

Prevalence of Low Back Pain among Farmers

Muhammed Kamruzzaman*

Consultant (Physiotherapy), Chittagong Pain, Paralysis, Physiotherapy & Rehabilitation Center, Bangladesh

***Corresponding Author:** Muhammed Kamruzzaman, Consultant (Physiotherapy), Chittagong Pain, Paralysis, Physiotherapy & Rehabilitation Center, Bangladesh.

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Abstract

Bangladesh is a land of agriculture and more than 80% people live on agriculture. Low back pain was found to be a cause of work absenteeism of working population. A cross sectional study was conducted among conveniently selected 200 farmers to assess prevalence of low back pain. This study was conducted in Norshingdi district in Bangladesh. A structured pretested questionnaire was used to collect data. Face to face interview as well as physical examination was done by physiotherapist and medical record was checked. Mean age was 30.83 ± 6.064 years. Mean working years was 14.58 ± 6.385 . Among the 200 participants 50.5% had low back pain. It is concluded from the study that half of the respondents suffered from low back pain. Back care education can be provided to the farmers.

Keywords: *Low Back Pain; Farmers*

Introduction

Farming is a hazardous activity (Lewis et al. 1998) which presents a range of threats to health (Essen., et al. 1998). MSDs affect millions of people around the world and are the most common cause of severe long-term pain and physical disability. In addition to their physical effects, MSDs affect the psychosocial status of individual and impact on their families and careers (Woolf et al. 2003). A survey of 15 European countries showed that agriculture is one of the industries with the most exposure to heavy physical loads (Paoli et al. 2001). A number of national and international studies have shown that farming is a physically demanding occupation with work tasks that can cause musculoskeletal disorders (MSD) (Osborne et al. 2010). A Swedish study found that the odds of reporting musculoskeletal problems were 51% higher among farmers than non-farmers (Holmberg et al. 2002). Farming is a physically demanding occupation with work tasks that cause MSDs and work disability such as lifting heavy objects, moving and carrying equipment and awkward working postures (Pinzke et al. 2001). Many type of work cause pain and discomfort when farmers are not aware of ergonomic consideration of their work task. Muscle soreness and other discomfort with injuries sometimes also associated with using tools of agriculture, which can actually occur from performing any number of activities. Infect misuse of the same muscles during multiple activities can create a problem. A lot of studies were done in abroad regarding this topic to determine the prevalence of low back pain but very few study was conducted on this regard in our country.

Methodology

Study Design: Cross sectional

Study Setting: This study was conducted in Norshingdi district of Bangladesh

Study Population: Farmers whose age between 18 to 40 years was included in this study.

Study Duration: The duration of the study was from March to December 2015.

Population Size: Total of 200 subjects was included for the study by using convenient sampling method

Criteria for Selection

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Inclusion criteria

- Those who gave consent and participated for interview
- Only male farmer age between 18-40 years
- Duration of working years was minimum 2years
- Exclusion criteria
- Refusal to give informed consent
- Age below 18 or above 40 years
- Data collection instrument / tools: An interviewer administered structured questionnaire was designed to collect information on related to low back pain among farmers, that was prepared in advance and evaluated by the principal supervisor before data collection.

Data collection procedure: Data collection was performed by face to face interview. Physical examination and medical record was also considered. Data management and analysis: After collection of data, all interview questionnaires were checked for its completeness correctness and internal consistency to exclude missing or inconsistent data. Corrected data was entered into the computer. The data were analyzed by using the statistical software namely SPSS [Statistical Package for Social Sciences].

Results

Age Group	Number	Percentage
18-27	78	39
28-37	110	55
38-40	12	6
Total	200	100
Mean	30.83±6.06	

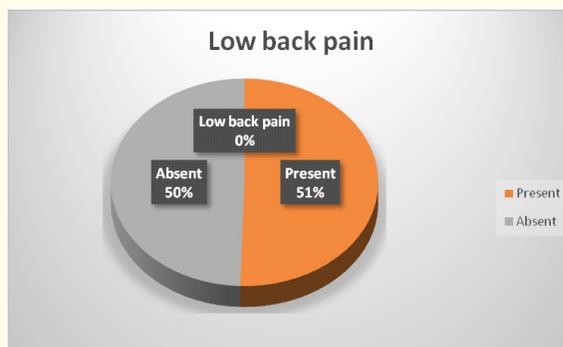
Mean age was 30.83 ±6.064 years. Distribution of age was 18–27 years: 39%; 28–37 years: 55%; 38–40 years: 6%.

Table 1: Age group of the study subjects

Working years	Number	Percentage
2-11	65	32.5
12-21	100	50
22-26	35	17.5
Working day /week		
1	0	0
2	5	2.5
3	13	6.5
4	182	91
Working hour/day		
<8	11	5.5
8-10	13	6.5
11-12	138	69
>12	38	19
Total	200	100

Among the respondent mean working years was 14.58±6.385. Distribution of working year was 2-11years: 32.5%; 12-21years: 50%; 22-26years: 17.5%. Among the all participants 2.5% worked once a week, 6.5% worked 2-3 days in a week and 91.0% worked 4 days per week. About 5.5% participants worked less than 8 hours in a day, 6.5% worked 8-10 hours in a day, 69.0% worked 11-12 hours and 19.0% worked more than 12 hours.

Table No. 2: Work related characteristics of the respondents



Among respondents 50.5% had low back pain.

Figure 1: Distribution of low back pain

Discussion

In this study 50.5% farmers had low back pain and 49.5% had no low back pain. Among the 200 participants more than half of the respondents suffered from low back pain. Dairy farming is physically demanding and associated with a high frequency of musculoskeletal disorders (MSD). This study investigated and compared work-related MSD, ergonomic work factors and physical exertion in farmers and employed farm workers on dairy farms in Sweden (Kolstrup, et al. 2012). In a survey of Southeast Kansas farmers (Rosecrance, et al. 2006) nearly 60% of the respondents reported that they experienced a farm work-related MSD symptom during the last 12 months, while a survey of self-reported work-related illness in Britain during 1995 found that 43 000 or 7% of the agriculture workforce ascribed MSDs to their work (Jones et al. 1998). According to the Swedish Work Environment Authority, 70% of reported occupational diseases among people engaged in Swedish farming relate to the musculoskeletal system, compared with 55% for all other occupations (Swedish Work Environment Authority. 2010). In the European Union, MSD are the most commonly reported work-related health problems, with 23% of European workers reporting that they suffer from aches and pains in the musculoskeletal system (European Agency for Safety and Health at Work 2007). In a number of studies, male farmers reported significantly more musculoskeletal symptoms than other occupationally active men in Sweden, (Holmberg et al. 2002) Finland (Manninen, et al. 1996) and other countries (Maetzel, et al. 1997). Recent reviews concluded that twisting, bending, manual material handling and exposure to whole-body vibrations were risk factors for low back pain (Burdorf, et al. 1997). However, the impact of heavy physical work in general on low back problems is still inconclusive. In addition, psychosocial factors seem to have a large impact on neck and shoulder problems, as well as on low back pain (Barnekow-Bergkvist, et al. 1998). In a previous study, we found that farmers reported significantly more hand and forearm problems, low back pain and hip problems than non-farmers, and tended to have more neck and shoulder and knee problems (Holmberg et al. 2002).

Conclusion

This study concludes that more than half of the farmers suffer from lower back pain.

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