Level of readiness of chronic pain patients to practice active self-care

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BACKGROUND Chronic pain is a public health challenge with major socioeconomic costs. Pain alleviation is often limited with conventional treatment. Self-care options might supplement conventional strategies. Here we present the first survey on the level of readiness (LOR) to practice active self-care in a patient population of a tertiary Pain Center.

METHODS A single-center quantitative cross-sectional postal survey was conducted after Ethics Committee approval. All chronic pain patients above 18 years old seeking care at the CHUV Pain Center (June 2013-March 2015) were included. Socioeconomic data, pain characteristics (duration, frequency, intensity, location, Chronic Pain Grade (CPG) and DN4-7items), Hospital Anxiety and Depression Scale (HADS), treatments, and level of readiness to practice active self-care methods on a 0-10 NRS scale were investigated. Associations between patient variables and the level of readiness to practice self-care were assessed using a multinomial logistic regression model.

Self-care methods already practiced by the patient

Physically oriented therapies: acupuncture, therapeutic massage self-administered; **Movement therapies:** yoga, tai chi, qi gong; **Mind-body therapies:** self-hypnosis, meditation/mindfulness, relaxation training, imagery-guided therapy; **Sensory Art therapies:** art therapy, dance therapy, music therapy

RESULTS 639 patients were included. Mean age was 59.3 (SD 15.3). Median duration of pain was 5.0 years (IQR 7.5). Most frequent locations were back (71.4%) and lower limb pain (68.4%). Use of opioids during the last 6 months was reported by 64.6% of the respondents. 65% of the respondents reported pain with high disability (CPG grade III/IV). Probable or possible mood disorder was present in 64.3% of the respondents. Most patients expressed a high (44.1%) or moderate (24.6%) level of readiness to practice self-care. Univariate analysis showed that a high level of readiness to practice self-care was associated with moderate (RRR 1.74, p=0.027) or high level of education (RRR 2.58, p<0.001), neuropathic pain characteristics (RRR 2.26, p<0.001), high worst pain score (RRR 1.19, p=0.004), high disability in work (RRR 1.11, p=0.001) or social and recreational activities (RRR 1.10, p=0.009), unemployment due to health related issue (RRR 3.16, p<0.001) and the use of herbal medicine (RRR 2.28, p<0.001). Older patients were less likely to show a high level of readiness (RRR 0.96, p<0.001).

Level of readiness of chronic pain patients to practice self-care methods (LOR)
High (8-10 on 0-10 NRS), moderate (4-7) and low (0-3);

CONCLUSION Most chronic patients in our study had a high or moderate level of readiness to practice active self-care. Level of readiness was not lower for patients suffering from high disability or long-term chronic pain, suggesting that also severely affected patients could be motivated to practice active self-care. High level of readiness was associated with lower age, middle or advanced level of education, unemployed status due to medical conditions, use of dietary supplements and the presence of neuropathic pain characteristics. At a time of increasing debate on the benefits and risks of opioids, active self-care might be an alternative treatment option. Studies on its impact on pain, mood disorders and quality of life should be performed. Pain centers should investigate these methods and help patients get access to integrative treatment strategies.

Variables	Groups	n	%
Gender			
(n=625)	Female	355	56.8
	Male	270	43.2
Country of birth			
(n=630)	Switzerland	390	61.9
	Other	240	38.1
BMI			
(n=569)	Underweight (<18.5)	18	3.2
	Normal (18.5-24.9)	234	41.1
	Overweight (25-25.9)	177	31.1
	Obese (≥30)	140	24.6
Education			
(n=623)	Basic (until college)	189	30.3
	Apprenticeship	211	33.9
	Advanced	223	35.8
Employment status			
(n=634)	Full time	91	14.4
	Part time ≥50%	59	9.3
	Part time <50%	44	6.9
	Not working	440	69.4
Reason of not working			
(n=452)	Retired	238	52.7
	Interruption-health issue	177	39.2
	Other reasons	37	8.2
HADS			
(n=624)	Probable	238	38.1
	Possible	163	26.1
	Absence	223	35.7

Socio-demographic data

Hospital anxiety and Depression Scale (HADS): Probable (score ≥11) , possible (score 8-10) or absence (score ≤ 7) of mood disorder.

Variables	Groups	n	%
Pain's duration			
(n=634)	<1 yr	24	3.8
	1-3 yrs	150	23.7
	3-5 yrs	134	21.1
	5-10 yrs	132	20.8
	>10 yrs	194	30.6
Frequency			
(n=637)	All the time	400	62.8
	At least once a day	183	28.7
	Less frequent	54	8.5
DN4 (7-items)			
(n=618)	Positive	327	52.9
	Negative	291	47.1
Chronic Pain Grade			
(n=626)	Grade I	59	9.4
	Grade II	160	25.6
	Grade III	162	25.9
	Grade IV	245	39.1
Present pain intensity			
(n=637)	Mild (1-3)	133	20.9
	Moderate (4-6)	257	40.3
	Severe (7-10)	247	38.8
Average pain intensity			
(n=631)	Mild (1-3)	58	9.2
	Moderate (4-6)	302	47.9
	Severe (7-10)	271	42.9
Worst pain intensity			
(n=634)	Mild (1-3)	8	1.3
	Moderate (4-6)	76	12.0
	Severe (7-10)	550	86.7

Characteristics of pain

Chronic Pain Grade: Grade I: low disability-low intensity; II: low disability-high intensity; III: high disability-moderately limiting; and IV: high disability-severely limiting

Factors	Low LOR	Moderate LOR	High LOR
Age			
RRR (p)	1 (ref)	0.97 (0.020)	0.97 (0.039)
95% CI		0.94-0.99	0.94-0.99
Level of education			
RRR (p)	1 (ref)	2.48 (0.004)	3.42 (<0.001)
95% CI		1.32-4.63	1.90-6.13
Unemployed status			
RRR (p)	1 (ref)	1.12 (0.800)	2.92 (0.009)
95% CI		0.47-2.67	1.30-6.56
Positive DN4 score			
RRR (p)	1 (ref)	2.02 (0.020)	1.80 (0.036)
95% CI		1.12-3.67	1.04-3.12
Use of herbal medicines			
RRR (p)	1 (ref)	1.55 (0.197)	2.77 (0.001)
95% CI		0.80-3.03	1.52-5.04

Multivariate analysis

Middle/advanced level of education, unemployed status due to medical conditions, use of herbal medicine and neuropathic pain characteristics were independently associated with a high level of readiness. Older patients were less likely to show a high level of readiness.