

Table S1. Demographic and clinical characteristics

		N	%
Gender	Male	100	65.8
	Female	52	34.2
BMI	Normal	57	37.5
	Overweight	62	40.8
	Obese	33	21.7
Age	18-55	44	28.9
	≥ 56	108	71.1
Marital status	Single	26	17.1
	In a relationship/married	126	82.9
Educational level	No education / Primary school graduate	34	22.4
	Middle school / High school graduate	84	55.2
	University degree / Master / PhD	34	22.4
How long have you been on hemodialysis?	≤ 6 months	10	6.6
	6-12 months	9	5.9
	1-2 years	22	14.5
	2-5 years	47	30.9
	≥ 5 years	64	42.1
Most recent urea lab values, Mean (SD)		134.6 (29.3)	
Most recent creatinine lab values, Mean (SD)		8.3 (2.6)	
What type of vascular access do you currently have?	Arteriovenous fistula	90	59.2
	Graft	14	9.2
	Temporary dialysis catheter	7	4.6
	Permanent dialysis catheter	41	27
Are you satisfied with your vascular access?	Very	62	40.8
	Quite	81	53.3
	A little	8	5.3
	Not at all	1	0.7
Which vascular access is considered appropriate for you?	Arteriovenous fistula	105	69.5
	Graft	16	10.6
	Temporary dialysis catheter	3	2
	Permanent dialysis catheter	27	17.9
In which hospital or center do you regularly receive your treatment?	Bioclinic	14	10.0
	Bionefros	7	5.0
	IASO Thessaly	1	0.7
	Mesogeios	62	44.3
	Nefroiatriki	33	23.6
	Nefros	7	5.0
	NNA	16	11.4

Table S2. Descriptive statistics of SF-36 and MVQoL dimensions

	Minimum	Maximum	Mean	SD
SF-36				
1. Physical functioning	0	100	57.9	25.1
2. Role functioning	0	100	54.1	43.3
3. Bodily pain	10	100	67.9	24.1
4. General health	5	207	51.4	22.6
5. Vitality	5	100	56.1	16.8
6. Social function	0	100	66.0	23.1
7. Role emotional	0	100	60.7	43.8
8. Mental health	16	100	66.2	17.5
Physical component score (PCS)	16.7	59.1	40.9	9.4
Mental component score (MCS)	18.1	66.4	46.4	9.2
MVQoL				
Symptoms	-16	30	6.7	7.6
Function	-15	25	7.3	8.2
Interpersonal relationships	-25	30	15.3	10.0
Emotional well-being	-30	30	-6.6	13.9
Transcendence	-30	30	9.8	12.1
Overall quality of life score	8.6	26	18.2	3.0

Table S3. Results of multiple linear regression analysis with dependent variables of the dimensions of SF-36 scale.

	Physical functioning		Role functioning		Bodily pain		General health	
	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P
<i>Gender</i>								
Male (reference)								
Female	-2.38 (-10.76 – 6)	0.575	-1.26 (-16.42 – 13.89)	0.869	-6.2 (-14.52 – 2.13)	0.143	-1.04 (-8.82 – 6.74)	0.794
<i>BMI</i>								
Normal (reference)								
Overweight	-3.46 (-12.57 – 5.66)	0.454	-4.33 (-20.82 – 12.16)	0.605	0.8 (-8.25 – 9.86)	0.861	5.35 (-3.12 – 13.82)	0.217
Obese	-6.68 (-17.19 – 3.83)	0.211	-5.74 (-24.76 – 13.27)	0.551	2.08 (-8.37 – 12.52)	0.695	2.06 (-7.7 – 11.82)	0.680
<i>Age</i>								
18-55 (reference)								
≥ 56	-8.41 (-17.05 – -0.24)	0.050	-7.3 (-22.94 – 8.34)	0.357	1.17 (-7.42 – 9.76)	0.788	1.03 (-6.99 – 9.05)	0.803
<i>Single</i>								
No (reference)								
Yes	-8.17 (-18.77 – 2.43)	0.130	-12.05 (-31.23 – -7.13)	0.216	-5.76 (-16.3 – 4.77)	0.281	-6.49 (-16.33 – -3.35)	0.198
<i>What is your level of education?</i>								
No education / Primary school graduate (reference)								
Middle school / High school graduate	-2.19 (-13.65 – 9.27)	0.706	-33.64 (-54.37 – -12.91)	0.002	0.98 (-10.41 – 12.36)	0.866	5.31 (-5.33 – 15.95)	0.329
University degree / Mater / PhD	-0.87 (-14.01 – 12.26)	0.896	-13.63 (-37.4 – 10.13)	0.259	1.69 (-11.35 – 14.74)	0.798	4.27 (-7.92 – 16.46)	0.493
<i>How long have you been on hemodialysis?</i>								
≤ 6 months (reference)								
6 months - 5 years	17.35 (0.8 – 33.9)	0.088	11.14 (-18.8 – 41.07)	0.463	23.43 (6.99 – 39.87)	0.006	7.23 (-8.14 – 22.6)	0.358
≥ 5 years	15.44 (-1.39 – 32.28)	0.072	6.82 (-23.63 – 37.28)	0.658	15.79 (-0.94 – 32.51)	0.064	-2.49 (-18.11 – 13.13)	0.755
<i>What type of vascular access do you currently have?</i>								
Arteriovenous fistula (reference)								
Graft	-10.51 (-31.24 – 10.22)	0.318	-9.21 (-46.71 – 28.29)	0.628	-2.22 (-22.81 – 18.37)	0.832	-5.85 (-25.1 – 13.4)	0.552
Temporary dialysis catheter	-4.13 (-25.32 – 17.07)	0.701	4.44 (-33.91 – 42.79)	0.819	8.86 (-12.2 – 29.92)	0.407	-9.22 (-28.9 – 10.46)	0.360
Permanent dialysis catheter	-12.04 (-25.91 – 1.83)	0.040	8.22 (-16.87 – 33.32)	0.518	-2.19 (-15.97 – 11.59)	0.754	-7.89 (-20.77 – 4.99)	0.232
<i>Are you satisfied with your vascular access?</i>								
Very (reference)								
Quite	-8.26 (-16.88 – 0.36)	0.060	-11.63 (-27.21 – 3.96)	0.143	-7.29 (-15.85 – 1.27)	0.095	-11.02 (-19.02 – -3.02)	0.008
A little / Not at all	-6.77 (-25.72 – 12.19)	0.481	-24.86 (-59.15 – 9.42)	0.154	-27.09 (-45.92 – -8.26)	0.005	-17.3 (-34.9 – -0.3)	0.046
<i>Which vascular access is considered appropriate for you?</i>								
Arteriovenous fistula (reference)								
Graft	-1.56 (-21.1 – 17.97)	0.874	7.8 (-27.55 – 43.15)	0.663	-7.89 (-27.3 – 11.52)	0.423	0.33 (-17.8 – 18.46)	0.972
Temporary dialysis catheter	2.17 (-27.98 – 32.31)	0.887	22.11 (-32.43 – 76.64)	0.424	7.6 (-22.35 – 37.55)	0.616	16.36 (-11.63 – 44.35)	0.254
Permanent dialysis catheter	-6.86 (-21.91 – 8.2)	0.369	-17.24 (-44.48 – 10)	0.213	-1.56 (-16.51 – 13.4)	0.837	2.32 (-11.65 – 16.29)	0.745
Adjusted R ²	0.12		0.06		0.09		0.09	
Durbin-Watson d	2.01		1.93		2.12		2.21	

β : regression coefficient 95% CI: 95% Confidence Interval

Table S3. Results of multiple linear regression analysis with dependent variables of the dimensions of SF-36 scale (continue).

	Vitality		Social function		Role emotional		Mental health	
	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P
<i>Gender</i>								
Male (reference)								
Female	-1.88 (-7.73 – 3.96)	0.525	-0.15 (-7.8 – 7.5)	0.969	-0.84 (-16.26 – 14.58)	0.914	-2.72 (-8.92 – 3.47)	0.386
<i>BMI</i>								
Normal (reference)								
Overweight	2.57 (-3.79 – 8.92)	0.426	0.12 (-8.21 – 8.45)	0.977	1.3 (-15.48 – 18.07)	0.879	2.32 (-4.42 – 9.06)	0.497
Obese	0.47 (-6.86 – 7.81)	0.898	17.58 (-1.62)	0.102	-13.02 (-32.36 – 6.33)	0.185	1.06 (-6.71 – 8.83)	0.788
<i>Age</i>								
18-55 (reference)								
≥ 56	-0.74 (-6.77 – 5.29)	0.809	-3.41 (-11.3 – 4.49)	0.395	-4.5 (-20.41 – 11.41)	0.577	1.83 (-4.56 – 8.22)	0.572
<i>Single</i>								
No (reference)								
Yes	-6.12 (-13.52 – 1.27)	0.104	-6.57 (-16.26 – 3.11)	0.182	-13.87 (-33.39 – 5.65)	0.162	-4.5 (-12.34 – 3.34)	0.258
<i>What is your level of education?</i>								
No education / Primary school graduate (reference)								
Middle school / High school graduate	3.35 (-4.64 – 11.34)	0.409	0.01 (-10.46 – 10.47)	0.999	-23.96 (-45.05 – -2.86)	0.026	5.91 (-2.57 – 14.38)	0.170
University degree / Mater / PhD	3.49 (-5.67 – 12.65)	0.452	7.03 (-4.97 – 19.02)	0.249	-6.44 (-30.61 – 17.74)	0.599	10.3 (0.58 – 20.01)	0.038
<i>How long have you been on hemodialysis?</i>								
≤ 6 months (reference)								
6 months - 5 years	4.5 (-7.04 – 16.04)	0.442	12.66 (-2.45 – 27.78)	0.100	-2.57 (-33.03 – 27.89)	0.868	-1.21 (-13.45 – 11.02)	0.845
≥ 5 years	0.52 (-11.22 – 12.26)	0.931	7.56 (-7.82 – 22.94)	0.333	-0.45 (-31.44 – 30.54)	0.977	-3.64 (-16.09 – 8.81)	0.564
<i>What type of vascular access do you currently have?</i>								
Arteriovenous fistula (reference)								
Graft	-11.65 (-26.11 – -2.81)	0.035	-6.14 (-25.07 – 12.8)	0.523	5.23 (-32.92 – 43.38)	0.787	-1.88 (-17.21 – 13.44)	0.808
Temporary dialysis catheter	-1.42 (-16.21 – 13.36)	0.849	-2.65 (-22.01 – 16.72)	0.787	22.67 (-16.34 – 61.68)	0.252	-2.38 (-18.06 – 13.29)	0.764
Permanent dialysis catheter	-4.67 (-14.35 – 5)	0.341	-12.82 (-25.49 – 0.15)	0.047	7.95 (-17.58 – 33.48)	0.539	-2.99 (-13.25 – 7.26)	0.565
<i>Are you satisfied with your vascular access?</i>								
Very (reference)								
Quite	-9.99 (-16 – -3.98)	0.001	-12.91 (-20.78 – 5.04)	0.001	-7.54 (-23.4 – 8.32)	0.349	-6.29 (-12.67 – -0.08)	0.050
A little / Not at all	-7.26 (-20.48 – 5.95)	0.279	-9.94 (-27.25 – 7.37)	0.258	-24.47 (-59.35 – 10.42)	0.168	-12.34 (-26.35 – 1.67)	0.084
<i>Which vascular access is considered appropriate for you?</i>								
Arteriovenous fistula (reference)								
Graft	4.96 (-8.66 – 18.59)	0.472	-6.4 (-24.24 – 11.45)	0.480	-5.65 (-41.61 – 30.31)	0.756	-2.76 (-17.21 – 11.68)	0.706
Temporary dialysis catheter	8.01 (-13.01 – 29.03)	0.452	13.22 (-14.31 – 40.75)	0.344	37.44 (-18.04 – 92.92)	0.184	3.92 (-18.37 – 26.21)	0.729

Permanent dialysis catheter	1.11 (-9.38 – 11.61)	0.834	-0.78 (-14.53 – 12.97)	0.911	-21.56 (-49.27 – 6.15)	0.126	-1.13 (-12.27 – 10)	0.841
Adjusted R ²	0.08		0.16		0.04		0.04	
Durbin-Watson d	1.98		1.92		1.95		2.06	

β : regression coefficient 95% CI: 95% Confidence Interval

Table S3. Results of multiple linear regression analysis with dependent variables of the dimensions of SF-36 scale (continue).

	PCS		MCS	
	β (95% CI)	P	β (95% CI)	P
<i>Gender</i>				
Male (reference)				
Female	-1.18 (-4.36 – 2.00)	0.468	-0.53 (-3.78 – 2.72)	0.752
<i>BMI</i>				
Normal (reference)				
Overweight	-0.65 (-4.1 – 2.8)	0.715	1.53 (-2.02 – 5.08)	0.399
Obese	-0.64 (-4.62 – 3.34)	0.754	-1.55 (-5.65 – 2.55)	0.458
<i>Age</i>				
18-55 (reference)				
≥ 56	-1.99 (-5.26 – 1.28)	0.235	0.46 (-2.91 – 3.83)	0.787
<i>Sinlge</i>				
No (reference)				
Yes	-3.05 (-7.07 – 0.97)	0.139	-2.97 (-7.09 – 1.15)	0.161
<i>What is your level of education?</i>				
No education / Primary school graduate (reference)				
Middle school / High school graduate	-2.4 (-6.73 – 1.93)	0.281	0.19 (-4.26 – 4.64)	0.934
University degree / Mater / PhD	-1.68 (-6.66 – 3.3)	0.508	3.65 (-1.47 – 8.77)	0.164
<i>How long have you been on hemodialysis?</i>				
≤ 6 months (reference)				
6 months - 5 years	8.74 (2.47 – 15.01)	0.007	-1.81 (-8.24 – 4.62)	0.583
≥ 5 years	5.84 (-0.53 – 12.21)	0.075	-2.51 (-9.06 – 4.04)	0.454
<i>What type of vascular access do you currently have?</i>				
Arteriovenous fistula (reference)				
Graft	-4.14 (-12 – 3.72)	0.303	-0.34 (-8.4 – 7.72)	0.934
Temporary dialysis catheter	-1.29 (-9.33 – 6.75)	0.754	1.82 (-6.43 – 10.07)	0.666
Permanent dialysis catheter	-2.76 (-8.01 – 2.49)	0.304	-0.77 (-6.16 – 4.62)	0.781
<i>Are you satisfied with your vascular access?</i>				
Very (reference)				
Quite	-3.97 (-7.24 – -0.7)	0.019	-3.73 (-7.08 – -0.38)	0.031
A little / Not at all	-6.76 (-13.93 – 0.41)	0.067	-5.72 (-13.09 – 1.65)	0.131
<i>Which vascular access is considered appropriate for you?</i>				
Arteriovenous fistula (reference)				
Graft	0.26 (-7.15 – 7.67)	0.946	-1.5 (-9.1 – 6.1)	0.699
Temporary dialysis catheter	3.16 (-8.27 – 14.59)	0.589	7 (-4.72 – 18.72)	0.244
Permanent dialysis catheter	-1.57 (-7.27 – 4.13)	0.589	-1.74 (-7.6 – 4.12)	0.560
Adjusted R ²	0.09		0.02	
Durbin-Watson d	2.01		1.90	

 β : regression coefficient 95% CI: 95% Confidence Interval

Table S4. Results of multiple linear regression analysis with dependent variables of the dimensions of MVQoL scale

	Symptoms		Function		Interpersonal relationships	
	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P
<i>Gender</i>						
Male (reference)						
Female	-2.56 (-5.12 – 0)	0.050	-1.7 (-4.59 – 1.19)	0.246	1.49 (-1.85 – 4.83)	0.380
<i>BMI</i>						
Normal (reference)						
Overweight	0.11 (-2.67 – 2.9)	0.937	0.1 (-3.05 – 3.25)	0.950	-0.01 (-3.65 – 3.62)	0.995
Obese	-1.2 (-4.41 – 2.01)	0.460	-4.97 (-8.6 – -1.35)	0.008	-1.83 (-6.02 – 2.37)	0.391
<i>Age</i>						
18-55 (reference)						
≥ 56	0.94 (-1.7 – 3.58)	0.484	1.01 (-1.98 – 3.99)	0.506	1.79 (-1.66 – 5.23)	0.307
<i>Single</i>						
No (reference)						
Yes	-1.5 (-4.74 – 1.74)	0.362	0.02 (-3.64 – 3.68)	0.992	-10.17 (-14.4 – -5.94)	<0.001
<i>What is your level of education?</i>						
No education / Primary school graduate (reference)						
Middle school / High school graduate	6.45 (2.95 – 9.95)	<0.001	-1.12 (-5.08 – 2.83)	0.575	3.31 (-1.26 – 7.88)	0.154
University degree / Mater / PhD	6.64 (2.63 – 10.66)	0.001	2.28 (-2.25 – 6.82)	0.321	1.41 (-3.83 – 6.64)	0.596
<i>How long have you been on hemodialysis?</i>						
≤ 6 months (reference)						
6 months - 5 years	-1.36 (-6.41 – 3.7)	0.597	0.45 (-5.26 – 6.16)	0.877	2.61 (-3.99 – 9.21)	0.435
≥ 5 years	-2.03 (-7.18 – 3.11)	0.436	2.69 (-3.12 – 8.5)	0.361	2.69 (-4.03 – 9.4)	0.430
<i>What type of vascular access do you currently have?</i>						
Arteriovenous fistula (reference)						
Graft	0.2 (-6.14 – 6.53)	0.951	-2.01 (-9.16 – 5.15)	0.580	0.33 (-7.94 – 8.59)	0.938
Temporary dialysis catheter	-3.38 (-9.86 – 3.1)	0.304	4.79 (-2.53 – 12.1)	0.198	-1.13 (-9.59 – 7.32)	0.792
Permanent dialysis catheter	-1.58 (-5.82 – 2.66)	0.461	-1.72 (-6.51 – 3.07)	0.478	-1.92 (-7.46 – 3.61)	0.493
<i>Are you satisfied with your vascular access?</i>						
Very (reference)						
Quite	-2.34 (-4.97 – 0.29)	0.081	1.61 (-1.36 – 4.59)	0.285	-2.58 (-6.01 – 0.86)	0.140
A little / Not at all	-2.47 (-8.27 – 3.32)	0.400	5.16 (-1.38 – 11.7)	0.121	-8.01 (-15.57 – -0.45)	0.038
<i>Which vascular access is considered appropriate for you?</i>						
Arteriovenous fistula (reference)						
Graft	-1.13 (-7.1 – 4.84)	0.708	-1.2 (-7.94 – 5.54)	0.726	-2.38 (-10.17 – 5.42)	0.548
Temporary dialysis catheter	-2.97 (-12.18 – 6.24)	0.525	2.08 (-8.32 – 12.49)	0.693	1.54 (-10.49 – 13.56)	0.801
Permanent dialysis catheter	3.1 (-1.5 – 7.7)	0.185	0.64 (-4.56 – 5.83)	0.809	2.13 (-3.88 – 8.13)	0.485
Adjusted R ²	0.14		0.06		0.14	
Durbin-Watson d	2.09		2.02		1.98	

β : regression coefficient 95% CI: 95% Confidence Interval

Table S4. Results of multiple linear regression analysis with dependent variables of the dimensions of MVQoL scale (continue)

	Emotional well-being		Transcendence		Overall quality of life score	
	β (95% CI)	P	β (95% CI)	P	β (95% CI)	P
<i>Gender</i>						
Male (reference)						
Female	3.14 (-1.86 – 8.14)	0.217	-2.81 (-6.86 – 1.24)	0.172	-0.25 (-1.26 – 0.77)	0.634
<i>BMI</i>						
Normal (reference)						
Overweight	4.12 (-1.32 – 9.55)	0.137	0.3 (-4.11 – 4.7)	0.894	0.46 (-0.65 – 1.57)	0.411
Obese	2.28 (-3.98 – 8.54)	0.472	-1.16 (-6.23 – 3.91)	0.651	-0.69 (-1.96 – 0.59)	0.287
<i>Age</i>						
18-55 (reference)						
≥ 56	3.33 (-1.81 – 8.47)	0.202	-1.75 (-5.91 – 2.41)	0.406	0.53 (-0.52 – 1.58)	0.318
<i>Single</i>						
No (reference)						
Yes	4 (-2.3 – 10.31)	0.211	-6.08 (-11.19 – 0.98)	0.020	-1.37 (-2.66 – 0.09)	0.036
<i>What is your level of education?</i>						
No education / Primary school graduate (reference)						
Middle school / High school graduate	1.67 (-5.16 – 8.5)	0.629	0.55 (-4.98 – 6.08)	0.843	1.09 (-0.3 – 2.48)	0.125
University degree / Mater / PhD	4.78 (-3.03 – 12.59)	0.228	1.74 (-4.59 – 8.06)	0.588	1.68 (0.09 – 3.27)	0.038
<i>How long have you been on hemodialysis?</i>						
≤ 6 months (reference)						
6 months - 5 years	6.2 (-3.65 – 16.04)	0.215	0.15 (-7.82 – 8.12)	0.970	0.8 (-1.2 – 2.81)	0.429
≥ 5 years	2.62 (-7.38 – 12.63)	0.605	-2.24 (-10.35 – 5.86)	0.585	0.37 (-1.66 – 2.41)	0.718
<i>What type of vascular access do you currently have?</i>						
Arteriovenous fistula (reference)						
Graft	-3.65 (-15.97 – 8.68)	0.559	-0.24 (-10.21 – 9.74)	0.963	-0.54 (-3.04 – 1.97)	0.673
Temporary dialysis catheter	-5.52 (-18.13 – 7.09)	0.388	5.45 (-4.76 – 15.67)	0.293	0.02 (-2.55 – 2.59)	0.987
Permanent dialysis catheter	-3.06 (-11.31 – 5.18)	0.464	2.93 (-3.75 – 9.6)	0.388	-0.54 (-2.22 – 1.14)	0.528
<i>Are you satisfied with your vascular access?</i>						
Very (reference)						
Quite	-4.73 (-9.86 – 0.41)	0.071	-6.4 (-10.56 – 2.25)	0.003	-1.44 (-2.49 – 0.4)	0.007
A little / Not at all	-9.76 (-21.03 – 1.51)	0.089	-15.84 (-24.96 – -6.72)	0.001	-3.09 (-5.39 – 0.8)	0.009
<i>Which vascular access is considered appropriate for you?</i>						
Arteriovenous fistula (reference)						
Graft	8.32 (-3.29 – 19.93)	0.159	-4 (-13.41 – 5.4)	0.401	-0.04 (-2.4 – 2.33)	0.974
Temporary dialysis catheter	7.61 (-10.31 – 25.54)	0.402	1.05 (-13.46 – 15.56)	0.887	0.93 (-2.72 – 4.58)	0.615
Permanent dialysis catheter	1.76 (-7.24 – 10.77)	0.699	-8.59 (-15.88 – 1.3)	0.021	-0.1 (-1.93 – 1.74)	0.916
Adjusted R ²	0.02		0.15		0.11	
Durbin-Watson d	1.86		1.73		1.7	

β : regression coefficient 95% CI: 95% Confidence Interval