Risk factors for low back pain among office workers in Ibadan, Southwest Nigeria

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**Background**
Low back pain is the most common musculo-skeletal problem in the workplace. Data from low-income countries are scant.

**Objectives**
To determine the prevalence and risk factors for low back pain among office workers in Ibadan, Nigeria.

**Methods**
A cross-sectional study design was utilized. Questionnaires were distributed among office workers in the civil service in Ibadan, Nigeria.

**Results**
Eight hundred and forty questionnaires were analysed, with a response rate of 66%. The 12 month prevalence of low back pain was 38% and the point prevalence was 20%. Low back pain was significantly associated with senior staff grade and smoking. Severity of low back pain was associated with sitting for >3 h. Only 16 respondents (5%) reported sickness absence due to back pain in the previous year. A total of 75 days were lost, a mean of 4.7 days per year.

**Conclusions**
The occurrence of low back pain in this study is comparable with that reported in studies from more industrialized countries, but does not constitute a major cause of sickness absence in this group of workers.

**Key words**
Low back pain; Nigeria; office workers; risk factors.

**Introduction**
There is very little information about low back pain in the general population in low-income countries. Studies in working populations are fewer. Some authors have suggested that the scarcity of reports from low-income countries may be due to the fact that low back pain pales in comparison with other health problems and therefore hardly seems worth mentioning [1]. This study was conducted to determine the prevalence and risk factors for low back pain among office workers in Nigeria.

A cross-sectional survey was carried out among office workers at the civil service office complex in Ibadan, Southwest Nigeria. Approval to conduct the survey was obtained from the appropriate authorities. Eight ministries were selected out of 13, using a random sampling technique. All workers present in the office at the time of the survey were asked to complete a questionnaire.

Questionnaires were self-administered and sought information about demographic characteristics of workers, nature of work, smoking status, presence of low back pain in the previous 12 months and at the time of the survey, duration and severity of low back pain, care-seeking practices and sickness absence due to low back pain. Severity of low back pain was measured on an analogue scale of 1–10, in which 1 represented the least pain and 10 the worst pain. Questionnaires were coded and analysed using Epi info v. 6.2.

A total of 1285 questionnaires were distributed and 887 were returned. Forty-seven questionnaires were discarded because of inadequate responses. A total of 840 questionnaires were analysed, giving a response rate of...
66%. Respondents comprised 475 males (57%) and 365 females (43%), with 717 (86%) married and 98 (11%) single. Only 15 respondents (2%) reported that they were current smokers and 75 (9%) had smoked in the past.

Three hundred and fifteen respondents (38%) had a history of low back pain in the previous 12 months, while 173 (20%) had it at the time of the survey. Table 1 shows the prevalence of low back pain in the age categories. On a scale of 1–10, 217 workers (69%) rated their pain as mild (1–3), 56 (18%) rated it as moderate (4–6) and 12 (4%) rated it as severe (7–10).

The prevalence of low back pain was 40% among males and 34% among females ($P > 0.05$). Prevalence was higher among senior grade staff (42%) compared with junior staff (28%, $P < 0.05$). Prevalence of back pain was associated with smoking, was lowest among those who had never smoked (36%) and highest among current smokers (57%, $P < 0.05$). Sitting for $>3$ h was associated with increased severity of low back pain.

One hundred and seventy-nine workers (57%) had consulted a health practitioner for their back pain. Only 16 workers (5%, seven males and nine females) recorded sickness absence as a result of low back pain. Between them, they had taken 75 days off work in the previous year, a mean of 4.7 days per year. Both sickness absence and consultation with a health practitioner were associated with increased severity of low back pain, $P < 0.05$.

The 12 months prevalence for low back pain in this study of 38% and the point prevalence of 20% are comparable with the rates reported among office workers in The Netherlands (34%) [2] and Finland (19%) [3].

In this study, back pain was significantly higher among senior staff. Back pain has been related to seniority in other studies [4]. This was not related to smoking, as smoking rates were higher among junior staff (2.3%) than senior staff (1.7%). Although senior staff were significantly older than junior, it is unlikely that this observation was due to age as the prevalence of back pain did not increase with age in this study (Table 1).

Although smoking does not constitute a problem in this working population with a smoking prevalence of 2%, this study found a significant relationship between smoking and back pain. Other studies have found an association between low back pain and smoking [5]. The biological mechanism involved in the link between smoking and low back pain is not understood. However, it is thought that smoking may lead to reduced perfusion and malnutrition of tissues in and around the spine and cause these tissues to respond inefficiently to mechanical stress [6].

Sickness absence was reported in this study by 5% of workers, who had taken a mean of 4.7 days sick leave in the previous year. Low back pain as a cause of sickness absence pales into insignificance in a population where the major disease burden is due to infectious diseases such as malaria, respiratory tract infections and diarrhoeal diseases. Furthermore, in Nigeria, unlike in industrialized countries, there are no sick pay schemes requiring medical certification for low back pain. As such, workers go to work if pain does not interfere with their daily function.

This study concludes that low back pain in this urban working population is associated with seniority, while increased severity of low back pain is associated with sitting for $>3$ h.

Adequate back support should be provided for senior staff and workers should be encouraged to alter their posture on a regular basis.

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References