

INVESTIGATION OF POSSIBLE EFFECT MODIFICATION OF VINTAGE AND AGE ON GENDER COMPARISONS OF HEALTH-RELATED QUALITY

OF LIFE IN MAINTENANCE HEMODIALYSIS PATIENTS (PROHEMO)

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I. Background

Previous studies in maintenance hemodialysis patients (MHD) showed that women in general have a poorer health related quality of life (HRQOL)⁽¹⁻³⁾ but it is not clear if the reported gender differences in HRQOL vary by dialysis vintage (length of time on dialysis treatment) and age groups.

II. Objective

By using data of a large sample of MHD patients, the present study compared scores of different components of HRQOL between women and men. Additionally it was investigated if gender differences in HRQOL scores varied by dialysis vintage (<6 months versus ≥ 6 months on dialysis) and age (<60 versus ≥ 60 years).

III. Methods

Cross-sectional analysis of baseline data of 1166 patients enrolled in the "Prospective Study of the Prognosis of Chronic Hemodialysis Patients (PROHEMO) developed in 4 clinics in Salvador, BA, Brazil, since 2006. The Kidney Disease Quality of Life Short Form (KDQOL-SF)⁽⁴⁾ was used to generate scores of the Physical Component Summary (PCS), Mental Component Summary (MCS) and the Symptoms/Problems component of HRQOL, with higher scores indicating better HRQOL.⁽⁵⁾ The comparisons of HRQOL scores between women and men were stratified by dialysis vintage and age. Linear regression was used to estimate differences in scores adjusted for age, sociodemographics, months on dialysis as continuous variable, Kt/V, laboratory variables and comorbid conditions.

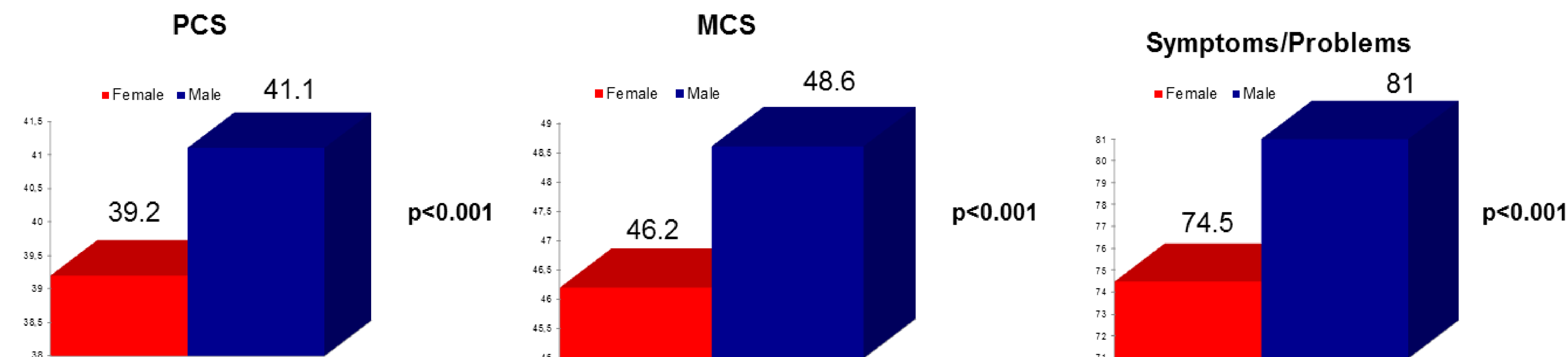
IV. Results

Characteristics of the patients by gender

Characteristics	Female (n=461)	Male (n=705)	P-value
Age	47.8±14.5	49.5±14.6	0.056
Mo on dialysis*	14.8	12.4	<0.001
% Married	47.2	65.7	<0.001
% <High School	61.5	62.2	0.429
% Poor/very poor	54.7	51.8	0.181
% Non-White	90.2	86.5	0.033
% Fistula	67.7	68.8	0.474
Kt/V	1.6±0.3	1.4±0.3	<0.001
Albumin	3.9±0.6	3.9±0.6	0.019
Creatinine	9.16±3.2	10.8±3.7	<0.001
Phosphorus	5.0±1.6	5.1±1.7	0.147
Hemoglobin	9.5±1.9	9.8±1.9	0.024
% Heart Failure	12.8	12.1	0.397
% CVD	4.6	6.4	0.335
% IHD	8.8	8.3	0.406
% PVD	4.0	3.8	0.495
% Cancer	1.8	3.2	0.091
% Diabetes	26.5	22.7	0.078
% Hypertension	82.6	83.6	0.364

*Median of months on dialysis. Other results by % or mean SD. CVD: Cerebrovascular Disease. IHD: Ischemic Heart Disease; PVD: Peripheral Vascular Disease

Mean Health-Related Quality of Life Scores by Genders



Comparisons of Health-Related Quality of Life Scores Between Women and Men, by Dialysis Vintage

Health-Related Quality of Life Scores	Female-Mean ±SD	Male-Mean ±SD	Unadjusted Mean Difference (95% CI)	Adjusted Mean Difference (95% CI)	P-Value for Interaction	
PCS	≥6months	38.9±10.2	41.2±10.1	-2.3 (-3.8 - -0.8)	-2.4 (-4.0 - -0.8)	>0.1
	<6months	39.6±10.5	40.9±9.4	-1.3 (-3.21 - 0.6)	-0.7 (-2.7 - 1.2)	
MCS	≥6months	46.0±12.8	49.5±11.9	-3.5 (-5.4 - -1.7)	-3.7 (-5.6 - -1.7)	0.061
	<6months	46.4±12.2	47.2±12.5	-0.6 (-3.0 - 1.8)	-0.1 (-2.7 - 2.6)	
Symptoms/Problems	≥6months	73.2±18.1	80.6±16.0	-7.4 (-9.9 - -4.8)	-7.1 (-9.8 - -4.4)	>0.1
	<6months	76.8±17.4	81.8±15.4	-5.0 (-8.2 - -1.8)	-3.5 (-6.8 - -0.2)	

PCS=physical component summary; MCS=mental component summary; 95% CI= 95% Confidence Interval; Red numbers mean P<0.05; Adjusted for: age, education, marital status, social level, race, education, kt/v, vascular access, albumin, creatinine, phosphorus, hemoglobin, cerebrovascular diseases, heart failure, ischemic heart diseases, Peripheral Vascular Disease, cancer, diabetes, hypertension.

Comparisons of Health-Related Quality of Life Scores Between Women and Men, by Age

Health-Related Quality of Life Scores	Female-Mean ±SD	Male-Mean ±SD	Unadjusted Mean Difference (95% CI)	Adjusted Mean Difference (95% CI)	P-Value for Interaction	
PCS	<60years	40.3±10.0	41.5±9.7	-1.2 (-2.6 - 0.1)	-1.3 (-2.7 - 0.1)	0.042
	≥60years	35.4±10.3	39.8±10.0	-4.4 (-6.9 - -2.0)	-4.4 (-7.0 - -1.8)	
MCS	<60years	45.8±12.7	48.1±12.2	-2.3 (-3.9 - -0.6)	-2.1 (-3.8 - -0.3)	>0.1
	≥60years	47.4±12.1	50.3±12.0	-2.9 (-5.9 - -0.1)	-2.5 (-5.8 - 0.8)	
Symptoms/Problems	<60years	74.8±17.9	80.8±16.3	-6.0 (-8.4 - -3.8)	-5.4 (-7.8 - -2.9)	>0.1
	≥60years	73.5±18.0	81.6±14.2	-8.1 (-11.9 - -4.2)	-7.3 (-11.3 - -3.3)	

PCS=physical component summary; MCS=mental component summary; 95% CI= 95% Confidence Interval; Red numbers mean P<0.05. Adjusted for: education, marital status, social level, race, education, dialysis vintage, kt/v, vascular access, albumin, creatinine, phosphorus, hemoglobin, cerebrovascular diseases, heart failure, ischemic heart diseases, Peripheral Vascular Disease, cancer, diabetes, hypertension.

V. Conclusions

The results call attention to variations by age and dialysis vintage in the gender comparisons of HRQOL components. The potential effect modification of vintage and age should be taken into account in studies designed to investigate differences in HRQOL between women and men on MHD.

VI. Reference

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