



Impact of Functional Aquatic Physical Therapy on the Individual Quality of Life

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Functional Aquatic Physical Therapy

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Functional Aquatic Physical Therapy

- Determination of functional goals that result in change of activity, or participation or body structure function defined by **ICF (International Classification of Functioning, Disability and Health – WHO)** through the positive transference or similarity of the tasks cited by **Anne Shumway Cook, Marjorie Woollacott 2003**

(Borges, Branco 2011)

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Functional Aquatic Physical Therapy



- Therapy (evaluations, trainings, revaluations, application of profits measurement, quantification or qualification scales) we have the real dimension of the complaints? Or what prevents us from achieving goals?
- Lack of mood, motivation or will can be measured?
- And the patients have the real perception of what limit them?

Questionnaires of Quality of Life

- Although the questionnaires of quality of life are less specific concerning motor gains, they are more embracing in relation to other scopes that can interfere in a significant way, maybe not in statistics, but in the real life of our patients, as cited in



Questionnaires of Quality of Life



THE WATER EXERCISE IMPROVES HEALTH-RELATED QUALITY OF LIFE OF FRAIL ELDERLY PEOPLE AT DAY SERVICE FACILITY

AUTHOR(S)- Sato, Daisuke; Kaneda, Koichi; Wakabayashi, Hitoshi; Nomura, Takeo

PUB. DATE - December 2007

SOURCE- Quality of Life Research; Dec2007, Vol. 16 Issue 10, p1577

SOURCE TYPE- Academic Journal

➤ [Quality of Life Research](#)

November 2011, Volume 20, [Issue 9](#), pp 1477-1486

A comparison of the discriminative and evaluative properties of the SF-36 and the SF-6D index

[Alex Mutebi](#), [John E. Brazier](#), [Stephen J. Walters](#)

Questionnaires of Quality of Life

➤ Quality of Life Research

November 2011, Volume 20, Issue 9, pp 1477-1486

A comparison of the discriminative and evaluative properties of the SF-36 and the SF-6D index

Alex Mutebi, John E. Brazier, Stephen J. Walters

➤ Quality of Life Research

February 1998, Volume 7, Issue 2, pp 101-114

Evaluation of a population-based measure of quality of life: the Health and Activity Limitation Index (HALex)

P Erickson

➤ Qual Life Res. 2011 Sep;20(7):1005-10. doi: 10.1007/s11136-010-9838-7.
Epub 2011 Jan 12.

How useful are the SF-36 sub-scales in older people? Mokken scaling of data from the HALCyon programme.

Mishra GD, Gale CR, Sayer AA, Cooper C, Dennison EM, Whalley LJ, Craig L, Kuh D, Deary IJ; HALCyon Study Team.

MRC Unit for Lifelong Health and Ageing, University College London, 33, Bedford Place, London, WC1B 5JU, UK. g.mishra@nshd.mrc.ac.uk

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Impact of Functional Aquatic Physical Therapy on the Individual Quality of Life

- Goal: verify the impact of functional aquatic physical therapy on the quality of life of people who realized activity individual and in group.

Impact of Functional Aquatic Physical Therapy on the Individual Quality of Life



- Materials and Methods: Invitation letters were distributed with the informed consent term, explaining the work for 60 individuals.
- 28 answered the first collection of sf-36, being 8 from individual treatment and 20 from group treatment.
- After 24 weeks of intervention, with sessions of 45 minutes, we reapplied the questionnaire.
- Only 16 individuals answered, being 7 from individual treatment and 9 from group treatment.

Impact of Functional Aquatic Physical Therapy on the Individual Quality of Life

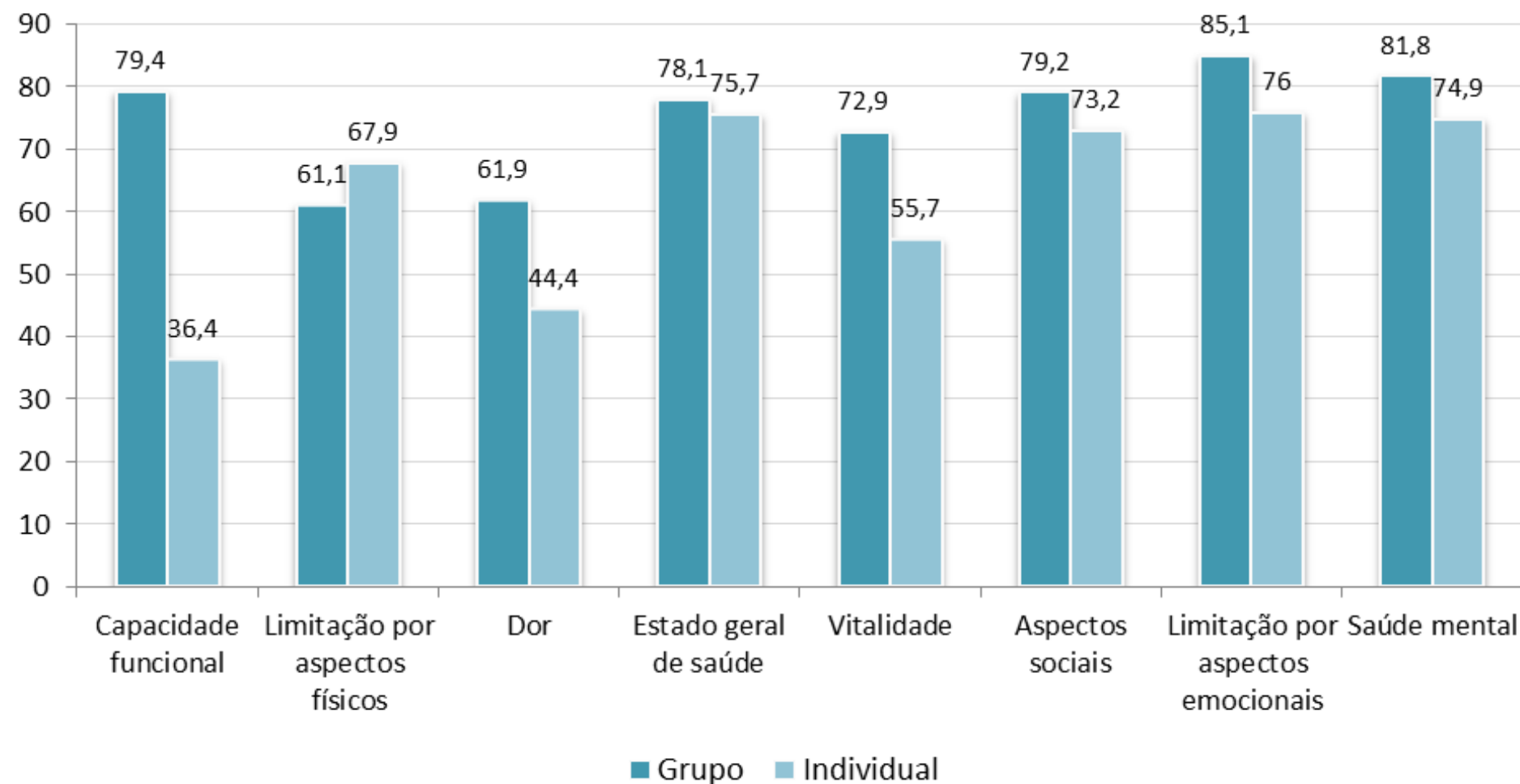
- Materials and Methods: non parametric tests, because the data have a low sampling (less than 25 individuals).
- Before and After each score. These comparisons will be done in each kind of therapy and in both together.
- Wilcoxon test
- Mann-Whitney test. These comparisons among kinds of therapies will be done for each moment (Before and After) and gain too (mathematical difference of After-Before).
- $P < 0,05$ (5%)

Before

Before		average	median	Standard Deviation	Q1	Q3	N	IC	P-value
Functional Capacity	Grupo	79,4	85	16,7	75	90	9	10,9	0,003
	Individual	36,4	35	24,1	25	48	7	17,9	
Limitation for physical aspects	Grupo	61,1	75	43,5	25	100	9	28,4	0,691
	Individual	67,9	100	42,6	38	100	7	31,6	
Pain	Grupo	61,9	62	20,0	42	72	9	13,1	0,078
	Individual	44,4	41	22,2	31	53	7	16,4	
General state of Health	Grupo	78,1	82	14,1	72	82	9	9,2	0,666
	Individual	75,7	80	12,5	64	85	7	9,3	
Vitality	Grupo	72,9	80	15,5	60	80	9	10,1	0,041
	Individual	55,7	60	11,0	53	60	7	8,1	
Social Aspects	Grupo	79,2	88	21,7	75	88	9	14,1	0,224
	Individual	73,2	75	16,8	75	81	7	12,5	
Limitation for economic aspects	Grupo	85,1	100	33,8	100	100	9	22,1	0,438
	Individual	76,0	100	37,1	66	100	7	27,5	
Mental Health	Grupo	81,8	88	17,7	68	96	9	11,5	0,338
	Individual	74,9	76	13,8	64	86	7	10,2	

Before

Compara Terapias nos Escores para Antes

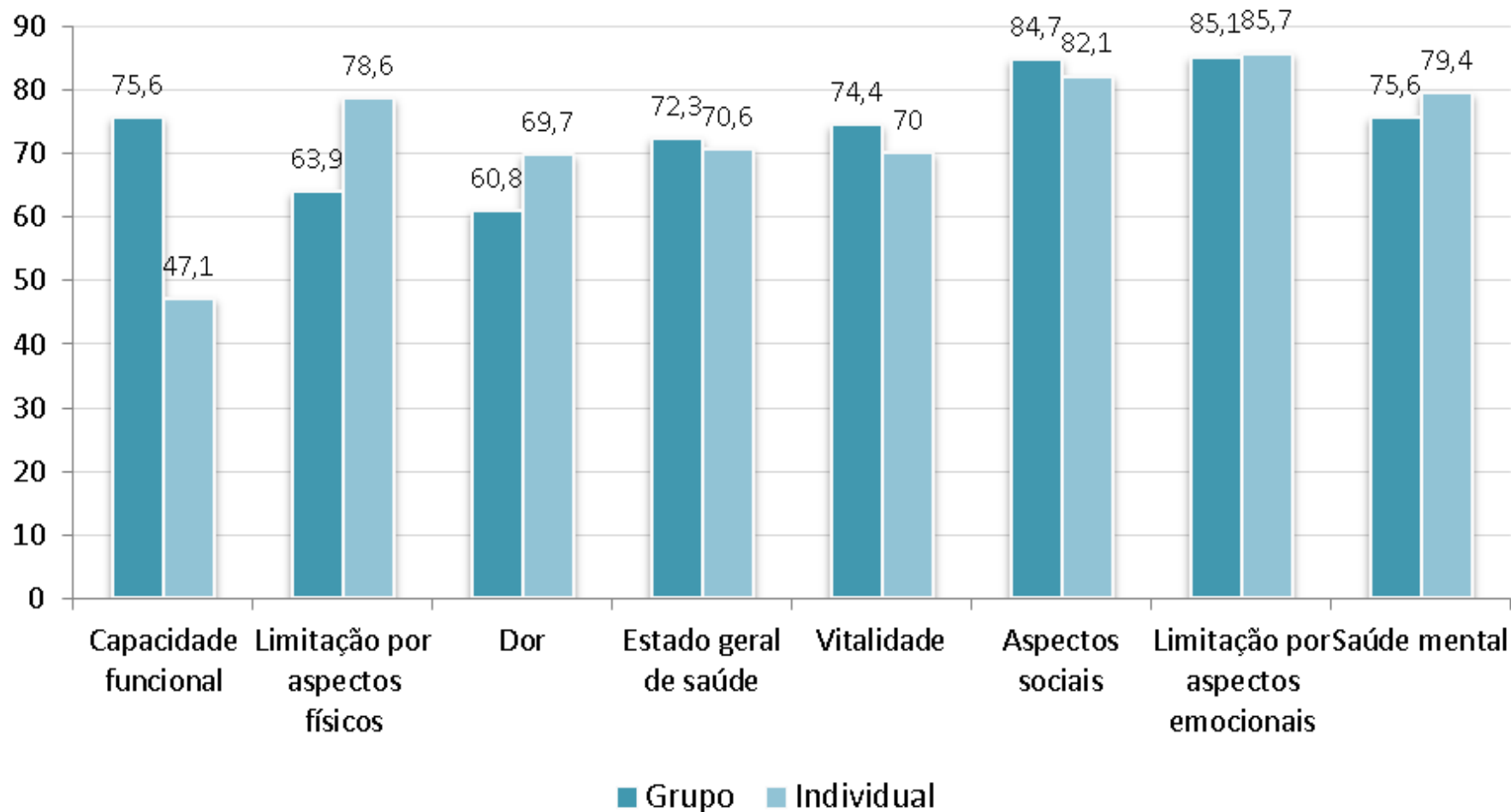


After (Holidays Season, Carnival)

After		average	median	Standard Deviation	Q1	Q3	N	IC	P-value
Functional Capacity	Grupo	75,6	80	15,5	75	85	9	10,1	0,019
	Individual	47,1	40	22,3	30	60	7	16,5	
Limitation for physical aspects	Grupo	63,9	100	45,3	25	100	9	29,6	0,682
	Individual	78,6	100	36,6	75	100	7	27,1	
Pain	Grupo	60,8	62	20,0	51	72	9	13,1	0,557
	Individual	69,7	72	24,3	52	86	7	18,0	
General state of Health	Grupo	72,3	77	17,3	62	87	9	11,3	0,958
	Individual	70,6	67	18,6	55	85	7	13,8	
Vitality	Grupo	74,4	75	12,6	65	85	9	8,2	0,486
	Individual	70,0	70	12,6	63	80	7	9,3	
Social Aspects	Grupo	84,7	88	18,5	75	100	9	12,1	1,000
	Individual	82,1	100	23,8	63	100	7	17,6	
Limitation for economic aspects	Grupo	85,1	100	33,8	100	100	9	22,1	0,756
	Individual	85,7	100	37,8	100	100	7	28,0	
Mental Health	Grupo	75,6	84	21,6	76	84	9	14,1	0,781
	Individual	79,4	84	13,9	74	88	7	10,3	

Result

Compara Terapias nos Escores para Depois



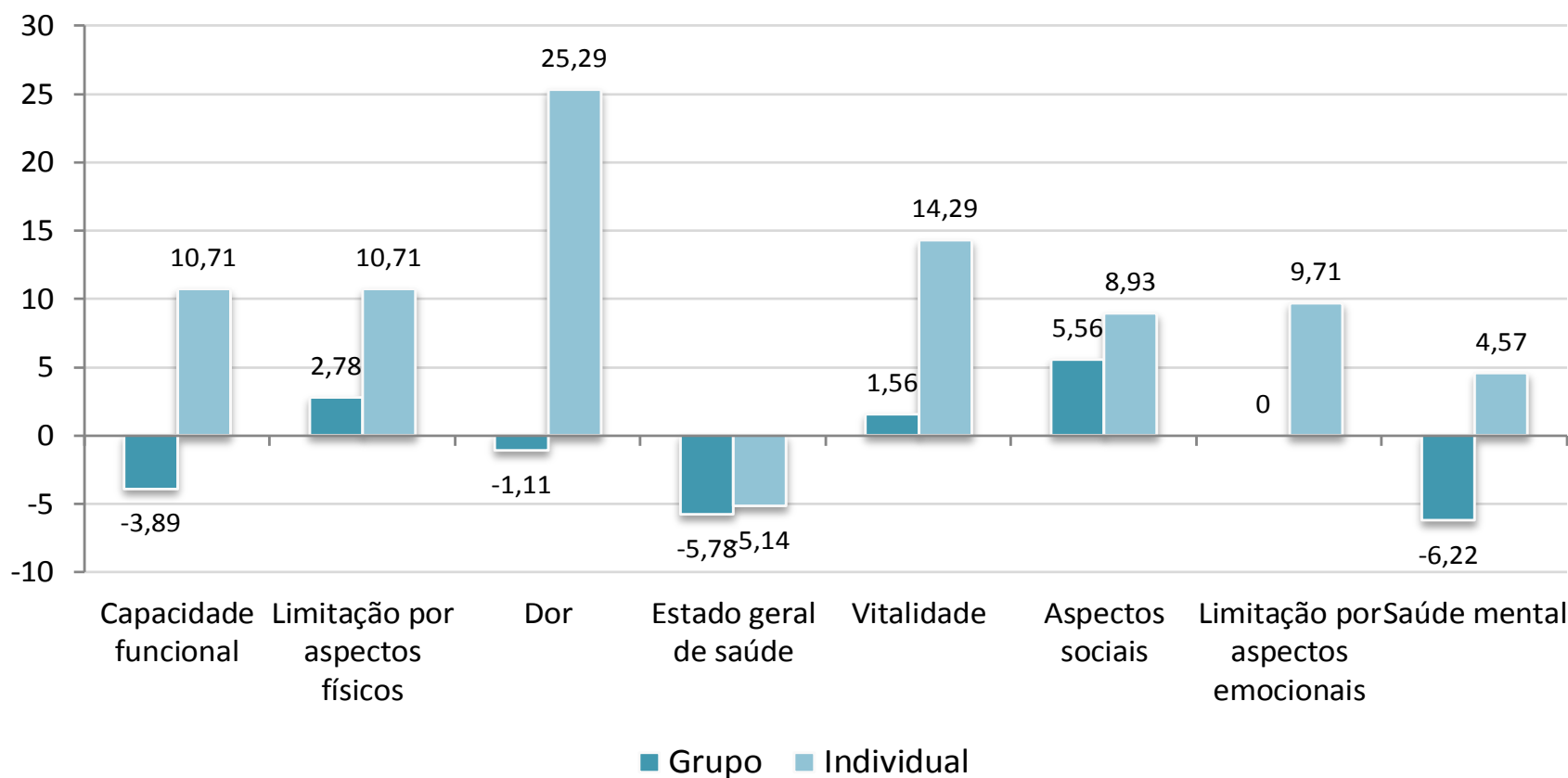
Improvement Results

Ganho		Média	Mediana	Desvio Padrão	Q1	Q3	N	IC	P-valor
Functional Capacity	Grupo	-3,89	-5,0	9,61	-10,0	0,0	9	6,28	0,455
	Individual	10,71	5,0	27,15	-12,5	35,0	7	20,11	
Limitation for physical aspects	Grupo	2,78	0,0	49,12	0,0	25,0	9	32,09	0,682
	Individual	10,71	0,0	19,67	0,0	12,5	7	14,57	
Pain	Grupo	-1,11	0,0	15,61	-11,0	0,0	9	10,20	0,011
	Individual	25,29	21,0	21,16	13,0	26,0	7	15,68	
General state of Health	Grupo	-5,78	-5,0	12,27	-15,0	-2,0	9	8,01	0,958
	Individual	-5,14	5,0	28,15	-30,0	12,0	7	20,85	
Vitality	Grupo	1,56	5,0	9,90	-5,0	9,0	9	6,47	0,071
	Individual	14,29	20,0	17,90	7,5	27,5	7	13,26	
Social Aspects	Grupo	5,56	0,0	11,02	0,0	12,5	9	7,20	0,376
	Individual	8,93	12,5	17,25	6,3	18,8	7	12,78	
Limitation for economic aspects	Grupo	0,00	0,0	17,00	0,0	0,0	9	11,11	0,263
	Individual	9,71	0,0	16,59	0,0	17,0	7	12,29	
Mental Health	Grupo	-6,22	-4,0	13,13	-8,0	0,0	9	8,58	0,146
	Individual	4,57	8,0	11,41	-6,0	12,0	7	8,46	

Improvement Results



Compara Terapias nos Escores para Ganho



Results

- The impact of Functional Aquatic Physical Therapy on the quality of life using as measurement instrument the SF-36 pointed statistical significance for the pain control in patients individually treated, and gain in 7 of 8 domains.
- Patient treated in group had reduction of scores in 4 of 8 domains. The collection period had 2 pauses of 18 and 7 days for both groups because of holidays.

Conclusion

- Individual Aquatic Physical Therapy treatment showed to be more indicated to patients with pain complain
- Small Group and 24 sessions



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THANK YOU!