

Risk factors for non-specific low back pain in schoolchildren and their parents: a population based study.

Kovacs FM, Gestoso M, Gil del Real MT, Lopez J, Mufraggi N, Mendez JI.

Departamento Cientifico, Fundacion Kovacs, Paseo de Mallorca 36, E-07012 Palma de Mallorca, Spain. kovacs@kovacs.org

A survey of adolescent schoolchildren and their parents through a self-administered questionnaire was conducted to determine the prevalence of low back pain (LBP) in schoolchildren and their parents and to assess its association with exposure to known and presumed risk factors. A previously validated, self-administered questionnaire was used for collecting information on back pain history, anthropometric measures, physical and sports activity, academic problems, hours of leisure sitting, smoking, and alcohol intake. Schoolchildren between the ages of 13 and 15 in schools of the island of Mallorca and their parents (n=16,394) took part in the study. The lifetime prevalence of LBP was 50.9% for boys and 69.3% for girls; point prevalence (7 days) was 17.1% for boys and 33% for girls. There was a significant association with LBP and pain in bed (OR=13.82, 95% CI: 10.47-18.25, P<0.001), reporting scoliosis (OR=2.87, 95% CI: 2.45-3.37, P<0.001), reporting difference in leg length (OR=1.26, 95% CI: 1.02-1.56, P=0.033), practice of any sport more than twice a week (OR=1.23, 95% CI: 1.09-1.39, P=0.001) and being female (OR=1.11, 95% CI: 1.04-1.19, P=0.001). There was no association found between LBP and body mass index, the manner in which books were transported, hours of leisure sitting, alcohol intake or cigarette smoking. Among parents, the lifetime prevalence of LBP was 78.2% for mothers and 62.6% for fathers; point prevalence (7 days) was 41% for mothers and 24.3% for fathers, and there were significant associations with LBP and pain in bed (OR=18.07, 95% CI: 14.72-22.19, P<0.001), report of scoliosis (OR=8.77, 95% CI: 6.44-11.95, P<0.001), report of difference in leg length (OR=2.21, 95% CI: 1.60-3.04, P<0.001), being a university graduate (OR=1.89, 95% CI: 1.21-2.98, P=0.006), being female (OR=1.49, 95% CI: 1.33-1.67, P<0.001), and swimming (OR=1.10, 95% CI: 1.4-1.18, P=0.002). There was no association found between LBP and alcohol intake, cigarette smoking or the practice of other sports. Although there was a positive association in terms of scoliosis between biological parents and their children (P<0.001), there was no association found in familial (biological or not) occurrence of LBP. The prevalence of LBP among adolescents in southern Europe is similar to northern Europe, it is comparable to that in adults, and is associated with several factors. There is a strong association between pain in bed or upon rising in both adolescents and adults. Scoliosis, but not LBP, appears to be related to heredity. Further longitudinal studies are necessary to establish risk factors that are predictive for LBP in adolescents.

PMID: 12791432 [PubMed - indexed for MEDLINE]