Table S1. Demographic data of the dogs

Name	Age (years)	Sex	Breed	Condition	Treatment	Duration (weeks)
Wilson	1	Intact male	Australian shepherd	Orthopaedic	Hydrotherapy	4
Ettore	4	Intact male	French bulldog	Neurological	Hydrotherapy & Instrumental	4
Yoda	8	Neutered female	Pug	Neurological	Hydrotherapy	4
Osvaldo	8	Intact male	Boxer	Neurological	Hydrotherapy & Instrumental	4
Lara	10	Neutered female	Italian bloodhound	Orthopaedic	Hydrotherapy	4
Ryan	1	Intact male	Border collie	Orthopaedic	Hydrotherapy & Instrumental	6
Tommy	14	Intact male	Poodle	Orthopaedic	Instrumental	4
Margot	4	Neutered female	Australian shepherd	Orthopaedic	Hydrotherapy & Instrumental	4
Serse	4	Neutered male	Cane corso	Degenerative	Hydrotherapy & Instrumental	4
Kira	5	Neutered female	Mixed breed	Orthopaedic	Hydrotherapy & Instrumental	4
Ettore	4	Intact male	Shar-pei	Neurological	Hydrotherapy	5
Trevor	5	Neutered male	Mixed breed	Orthopaedic	Hydrotherapy	3
Erik	2	Intact male	Cane corso	Orthopaedic	Hydrotherapy	6
Idylle	7	Neutered female	Belgian shepherd terveuren	Orthopaedic	Hydrotherapy & Instrumental	4
Lucy	5	Neutered female	Mixed bred	Orthopaedic	Hydrotherapy & Instrumental	4
Picci	4	Neutered female	American bulldog	Orthopaedic	Hydrotherapy & Instrumental	4
Arya	5	Intact female	Spanish greyhound	Orthopaedic	Hydrotherapy & Instrumental	4
Locki	4	Intact male	Siberian husky	Orthopaedic	Hydrotherapy	4
Pedro	11	Neutered male	Labrador retriever	Degenerative	Hydrotherapy & Instrumental	7
Cody	1	Intact male	Poodle	Degenerative	Hydrotherapy	6

Table S2. Medical checklist. For each time (T_0 and T_1) median value and range (in brackets) are reported.

Variable	Definition	T_0	T_1
BCS	Body Condition Score 1=underweight 2=normal weight 3=overweight	2 (2-3)	2 (2-3)
Appetite	1=improved 2=same as before 3=worsened	3 (1-3)	3 (1-3)
Playfulness	1=improved 2=same as before 3=worsened	1 (1-3)	2 (2-3)
Interaction with owner	1=improved 2=same as before 3=worsened	1 (1-3)	2 (1-2)
Walking	1=improved 2=same as before 3=worsened	1 (1-3)	2 (1-2)
Lameness	1=none 2=mild 3=moderate 4=severe	2 (1-4)	1 (1-3)
Pain	1=none 2=mild 3=moderate 4=severe	2 (1-4)	1 (1-3)
Movement	1=improved 2=same as before 3=worsened	1 (1-3)	1 (1-2)
Criticality	1=mild 2=moderate 3=severe	2 (1-3)	1 (1-2)

Table S3. MQPL norms for each time of assessment (T_0 vs T_1).

Domain	T_0				T_1			
	Mdn (Min-Max)	SE	Skeweness	Kurtosis	Mdn (Min-Max)	SE	Skeweness	Kurtosis
Physical	61 (50-72)	1.24	0.04	-0.55	62 (56-72)	0.83	0.52	0.06
Psychological	120 (95-130)	1.34	-0.86	-0.03	128 (116-138)	0.96	0.02	-0.93

Social	10 (8-13)	0.42	0.26	-1.55	11 (8-13)	0.43	-0.11	-1.78
Environmental	38 (24-44)	1.19	-0.61	-0.50	38 (27-45)	0.96	-0.39	-0.40

Table S4. Variables selections for the regression models.

Predictor	QOL physical	QOL psychological	QOL social	QOL environmental
Age[a]	r = -0.21, p = 0.182	**r = 0.78, p = 0.046**	r = 0.21, p = 0.192	r = 0.25, p = 0.115
Sex[b]	χ2 (df=3)=7.66, p=0.053	χ2 (df=3)=3.64, p=0.303	χ2 (df=3)=7.48, p=0.058	χ2 (df=3)=4.45, p=0.217
Medical problem[b]	χ2 (df=2)=4.60, p=0.100	χ2 (df=2)=1.00, p=0.606	**χ2 (df=2)=8.51, p=0.014**	**χ2 (df=2)=6.88, p=0.032**
Lameness[b]	χ2 (df=3)=5.95, p=0.114	χ2 (df=3)=1.24, p=0.744	**χ2 (df=3)=13.64, p=0.003**	χ2 (df=3)=0.19, p=0.978
Pain[b]	**χ2 (df=3)=7.97, p=0.046**	χ2 (df=3)=7.03, p=0.071	χ2 (df=3)=4.15, p=0.246	χ2 (df=3)=3.49, p=0.322
Movement[b]	χ2 (df=2)=3.54, p=0.170	χ2 (df=2)=1.92, p=0.382	χ2 (df=2)=0.77, p=0.680	χ2 (df=2)=4.74, p=0.093
Criticality[b]	**χ2 (df=2)=7.47, p=0.024**	χ2 (df=2)=5.45, p=0.066	χ2 (df=2)=1.71, p=0.426	χ2 (df=2)=0.49, p=0.782
Treatment[b]	χ2 (df=2)=1.35, p=0.509	χ2 (df=2)=0.77, p=0.680	χ2 (df=2)=3.20, p=0.202	χ2 (df=2)=0.79, p=0.674
Time[b]	χ2 (df=1)=3.42, p=0.064	**χ2 (df=1)=10.56, p=0.001**	χ2 (df=1)=0.65, p=0.420	χ2 (df=1)=0.11, p=0.744

Note: bold = $p < 0.05$, [a] = Spearman correlation, b = Kruskal-Wallis rank sum test.