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Pattern of work-related musculoskeletal disorders and health seeking behaviour of hospital cleaners and labourers in a tertiary health institution.

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Abstract

Hospital cleaners and manual labourers suffers work-related musculoskeletal disorders like other health workers. Pattern of work-related musculoskeletal disorders and the health seeking behaviour of these group of health workers was investigated. The cross-sectional study recruited 31 manual labourers and 50 ward cleaners who has worked for more than one year. Data on demographic characteristics, work experience, pattern of musculoskeletal disorders and health seeking behaviour were obtained using a self-administered questionnaire. Data were summarized using a descriptive statistics of percentage and frequency distribution. Low back (44.0%), neck (26.0%) and the knees (16.0%) are the body region mostly affected by musculoskeletal pain among ward cleaners, while low back (35.5%), shoulder (22.6%) and hand/wrist (16.1%) are the body region mostly affected by musculoskeletal pain among manual labourers. Only 22 (44.0%) ward cleaners and 9 (29.0%) manual labourers sought for medical attention in the hospital while, 28 (56.0%) ward cleaners and 22 (70.97%) manual labourers resulted into self-medication. Hospital cleaners and manual labourers have health needs which must be met. Health care services in the hospital should be made available to the cleaners and labourers at a more affordable costs. Moreover, the cleaners and labourers should be educated on safe working environment, adoption of proper body posture at work and danger of self-medication.

Keywords: Work-related musculoskeletal disorders, Health Seeking Behaviour, ward Cleaners.

Introduction

Work-related musculoskeletal disorders (MSDs) are musculoskeletal disorders that occur as a result of injury sustained in a work-related accident. They are impairments of the bodily structures, which are caused or aggravated primarily by the performance of work and by the effects of the immediate environment in which work is carried out (Talaka, 2007).

Several epidemiological studies have identified various risk factors for the development of MSDs. Awkward working postures, repetitive use of body part, previous or existing injuries, prolong standing, demographic factors (Fenske and Simcox, 2000; Mani and Gerr, 2000) poor lifting techniques (Dampsey, 2003; Water et al, 1994) and the absence of effective work injury prevention programs have resulted in a high rate of MSDs among workers (Bernard,1997; Anderson 1999).

Previous studies on MSDs have indicated that, lower back, neck, shoulder, forearm, and hand are the most common body parts that suffered MSDs (Bolarinde et al., 2019). The one year prevalence rate of neck (52.4%), upper back (54.8%) and lower back pain (72.8%) was reported among sewage and sanitary workers in Indian (Friedrich et al, 2000). Similarly 12-months prevalence rate of WMSDs among Nigerian nurses was found to be (48.0%) neck, (29.0%) upper back , (60.0%) lower back and (33.3%) for knees (Bolarinde et al., 2019)

Cleaning works in many of the tertiary health facilities in Nigeria are contracted to cleaning companies which in turn employ unskilled personnel as ward cleaners and manual labourers to work for them (Manyele et al.,2008). The unskilled ward cleaners and manual labourers play a very important role in the workings of the hospital. The duties of ward cleaners include cleaning of main wards, private patients' rooms, nursing units, surgical areas, administrative offices, laboratory areas, waiting areas and public restrooms. They also clean furniture, polish floors and vacuum carpets. They empty trash and re-stock medical supplies. Hospital cleaners also collect dirty laundry from all patient areas and distribute the clean linen and hospital gowns back to the appropriate quarters (Cawkrodger et al., 2006).The hospital cleaners due to the nature of job are prone to different health problems and diseases; chief among these, as documented in previous studies, are musculoskeletal disorders like muscular aches, pains and discomfort which may affect the neck, upper limbs and low back; respiratory disorders like asthma, bronchitis (Bello et al.,2009); occupational diseases like Hepatitis B infection, HIV/AIDS (Delcos et al., 2006); skin disorders like dermatitis and psychosomatic disorders (Amosu et al., 2011).

The manual labourers are the gardeners who are responsible for planting, pruning, watering of ornamental crops, weeding, raking of undesirable plants and maintenance of a hospital environment. Manual labourers sometimes suffers physical strain due to activities that involve manual handling of equipment, prolonged repetitive movements in different postures which results in joints pain, swelling, muscle stiffness and back pain (Bigoniya et al., 2010).

Health seeking behaviour has been defined as a sequence of remedial actions that individual undertake to rectify perceived ill-health and has become an important tool for understanding how people engage with the health care systems in their respective socio-cultural, economic and demographic circumstances (Abbas,2009). Health seeking behaviour of people who suffered from musculoskeletal pain varies from culture to culture (Peacock and Patel, 2008). Like in any developing country, several factors such as the severity of the symptoms of illness, distance to facilities, cost of treatment, income, level of education, availability and quality of healthcare facilities are determinants of health seeking behaviour of Nigerian populace of which cleaners and labourers belong (Tanimola and Julius, 2009).

The provision of health care services for hospital cleaners and manual labourers who are contract staff in many of the tertiary health facilities in Nigeria are left in the hands of the cleaning companies who employed these categories of staff to work for them, however, despite the importance of the role perform by these health workers, less importance is placed on their health needs by the hiring companies and health facilities they work for. This study therefore aimed to determine the pattern of work-related musculoskeletal disorders among ward cleaners and manual laborers of Federal Medical Centre, Owo, Ondo State, Nigeria and also to investigate their health seeking behavior.

Materials and Method

The cross-sectional survey recruited 31 manual labourers and 50 ward cleaners who has worked for not less than a year within the Federal Medical Centre, Owo, Nigeria. The study protocol was approved by the Health Research Ethics Committee of Federal Medical Centre, Owo (FMC/OW/380/LXV11/173). The rationale behind the study was explained to all participants and informed consent was granted from them before their participation. The survey instrument for the study was a four sectioned questionnaire. Section A was on demographic profile, while section B was on occupational history. A standardized Nordic questionnaire sought information on the symptom-survey of the occupational health in ward cleaners and manual laborers. Section C sought information on health seeking behavior. Data were summarized using Statistical Package for Social Science (SPSS) version 20.0 software. Results were presented in the percentages and frequency tables.

Results

A total number of 50 ward cleaners (3 male; 47 female) and 31 manual labourers (26 male; 5 female) participated in this study. The highest percentage in the age distribution for ward cleaners was in the range of 31-35 (34.0%) while the highest age distribution for manual labourers was 36-40 (32.3%). Greater proportion of the ward cleaners (66.0%) and manual labourers (54.8%) had secondary school education. 92.0% of the ward cleaners and 90.3% of manual labourers are married. The result also shows that all the ward cleaners (100%) and manual labourers (100%) made use of manual working tools at work. 94.0% of ward cleaners and 70.9% of manual labourers work for greater than 20 hours weekly. Furthermore, 58.0% of ward cleaners have been working for 2 years while 51.6% of manual labourers have been working for 4 years. The socio-demographic and occupational characteristics of respondents is represented in Table 1.

Table 1: Socio-Demographic and Occupational Characteristics of Respondents

Variables	Ward Cleaners (N=50)		Gardeners (N=31)	
	n	%	n	%
Age Group (years)				
21-25	0	0.0	1	3.2
26-30	11	22.0	7	22.6
31-35	17	34.0	8	25.8
36-40	7	14.0	10	32.3
41-45	11	22.0	5	16.1
46-50	4	8.0	0	0.0
Gender				
Male	3	6.0	26	83.9
Female	47	94.0	5	16.1
Academic Qualifications				
No Formal education	0	0.0	2	6.5
Primary	16	32.0	12	38.7
Secondary	33	66.0	17	54.8
Tertiary	1	2.0	0	0.0
Marital Status				
Single	4	8.0	3	9.7
Married	46	92.0	28	90.3
Widow	0	0.0	0	0.0
Separated	0	0.0	0	0.0
Divorced	0	0.0	0	0.0
Work Experience				
< 1 year	6	12.0	1	3.2
1-2	29	58.0	12	38.7
3-4	12	24.0	16	51.6
5-6	3	6.0	0	0.0
>6	0	0.0	2	6.5

Types of working tools				
Manual Implements	50	100.0	31	100.0
Energy saving work tools	0	0.0	0	0.0
Duration of continuous work per week				
1-5 hours	3	6.0	9	29.0
6-10 Ours	33	66.0	16	51.6
>10 hours	14	28.0	6	19.4

Table 2 shows the pattern of musculoskeletal pain suffered by both ward cleaners and manual labourers. The result shows that, low back (44.0%), neck (26.0%) and the knees (16.0%) are the body region mostly affected by musculoskeletal pain among ward cleaners in the last 12 months. Similarly, 38.0% of ward cleaners had been prevented from work as a result of low back pain while 14.0% and 8.0% were also prevented from working due to neck pain and knee pain respectively. The result also shows that, low back (35.5%), shoulder (22.6%) and hand/wrist (16.1%) are the body region mostly affected by musculoskeletal pain among manual labourers in the last 12 months. Similarly, 35.5% of manual labourers had been prevented from work as a result of low back pain while 25.8% and 16.1% were also prevented from working due to shoulder pain and hand/wrist pain respectively.

Table 2: Pattern of Musculoskeletal Pain by Body Region

	Ward Cleaners N=50			**Gardeners N=31**		
Musculoskeletal pain distribution	**Had suffered pain in the last 12 Months (%)**	**Had pain that prevented work in the last 12 Months (%)**	**Had suffered pain in the last 7 Days (%)**	**Had suffered pain in the last 12 Month (%)**	**Had pain that prevented work in the last 12 Months (%)**	**Had suffered pain in the last 7 Days (%)**
Neck	13 (26.0)	7 (14.0)	8 (16.0)	-	-	-
Shoulder (One or Both)	4 (8.0)	6 (12.0)	4 (8.0)	7 (22.6)	8 (25.8)	1 (3.2)
Elbow (One or Both)	1 (2.0)	3 (6.0)	1 (2.0)	1 (3.2)	2 (6.5)	2 (6.5)
Wrist/Hand (One or Both)	3 (6.0)	3 (6.0)	1 (2.0)	5 (16.1)	5 (16.1)	-
Upper Back	8 (16.0)	8 (16.0)	4 (8.0)	1 (3.2)	1 (3.2)	1 (3.2)
Low Back	22 (44.0)	19 (38.0)	9 (18.0)	11 (35.5)	11 (35.5)	5 (16.1)
Hips/Thigh (One or Both)	3 (6.0)	3 (6.0)	3 (6.0)	3 (9.7)	2 (6.5)	-
Knees (One or Both)	8 (16.0)	4 (8.0)	4 (8.0)	3 (9.7)	2 (6.5)	-
Ankles/Feet (One or Both)	2 (4.0)	2 (4.0)	2 (4.0)	3 (9.7)	3 (9.7)	3 (9.7)

Table 3 shows the health seeking behaviour of the participants. The result shows that 22 (44.0%) ward cleaners and 9 (29.0%) manual labourers sought for medical attention in the hospital when they suffered work-related musculoskeletal pain. However, greater proportion (68.2% ward cleaners and 55.6% manual labourers) of those who sought medical intervention used pain killers to relief their pains. The result also showed that 28 (56.0%) ward cleaners and 22 (70.97%) manual labourers resulted into self-medication whenever they suffered work-related musculoskeletal pain. Over the counter prescription was the most common form of self-medication used by 53.6% of the ward cleaners and 50.0% of the manual labourers. The major reasons for not seeking medical intervention in the hospital among the respondent was due to lack of fund (60.7% ward cleaner; 68.2% manual labourers) to pay for medical treatment.

Table 3: Health Seeking Behaviors of Respondents

Health Seeking Behaviors	Ward Cleaners N=50		Gardeners N=31	
	n	%	n	%
Medical Consultation in Hospital	**22**	**44.0**	**9**	**29.0**
Pain killers	15	68.2	5	55.6
Topical analgesic cream	5	22.7	4	44.4
Physiotherapy	2	9.1	0	0.0
Sought Self-Medication	**28**	**56.0**	**22**	**70.9**
Herbal Concoction	0	0.0	1	4.6
Over Counter Prescription	15	53.6	11	50.0
Hot water fermentation	8	28.6	3	13.6
Massage with local balm	5	17.8	7	31.8
Reasons for Self-Medications	**28**	**56.0**	**22**	**70.9**
Time wastage in waiting for consultation	1	3.6	0	0.0
Lack of fund	17	60.7	15	68.2
Too expensive	10	35.7	7	31.8

Discussion

This study was carried out to assess the pattern of musculoskeletal pain and health seeking behaviour of hospital cleaners and manual labourers in Federal Medical Centre, Owo, Ondo-state. Female workers accounted for the majority (94.0%) of the ward cleaners while males (83.9%) accounted for the majority of the manual labourers. This result is in line with the findings from Ilesanmi et al., (2014) where 92.4% of the cleaners were female. This shows that cleaning job is female dominated while manual labourers is a male dominated job. More than half of the ward cleaners (66.0%) and manual labourers (54.8%) had at least secondary school education. This shows that they were not illiterates hence could not get a skilled employment in the hospital settings.

This study revealed that the low back region (44.0%) is the most prevalent body part for pain experienced in the last 12 months among the ward cleaners, followed by neck (26.0%) and knees (16.0%), while amidst the manual labourers, musculoskeletal pain is most prevalent at the low back region (35.5%), followed by shoulder (22.6%), wrist and hand (16.1%). This finding is in agreement with previous comparable studies that reported low back pain as the most common work-related musculoskeletal disorders among Indian sanitary workers (Friedrich et al, 2000), Nigerian physiotherapists (Adegoke et al., 2008), nurses (Bolarinde et al., 2019), and hospital cleaners (Ilesanmi et al., 2014). The prevalence of WMSDs observed in this study could be attributed to the physical nature of activities among cleaners which involves repeated bending, stooping and maintenance of awkward postures at work. Similarly, the mechanical nature of the working implements (cutlasses) and the working postures of manual labourers which is usually characterised by prolonged repetitive movement, twisting at the low back, arm swinging during cutting of grasses and poor lifting techniques at work could be responsible for affectation of low back, shoulders and wrist pain.

More than half of the participants have had pain in the last 12 months and had been prevented from work for more than three days. Low back pain (38%) and upper back (16%) pain are the major reasons for absenteeism from work among ward cleaners while among manual labourers, low back (35.5%) and shoulder (25.8%) pain are the leadings cause of absenteeism. This is in line with results from previous studies that concluded that musculoskeletal pains remains the major causes of absenteeism from work (IASP, 2009; Stewart et al., 2003).

In the present study, only 44.0% of ward cleaners, and 29.0% of manual labourers received healthcare in the hospitals whenever they had work-related musculoskeletal pains while greater proportion 56.0% (ward cleaners) and 70.9% (manual labourers) resulted into self-medication. The result however contradicts the findings of Ilesanmi et al., (2014), which concluded that 78.0% of hospital cleaners utilized healthcare facilities whenever they suffered work-related musculoskeletal pains.

The reasons given by the participants for not accessing healthcare within the health facility where they work was mostly due to lack of funds and expensive cost of healthcare services. This result support the findings of Sule et al., (2008) in a similar study where perceived high cost was among the reasons identified for low utilization of healthcare services in Nigeria.

Conclusion and Recommendation

This study showed that low back pain is the most common wok-related musculoskeletal symptoms among hospital cleaners and manual labourers resulting in absenteeism from work for more than 3 days. The study also showed that more than half of the hospital cleaners and manual labourers could not assess healthcare services due to lack of funds and high cost of healthcare.

There is the need for employers of labour to shift from the provision of manual working tools to energy saving/ motorised working tools for cleaners and labourers. Similarly, adequate provisions should be put in place to meet the health care needs of cleaners and labourers. Health care services in the hospital should be made available to the cleaners and labourers at a more affordable costs. Moreover, the cleaners and labourers should be educated on safe working environment, adoption of proper body posture at work and danger of self-medication.

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