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Study of risk factors for non-specific low back pain in mallorcan schoolchildren and their parents.

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Abstract

Background: Non-specific or common low back pain (LBP) is defined as pain between the costal margins and the inferior gluteal folds, usually accompanied by painful limitation of movement, often influenced by physical activities and posture, and which may be associated with referred pain. Although it is believed that LBP is infrequent among children and adolescents, population based studies have demonstrated that they often complain of LBP. According to international data, the lifetime prevalence of LBP in children and adolescents varies between 7 and 63%.

Objetives: To determine the prevalence of LBP in schoolchildren in Mallorca and their parents, and to determine exposure to known and presumed risk factors.

Methodology: The study population was made up of all schoolchildren aged 13-15 years who were residents on the island of Mallorca at the time of the study, as well as their parents or guardians (N=16,357). The instruments of measure were three previously validated, self-administered questionnaires: one was filled out by the student in the classroom and the other two were filled out by each of the parents (or guardians) at home. The student questionnaire collected information on items which, according to the scientific literature, appear to be risk factors for LBP. The parents' questionnaire contained, among others, questions related to risk factors and recent history of LBP. Since it appears that LBP is more frequent in children whose parents have been treated for LBP, a question was included in the parents' questionnaire about whether or not they were the biological parents of the child.

Results: 48% (3344) of the student sample was boys, and 52% (3590) girls. Among the boys, 31% had never had LBP, and 45% had experienced it several times, 21% reported it restricts their activity when it hurts, and 10% reported their back hurts when in bed. Among the girls, 18% had never had LBP, and 53% had experienced it several times. 30% reported restriction of activity when it hurts, and 24% reported back pain in bed. A preliminary model of logistic regression analysis indicated that being diagnosed as having scoliosis is significantly associated with having LBP in both sexes (OR, boys = 2.83, girls = 3.30; p, both = .0000). Having a difference in leg length is significantly associated with LBP in girls only (OR = 1.44; p = .0095), and, although girls watch more TV than boys, the number of hours of TV watching is significantly associated with LBP only in boys (OR = 1.27; p = .0000). Among the parents, 39% (1737) of fathers and 38% (1800) of mothers reported experiencing LBP several times; 27% of fathers and 35% of mothers reported restricted activity when it hurts; and 24% of fathers and 33% of mothers had received medical treatment at some time for LBP. 95% of the fathers and 97% of the mothers were the biological parents of the child.

Conclusions: The results presented here come from a first analysis of the data. There appears to be more LBP associated with being a female student. However, the prevalence of LBP in both sexes is higher than expected for this population: schoolchildren as well as their parents. Further ongoing analysis of the data will determine other possible associations.

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