Chronic low back pain and associated socio-demographic factors – a cross-sectional study in 834 EpiReumaPt participants

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Reuma Census 2011-2013

Background

Chronic low back pain (CLBP) causes an important burden to patients and to the society. It is important to understand which are the socio-demographic factors associated with its occurrence in order to more adequately tailor interventions.

Objectives

1. To identify the proportion of patients with chronic low back pain
2. To assess the socio-demographic factors associated with chronic low back pain.

Methods

- Participants recruited for the EpiReumaPt survey between September and December 2011 were included in this analysis.
- The EpiReumaPt study population includes a representative sample of the Portuguese population, identified through the random-route methodology and interviewed door-to-door.
- Information is collected on self-reported rheumatological diseases, symptoms of the diseases, along with socio-demographic and other clinically relevant variables.
- The proportion of patients with CLBP (i.e. self-reported low back pain during ≥90 days or more in the previous 12 months) was calculated.
- Patients with and without CLBP were compared with respect to socio-demographic factors (t-test and Mann-Whitney for continuous variables with and without a normal distribution, respectively and chi-square test for categorical variables).
- Factors associated with self-reported CLBP were analysed by univariable logistic regression followed by multivariable regression. Forward selection was performed until the best-fit model was obtained, taking confounding effects into account.

Results

- A total of 834 participants were included in the analysis.
- Of those, 456 (55%) reported low back pain in the last 12 months and 80 (10%) reported CLBP.
- Participants with CLBP were older and had a higher body mass index. The proportion of females was higher among CLBP sufferers, while height, educational level, the proportion of workers and the level of alcohol intake and physical activity were lower.
- In the multivariable analysis, CLBP was independently associated .with older age, female gender and inactive working status

TABLE 1. SOCIO-DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF THE POPULATION WITH AND WITHOUT CHRONIC LOW BACK PAIN

	CLPB (N = 80) Mean (SD) or % (n)	Without CLBP (N = 754) Mean (SD) or % (n)	p-value
Age (years)	59 (18)	49 (18)	0.000*
Gender (% female)	93% (74)	61% (460)	0.000*
Acute LBP	79% (63)	12% (91)	0.000*
Coffee intake (%)	70% (56)	75% (565)	0.336
Alcohol intake			0.004*
- Daily	4% (3)	14% (102)	
- Occasionally	49% (39)	55% (412)	
- Never	48% (38)	32% (240)	
Smoking habits(%)	20% (16)	27% (206)	0.159
Physical activity(%)	24% (19)	39% (295)	0.007*
Height (cm)	160 (8)	165 (10)	0.000*
Weight (kg)	70 (16)	70 (15)	0.976
BMI (kg/m²)	27.3 (5.8)	25.7 (4.7)	0.022*
White (%)	91% (73)	91% (689)	0.969
Education level (years)	7.4 (4.3)	9.5 (3.8)	0.000*
Active worker (%)	24% (19)	52% (389)	0.000*
Retired (%)	51% (41)	29% (216)	0.000*

TABLE 2. SOCIO-DEMOGRAPHIC FACTORS ASSOCIATED WITH CHRONIC LOW BACK PAIN

	Univariable analysis OR (95 CI%) N = 834	Multivariable analysis OR (95% CI) N = 834
Age (years)	1.03 (1.02; 1.04)	1.02 (1.00; 1.03)
Gender (female vs male)	7.89 (3.39; 18.35)	7.30 (3.12; 17.08)
Active worker (yes vs no)	0.29 (0.17; 0.50)	0.42 (0.23; 0.77)
Retired (yes vs no)	2.62 (1.64; 4.17)	†
Alcohol intake		
- Occasionally vs daily	3.22 (0.98; 10.62)	†
- Never vs daily	5.39 (1.62; 17.84)	†
Physical activity (yes vs no)	0.49 (0.28; 0.83)	†
Height (cm)	0.94 (0.92; 0.97)	†
Body mass index (kg/m²)	1.06 (1.02; 1.11)	†
Education level (years)	0.89 (0.84; 0.94)	†
Coffee intake (yes vs no)	0.78 (0.47; 1.29)	*
Smoking (yes vs no)	0.67 (0.38; 1.18)	*
Weight (kg)	1.00 (0.98; 1.02)	*
Ethnicity (white vs other)	0.98 (0.43; 2.22)	*

*Not selected in univariable analysis. †Not selected in multivariable analysis.

Conclusion

Half of the participants had complaints of low back pain in the previous year and 10% suffered from CLBP. A higher age, female gender and a non-working status were independently associated with CLBP.

Vilamoura, XVI CPR, 2012

Entidades Promotoras

Financiamentos e apoios

DIRECÇÃO-GERAL DA SAÚDE | FUNDAÇÃO CALOUSTE GULBENKIAN | PFIZER | ABBOTT | ROCHE | D³A - MEDICAL SYSTEMS MERCK SHARP & DOHME | ANAFRE - ASSOCIAÇÃO NACIONAL DE FREGUESIAS | ASSOCIAÇÃO NACIONAL MUNICÍPIOS PORTUGUESES | CÂMARA MUNICIPAL DE LISBOA | AÇOREANA SEGUROS | GERMANO DE SOUSA, CENTRO DE MEDICINA LABORATORIAL | GALP ENERGIA | HAPPYBRANDS

Agradecimentos

A TODOS OS MÉDICOS REUMATOLOGISTAS E OUTROS PROFISSIONAIS QUE PARTICIPARAM NESTE ESTUDO.