência renal crônica em tratamento de hemodiálise*

*Calidad de vida de pacientes con insuficiencia renal crónica en tratamiento dialítico*

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### ABSTRACT

**Objective:** To analyze the quality of life of patients with chronic renal insufficiency undergoing dialysis treatment. **Methods:** a quantitative research carried out in a dialysis service clinic in Campinas, São Paulo State, through the analysis of patients' general identification data and application of the WHOQOL-brief questionnaire, divided in four domains: physical, psychological, social, and environment. Twenty subjects were randomly chosen and analyzed. **Results:** Male (75%) and female (25%) patients, most patients in the age group 40 - 60 years, undergoing dialysis treatment, with lower index for 20 to 40 year-olds. The analysis of the domains showed that the patients dealt better with the psychological aspects when compared to the other analyzes aspects (physical, psychological, and environment). **Conclusion:** The best results, concerning psychological and social domains, regard the belief in the cure for the chronic renal insufficiency through a renal transplant, providing patients with confidence in the dialysis process.

**Keywords:** Quality of life; Renal dialysis; Renal insufficiency, chronic

### RESUMO

**Objetivo:** Analisar a qualidade de vida de pacientes com insuficiência renal crônica, em tratamento de hemodiálise. **Métodos:** Trata-se de pesquisa quantitativa, realizada em uma clínica de diálise em Campinas, SP, através dos dados de identificação gerais dos sujeitos e aplicação do questionário WHOQOL-breve dividido em quatro domínios: físico, psicológico, social e meio ambiente. Foram analisados 20 sujeitos escolhidos aleatoriamente. **Resultados:** 75% homens e 25% mulheres, com predominância de pacientes na faixa etária de 40 - 60 anos, passando por hemodiálise, e índice menor entre os 20 e 40 anos. Observou-se, pela análise geral das médias dos domínios, que os pacientes lidavam melhor com os aspectos psicológicos, quando comparados aos demais âmbitos pesquisados. **Conclusão:** Os melhores resultados obtidos pertencem aos domínios psicológico e social, relacionados à crença na cura para a insuficiência renal crônica através de um transplante renal, proporcionando aos pacientes confiança no processo dialítico.

**Descritores:** Qualidade de vida; Diálise renal; Insuficiência renal crônica

### RESUMEN

**Objetivo:** Analizar la calidad de vida de pacientes con insuficiencia renal crónica, en tratamiento de hemodiálisis. **Métodos:** Se trata de una investigación cuantitativa, realizada en una clínica de diálisis en Campinas, SP, a través de los datos de identificación general de los sujetos y la aplicación del cuestionario WHOQOL-brief dividido en cuatro dominios: físico, psicológico, social y medio ambiente. Fueron analizados 20 sujetos escogidos aleatoriamente. **Resultados:** el 75% fueron hombres y el 25% mujeres, con predominio de pacientes en el grupo etáreo de 40 - 60 años, pasando por hemodiálisis, e índice menor entre los 20 y 40 años. Se observó, por el análisis general de los promedios de los dominios, que los pacientes lidiaban mejor con los aspectos psicológicos, cuando fueron comparados con los demás ámbitos investigados. **Conclusión:** Los mejores resultados obtenidos pertenecen a los dominios psicológico y social, relacionados a la creencia en la curación de la insuficiencia renal crónica a través de un transplante renal, proporcionando a los pacientes confianza en el proceso dialítico.

**Descriptores:** Calidad de vida; Diálisis renal; Insuficiencia renal crónica

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## INTRODUCTION

Chronic renal disease is an organ lesion with progressive and irreversible loss of the kidney's function. In her most advanced phase, it is defined as Chronic Renal Insufficiency (CRI), when the patient's kidneys can no longer maintain the normal inner system functions. If diagnosed early, and with proper therapeutic conduct, it would be possible to reduce the costs and suffering to the patient. The main causes of CRI are arterial hypertension and diabetes mellitus<sup>(1)</sup>.

Chronic renal disease brings a series of questions that marks the individual's life after the diagnosis. It is common for psychological manifestations to result in alterations in the social interactions and psychological imbalances, not only in the patient, but also in the family that accompanies him or her<sup>(2)</sup>.

The renal disease and the complications resulting from the treatment affects the patients' functional abilities, narrowing their daily activities and, often, the alterations are not detected in the conventional clinical and biological evaluations. The objective of the health-related quality of life evaluations is to understand how the limitations affect the patients' daily life<sup>(3)</sup>.

Patients with CRI, and on dialysis, has to deal everyday with having an incurable illness that forces them to follow a painful and long treatment that causes, together with the disease evolution and its complications, even greater limitations and alterations of great impact, that reflect both on their and in their family's quality of life<sup>(4)</sup>.

In order to organize themselves physically and mentally<sup>(2)</sup>, to absorb and adapt themselves to the new data, indications and prescriptions, patients remain in a state of alertness and tension. This unleashes reactions of anxiety, because the continuous exposure to stressful situations like dialysis, diets, transplants, and the frequent stay in the hospital environment, therefore changing the quality of life.

Depression is the more common complication in dialysis patients, and usually means a response to some real, threatened or imagined loss. Persistent depressive moods, impaired self-image, and pessimist feelings are some of the psychological manifestations. The physical complaints include sleep disorders, appetite and weight alterations, dry mouth, constipation, and a decreased sexual interest. Depressive symptoms must be analyzed with great attention, because they can be mistaken with uremia symptoms<sup>(5)</sup>.

The term Quality of Life can be discussed under many points of view, in the individual or collective form, and a great doubt remains: who better perceives the Quality of Life? Each individual (according to his or her socio-economical, cultural, and physical condition and life objectives) or those who observes them<sup>(6)</sup>?

In the sickening process, it is known that for some people it is more comforting and less compromising to assign to someone else (mainly to professional caretakers) the capacity of providing them with health. In the case of CRI patients, allowing them to develop this psychological dynamic makes the diagnosis become a synonym of inability, interrupting the autonomy and the search for better quality of life conditions<sup>(7)</sup>.

The quality of life<sup>(8)</sup> is indicated, for example, "by the capacity to recognize the truth about ourselves, how we deal with the challenges of life, how we react with losses and frustrations and, especially, how we deal with success". Even if conquering it means establishing a "personal commitment toward valuing life and living, facing reality without camouflaging beliefs and opinions, defending your point of view without giving up your beliefs. Not waiting for the government or for kind standards that would, in the best case, provide the infrastructure to live with more health".

Any quality of life evaluative method<sup>(9)</sup> will always be reductionist, because it is a multifaceted object, and it is not possible to aggregate them in a coherent, logical, consensual and explanatory construct of the phenomenon of life, of quality of life. This difficulty would shift the quality of life question to "life conditions, lifestyle or life situation, and, since these are, in essence, descriptive, they do not necessarily carry ideological or life-conception connotations, priorities, hierarchies or value judgment.

In the last years, the quality of life theme has been analyzed with greater interest, due to the concern and dissemination of the preventive medicine area, and knowledge of the general population, and yet, associating life expectancy to technological advances in diagnosis and treatment, besides the concern with environmental issues.

## OBJECTIVE

To analyze the quality of life of patients with chronic renal insufficiency undergoing dialysis treatment.

## METHODS

This is a quantitative study, with primary data collection, performed from April to May 2006, with 20 subjects 18 year-old or older. Participants were submitted every week to dialysis, at a private clinic of the Brazilian Public Health System (Sistema Único de Saúde - SUS) and health insurance patients, located in the city of Campinas - SP, with capacity to attend to 206 patients. However, it currently attends 194 patients from Campinas and other cities in the region. The daily flow is of 100 patients, divided in three work shifts. The data

collection was obtained through filling out forms, after receiving authorization from the Ethics In Research Committee of the Pontifical Catholic University of Campinas, under the n. 103/06 protocol, and having subjects sign an informed consent agreement.

Two evaluation instruments were used, identified as A and B. The A instrument, composed by directed questions, was designed by the study authors, with anonymous identification of the subjects, complementary to instrument B. The B instrument, used to analyze the quality of life<sup>(10)</sup>, consists of the WHOQOL-brief (World Health Organization Quality of Life- abbreviated), composed of 26 questions, divided in four domains: Physical, Psychological, Social, and Environment. Instrument B does not have a numeric classification for quality of life, rather an analogical scale of 0 to 100, using comparisons as criteria: the higher the score, the better the Quality of Life, and the lower the score, the worse the Quality of Life.

The final analysis of instrument B was accomplished using the statistical resource software Statistical Package for the Social Sciences (SPSS), applying the instrument's specific syntax, as per instructions.

## RESULTS

The general analysis indicated that, in the studied population, most patients (75%) were male. Concerning subjects in the dialysis program, there were more participants in the age group 40-60 years, while the age groups of 20-40 years and over-60 years had fewer participants, as shown in Table 1.

**Table 1** - Age-Group of Dialysis Patients, by gender. Campinas, April-may 2006.

Age-Group	Gender		Total	
	Female	Male	n	%
	n	n		
20 - 30	-	2	2	10,0
30 - 40	1	2	3	15,0
40 - 50	2	4	8	30,0
50 - 60	2	6	6	40,0
>60	-	1	1	5,0
<b>Total</b>	5 (25,0)	25 (75,0)	20	100,0

The subjects, when questioned about the triggering factor of the CRI, 20% did not know and 20% pointed to glomerulonephritis as the cause. Nephritis was reported by 17.5% of them; hypertension by 15%, and Polycystic Kidney by 15%; diabetes and diabetes-related hypertension had a 5% index each, and the remaining pathologies: lupus erythematosus, Aport's syndrome, and renal atrophy corresponded to the smaller percentages.

It was observed that 50% of subjects have been on dialysis for more than five years; 35%, for 1 to 3 years,

and the remaining 15%, for 3 to 5 years.

Regarding the WHOQOL-brief questionnaire, it was observed that, according to the value scale (0-100), when the minimal value results were analyzed, the physical domain received the minor score (25), compared to the others domains; the psychological obtained 37.5; the social, 41.67, and the environment, 40.63. On the other hand, when the maximal values were analyzed, there was predominance in the psychological (100) and social (100) domains; physical, with 92.86, and the environment aspect with inferior result (84.38). Therefore, in the average between domains, in the psychological aspect, the patients experience the questions better, compared to the others domains (psychical, social, and environment), as observed in Table 2.

**Table 2** - Values scales for 0 to 100 for minimum, maximum and average, considering the physical, psychological, social and environmental domains. Campinas, April-may, 2006.

	Domains			
	Physical	Psychological	Social	Environment
<b>Minimum</b>	25.00	37.50	41.67	40.63
<b>Maximum</b>	92.86	100.00	100.00	84.38
<b>Average</b>	64.28	76.46	70.83	64.69

About the average values, the psychological domain obtained 76,46; the social, 70.83; the environment, 64.69 and, finally, the psychical domain, with 64.28, indicating that the psychical domain, which obtained the lower scores and includes pain, discomfort, energy, fatigue, sleep and rest, is the domain that most influences the Quality of Life of the individual subject to dialysis.

## DISCUSSION

The way each patient lives<sup>(2)</sup> and deals with CRI is always unique and personal, subordinate to many factors, like the psychological profile, the environmental and social conditions, family support and the answers of the Health Organizations.

The individuals' unique perceptions of quality of life affect the confrontation toward the disease: positive ones are more related to rational strategies, like establishing a goal or learning more about the disease, while the negative ones are related to avoiding strategies, like disease denial, acting as if it does not exist. In the same perspective, it is noticed that for patients on dialysis, a better or worse quality of life is associated to the their dependence on the machine: some patients, despite the dependence (caused by the type of treatment), performed their daily activities as usual, while others suffer with a deprived quality of life and self-pity

feelings<sup>(11)</sup>.

A study<sup>(12)</sup> that evaluated the quality of life of patients in the dialysis service reported that they considered that quality of life meant a treatment that allows physical well-being and life extension. The existence of many feelings related to the renal disease irreversibility and the obligatory nature of the submission to the treatment is evidenced. In this study, the result analysis revealed that the dialysis has different meanings regarding renal transplantation. The patients stated their hopes and their belief in a superior being and in having a renal transplantation.

## CONCLUSION

Patients on dialysis presented average values over 60 in all the WHOQOL-brief domains. However, the best

results were in the psychological and social domains (average: 76.46 and 70.83, respectively).

The majority of subjects face the treatment as a painful, tough, distressing modality, with physical, social, and nutritional limitations, which often complicates the patient-society-family interaction. They consider themselves as daily vulnerable to death, with numerous risks, from the transportation to the dialysis center, to completing the sessions.

The subjects on dialysis, in general, presented better results in the psychological domain due to the related fact of believing that the renal transplantation is the cure to the disease, based on organ donation campaigns, information by the transplantation staff, or on their own convictions about cure. They estimate that the quality of life of transplanted patients is better, mainly associated to the physical and social aspects.

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