

Original Article

The Prevalence, Risk Factors and Coping Measures of Back pain Among Nurses in Federal Medical Centre, Abeokuta, Ogun State, Nigeria

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Abstract

Background: Back pain is one of the leading skeletal health problem worldwide and a common complaint among nurses. It directly affects nurses' productivity at work and reduces the overall amount and quality of health care the clients receive.

Objective: This study assessed the prevalence, risk factors and coping measures of back pain among nurses in Federal Medical Centre, Abeokuta, Ogun state, Nigeria.

Methods: A descriptive cross-sectional study in which self-structured questionnaire were used to obtain information from 228 respondents conveniently selected from all units of nursing department. SPSS version 20 software was used for analysis and results were presented with frequency tables and percentages while chi square and t-test were used for hypotheses testing. **Results:** The respondents comprised of male 68 (29.8%) and female 160 (70.2%) nurses with mean age of 35.5 ± 17.40 years. About half 113 (49.56%) of the respondents have 6 to 10 years' experience. Prevalence of back pain is higher with nurses working in surgical ward (45.2%). Major work-related activities that causes back pain among respondents are, maintaining a particular position for a long period 187 (82.02%) and lifting of patients 185 (81.14%). Main back pain coping strategies adopted by the respondents are, asking for assistance when handling patients 193 (84.6%), modifying work procedures 191 (83.8%) and regular exercise 173 (75.9%). There were significant relationships between the prevalence of back pain and marital status/number of children; years of experience and the coping strategies adopted (Significant at 0.05 probability level).

Conclusion: There is high prevalence of back pain among nurses at FMC, Abeokuta, Ogun State, Nigeria and diverse coping strategies are adopted. Educational programmes on prevention and coping strategies for back pain are recommended.

Key Words: Prevalence, Risk factors, coping measures, Back pain, Nursing

Introduction

Pain is defined as an unpleasant and emotional experience associated with actual or potential tissue damage (Williams and Craig, 2014). It is a

major symptom in many medical conditions and can significantly interfere with a person's quality of life and general functioning (<http://www.lasp.pain.org>, 2012). Pain is an unpleasant emotional state felt in the mind but

identifiable as arising in a part of the body. It is a defense mechanism designed to make the subject protect an injured part from further damage (Sikiru and Hanifa, 2010). Back pain is well documented as an extremely common skeletal health problem worldwide that 50% to 80% of people experience it at least once in their life time (Asadi et al., 2016). It is the leading cause of activity limitation and work absence throughout the world and it causes an enormous economic burden on individuals, families, communities, industries and governments. A high prevalence of back pain among health care workers has persisted over the years despite extensive efforts in primary prevention in different countries (Rasmussen et al., 2013).

Back pain predominantly affects the working population in both developed and developing nations, causing disability in individuals (World Health Organization (WHO, 2010; Lela, Frantz and Mukaruzima, 2012). Chronic back pain may originate from an injury, disease or stresses of different structures of the body, with intensity that may range from mild to severe. Nursing is well established as a high risk occupation for musculoskeletal disorders and in particular, low back pain. It is estimated that 3.5% of nurses are leaving the profession due to back pain (Serranheira et al., 2012; Asadi et al, 2016).

Although several risk factors have been identified among nurses; including occupational posture, depressive moods, obesity, body height and age, the causes of the onset of back pain remain obscure and the diagnosis is difficult to make (Costa and Vieira, 2010). Most physical risks contributing to back pain in nurses are focused on occupational factors such as extent of bending and lifting (Hodder et al., 2010). A range of personal physical factors, including reduced cardiovascular fitness, poor back muscle endurance, altered motor control patterns, poor spinal posture and reduced sagittal range of motion also contribute to back pain (Van Dienn et al., 2012; Boden et al., 2012). In addition, lifestyle factors such as physical inactivity and high levels of vigorous physical activity have been associated with back pain.

The coping measures commonly used for prevention and reduction of back pain is to decrease the physical workload with ergonomic interventions such as introducing assistive, lifting devices and training of correct lifting procedures. Also, the importance of involving the participants in planning and controlling a significant amount of their own work activities (participatory ergonomics) is reported to be effective for preventing backache and sickness absence (Rasmussen et al., 2013).

Back pain directly affects nurses productivity at work and reduces the overall amount and quality of health care the clients receive. It causes a considerable economic burden, presenting a major cause of medical expenses, absenteeism and disability. It is a prevalent and complex problem among nurses which may have a positive impact on the lives that they touch at work. If this problem is not well addressed, it may cause despair and discomfort for the individual and it is costly for the employers and the society. More so, it can lead to several consequences such as impaired quality of life, work-disability, sickness absence and premature retirement.

In the light of all these, researchers curiously wish to investigate the prevalence, risk factors and coping measures of back pain among nurses at Federal Medical Centre, Idi-Aba, Abeokuta.

Materials and Methods

Study design: A descriptive cross-sectional design was used for the study. Self structured questionnaires was used to obtain essential information from respondents in line with the research objectives.

Study population: The study was carried out among all cadre of nurses currently working in Federal Medical Centre, Abeokuta, Ogun State, Nigeria, who are available at the time of data collection and agreed to participate in the study.

Sample size determination: The sample size for the study was statistically calculated using Yamane formula to arrive at 228 respondents from sample frame of 425.

It is given as;

$$n = \frac{N}{1 + N \times (e)^2}$$

Where: n = The sample size

N= The population size (Target population)

e = The acceptable sampling error

Therefore, N = total number of all nurses in Federal Medical Centre, Abeokuta = 425.

e = Margin error i.e. 5% = 0.05

$$n = \frac{425}{1 + 425(0.05)^2}$$

$$n = \frac{425}{1 + 425(0.0025)}$$

$$n = \frac{425}{2.0625}$$

$$n = 206.6 = 207$$

The figure obtained above was subjected to 10% non-response rate bringing the total sample size to 228 approximately.

Sampling technique: Non probability sampling was used to select respondents conveniently from every unit of nursing department of Federal Medical Centre, Abeokuta.

Instrument for Data Collection: A semi-structured questionnaire was used as the instrument for data collection on: socio-demographic characteristics of respondents, prevalence of back pain among nurses, factors associated with back pain and the coping measures adopted for back pain.

Reliability of the instrument: The level of reliability was tested through split-half method. This was carried out by distributing the questionnaire to 20 nurses from the neighbouring State Hospital in Ijaye Abeokuta. The 20 questionnaires was then split into two and the correlation coefficient between the two sets of questionnaire was statistically determined. Further

amendment was based on the value obtained which was 0.90.

Validity of the instrument: The content validity was achieved by ensuring that the questionnaire that was used to gather data in every section was constructed based on the facts identified from literature review. Items were compared with previous similar studies. Face validity was achieved by presenting the questionnaire to an expert who vetted it and made necessary corrections and appropriate suggestions.

Ethical consideration: A written permission to conduct this study were obtained from Babcock University Research and Ethical Committee Ilishan Remo and Federal Medical Centre, Abeokuta Research and Ethical Committee. The approval letter were then taken to the unit heads from where the respondents were surveyed. In addition, consent to participate in the study were obtained from each respondents and none of them were coerced into participating in the study. Confidentiality of the information supplied by the participants were maintained at every stage of the study.

Data Collection Procedure: The data was collected after due permission from the institution and ethical approvals. The questionnaire was distributed to respondents who demonstrate their willingness to participate in the study. After the purpose of the study were explained to them, the questionnaire were left with them to complete and were retrieved the following day. This was to avoid constituting a disturbance to the nurses procedure.

Data Analysis: The data collected was entered into the computer and coded. Statistical analyses were done using statistical package for social sciences (SPSS) software version 20. Data collected were analyzed and presented using frequency tables and percentage. The hypotheses were tested using the chi square and t-test analysis. Statistical significance was taken at the level $p < 0.005$.

Results

Two hundred and twenty eight (228) questionnaires were administered to the nurses.

One hundred percent (100%) response rate was achieved.

Table 1 reveals the Socio-demographic data of the respondents. The results shows that 99 (47.80%) of the respondents are principally between the ages of 31- 40 years with the mean age of 35.5 ± 17.40 years. Majority of the study population are female 160(70.2%) and majority are not married 138(60.5%). Apart from those that have no child 105(46.1%), a larger proportion have two children. Regarding professional qualifications, majority of the respondents have dual qualification RNM 117 (51.32%). Most of the respondents have a second degree course of BEducation with 63.16%. Followed by degree in Nursing which is 18.86%. Concerning years of experience as a nurse, only 45(19.7%) of the respondents have less than five years' experience as a nurse while others have six years and above. As shown in the table 1, one hundred and three (45.2%) respondents have spent average of 2 years in their current ward/unit.

The data gathered on back pain history before and after taking up nursing as a profession are presented in Table 2. The result shows that about 191 (84%) respondents did not experience back pain before taking up nursing as a career while only 37 (16.2%) indicated experiencing back pain before becoming a nurse. Data revealed that more than half 136(59.65) of the respondents obtain sick leave due to back pain. Major episode of back pain occurrence among the respondents happened within 1 to 5 years as a practicing nurse.

The information on the prevalence and effects of back pain on the respondents are presented in Table 3. The results shows that about 88 (39%) are currently suffering from back pain of which above half 115(50.4%) are as a results of their occupation as a nurse. About 150 (66%) reported that the symptoms of their back pain were exacerbated by nursing activities and 179 (78.5%) indicated that back pain also has effects on their domestic and social activities. A greater number 136(46.1%) of the respondents experienced back pain while working in surgical unit/orthopaedic unit while the least among those working in paediatrics, theatre and outpatient.

Table 4 shows the work related activities that largely causes back pain symptoms among the surveyed respondents as, maintaining a position for long a period 187 (82.02%) and lifting 185 (81.14%).

The job risks factors that are implicated in the development of back pain among the respondents in their order of importance and severity are working in the same position for a long period of time, working on shift with few staff on duty, bending or twisting the back in awkward way (as presented in Table 5). The various back pain coping strategies adopted by the respondents are presented in Table 6. The result shows that the respondents do the following in their order of importance; Asking for assistance when performing patient handling activities 193(84.6%) and modify work procedures to avoid re-injury 191 (83.8%).

Hypothesis 1 states that: There will be no relationship between prevalence of back pain and socio-demographic characteristics (of interest) of nurses at FMC Abeokuta. The results of the t-test showed that there is a significant relationship between the prevalence of back pain and socio-demographic characteristics of the respondents at 0.05 probability level (as presented in Table 7). The null hypothesis therefore was rejected.

Hypothesis 2 states that: There is no significant association between years of experience and back pain among nurses in FMC, Abeokuta.

Table 8 shows that 31 out of 35 nurses with above ten years' experience as a nurse had experienced back pain. Further analysis with Chi square ($\chi^2=162.582$) confirms a highly significant association between years of experience as a nurse and back pain among the respondents at 0.05 probability level.

Hypothesis 3 states that there will be no significant relationship between prevalence of back pain and coping measures among nurses in FMC, Abeokuta.

The results of the t-test showed that there is a significant relationship between the prevalence of back pain and coping strategies like asking for assistance when performing patient handling activities, using height and or angle adjustable

work surfaces, resting and sitting after a long period of work (see Table 9) which confirms that there is significant relationship between the prevalence of back pain and asking for assistance when performing patient handling activities, using height and or angle adjustable work surfaces, resting and sitting after a long period of work, pausing regularly to stretch or use different body parts to administer procedures, avoiding monotonous/awkward body position, taking sick leave when the need arises due to back pain at 0.05 probability level while there is no significant relationship between prevalence of back pain and use of assistive devices with patient handling activities, modifying work procedures to avoid in-between work, engaging in regular exercise to strengthen muscles, use of special therapies like analgesic and the practice of weight loss techniques.

Discussion

The mean age of the study population is 35.5±17.40 years implying that the nurses are generally within the economically active age group. Majority of the respondents are females (70.2%) while minority (29.8%) are male gender which is in line with previous findings that confirms nursing profession to be female dominated (Himikaiye and Bamshaiye, 2012, Barret-Landau and Henle, 2014). It can be deduced that since minority of the nurses are male, the females may be carrying out more physical work than expected. For nursing profession to achieve gender balance, nursing schools must make a strong effort to recruit male nurses from high schools (Barret-Landau and Henle, 2014).

Most of the respondents (60.5%) are single and (40%) are married. Apart from those that have no child (46.1%), a larger proportion (30.7%) have two children. There is a significant relationship between the prevalence of back pain and sex, marital status, number of children and years of experience of the respondents at 0.05 probability level. This is not out of place with other studies conducted by Moussa et al. 2015.

It was observed from the study that the basic professional qualification of the respondents is Registered Nurse Midwife (RNM). Despite that

majority of the nurses are dual qualified, it is surprising that majority of Nurses obtained a second degree course of B.Education (63.2%), rather than pursuing Master's degree in Nursing. There is need to seek the opinion of nurses, why many of them are going for degree in education rather than progressing in their own career - nursing.

Most nurses with above ten years' experience as a nurse had experienced back pain and there is a significant association between years of experience as a nurse and back pain among the respondents chi square ($\chi^2=162.582$) at 0.05 probability level.

The time duration of rotating from one ward to the other is reported to be yearly (49.6%) or every 2 years (46.1%). Eighty three percent (83%) indicated their experience of back pain as a nurse. Chronic back pain was experienced by about (48%) of the respondents and the type of diagnosis of back pain reported among the respondents are majorly muscle strain followed by neuropathy and vertebral disc involvement respectively. It was observed that more than half (59.65) of the respondents obtain sick leave due to back pain. This is not consistent with the study of Sikiru and Hanifa, in which they confirmed that low back pain is a common disease affecting nurses but it is not the major cause of sickness absence from work.

Major episode of back pain occurrence among the respondents happened within 1-5 years as a practicing nurse (49.6%) and 6-10 years of practice (28.9%). Also about (39%) reported they were currently suffering from back pain generally while (66%) reported that the symptoms of their back pain were exacerbated by nursing activities. All these corroborates and confirms that nurses are among the occupational groups within the health service that are vulnerable to back pain (Sikiru and Hanifa, 2010).

The prevalence of back pain among nurses at FMC, Abeokuta is higher while working in surgical / Orthopedics ward (46.1%). This is not consistent with the work Abou El-Soud et al, 2014, in which the highest percentage of back pain was found among nurses working in Intensive care unit (95.0%). The main work related activities that

causes back pain symptoms among the respondents (82.02%) and lifting of patients (81.14%).
are maintaining a position for long period

Table 1: Socio-demographic data of Respondents

Parameter	Frequency (228)	Percentage (100)
Mean Age		35.5±17.40 years
Gender		
Male	68	29.8
Female	160	70.2
Religion		
Christianity	150	65.79
Islam	78	44.21
Marital Status		
Single	138	60.5
Married	90	39.5
No of Children		
0	105	46.1
1	2	0.9
2	70	30.7
3	43	18.9
Basic Professional Qualification		
Registered Nurse (RN)	6	2.63
Registered Midwife (RM)	4	1.75
Registered Nurse Midwife (RNM)	117	51.32
Registered Public Health Nurse (RPHN)	68	29.83
Others	33	14.47
Educational Qualification		
Bachelor of Nursing Science (BNSc)	43	19.9
2 nd degree-Bachelor of Education (B.Ed)	144	63.2
2 nd degree-Bachelor of Science (Nutrition)	4	0.02
Others	45	19.74
Nursing Category		

Chief Nursing Officer (CNO)	2	0.9
Assistant Chief Nursing Officer (ACNO)	99	43.4
Principal Nursing Officer (PNO)	4	1.8
Senior Nursing Officer (SNO)	66	28.9
Nursing Officer (NO)	57	25.0
Year of Experience as a Nurse		
0-5	45	19.7
6-10	107	46.9
11-15	35	15.4
16-20	8	3.5
Above 20	33	14.5
Years of Experience at Current Ward		
1	53	23.2
2	103	45.2
3	41	18
4	31	13.6

Table 2: Back pain (BP) Information

Parameter	Frequency	Percentage
Experience of BP before becoming a Nurse		
Yes	37	16.2
No	191	83.8
Experience of BP as a Nurse		
Yes	189	82.9
No	39	17.1
Experience of BP within 3 Months of answering this questionnaire		
Yes	121	53.1
No	107	46.9
Experience of Chronic BP		

Yes	109	47.8
No	119	52.2
Absenteeism or Sick leave due to BP		
Yes	136	59.65
No	92	40.35
Type of Diagnosis of BP		
Not Applicable	80	28.57
Degeneration	4	1.43
Ligament Sprain	37	13.21
Muscle Strain	78	27.86
Neuropathy	30	10.71
Vertebral Disc Involvement	22	7.86
Others	29	10.36
Stage of Major Episode of BP		
As a Student Nurse	10	4.4
1-5 Years	113	49.6
6-10 Years	66	28.9
11-16 Years	37	16.2
16-20 Years	2	0.9

Table 3: Back pain (BP) Prevalence and Effects

Parameter	Frequency (228)	Percentage (100)
Currently Suffering from BP		
Yes	88	38.60
No	140	61.40
BP due to Occupation		
Yes	115	50.4
No	113	49.6
Symptoms exacerbated by Nursing Activities		
Yes	150	65.8
No	78	34.2
BP Effects Outside Workplace		

Yes	179	78.5
No	49	21.5
Intensity of BP		
No pain at the moment	84	36.84
Mild/Moderate Pain	144	63.16
Frequency of BP		
Never	78	34.2
Infrequent	111	48.7
Frequent	39	17.1
Ward/Unit of Incidence of BP		
Theatre	2	0.9
Medical	14	6.1
Pediatrics	2	0.9
Surgical/ Orthopedics	136	46.1
OBS & Gynea	37	16.2
Out Patients	2	0.9
A& E	35	15.4

Table 4: Work-Related Activities that Causes BP Symptoms

Activities	Frequency (228)	Percentage (100)
Bending and Twisting	150	65.79
Lifting of patients	185	81.79
Maintaining a position for a long period	187	82.02
Performing manual Therapy Technique	2	0.88
Performing Repetitive Tasks	35	15.35
Reaching or Working away from body	35	15.35
Transferring Patients	103	45.18
Working in Cramped or Awkward positions	35	15.35
Others (Miscellaneous Activities)	70	30.70

Note: **multiple answers allowed.**

Table 5: Job Risk Factors implicated in the development of Back pain

Job Risk Factor	1	2	3	4	5	Modal Rank
Performing the same task over and over	20.71	17.2	19.3	25	18	4
Working in the same position for long period of time	6.2	11.40	24.12	25.44	32.90	5
Working a shift with few staff on duty	5.26	12.28	9.65	16.23	56.58	5
Bending or twisting your back in an awkward way	5.26	13.60	12.28	21.05	46.93	5
Lifting or transferring dependent patients	7.02	4.83	10.97	25	51.32	5
Continuing to work when injured or hurt	3.95	5.70	18.42	17.54	53.51	5
Reaching or working away from your body	23.68	18.42	31.58	11.40	14.04	3
Working in awkward or cramped positions	10.09	32.89	15.35	26.32	18.86	2
Working near to or at your physical limits						
Not enough rest breaks during the day	16.23	21.93	30.70	16.23	14.04	3
	3.51	7.46	19.30	25.88	42.11	5
Unanticipated sudden movement or fall by a patient	17.54	8.33	25.88	16.23	29.39	5
Assisting patient during gait activities	15.4	28.07	20.61	20.18	14.91	2
Carrying/lifting or moving heavy materials and equipment	11.84	17.98	10.09	22.81	31.58	5
Working with confused or agitated patients	8.77	19.30	36.84	13.60	20.61	3
Work schedule (e.g. overtime, on-call, irregular shifts)	3.51	1.75	14.91	29.83	50	5
Inadequate training in injury prevention	10.09	12.28	27.63	17.54	29.82	5

Table 6: Back pain Coping Strategies adopted by Respondents

Coping Strategy	Freq.	Percentage
Ask for assistance when performing patient handling activities	193	84.6
Use assistive devices with patient handling activities	146	64
Use height and /or angle adjustable work surfaces	107	46.9
Rest and sit after a long period of work	151	66.2
Modify work procedures to avoid re-injury	191	83.8
Take brake in-between work	153	67.1

Pause regularly to stretch or use different body parts to administer procedures	152	66.7
Engage in regular exercise to strengthen back muscles	173	75.9
Avoid monotonous/awkward body position	153	67.1
Take sick leave when the need arises due to back pain	131	57.5
Use special therapies like analgesic	172	75.4
Practice weight loss techniques	112	49.1

Note: **multiple answers allowed**

Table 7: Results of t-test of relationship between prevalence of back pain and socio- demographic characteristics of Nurses at FMC Abeokuta

Parameter	F	P	Remark
Sex	72.612	.000*	Significant at 0.05
Marital Status	17.989	.000*	
No of children	25.306	.000*	
Nursing Category	11.778	.001*	
Year of Experience	3.842	.051*	
Year of Experience at FMC	7.296	.007*	
Year of Experience at Current Ward	18.399	.000*	

Table 8: Cross Tabulation of Year of Experience and Back pain

Year of Experience as a Nurse	Back pain		Total	X ²	P	Remark
	Yes	NO				
0-5	0	45	45	162.582	0.000*	Significant at 0.05
6-10	4	103	107			
11-15	31	4	35			
16-20	2	6	8			
> 20	0	33	33			

Table 9: Results of t-test of the relationship between prevalence of back pain and coping measures among nurses in FMC, Abeokuta

Coping Strategy	F	P
Ask for assistance when performing patient handling activities	6.564	.011*
Use assistive devices with patient handling activities	.279	.598
Use height and /or angle adjustable work surfaces	7.202	.008*
Rest and sit after a long period of work	3.449	.065*
Modify work procedures to avoid re-injury	1.099	.296
Take brake in-between work	1.489	.224
Pause regularly to stretch or use different body parts to administer procedures	4.989	.027*
Engage in regular exercise to strengthen back muscles	1.848	.175
Avoid monotonous/awkward body position	4.606	.033*
Take sick leave when the need arises due to back pain	6.239	.013*
Use special therapies like analgesic	1.804	.181
Practice weight loss techniques	.220	.181

*S= Significant at 0.05 level

This is consistent with the findings of Anap, Iyer and Rao,2013. This was also confirmed in a review by Tosunoz and Oztunc 2017. The three leading job risks factors for back pain indicated in the development of back pain among the respondents include: working in the same position for long period of time, working on shift with few staff on duty and bending or twisting unanticipated movement or call by a patient. This is in line with the findings of Chung et al. 2013, Van Dienn et al, 2012, Kwon et al, 2011, Boden et al, 2012, Anap et al, 2013 and Moussa et al, 2015). However, it is not in agreement with the study of Al Dajah, 2013 who reported pushing and pulling as the highest risk factor for back pain among nurses followed by long standing.

The main back pain coping strategies adopted by the respondents are asking for assistance when performing patient handling activities (84.6%),

modifying work procedures to avoid re-injury (83.8%) and engaging in regular exercise to strengthen back muscles (75.9%). This is in line with the coping measures to back pain reported by Tinubu et al, 2010, Chung, et al,2013). There is a significant relationship between the prevalence of back pain and some coping strategies adopted by the respondents such as asking for assistance when performing patient handling activities, using height and /or angle adjustable work surfaces, resting and sitting after a long period of work, pausing regularly to stretch or use different body parts to administer procedures, avoiding monotonous/awkward body position, taking sick leave when the need arises due to back pain by the respondents at 0.05 probability level.

Conclusion: The study concludes that there is high prevalence of back pain among nurses at the Federal Medical Centre, Abeokuta, Ogun State,

Nigeria. Back pain is experienced majorly when working in surgical/orthopaedic unit and back pain-induced absenteeism/sick leave was high. The principal work-related activities that causes back pain among FMC nurses are maintaining a position for long period and lifting.

The respondents adopts various back pain coping strategies such as asking for assistance when performing patient handling activities, modifying work procedures to avoid re-injury as well as engaging in regular exercise to strengthen back muscles.

There is a significant relationship between the prevalence of back pain and age, marital status and number of children of the respondents at 0.05 probability level. Similarly, there is a significant association between the prevalence of back pain and years of experience of respondents at 0.05 probability level. Finally, there is a significant relationship between the prevalence of back pain and asking for assistance when performing patient handling activities, using height and or angle adjustable work surfaces, resting and sitting after a long period of work, pausing regularly to stretch or use different body parts to administer procedures, avoiding monotonous/awkward body position, taking sick leave when the need arises due to back pain by the respondents at 0.05 probability level.

Recommendations:

Based on the findings of this study, the following recommendations were made:

1. Continuing Educational programmes on prevention and coping strategies for musculoskeletal disorders should be introduced in order to promote well-being and efficiency among nurses at FMC, Abeokuta.
2. Prevention and coping strategies for musculoskeletal disorders should be included in the nursing students' curriculum.
3. Equipment and facilities to assist nurses in carrying out some of their strenuous activities like lifting, transferring patients, etc. should be adequately provided in the health facility.

4. More staff nurses should be employed especially male nurses with a view to reduce job-induced hazards like back pain among nurses.

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