Prevalence of low back pain among staff in a rural hospital in Nigeria

F. O. Omokhodion, U. S. Umar and B. E. Ogunnowo
University College Hospital, Ibadan, Nigeria

A cross-sectional study was carried out in a rural hospital in south-western Nigeria to determine the prevalence of low back pain among its staff. The questionnaire administered to staff sought information on social and demographic characteristics, job history, smoking status, frequency and severity of low back pain and factors predisposing to low back pain. Seventy-four out of a total of 80 workers participated in the study. The prevalence of low back pain among staff was 46%. The highest prevalence of back pain (69%) was recorded among nursing staff, followed by secretaries/administrative staff (55%) and cleaners/aides (47%). Heavy physical work (45%), poor posture (20%) and prolonged standing or sitting (20%) were the most frequent activities reported to be associated with low back pain among these workers. The prevalence of low back pain among these workers is comparable to that of workers in high income countries. Health education on posture and correct lifting techniques can be introduced to reduce the burden of low back pain among these workers.

Key words: Health care workers; hospital staff; low back pain; low income societies; prevalence.

INTRODUCTION

Low back pain is prevalent in many industrialized societies. Prevalence rates of 39%\(^1\) and 21%\(^2\) have been reported in the general population in these societies. Higher prevalence rates occur in the occupational setting.\(^3\) In the hospital environment, nurses are known to be a high risk group because of patient lifting and other postural requirements of their job. Several studies have focussed on the prevalence and risk factors of low back pain among nurses,\(^4-8\) while other studies have highlighted the problem among physiotherapists.\(^9\) As several other categories of workers in the hospital are subjected to muscular strains and stresses in the course of their work, they may also suffer from low back pain and will benefit from prevention programmes for low back pain in the workplace. This study sought to determine the prevalence of low back pain among staff in a rural hospital. It also sought to determine the workers' knowledge about causes and prevention of low back pain and their practice with regard to treatment of their condition.

SUBJECTS AND METHODS

The study was a cross-sectional survey carried out among the staff in a rural hospital in Igboora, Oyo State in South-western Nigeria. Igboora is the rural practice area for medical students, resident doctors and consultants of the University College Hospital and the College of Medicine, University of Ibadan.

The Igboora Comprehensive Health Centre is a secondary healthcare facility which serves the people of Ibarapa local government area. The hospital employs 80 workers in the healthcare and administrative cadres. This comprises two doctors, 16 nurses, three laboratory staff, administrative staff, ward orderlies, cleaners, maintenance staff and workers in other categories.

A structured questionnaire was administered to all hospital staff by the resident community physician (U.S. Umar). The questionnaire sought information on the personal characteristics of the workers, socio-demographic variables, job history, smoking status, presence of any back pain in the previous 12 months, severity of low back pain, factors in their jobs predisposing to low back pain, treatment of their condition and knowledge about causes and prevention of low back pain.

Questionnaires were coded and analysed using Epi Info v. 6.2.

Correspondence to: Dr F. O. Omokhodion, Department of Preventative and Social Medicine, University College Hospital, Ibadan, Nigeria.
Tel/fax: +234 2 810 3751; e-mail: dhf.omokhodion@skannet.com
RESULTS

Socio-demographic characteristics

Seventy-four out of a total of 80 hospital workers completed the questionnaire, a response rate of 93%. Workers were aged between 20 and 60 years and the mean age (SD) of the respondents was 43.8 (±7.8) years. Forty-nine (66.2%) were men and 25 (33.8%) were women. Sixty-eight (92%) were married. Twenty-years. Forty-nine (66.2%) were men and 25 (33.8%) had never smoked, 16 (22%) were women. Sixty-eight (92%) were married. Twenty-five (73%) thought their back pain was related to injury at work. Ten respondents (29%) took some rest to relieve their back pain. They had taken a total of 14 days off in the previous year, a mean of about 5 days per person. Three respondents had taken sick leave as a result of lifting heavy objects. Twenty-one (27%) of respondents thought low back pain can be prevented by avoiding lifting heavy objects. Twenty-one (27%) of respondents thought low back pain can be prevented by avoiding lifting heavy objects.

Prevalence of back pain

The 12 months prevalence of back pain was 46%. Table 1 shows the distribution of back pain by occupation and gender. Of the 34 persons who indicated that they had had back pain in the previous 12 months, 23 (68%) rated it as mild, seven (20%) moderate and four (12%) severe. Twenty-five (73%) thought their back pain was related to the work they do in the hospital. Perceived causes of back pain among these workers is shown on Table 2. Back pain resulted from falls outside the workplace in 10 (29%) of the affected men and only in 1 (6%) of the affected women. This difference was not statistically significant. There was no relationship between age, educational status, smoking status and severity of low back pain (P>0.05).

Severity of low back pain

Low back pain was severe in three (16%) of the affected men and only in 1 (6%) of the affected women. This difference was not statistically significant. There was no relationship between age, educational status, smoking status and severity of low back pain (P>0.05).

Treatment of low back pain

Ten respondents (29%) took some rest to relieve their pain. Twenty-four respondents (70%) treated their low back pain with analgesics. Twenty-one of these took mild analgesics, such as paracetamol and aspirin, while three took strong analgesics, such as feldene and brufen.

Knowledge of the causes and prevention of low back pain

Respondents were asked to indicate three causes of back pain. Heavy physical work (40%), bending (18%) and prolonged standing (11%) were the most frequently mentioned. Twenty (27%) of respondents thought low back pain can be prevented by avoiding lifting heavy objects. Twenty-one (28%) thought avoidance of bending and five (7%) thought provision of good chairs will help to prevent low back pain at work. None of the respondents suggested the use of manual handling equipment or training in lifting heavy objects.

DISCUSSION

The prevalence of low back pain (46%) among hospital workers in this rural town is comparable with that of workers in industrialized countries. A 12-month prevalence of low back pain of 34% for office workers was reported in the Netherlands. A study of industrial
workers in Russia reported a 12-month prevalence of 31.5%. However, a much higher prevalence of 66.3% was reported among pharmaceutical workers in Israel. The 12-month prevalence of back pain in this study is within the range of 40–50% reported in a review of 80 publications concerning hospital workers.

It has been suggested that the prevalence of low back pain in low income countries is lower than in high income countries. The findings of this study do not corroborate this suggestion. Volinn’s allusion is based on reports from six low income countries, including Nigeria. The paper from Nigeria described the general health profile of rural dwellers in north-east Nigeria and did not focus on back pain in particular but listed it among several other symptoms of morbidity in the community. As a valid comparison of prevalence of low back pain in low and high income societies can only be made among studies with similar epidemiological designs and objectives, Volinn’s argument may not be tenable.

In this study, the prevalence of low back pain was higher among women than men. Some studies have reported this trend and others have shown no gender differences. The prevalence of low back pain was higher among current smokers and ex-smokers than in non-smokers, but this difference was not statistically significant. Smoking has been associated with low back pain in several studies although the biological mechanism is not understood.

Respondents in this study, as in other studies, associated low back pain with heavy physical work, bending, poor posture and prolonged sitting or standing. The need for re-design of jobs to reduce work load has been discussed in the literature but this is not a likely option in a rural hospital with only a basic infrastructure for providing healthcare. It is not surprising that the cost of manual handling equipment is not affordable for this small establishment. These factors reduce the scope of preventive measures among these workers.

Some respondents suggested the need to increase staff numbers in order to reduce the workload of each individual. As many sufferers from low back pain complain about being overworked, this may offer some relief. Other simple measures suggested by the respondents to reduce the brunt of low back pain is the provision of good chairs. This was suggested by two out of three laboratory staff. Laboratory stools are a particular problem as many are designed without any support for the back.

Treatment of back pain remains unsatisfactory. Twenty-nine percent of the respondents with back pain in this study took some rest to relieve their back pain while 70% take analgesics. Acute back pain may not be relieved by bed rest while some studies have shown the positive effects of exercise and continuous activity.

We conclude that the prevalence of back pain in this group of workers is comparable to that in workers in high income countries. Health education on posture and correct lifting techniques should be introduced in the workplace to reduce the burden of low back pain in low income countries.

REFERENCES


