

QUALITY OF LIFE IN HAEMODIALYSIS AND PERITONEAL DIALYSIS PATIENTS

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Table 1 Summary of the SF-36 domains and mean values according to the US general population survey

Component	Subscale	Low score	High score	Mean	SD
Physical Health (mean = 50, SD = 10)	Physical functioning (PF)	Very limited in performing physical activities	Performs all physical activities with vigour and without limitation	84.2	23.3
	Role-physical (RP)	Problems with work and other roles because of physical illness	No problems with daily activities, including work	80.9	34.0
	Bodily pain (BP)	Very severe pain experienced which limits physical activity	No pain or limitations due to pain	75.2	23.7
	General health (GH)	Perceives personal health as poor and believes it will worsen	Perceives personal health as excellent	71.9	20.3
	Vitality (VT)	Feels tired and worn out all the time	Experiences pep and energy all the time	60.9	20.9
Mental Health (mean = 50, SD = 10)	Social functioning (SF)	Extreme and frequent limitation of normal social activities because of physical or emotional problems	Performs normal social activities without limitations because of physical or emotional problems	83.3	22.7
	Role-emotional (RE)	Problems with work and other roles because of emotional illness	No problems with daily activities, including work	81.3	33.0
	Mental health (MH)	Feels nervous and depressed all of the time	Experiences peace, calm and happiness all the time	74.7	18.1

Table 2 Mean age and years of treatment for the two patient groups

Patient Group	* Mean age in years	SD age	Age Distribution	* Average Years on Treatment (SD)	Years on Treatment (range)	Gender Distribution			
						Male n %	Female n %		
HD (n=15)	39.9	9.98	24-57	4.8 (5.540)	1-22	11	73.3	4	26.7
PD (n=15)	36.9	11.8	19-57	4.3 (2.320)	2-8	8	53.3	7	46.7

Statistical Analysis of differences between patient groups: *p = 0.409; †p = 0.344

Table 3 Comparison of SF-36 subscale scores between the two patient groups (p<0.05 for BP)

Subscale	Mean (SD)	HD	PD	P-value
Physical Functioning (PF)	24.57 (3.936)	25	13 (3.044)	0.240515
Role-Physical (RP)	13.79 (3.309)	14.8 (4.799)	5 (2.0)	0.516192
Role-Emotional (RE)	11.14 (2.507)	11.87 (2.90)	5 (2.0)	0.479749
Bodily Pain (BP)	7 (3.397)	3.47 (1.959)	2 (0.8)	0.001804
Vitality (VT)	12.57 (2.138)	11.73 (1.387)	10 (4.0)	0.218087
Mental Health (MH)	16.57 (1.869)	16.27 (1.163)	14 (1.7)	0.599639
Social Functioning (SF)	6 (1.109)	6.2 (0.775)	5 (0.8)	0.575971
General Health (GH)	12.14 (3.613)	11.27 (2.915)	4 (1.5)	0.477034

Table 4 Mean SF-36 scores and test statistics for the haemodialysis and peritoneal dialysis patient groups

SF-36 Scoring	n	Mean	SD	Range	Median	SEM
**HD	15	109.360	10.659	95-125	110	2.849
**PD	15	105.600	4.939	99-116	105	1.275

Test statistics for *Separate T: p = 0.244 and †Mann-Whitney: p = 0.497

Introduction:

The quality of life is generally compromised in patients undergoing long term treatment for a chronic condition. Poor quality of life can have a negative impact on the treatment outcome. In addition to their renal failure, quality of life of end-stage renal disease patients is further compromised by renal function replacement treatments such as haemodialysis (HD) and peritoneal dialysis (PD). These treatments have potential physical and psychosocial disadvantages, including the time consumed by treatment, the loss of regular employment, changes in family dynamics and the pain associated with treatment. Disagreement exists about differences between quality of life in HD and PD patients.

This study compared quality of life between HD and PD patients by means of the medical short form 36 (SF-36). The SF-36 is a short form questionnaire that is used to assess the individual's quality of life in terms of two major components, namely physical and mental well being. These components are subdivided into eight subscale categories which involve questions based on the individual's perception of his/her own health with regards to physical pain and emotional functioning.

Aim:

The objective of the study was to compare quality of life between HD and PD patients.

Methods:

Quality of life in 15 HD and 15 PD patients was compared using the SF-36 short form. All patients signed informed consent forms and the ethical clearance number was S168/2006.

Results:

There was no significant difference between HD and PD patients for the total SF-36 score, but HD subjects reported more pain (p<0.05).

Conclusions:

Quality of life is similar in HD and PD patients, with the exception of higher pain levels in HD patients.

Acknowledgements:

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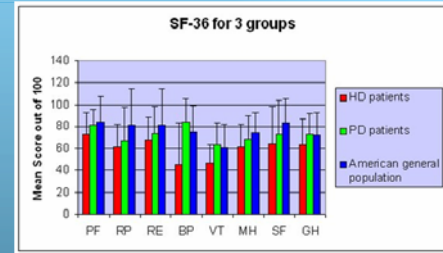


Figure 1 SF-36 Measurement Model for HD patients, PD patients and US normal based control population. Error bars indicate standard deviations.

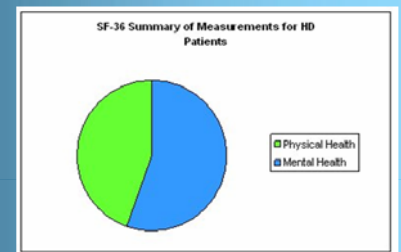


Figure 2 Pie-chart illustrating contribution of physical and mental health to the quality of life of the haemodialysis patient group

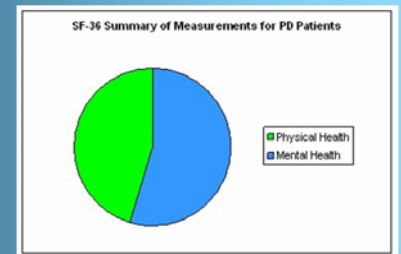


Figure 3 Pie-chart illustrating contribution of physical and mental health to the quality of life of the peritoneal dialysis patient group

Table 5 Blood test results for the patient groups indicating similarity for the two treatment modalities. (* p<0.05 for Hb)

HD patients			
	Urea (mmol/L)	Albumin (g/L)	Hb (g/dL)
Mean	27.74	33.07	* 8.97
SD	7.32	2.84	2.05
PD patients			
	Urea (mmol/L)	Albumin (g/L)	Hb (g/dL)
Mean	25.22	30.6	* 10.66
SD	11.10	5.35	1.79

