

Research article

Associations of somatic symptom disorder with pain, disability and quality of life in patients with chronic low back pain

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ABSTRACT

Literature findings have suggested that psychological factors, including anxiety, depression, and somatic symptom disorder (SSD), are predictors of poor outcomes in individuals with chronic low back pain (CLBP). The aim of this study was to examine the correlations between anxiety, depression, and SSD with pain, disability, and health-related quality of life (HRQoL) in Greek CLBP patients. Ninety-two participants with CLBP were recruited using random systematic sampling from an outpatient physiotherapy department, who completed a battery of paper-and-pencil questionnaires that included items on demographic characteristics, as well the Numerical Pain Rating Scale (NPRS) for pain, the Rolland-Morris Disability Questionnaire for disability (RMDQ), the EuroQoL 5-dimension 5-level (EQ-5D-5L) for health status, the Somatic Symptom Scale-8 (SSS-8) for SSD, the Hospital Anxiety and Depression Scale (HADS) for anxiety and depression. A Mann-Whitney test and a Kruskal-Wallis test were used for the comparison of continuous variables between two groups and among more than two groups, respectively. Moreover, Spearman correlation coefficients were used to explore the association between subjects' demographics, SSS-8, HADS-Anxiety, HADS-Depression, NPRS, RMDQ, and EQ-5D-5L indices. Predictors of health status, pain, and disability were assessed using multiple regression analyses, whereas the level of statistical significance was set at $p < 0.05$. The response rate was 94.6% (87 participants, 55 of whom were women) and the mean age of the sample was 59.6 years ($SD = 15.1$). A tendency of weak negative associations was noted between scores of SSD, anxiety, and depression with EQ-5D-5L indices, whereas only a weak positive correlation was found between levels of SSD with pain and disability. After examining a multiple regression analysis, only SSD emerged as a prognostic factor of poor HRQoL, greater levels of pain, and disability. In conclusion, the elevated scores of SSD significantly predict worse HRQoL, intense pain, and severe disability in Greek CLBP patients. Further research is needed to test our findings in larger and more representative samples of the Greek general population.

KEYWORDS: Somatic symptoms disorder, chronic low back pain, pain, disability, quality of life.

Introduction

According to the Global Burden of Diseases Study 2019, low back pain (LBP) was the leading cause of disability for all ages and responsible for 64 million disability-adjusted life-years, an increase of 47% since 1990.^{1,2} In Greece, LBP was one of the top five causes of years lived with a disability during 2000–2016.³ Therefore, LBP calls for intensified research efforts and specific at-

tention from health policymakers to address its burden as a public health problem.⁴

Many studies have suggested that sociodemographic (age, sex, marital and employment status, educational background), lifestyle (excess body mass, lack of physical activity), and psychological factors, notably depression, anxiety, and somatization or somatic symptom disorder (SSD), are risk factors of LBP and predictors of poor outcomes, thus shaping the concept of a “biopsy-

chosocial pain syndrome^{5–14}. In particular, older age, high values of Body Mass Index (BMI), and less frequent physical exercise have been linked with lower quality of life, pain, and disability severity in patients with chronic low back pain (CLBP).^{11,15–20}

Additionally, the potential importance of the aforementioned psychological factors is supported by a systematic review of LBP (25 cohort studies) that found depression, anxiety, and somatization to be consistently correlated with persisting pain and disability.²¹ Similarly, a systematic review including 25 cohort studies identified depression as the most frequently observed prognostic risk factor for CLBP and to a lesser extent somatization.¹⁴ Likewise, a systematic review of 10 observational studies highlighted the moderate association of depression and anxiety with high levels of pain and disability in patients with CLBP.²² More recently, a systematic review of 21 studies (19 cross-sectional and 2 cohorts) identified anxiety and depression as determinants of quality of life (inverse correlations) in individuals having CLBP.²³ Notwithstanding, the role of psychological factors in CLBP has not been widely explored in Greece.^{24,25} A Greek cross-sectional study of 645 residents within an urban setting found that depressed participants reported 2.3 times higher LBP severity than those without depression.²⁴ In addition, cross-sectional data from Greece (a representative sample of 3,125 people) showed that anxiety was predictive of pain intensity in LBP patients, while both anxiety and depression were not associated with disability.²⁵ In summary, no study to date has examined the role of SSD in Greek CLBP patients.

Therefore, the aim of the present cross-sectional study was to investigate the associations of sociodemographic and lifestyle factors, SSD, anxiety, and depression with pain, disability, and health-related quality of life (HRQoL) in patients with CLBP. We hypothesized that a higher somatic symptom burden, anxiety and depression, and, in addition, advancing age, excess body mass, and lack of habitual exercise might be associated with worse HRQoL and higher levels of pain and disability.

Material and Method

This cross-sectional study was conducted at TYPET (Mutual Health Fund of National Bank of Greece Personnel) outpatient physiotherapy department in Athens (Greece). Between 1 April 2021 and 20 December 2021, 92 participants, aged 26–94 years old, were recruited with random systematic sampling from patients, who had been referred to the above department for physical therapy evaluation and treatment of CLBP (defined as having pain, discomfort and stiffness

beyond 3 months at T12 or lower, including radiating pain into the buttocks and lower extremity).

Exclusion criteria were insufficient Greek language skills, gestation, and presence of “red flags” such as history of cancer or surgery, rheumatoid and psoriatic arthritis, ankylosing spondylitis, spinal fracture, cauda equina syndrome, spondylolisthesis, fibromyalgia, and scoliosis $\geq 20^\circ$. All included patients were informed by the researcher about the anonymity and confidentiality of the paper-and-pencil questionnaire and were provided with their written consent. The study was approved by the medical ethics board of TYPET and the National and Kapodistrian University of Athens and was conducted according to the principles of the Declaration of Helsinki.²⁶ The study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement for reporting cross-sectional studies.²⁷

Measures

The administered by hand paper-and-pencil questionnaire included items on demographic characteristics, namely gender, age, body weight, height, marital status, education background, employment status, physical activity (during the last year, how often did you work out more than 30min a day per week), as well as patient-reported outcome (PRO) measures for somatic symptom burden, anxiety, depression, pain, disability, and HRQoL. In particular:

The Somatic Symptom Scale-8 (SSS-8) is an instrument to assess the burden of 8 common somatic complaints in primary care within the last week. Each item is scored on a five-point Likert-type scale; sum scores range from 0 to 32, with higher values denoting greater somatic symptom severity (0–3 no to minimal; 4–7 low; 8–11 medium; 12–15 high; 16–32 very high).²⁸

The Hospital Anxiety and Depression Scale (HADS) is a measure of the severity of anxiety and depression (7 items for each subscale) within the last seven days in clinical research, using a four-point Likert-type scale. Total scores range from 0 to 21, with higher values indicating greater degrees of anxiety and depression.²⁹

The Pain Numerical Rating Scale (PNRS) is a measure of pain intensity (most severe pain and average level of pain for the past week), ranging from 0 (no pain) to 10 (worst pain you can imagine).³⁰

The Roland-Morris Disability Questionnaire (RMDQ) consists of 24 items that assess the functional status of LBP patients over the past 24 hours. Total scores range from 0 to 14, with higher greater a range of 0 (no disability due to LBP) to 14 (maximum disability due to LBP), with higher scores corresponding to greater levels of disability due to LBP.³¹

The EQ-5D-5L is a standardized measure of health status developed by the EuroQoL Group to provide a simple, generic measure of health for clinical and economic appraisal. It is composed of a descriptive system, consisting of five dimensions assessing mobility, self-care, usual activities, pain/discomfort, and anxiety/depression, which defines a unique health status (3,125 levels) ranging from 11 111 (best health) to 55 555 (worst health), and a thermograph-like scale rated from 0 (the worst imaginable health) to 100 (the best imaginable health).^{32,33}

All PRO measures have previously been cross-culturally validated within the Greek population and have been recommended for utilization across patients with CLBP.^{34–37}

Statistical analysis

Quantitative variables were expressed as mean (Standard Deviation) or as median (interquartile range). Qualitative variables were expressed as absolute and relative frequencies. Mann-Whitney test was used for the comparison of continuous variables between two groups and the Kruskal-Wallis test for the comparison of continuous variables among more than two groups. Spearman correlation coefficients were used to explore the association of two continuous variables. Spearman's correlation coefficient values (r_s) greater than 0.7, of 0.69–0.4, and less than 0.39–0.1 were considered strong, moderate, and weak correlations, respectively.³⁸ Multiple linear regression analyses were conducted with dependent the health status, disability, and pain scales in a stepwise method (p for entry 0.05, p for removal 0.10). The factors that were included as independent variables in the model were sociodemographic (age, sex, marital and employment status, educational level), lifestyle (Body Mass Index, physical exercise), SSD, depression, and anxiety as measured by the SSS-8 and HADS questionnaires, respectively. Adjusted regression coefficients (β) with standard errors (SE) were computed from the results of the linear regression analyses. Multiple linear regression analyses were conducted after having the dependent variables logarithmically transformed. All reported p values are two-tailed. Statistical significance was set at $p < 0.05$ and analyses were conducted using SPSS statistical software (version 22.0).

Results

The sample consisted by 87 participants (response rate 94.6%), 32 men and 55 women, with mean age of 59.6 years ($SD = 15.1$ years). Their characteristics are presented in table 1. The mean BMI was 27 kg/m^2 and 23% were

obese. Married 59.8% of the participants and 34.5% were employed. Also, 29.1% of the participants had a postgraduate degree. More than two times a week working out 49.4% of the sample, during the last year, for more than 30 minutes. The median SSS-8 score was 9 (IQR: 6–12) and the median RMDQ score was 7 (IQR: 4–10). Also, the median depression score was 6 (IQR: 4–8) and the median anxiety score was 5 (IQR: 2–7). Mean EQ-5D-5L index value score for all participants was 0.68 ($SD = 0.15$) and the mean EQ-5D-5L VAS was 70.39 ($SD = 15.24$).

Higher SSS-8, depression, and anxiety scores are associated with lower EQ-5D-5L index value scores, indicating worse hconditionsditiion (table 2). Also, more frequent physical exercise was significantly associated with better health status. Moreover, higher SSS-8, depression, and anxiety scores are associated with worse health status.

Greater age and greater SSS-8 scores were significantly associated with greater scores in the RMDQ (table 3).

Table 1. Sample characteristics.

	N (%)
Gender	
Men	32 (36.8)
Women	55 (63.2)
Age (years), mean (SD)	59.6 (15.1)
BMI (kg/m^2), mean (SD)	27 (5.7)
BMI	
Normal	35 (40.2)
Overweight	32 (36.8)
Obese	20 (23.0)
Married	52 (59.8)
Educational level	
At most college	37 (43.0)
University	24 (27.9)
Postgraduate studies	25 (29.1)
Employed	30 (34.5)
During the last year, how often did you work out more than 30min a day?	
None	15 (17.2)
1–2 times per month	15 (17.2)
Once a week	14 (16.1)
More than two times a week	43 (49.4)
SSS-8 score, median (IQR)	9 (6–12)
HADS-Depression score, median (IQR)	6 (4–8)
HADS-Anxiety score, median (IQR)	5 (2–7)

SD: Standard Deviation; BMI: Body Mass Index; SSS-8: Somatic Symptom Scale-8; HADS: Hospital Anxiety and Depression Scale.

Table 2. Association of EQ-5D-5L index value and health status (EQ-5D-5L VAS) score with participants' demographics and their scores in SSS-8 and HADS scales

	EQ-5D-5L index value			Health status (EQ-5D-5L VAS)				
	Mean (SD)	Median (IQR)	Statistic value	P	Mean (SD)	Median (IQR)	Statistic value	P
Total sample	0.68 (0.15)	0.69 (0.69 – 0.78)		–	70.39 (15.24)	70 (60 – 80)		–
Gender								
Men	0.69 (0.12)	0.70 (0.6 – 0.78)	841.5	0.735 ⁺	72.41 (14.68)	72 (65 – 80)	760.5	0.290 ⁺
Women	0.68 (0.16)	0.69 (0.6 – 0.78)			69.22 (15.57)	70 (55 – 80)		
Age, r [†]		–0.11		0.304				0.946
BMI, r [†]		–0.15		0.180				0.322
BMI								
Normal	0.71 (0.16)	0.71 (0.67 – 0.82)	4.05	0.132 ⁺⁺	70.83 (16.82)	75 (60 – 85)	2.07	0.355 ⁺⁺
Overweight	0.68 (0.12)	0.70 (0.57 – 0.78)			72.84 (12.53)	72 (65 – 82.5)		
Obese	0.64 (0.15)	0.68 (0.51 – 0.74)			65.7 (15.99)	69.5 (55 – 80)		
Married								
No	0.67 (0.14)	0.68 (0.56 – 0.77)	795.5	0.322 ⁺	68.74 (15.52)	70 (60 – 80)	848.5	0.592
Yes	0.69 (0.15)	0.71 (0.65 – 0.78)			71.50 (15.10)	70 (62.5 – 80)		
Educational level								
At most college	0.68 (0.17)	0.71 (0.59 – 0.78)	1.57	0.455 ⁺⁺	72.05 (12.48)	75 (60 – 80)	0.45	0.799 ⁺⁺
University	0.67 (0.13)	0.68 (0.59 – 0.76)			70.21 (15.98)	72 (60 – 80)		
Postgraduate studies	0.71 (0.12)	0.74 (0.67 – 0.78)			68.32 (18.56)	70 (65 – 80)		
Employed								
No	0.68 (0.15)	0.70 (0.59 – 0.77)	846.5	0.939 ⁺	71.46 (12.99)	70 (60 – 80)	797.0	0.602 ⁺
Yes	0.68 (0.13)	0.69 (0.67 – 0.78)			68.37 (18.89)	70 (60 – 85)		
More frequent physical exercise, r [†]		–0.01		0.893				0.006
SSS-8 score, r [†]		–0.32		0.002				0.022
HADS-Depression score, r [†]		–0.30		0.005				<0.001
HADS-Anxiety score, r [†]		–0.26		0.013				0.003

Mann-Whitney test (U statistic value is provided); ++Kruskal-Wallis test (Chi-square with df=2 is provided); #Spearman correlation coefficient; SD: Standard Deviation; IQR: Interquartile Range; BMI: Body Mass Index; SSS-8: Somatic Symptom Scale-8; HADS: Hospital Anxiety and Depression Scale.

Table 3. Association of RMDQ and PNRS score with participants' demographics and their scores in SSS-8 and HADS scales.

	RMDQ			PNRS (0-10 scale)			P	Statistic value	P
	Mean (SD)	Median (IQR)	Statistic value	Mean (SD)	Median (IQR)	Statistic value			
Total sample	7.45 (4.47)	7 (4-10)		4.67 (1.97)	5 (3-6)		-	-	
Gender									
Men	7.28 (4.01)	7 (5-9)	862.0	4.69 (1.69)	5 (3-6)	855.5	0.874 ⁺	0.827 ⁺	
Women	7.55 (4.76)	7 (4-11)		4.65 (2.14)	5 (3-6)				
Age, r [†]	0.22			0.08			0.047	0.453	
BMI, r [†]	0.01			0.26			0.944	0.014	
BMI									
Normal	7.40 (4.79)	7 (4-11)	0.30	4.09 (2.03)	4 (3-6)	6.07	0.861 ⁺⁺	0.048 ⁺⁺	
Overweight	7.69 (4.15)	7.5 (5-10)		4.75 (1.78)	5 (3-6.5)				
Obese	7.15 (4.60)	6.5 (4.5-9)		5.55 (1.90)	5.5 (5-6)				
Married									
No	7.77 (3.87)	8 (5-10)	805.5	4.60 (1.99)	5 (3-6)	852.0	0.364 ⁺	0.610 ⁺	
Yes	7.23 (4.87)	6 (4-10.5)		4.71 (1.98)	5 (4-6)				
Educational level									
At most college	8.03 (5.32)	7 (4-11)	2.42	4.70 (2.23)	5 (3-6)	1.69	0.298 ⁺⁺	0.431 ⁺⁺	
University	8.00 (4.01)	7.5 (4.5-11)		4.17 (1.86)	4.5 (3-5.5)				
Postgraduate studies	6.20 (3.30)	7 (4-8)		4.92 (1.44)	5 (4-6)				
Employed									
No	7.96 (4.94)	8 (4-11)	723.0	4.61 (2.18)	5 (3-6)	821.5	0.237 ⁺	0.761 ⁺	
Yes	6.47 (3.29)	7 (4-8)		4.77 (1.55)	5 (4-6)				
More frequent physical exercise, r [†]	-0.13			-0.18			0.245	0.102	
SSS-8 score, r [†]	0.22			0.23			0.046	0.035	
HADS-Depression score, r [†]	0.20			0.14			0.059	0.197	
HADS-Anxiety score, r [†]	0.12			0.01			0.281	0.899	

+Mann-Whitney test (U statistic value is provided); ++Kruskal-Wallis test (Chi-square with df=2 is provided); +Spearman correlation coefficient; SD: Standard Deviation; IQR: Interquartile Range; BMI: Body Mass Index; RMDQ: Roland-Morris Disability Questionnaire; PNRS: Pain Numerical Rating Scale; SSS-8: Somatic Symptom Scale-8; HADS: Hospital Anxiety and Depression Scale

Greater BMI was significantly associated with greater pain, based on the 0–10 scale. Also, worse somatic symptoms, i.e., greater SSS-8 score, were significantly associated with greater pain.

When multiple regression analysis was conducted it was found that higher SSS-8 was significantly associated with worse health, greater pain, and greater disability (table 4). Also, more anxiety symptoms and less frequent physical exercise were associated with worse health status. Greater BMI was significantly associated with more intense pain. Furthermore, greater age was significantly associated with greater disability.

Discussion

To the best of our knowledge, this was the first cross-sectional study examining the associations of psychological factors with pain, disability, and health-related quality of life (HRQoL) in Greek chronic low back pain (CLBP) patients. Overall, the findings demonstrated that a higher somatic symptom burden, anxiety, and depression correlated with worse HRQoL and, in addition, only higher Somatic Symptom Scale-8 (SSS-8) scores relatively correlated with lower levels of HRQoL, greater levels of pain and disability in the multivariate regression models.

In the study sample, it was observed a medium somatic symptom severity using SSS-8, which is consistent with the findings of Petrelis & Domeyer³⁶ in Greek patients with CLBP and of a cross-sectional study of Japanese individuals with CLBP.³⁹ The respective low HADS-Anxiety and HADS-Depression scores are in accordance with several cross-sectional studies in developed and developing countries,^{35,40–44} except the results of Billis et al²⁵ and Bean et al,⁴⁵ which have yielded low

to moderate scores of the two subscales in a sample of four hundred seventy-one people reported LBP and eighty-eight CLBP patients, respectively. This discrepancy may reflect the differences in pain and disability severity of the study samples; our lower levels of pain and disability may exhibit lower scores of HADS, because of the predictive role of anxiety and depression in those outcomes.^{21,22,46}

It is generally recognized that the elevated scores of SSD, anxiety and depression are relatively important predictors of poor HRQoL in individuals with CLBP.^{23,39,44,46–48} Notably, a weak to moderate negative correlation of SSS-8 with EQ-5D-5L indices was found in the study of Petrelis & Domeyer.³⁶ Moreover, Fujii et al³⁹ noted in their cross-sectional study that SSS-8 total scores were negatively moderately associated ($r_s = -0.55$) with lower EQ-5D-3L index value. Additionally, Tsuji et al⁴⁷ reported that CLBP patients with depression, using Patient Health Questionnaire-9 (PHQ-9), had significantly worse HRQoL, while Guclu et al⁴⁸ highlighted the weak negative associations between both anxiety and depression with HRQoL. Similarly, a recent pooled analysis of 21 studies (19 cross-sectional and 2 cohort), discussed possible determinants of quality of life and revealed anxiety and depression as predictors of poor quality of life due to their inverse correlation.²³ Apart from differences in the methodological design, the current study extends this body of knowledge, showing significant but less pronounced associations between SSD, anxiety, and depression with EQ-5D-5L indices. This was further examined in a multiple regression analysis to predict HRQoL, emerging only SSD and anxiety as predictors of EQ-5D-5L indices and EQ-5D-5L VAS, respectively. Parallel to the literature, regular exercise (like walking or running for 30 minutes more than two times per week) was also significantly correlated with

Table 4. Multiple linear regression results.

Dependent variable	Independent variables	β^+	SE ⁺⁺	P
EQ-5D-5L index value	SSS-8 score	-0.002	0.001	0.049
Health status (EQ-5D-5L VAS)	SSS8 score	-0.006	0.003	0.026
	Anxiety score	-0.007	0.003	0.023
	During the last year, how often did you work out more than 30min a day?	0.026	0.009	0.005
RMDQ	SSS-8 score	0.014	0.007	0.030
	Age	0.004	0.002	0.040
PNRS (0-10 scale)	SSS-8 score	0.012	0.004	0.006
	BMI	0.008	0.003	0.025

Note. Regressions were made after logarithmic transformation of the data +regression coefficient; ++Standard Error; BMI: Body Mass Index; RMDQ: Rolland-Morris Disability Questionnaire; PNRS: Pain Numerical Rating Scale; SSS-8: Somatic Symptom Scale-8; HADS: Hospital Anxiety and Depression Scale

better health status in our study, which was identified to a greater extent based on the multiple regression analysis.^{11,17,18,20}

To date, no study has examined the associations between SSS-8 and self-reported disability and pain in individuals with CLBP. SSS-8 showed weak positive associations with RMDQ and PNRs and, in addition, these relationships remained relevant after controlling for multiple comparisons, indicating that greater somatic symptom severity significantly predict greater levels of disability and pain. A similar correlation has been reported among people with CLBP in previous studies and a recent systematic review of 10 observational studies, using different reference measures (Depression Somatic Symptom Scale and Somatization subscale of Symptom Check-List-90 for SSD, Oswestry Disability Index, Chronic Graded Pain Questionnaire and German Pain Questionnaire for disability and pain, respectively).^{22,40,43} Notably, a German prospective cohort study of four hundred eighty-four CLBP patients found that higher values of somatization and age predicted disability in a multiple regression analysis.⁴³ However, cross-sectional data from Taiwan (a sample of two hundred fifteen participants with CLBP) showed that somatic symptoms severity, due to the Somatic subscale of the Depression Somatic Symptom Scale, did not independently relate to disability based on the regression models.⁴⁰ Finally, our results strengthen the findings of previous studies among CLBP patients, reporting weak correlations between greater age and BMI with severe disability and intense pain respectively.^{14–16,25,40,49,50}

Furthermore, although it is established that the elevated scores of depression and anxiety are consistently correlated with greater scores of disability and pain, we were not able to replicate it in the present study.^{25,41,47,49,51} An Egyptian cross-sectional study of fifty CLBP patients detected a moderate positive association between depression by the Beck Depression Inventory (BDI) and each pain (VAS) and disability (Oswestry Disability Index).⁴⁹ Billis et al²⁵ observed a weak positive correlation for both anxiety and depression with pain intensity across a sample of four hundred twenty-one Greek residents with LBP, whereas only anxiety was noted as a prognostic factor of higher scores of pain. An equivalent tendency was also found in two cross-sectional studies, involving two hundred individuals with CLBP and one hundred and twenty-three CLBP residents in rural Nigeria and Spain each in order, denoting that depressed and anxious CLBP patients had importantly higher levels of self-reported disability. These were further investigated in the multivariate regression

models, indicating anxiety as a significant predictor of disability.^{41,51}

Our differing results compared to these aforementioned findings might be explained by our lower disability and pain severity profile of the sample.²⁵ Additionally, there are methodological differences in the study measures and statistical analysis of those researches and ours that might explain the divergent results, due to different population characteristics, sampling methods and study sizes, dissimilar self-reported questionnaires for pain, anxiety, depression, and SSD, as well as lack of simultaneous assessment of SSD, depression and anxiety in these studies, despite the reporting high comorbidity and partial overlap of SSD, depression and anxiety disorders.^{10,39,52,53} These are essential since the outcomes of multiple regression analysis are always determined by the selection of predictor variables that have significant correlations with dependent variables from the results of the linear regression analysis.^{43,54}

The present study was subject to some limitations. First, the sample may not be representative of the general population in Greece and the generalization of the results to CLBP patients in other clinical settings or Greek regions should be faced cautiously, as a result of conducting the study at a single primary healthcare unit in Athens. Second, the cross-sectional design of this study did not permit clarifying cause-and-effect relationships between SSD, anxiety, and depression with pain, disability, and HRQoL. Further prospective cohort studies are needed to better understand those associations on a national scale. Third, the low sample size and the over-representation of women may affect the conclusions drawn from the study, which restricts the representativeness and generalizability of the results.

In summary, our findings provide important evidence that the contribution of SSD, anxiety, and depression is substantial to poor HRQoL in Greek primary care patients with CLBP. Of all psychological variables examined in multiple regression analysis, only somatic symptom burden was consistently found to be a significant prognostic factor of lower levels of HRQoL and greater scores of pain and disability, underscoring the need to screen for SSD in CLBP individuals as an essential part of the clinical management of CLBP, which is paramount in planning better target treatment interventions and using more defined dosages. Future large and long-term prospective studies are needed to clarify the causality and clearly establish which psychological factors are the most appropriate predictors of poor outcomes to more representative samples of the Greek general population.

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Ερευνητική εργασία

Οι συσχετίσεις της διαταραχής σωματικών συμπτωμάτων με τον πόνο, την ανικανότητα και την ποιότητα ζωής ασθενών με χρόνια οσφυαλγία

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ΠΕΡΙΛΗΨΗ

Τα ευρήματα από τη βιβλιογραφία έχουν προτείνει τους ψυχολογικούς παράγοντες, συμπεριλαμβανομένου του άγχους, της κατάθλιψης και των διαταραχών των σωματικών συμπτωμάτων (somatic symptom disorder, SSD), ως παράγοντες πρόβλεψης φτωχής έκβασης των ατόμων με χρόνια οσφυαλγία. Ο σκοπός αυτής της μελέτης ήταν να εξεταστούν οι συσχετίσεις μεταξύ του άγχους, της κατάθλιψης και των SSDs με τον πόνο, την ανικανότητα και την σχετιζόμενη με την υγεία ποιότητα ζωής σε Έλληνες ασθενείς με χρόνια οσφυαλγία. Με συστηματική τυχαία δειγματοληψία επιλέχθηκαν ενενήντα δύο συμμετέχοντες με χρόνια οσφυαλγία από ένα τμήμα φυσικοθεραπείας εξωτερικών ασθενών, οι οποίοι συμπλήρωσαν ένα πλήθος έντυπων ερωτηματολογίων, όπου περιλάμβαναν δημογραφικά χαρακτηριστικά, όπως επίσης των κλιμάκων για τον πόνο (Numerical Pain Rating Scale, NPRS), την ανικανότητα (Rolland-Morris Disability Questionnaire, RMDQ), την ποιότητα ζωής (EuroQoL 5-dimension 5-level, EQ-5D-5L), τη διαταραχή των σωματικών συμπτωμάτων (Somatic Symptom Scale-8, SSS-8), το άγχος και την κατάθλιψη (Hospital Anxiety and Depression Scale, HADS). Χρησιμοποιήθηκαν τα κριτήρια Mann-Whitney test και Kruskal-Wallis για τον έλεγχο δυο μεταβλητών μεταξύ δύο ομάδων και περισσότερων από δύο ομάδων αντίστοιχα. Επίσης, χρησιμοποιήθηκε ο συντελεστής συσχέτισης του Spearman για να διερευνηθεί η σχέση μεταξύ των δημογραφικών χαρακτηριστικών και των μετρήσεων των ατόμων στις κλίμακες SSS-8, HADS-Anxiety, HADS-Depression, NPS, RMDQ and EQ-5D-5L. Οι προγνωστικοί παράγοντες του επιπέδου υγείας, του πόνου και της ανικανότητας αξιολογήθηκαν χρησιμοποιώντας την πολλαπλή ανάλυση παλινδρόμησης, ενώ το επίπεδο στατιστικής σημαντικότητας ορίστηκε στο $p < 0,05$. Ο δείκτης απόκρισης ήταν 94,6% (87 συμμετέχοντες, εκ των οποίων οι 55 ήταν γυναίκες) και η μέση ηλικία του δείγματος ήταν τα 59,6 έτη ($SD=15,1$). Παρατηρήθηκε μια τάση μικρών αρνητικών συσχετίσεων μεταξύ των βαθμολογιών της SSD, του άγχους και της κατάθλιψης με τους δείκτες του EQ-5D-5L, ενώ βρέθηκε μόνο μια μικρή θετική σχέση των επιπέδων της SSD με τον πόνο και την ανικανότητα. Συμπερασματικά, οι υψηλές βαθμολογίες της SSD προβλέπουν στατιστικά σημαντικά φτωχότερη σχετιζόμενη με την υγεία ποιότητα ζωής, έντονο πόνο και σοβαρή ανικανότητα σε Έλληνες ασθενείς με χρόνια οσφυαλγία. Περαιτέρω έρευνα απαιτείται σε μεγαλύτερα και αντιπροσωπευτικότερα δείγματα του γενικού πληθυσμού της Ελλάδας.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: Διαταραχή σωματικών συμπτωμάτων, χρόνια οσφυαλγία, πόνος, ανικανότητα, ποιότητα ζωής.