

Knowledge, Attitude and Practice Survey on Body Posture Among Healthcare Workers in Federal Medical Centre Owo, Ondo State, Nigeria

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Abstract:

Background: Health-care Professionals are constantly exposed to work-related musculoskeletal disorders which bring about deleterious effects on their well-being. A better understanding of ergonomic risk factors and appropriate working posture are important in overcoming various musculoskeletal disorders commonly reported among health care workers. Good posture can lead to good appearance; poise, integrity, and dignity. **Aims and objectives:** The objectives of this study were to assess the knowledge of body posture, attitude towards good posture and practice patterns for posture among health care health care professionals. **Materials and methods:** The cross-sectional survey recruited 136 health care professionals from Federal Medical Centre, Owo, Ondo State, South-Western Nigeria. Ethical approval was obtained from the Health Research Ethics Committee of Federal Medical Centre, Owo, Ondo State, Nigeria. Informed consent of all participants was sought and obtained after the rationale behind the study has been explained to them. A self-administered questionnaire was used to assess Knowledge, Attitude and Practice of Good Posture among the participants. Data were summarized using descriptive statistics of percentage and frequency tables. **Results:** 66(48.5%) were males while 70(51.5%) were females. 24.3% of the respondents are Doctors; 36.8% Nurses; 7.4% Pharmacists; 8.8% Radiologists; 10.3% Dentists; MLS 8.8% and Optometrists 3.7%. The result also showed that 63.2% of the participants had good knowledge of good posture. 89% positive attitude towards good posture, while only 27.9% had good practice of good posture. **Conclusion:** Majority of Health Care Professionals in this study demonstrated adequate knowledge of good posture and positive attitude towards good posture. However, only one-quarter of the participants demonstrated good practice of good posture in their day-to-day activities which shows that good knowledge and attitudes does not always translate into good practice.

Keywords: Knowledge, Attitude, Practice, Posture



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1. Introduction

In almost every workplace there are a number of job-related factors that threaten health and safety of employees. This is the case for health-care workers in hospitals and clinical settings, where there are high levels of physical and mental demands in their job that threaten their health status [1]. Health-care workers are constantly exposed to workplace hazards which could be biological, chemical, physical, social, or mechanical in nature. These hazards and continuous exposure to them are known to bring about deleterious effects on the well-being of those exposed, who in this case, are health care professionals providing health care and include physicians, dentists, nurses, physiotherapist, hematologists, pathologists, radiologists, surgeons and orderlies [2]. Thus, in order to maintain an acceptable level of work performance and health status of employees, it is necessary to plan and organize the jobs appropriately based on scientific methods.

A better understanding of ergonomic risk factors in each working environment is important because such risk factors can lead to a number of adverse consequences among employees. There is evidence that inappropriate working postures can contribute to the development of musculoskeletal disorders among workers in different occupational groups [3]. A number of previous studies have also shown a high prevalence of musculoskeletal symptoms in different body areas of nurses, physiotherapists, orderlies and doctors particularly in the low back, neck, shoulders and knees [4]. The high prevalence of musculoskeletal symptoms in this job may be attributed to high physical demands and inappropriate working postures that have to be maintained for a long period of time during a working shift.

Posture is the alignment or orientation of body segments by maintaining an upright position. Posture is also defined as the mechanical relationship of the different parts of the body with each other [5]. Posture is conditioned not only by behavioral patterns but also by physical environment characteristics [6]. Healthy posture is the state of muscle and skeletal equilibrium that protects the body structures independently of attitude (erect, sitting, stooping, bend) or in which these structures are functioning or resting against injury or progressive deformity. In such situation's muscles function more effectively and thoracic and abdominal organs are given optimal position [7]. Bad posture can cause fatigue, muscular strain and can cause pain in later stages. Many people with chronic back pain may trace years of defective postural behavior to their issue. Furthermore, poor posture, particularly in the abdominal; region, can affect the position and function of your vital organs. Poor posture is a modern-day health problem that is far worse than most people naturally assume [8]. Good posture can lead to good appearance; poise, integrity, and dignity are projects of the individual with good posture. It is therefore important that back muscles and joints are in excellent state.

There is therefore the need to create awareness among the health-care workers regarding the association between poor and sustained postures and musculoskeletal disorder [9]. According to International Association for the study of Pain, musculoskeletal pain from overuse affects 33% of adults and accounts for 29% of lost

workdays due to illness [10]. Low back pain is most prevalent and most common work-related injury in Western society and it is the most costly work-related musculoskeletal disorder. Also, the hospital departments that presented more significant risks for musculoskeletal disorder are nutrition, cleaning and laundry services being the top ranked [11]. Epidemiologic studies of workers have associated these musculoskeletal disorders with many work-place physical and psychosocial factors.

Specific physical factors associated with these disorders include intense, repeated, or sustained exertions, awkward, sustained, or extreme postures of the body, excessive workload, insufficient recovery time, vibration, and cold temperatures. The realization of the complaints of some clinical staff of Federal Medical Centre Owo, Ondo state on occurrence of musculoskeletal pain stimulated the interest embodied in this study to assess the knowledge, attitude and practice survey on body posture among the health-care workers of Federal Medical Centre Owo, Ondo state.

This study therefore assessed knowledge, attitude and practices of healthcare workers in Federal Medical Centre Owo, towards postural management.

2. Materials and Methods

This cross-sectional study involved 136 consenting health care professionals from Federal Medical Centre, Owo who met the inclusion criterion. Medical Interns, House officers and those on permanent employment with less than one year working experience in the study center were excluded from the study. Physiotherapists, Clinicians who have had recent surgeries or traumas as well as those suffering from musculoskeletal diseases/deformity were also excluded from the study.

Ethical approval was sought and obtained from the Ethical Review Committee of Federal Medical Centre, Owo, Ondo State, before the commencement of this study. Informed consent was obtained from all participants after assurance of anonymity and confidentiality of their information. The questionnaire was self-administered and was retrieved immediately on completion

Data on Knowledge was collected using the level of awareness of body use in young people [12]; it consists of 13 images which are related to correct and incorrect body postures of various activities in daily life. For the attitude section, data was collected using instrument adopted from the work of Ngarale et al [13]. The questionnaire for Practice Patterns, questionnaire on body awareness of Postural Habits of Young People (Q-BAPHYP) [14] was adopted. There are 32 close-ended questions which have 3 dimensions for posture perceptions:(office questions 11, home questions 17, and 4 questions on carrying objects), the respondents can pick from 1-5 for Never, Rarely, Frequently, Always and Don't Know/Remember respectively.

Data obtained was analyzed using Statistical Package for Social Science (SPSS version 20.0), results were summarized using percentages and frequency tables.

3. Results

The socio-demographic characteristics of respondents were presented in table 1. A total of 200 questionnaires were distributed in this cross-sectional study, 168 were retrieved while only 136 were found valid for data analysis. 66 (48.5%) participants were male and 70 (51.5%) participants were female. 32(23.5%) of the participants had their ages ranged between 20-30, 54 (39.7%) ranged between 31-40, 31 (22.8%) between 41-50 while 19 (14.0%) had their ages ranged from 51-60. Only 96 (70.6%) participants were Yoruba, 27 (19.9%) participants were Igbo, 1 (.7%) was Hausa and 12 (8.8%) participants belongs to other tribes. Participants comprised of 50 (36.8%) Nurses, 33 Doctors (24.3%), 10 Pharmacists (7.4%), 14 dentists (10.3%) and 5 optometrists (3.7%) while Med. Lab Scientist and Radiologists had only 12 (8.8%) participants each. 71 of the participants were married while 65 were single. A significant number of the participants 98(72.1%) have between 0-5 years of work experience at the study center, only 14(10.3%) have more than 21 years of work experience at the same center.

Table 1. Socio-demographic and working profiles of the participants

Variable	Frequency n (%)
Gender	
Male	66(48.5)
Female	70(51.5)
Marital status	
Single	65(47.8%)
Married	71(52.8%)
Age	
20-30	32(23.5%)
31-40	54(39.7%)
41-50	31(22.8%)
51-60	19(14.0%)
Tribe	
Yoruba	96(70.6%)
Igbo	27(19.9%)
Hausa	1(.7%)
Others	12(8.8%)
Designation	
Doctors	33(24.3%)
Nurses	50(36.8%)

Years of experience	Pharmacists	10(7.4%)
	Radiologists	12(8.8%)
	Dentists	14(10.3%)
	MLS	12(8.8%)
	Optometrists	5(3.7%)
	0-5	98(72.1%)
	6-10	5(3.7%)
	11-15	18(13.2%)
	16-20	1(.7%)
	21-above	14(10.3%)

The result also shows that 95.5% of the respondents had good knowledge of good standing posture, 92.6% of sitting on high back rest, 86.8% of carrying a backpack, while 71.3% had good knowledge of correct mattress usage however. 75% of the respondents had poor knowledge of doing a work in front of a table at hip level in standing Table 2.

Table 2. Table of respondents' knowledge of body posture

	Variables	Good knowledge	Poor knowledge
1	Doing a work in front of a table at hip level in standing	34(25%)	102(75%)
2	Standing erect	130(95.5%)	6(4.4%)
3	Washing clothes manually	100(73.5%)	36(26.5%)
4	Sitting on a high backrest	126(92.6%)	10(7.4%)
5	Sitting on a low backrest chair	100(73.5%)	36(26.5%)
6	Driving	115(84.6%)	21(15.4%)
7	Keeping a weight in a cupboard at higher level	94(69.1%)	42(30.9%)
8	Carrying one object	88(64.7%)	48(35.3%)
9	Carrying water bucket	123(90.4%)	13(9.6%)
10	Carrying a backpack	118(86.8%)	18(13.2%)
11	Sleeping	75(55.1%)	61(44.9%)
12	Correct mattress usage	97(71.3%)	39(28.7%)

The results of overall knowledge are presented in table 3. Some of the questions assessed respondents' knowledge about the postures to assume while doing work in front of a table at hip level, driving, gardening, sleeping, carrying objects, sitting and standing. The result shows that majority of respondents 86 (63.2%), had good knowledge of body posture as they were able to correctly respond to 10 or more of the 12 questions asked to assess their knowledge. 48 (35.3%) of the respondents however, had fair knowledge about body posture and only 2 (1.8%) had poor knowledge.

Table 3. Table 3: Showing the overall Knowledge of the participants towards body posture

Level of knowledge	Frequency (n= 136) (%)
Good knowledge (selected 10-12 correct options)	86 (63.2%)
Fair knowledge (selected 6-9 correct options)	48 (35.3%)
Poor knowledge(selected 1-5 correct options)	2 (1.8%)

Presented in table 4 are the results of respondents' attitude toward maintenance of good posture at work. Almost all the respondents had good attitude 121 (89%) as they correctly responded to questions asked to assess their attitude. While 15 (11%) demonstrated poor attitude to body posture.

Table 4. Showing the overall attitude of the participants towards body posture

Attitude	Frequency (n= 136) (%)
Good Attitude (selected 4-7 correct options)	121 (89%)
Poor Attitude (selected 1-3 correct options)	15 (11%)

Table 5 shows the overall practice patterns of the participants towards body posture. Majority of respondents had fair practice 88 (64.7%) as they correctly responded to questions asked to assess their practice. 38 (27.9%) of the respondents, however, had good practice patterns on their body posture and only 10 (7.4%) had poor practice.

Table 5. Showing the overall practice patterns of the participants towards body posture

Practice patterns	Frequency (n= 136) (%)
Good Practice (selected 22-32 correct options)	38 (27.9%)
Fair Practice (selected 11-21 correct options)	88 (64.7%)
Poor Practice (selected 1-10 correct options)	10 (7.4%)

4. Discussion

A lot of work-related musculoskeletal disorders are as a result of bad posture. This cross-sectional study was aimed at ascertaining the knowledge level, the attitude and the practice patterns of health care professionals working in Federal Medical Centre Owo with a view of promoting good postural practices. A self-administered questionnaire was used and the sample size of the study was n=136.

Majority of the respondents had relatively low years of work experience at the study centre, this was expected as more than half of them are 40 yrs or younger, this is also similar to the findings of Zhang et al, [15] where only 36% of their participants had more than 9years of working experience. Most of the respondents (71%) are from the Yoruba tribe; this was also expected as the study centre is located in the south-western part of Nigeria.

Knowledge was assessed by exploring the respondent's familiarity with different body postures while carrying out their daily activities. In this study, 63.2% had knowledge about good posture; this is consistent with the findings of Kousar et al, [7] on knowledge, attitude and practice of posture among physiotherapy students where a significant number of the participants (80%) had good knowledge about their posture. Also consistent with the findings of Ephraim-Emmanuel et al, [16] on knowledge, attitude and practice of preventing the occurrence of work-related musculoskeletal disorders among Doctors in University of Port-Harcourt Teaching Hospital where they found that majority of their respondents (96.4%) had good knowledge of musculoskeletal system disorders' prevention at work. The observed high knowledge of the respondents in the present study could be attributed to the fact that, the respondents are health care professionals who have been trained in health-related matters and are in position to educate their patients on prevention of musculoskeletal problems associated with poor posture at home and at work. It is therefore expected that health care professionals should be knowledgeable in good postural awareness for maintenance of good body alignment and injury preventions.

In the current study, 89% of the participants had positive attitude towards maintenance of good posture during activities of daily living. This finding is consistent with the result of a study by Al hazim et al, [17] where they reported that, greater proportion of undergraduate in Faculty of Dentistry, Tanta University, Egypt had positive attitude towards ergonomics. This is also similar to findings of Al hazim et al, [7] where 83.2 % of the participants showed positive attitude towards good posture. The reason for the high level of positive attitudes towards maintenance of good posture during activities of daily living could be adduced to good knowledge they possessed about body posture.

Furthermore, in the present study, only 64.7% of the participants had fair practice of good posture in their daily activities. This finding seems to support the results of Ephraim-Emmanuel et al [16] that reported 68.6% of respondents to have fair practice of ergonomic principle during activities of daily living similarly, the findings of

Kousar et al, [7] reported that, 64.9% of students had frequently practice of good posture in classroom and daily activities. The result however revealed that only 27.9% of the respondents had good practice of good posture in their daily activities. This proportion is low compare with that of knowledge and attitude which shows that good knowledge and attitudes does not always translate into good practice [18].

5. Conclusion

Majority of the participants in this study had adequate knowledge of good posture, they also demonstrated positive attitude towards good posture while only one-quarter of the participants demonstrated good practice of good posture in their day-to-day activities.

Recommendations

Based on the findings of this study, the following recommendations were made: further educational and enlightenment programs on the benefits of good practice regarding ergonomics at work place and homes be encouraged; ergonomic principles should also be included in the undergraduate health curriculum for all health care workers, with emphasis on practicing ergonomics in their routine clinical work; further observational studies could be done to assess health workers postures during clinical procedures.

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