

# Factors contributing to the quality of life of haemodialysis patients

Cristiana Matias<sup>1</sup>, Helena Pereira<sup>1</sup>, Ana Paula Martins<sup>1</sup>, Catarina Cunha<sup>1</sup>, Manuela Fonseca<sup>1</sup>, Hélder Alves<sup>2</sup>, Joaquim Pinheiro<sup>1,2</sup>, João Fazendeiro Matos<sup>3</sup>, Maria Teresa Parisotto<sup>4</sup>

NephroCare

<sup>1</sup>Fresenius Medical Care, NephroCare Fafe, Fafe - Portugal

<sup>2</sup>Universidade Católica Portuguesa, Porto - Portugal

<sup>3</sup>Fresenius Medical Care, NephroCare Portugal, Porto - Portugal

<sup>4</sup>NephroCare Coordination, Fresenius Medical Care, Bad Homburg - Germany

## Introduction

Quality of life is as important as survival.<sup>1</sup> Many studies show us that health related quality of life (HRQOL) is correlated with mortality and morbidity.<sup>2</sup> Haemodialysis patient's quality of life (QOL) is worse compared to common population. Some studies show us an inverse relation between burden of symptoms reported and QOL.<sup>4</sup> Other studies have opposite results, with a lack of correlation between clinical data and QOL.

## Objective

To understand how, in our haemodialysis population, QOL is related with demographic, and clinical data.

## Material and methods

Demographic, clinical and biological data, the Charlson comorbidities index, the Karnofsky<sup>5</sup> Performance Status Scale Index (KI) and KDQOL-SF 1.3<sup>6</sup> of 91 patients were analysed and their correlations studied (scores from 0-100; higher scores reflect a better HRQOL).

## Results

The average age was 63.9 years. 51.6% were females. The mean KI was 63.85. Analysis of the different components of the KDQOL revealed:

- a mean physical component score of 36.28;
- a mean mental component score of 42.01;
- a mean overall health score of 55.68;
- effects of kidney disease were lower with the progression of time on dialysis;
- patient satisfaction was higher in older and more dependent patients;
- the physical component score was worse in older patients and in more dependent patients.

Table I. Socio demographic and clinical data

Characteristics	Descriptive Statistics
<b>Patients demographics</b>	
Age [Mean (±SD); Min - Max]	63.90 (±16.18); 27 - 88
Female [n° (%)]	47 (51.6%)
<b>Clinical characteristics</b>	
Vintage (months)	Mean (±SD); Min - Max
	57.56 (±49.93); 3 - 201
K, mEq/L	5.14 (±0.73); 3.93 - 9.32
P, mg/dL	4.17 (±1.08); 1.85 - 8.77
IDWG %	2.49 (±0.96); 0.35 - 5.12
<b>Aetiology [n° (%)]</b>	
Diabetic Nephropathy	21 (23.1%)
Arterial Hypertension	10 (11%)
Glomerulonephritis	13 (14.3%)
Others/unknown	47 (51.6%)
<b>Diabetes [n° (%)]</b>	
Absent	63 (69.2%)
Present	28 (30.8%)
<b>PVD [n° (%)]</b>	
Absent	86 (94.5%)
Present	5 (5.5%)
Karnofsky Index	63.85 (±18.36); 30 - 90
Karnofsky Index [median (P25-P75)]	70.00 (50 - 80)

Values presented are means (±SD); Min - Max, frequencies (n°; %) and median (P25; P75).

Table II. KDQOL outcomes and internal consistency reliability

Measure	Valid N	No. of Items	Mean (±DP)	Internal Consistency Reliability
<b>Kidney disease-targeted scales</b>				
Symptom/ problem list	86	12	82.74 (±11.91)	0.75
Effects of kidney disease	88	8	71.46 (±18.01)	0.75
Burden of kidney disease	89	4	29.28 (±21.60)	0.63
Cognitive function	89	3	73.22 (±19.28)	0.60
Sexual function	29	2	71.55 (±30.05)	0.88
Sleep	87	4	66.18 (±19.46)	0.68
Social support	87	2	73.56 (±27.79)	0.67
Dialysis staff encouragement	88	2	95.60 (±9.29)	0.62a
Patient satisfaction	88	1	82.39 (±21.50)	N.A.
<b>36-Item Health Survey scales</b>				
Physical Domain	86	21	36.28 (±8.16)	0.88
Physical functioning	89	10	42.33 (±31.72)	0.94
Role-physical	89	4	32.96 (±31.20)	0.71a
Pain	89	2	68.90 (±28.23)	0.78
Mental Domain	86	14	42.01 (±9.58)	0.82
Emotional well-being	88	5	53.28 (±17.47)	0.74
Role-emotional	89	3	42.70 (±35.17)	0.54
Energy/fatigue	89	4	48.24 (±17.25)	0.73
Overall Health	88	1	55.68 (±21.27)	N.A.

a Standardized alpha.  
N.A. = Not Applicable.

Table III. Socio-demographics and clinical correlation of the KDQOL data

	N	Age	Vintage (months)	K	P	IDWG % (>5.2 %) (avg 1 week)	Karnofsky Index
<b>KDQOL-SF scales</b>							
<b>Kidney disease-targeted scales</b>							
Symptom/ problem list	86	0.10	-0.18	-0.01	0.02	-0.12	0.00
Effects of kidney disease	86	0.17	-0.26*	-0.14	-0.12	-0.10	-0.09
Burden of kidney disease	86	0.05	0.18	-0.04	-0.01	-0.08	-0.03
Cognitive function	86	-0.01	-0.07	-0.02	0.02	-0.08	0.05
Sexual function	28	0.21	-0.13	0.08	-0.20	0.03	0.09
Sleep	85	0.19	0.03	-0.13	-0.16	-0.13	-0.19
Social support	85	-0.09	-0.02	0.11	0.00	-0.18	0.07
Dialysis staff encouragement	86	0.17	0.00	-0.23*	-0.21*	-0.11	-0.14
Patient satisfaction	86	0.38**	-0.05	-0.18	-0.24*	-0.28**	-0.27*
<b>36-item Health Survey scales</b>							
Physical domain	84	-0.30**	-0.13	0.00	0.15	0.05	0.30**
Physical functioning	86	-0.33**	-0.03	0.08	0.28**	0.20	0.40**
Role-physical	86	-0.25*	-0.23*	-0.07	0.08	-0.03	0.28**
Pain	86	0.24*	-0.03	0.03	-0.07	-0.13	-0.11
Mental domain	84	0.11	0.00	0.12	-0.04	-0.01	-0.01
Emotional well-being	85	0.15	0.05	0.02	0.04	-0.03	-0.06
Role-emotional	86	-0.03	-0.13	0.05	-0.03	0.16	0.14
Energy/fatigue	86	0.04	-0.09	0.06	0.15	-0.07	0.12
Overall Health	86	-0.17	0.00	0.11	0.07	0.05	0.22*

\*\* Correlation is significant at the 0.01 level (2-tailed), according to Pearson Correlation.  
\* Correlation is significant at the 0.05 level (2-tailed), according to Pearson Correlation.

## Conclusion

Patients' HRQOL was low, and very low with respect to physical component as expected; however a more comprehensive evaluation is required to confirm the results.

Patient empowerment and supportive staff are required to improve QOL for haemodialysis patients.

## References

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