

## Musculoskeletal health problems among staff nurses: A descriptive study

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### Abstract

Nursing is a healthcare profession focused on the detail-oriented care of individuals, families, and communities in attaining, maintaining, and recovering optimal health and functioning. A nurse assesses, plans, implements and evaluates care independently of medical staff (doctors), and typically provides anything from basic triage care to assistance in serious trauma care and surgery.<sup>1</sup> The aim of the study is to assess the knowledge on musculoskeletal health problems among staff Nurses working in selected hospitals of Bhopal (M.P.). A Non experimental descriptive survey research design was adopted. The 100 staff nurses were selected purposive sampling. Structured interview schedule were used for data collection. Maximum numbers of Staff nurses. Majority of staff nurses (38%) were of 31 – 40 years of age, 57% male, 64% married, (52%) of were getting salary of 10000 – 25000, 53% were postgraduates 25% were residing distance from home is about <5 km. The data indicated that 62 (62%) of staff nurses had good knowledge regarding musculoskeletal health problems, 24 (24%) had average knowledge, & 14(14%) staff nurses had poor knowledge. The mean is 9.53 and standard deviation is 19.412. The association between the knowledge and demographic variables like age, sex, marital status, total monthly income, educational status, distance from the home and duration of duty. A chi square test was done at 5% level of significance to find out the association between coping responses and selected variables.

**Keywords:** Musculoskeletal health problems, Staff Nurses, Back pain, Leg pain, Neck pain.

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### Introduction

A professionally registered nurse begins her career at the age of 21-22 years up to the age of 58-60 years, a span of 36-38 work years. He/she spends the maximum part of his/her life in the service of mankind. He/she receives credit for the healing touch, caring smile and gentle care. But at the same time she also becomes prone to work related health problems which can be physical and psychological in nature for example musculoskeletal disorders like back pain, leg pain, neck pain etc.

Nursing and personal care services are cited as having one of the highest non-fatal occupational injuries incidences rate at 18.5 per 100 full time equivalent workers. One category of such injury is musculoskeletal injury; up to 38% of nurses are affected by these injuries. Additionally 67% of recent disabling injuries in nursing as per the Bureau of Labour statistics were due to sprains and strains, most of them due to over exertion in lifting patients.<sup>2</sup>

A major role of the nurse is to provide hands-on-physical care, however, other skills are equally important. A study was conducted on the roles and functional health nurses in Japan. It showed that 62% of Japanese nurses perform direct care roles, of whom approximately half perform educating or advising and consulting roles, and approximately 40% perform management roles.<sup>3</sup>

In the United States nursing assistants and registered nurses are among the ten occupation groups reporting the greatest number of nonfatal musculoskeletal disorders resulting in days away from the work.<sup>4</sup> Most of these work related musculoskeletal disorders among nursing personnel are back injuries,

although they also include neck, shoulder, arm, wrist, and knee disorders. The cross sectional study examined the association of performance of high risk patient handling tasks and self-reported musculoskeletal discomfort among nursing staff members had shown that 62% of subjects reported 7-day prevalence of moderately severe musculoskeletal discomfort.<sup>5</sup>

The social and economic impact of back pain, a problem particularly prevalent among nurses, can be minimized by the application of ergonomic principles and technology in the organization of their work and its environment, by physical conditioning that enhances the strength and flexibility of the postural muscles, by education and training in the performance of problematic activities and, when episodes of back pain do occur, by treatment that emphasizes a minimum of medical intervention and a prompt return to activity.<sup>6</sup>

### Objectives

1. To assess the knowledge on musculoskeletal health problems among staff nurses.
2. To determine the association between the knowledge on musculoskeletal health problems with their selected socio demographic variables.

### Hypothesis

H<sub>0</sub>: There is no significant association between the knowledge on musculoskeletal health problems with their selected socio demographic variables.

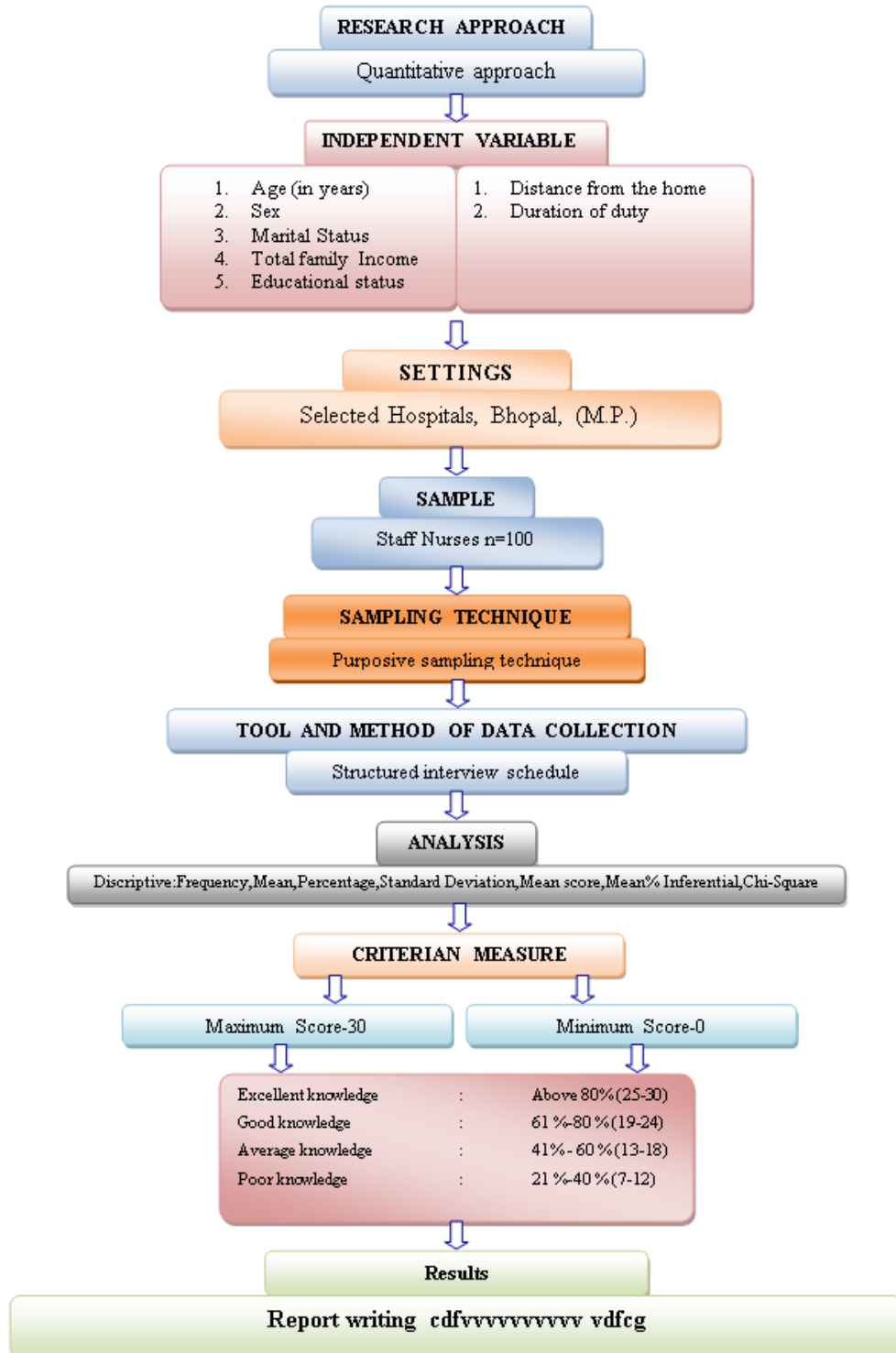
H<sub>1</sub>: There is significant association between the knowledge on musculoskeletal health problems with their selected socio demographic variables.

**Methodology**

A Non experimental descriptive survey research approach was used to assess the knowledge on work related musculoskeletal health problems among staff nurses. 100 staff nurses were selected by using purposive sampling technique. The tool contains two parts.

**Section I:** It consist of socio-demographic variables include Age (in years), Sex, Marital Status, Total family Income per month, Educational status, Distance from the home, Duration of duty.

**Section II:** It consists of structured interview schedule of work related musculoskeletal health problems.



**Fig. 1: Schematic diagram of research design**

**Results**

**Organization of findings and presentation of data**

**analysis:** The data is organized, analyzed and presented in six sections.

**Section A:** Frequency and percentage distribution of the demographic variables of staff nurses.

**Section B:** Assessment of knowledge of staff nurses about musculoskeletal health problems.

**Section C:** Determine the association between the knowledge on musculoskeletal health problems with their selected socio demographic variables.

**Section A: Frequency and percentage distribution of demographic variables of staff nurses**

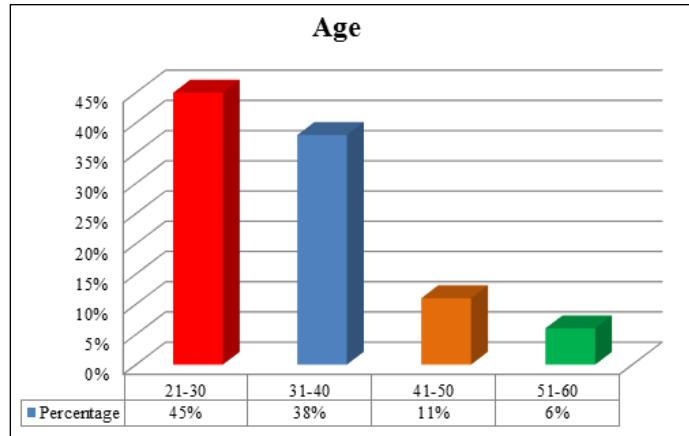


Fig. 2: Frequency and percentage distribution of samples according to the age

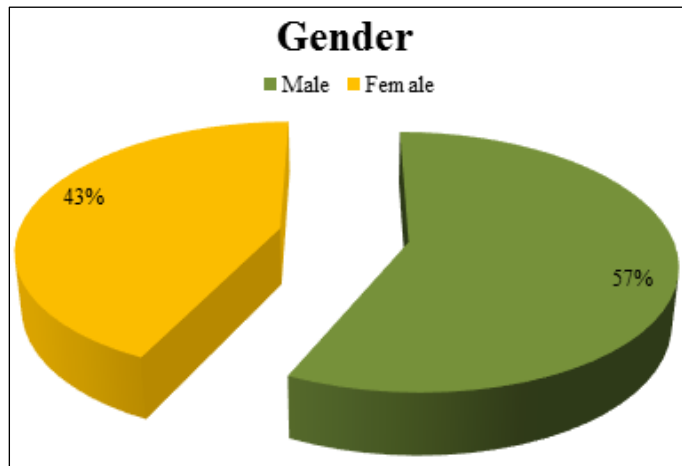


Fig. 3: Distribution of respondents according to the gender

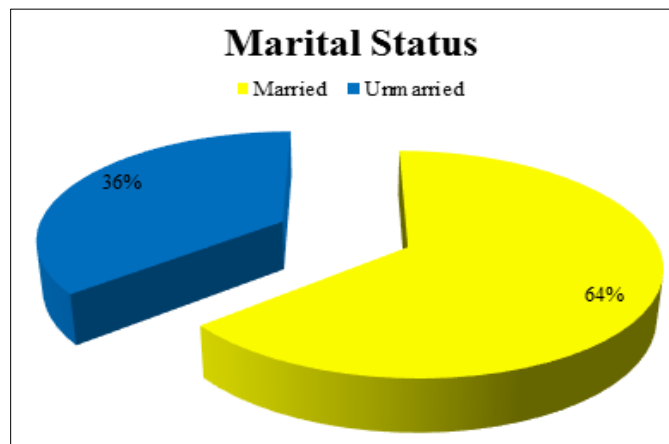


Fig. 4: Classification of respondents according to marital status

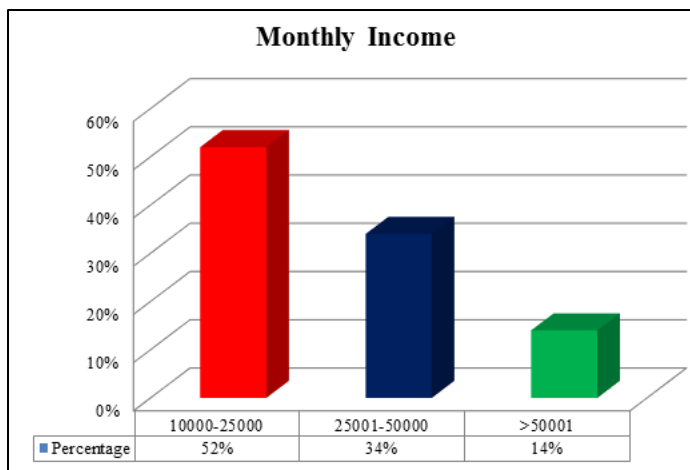


Fig. 5: Classification of respondents according to total monthly income

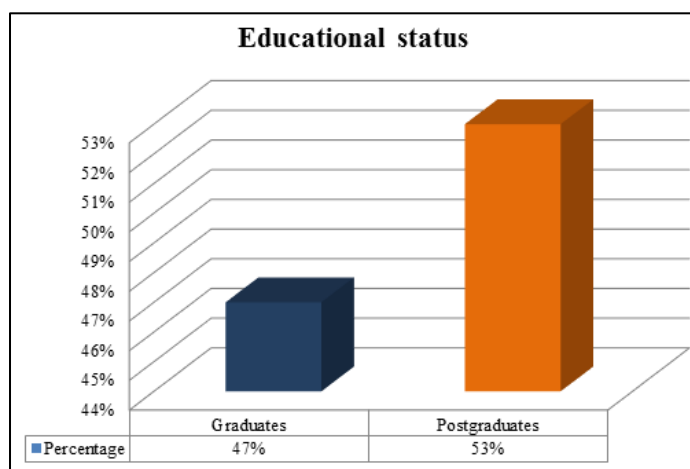


Fig. 6: Classification of respondents based on educational status

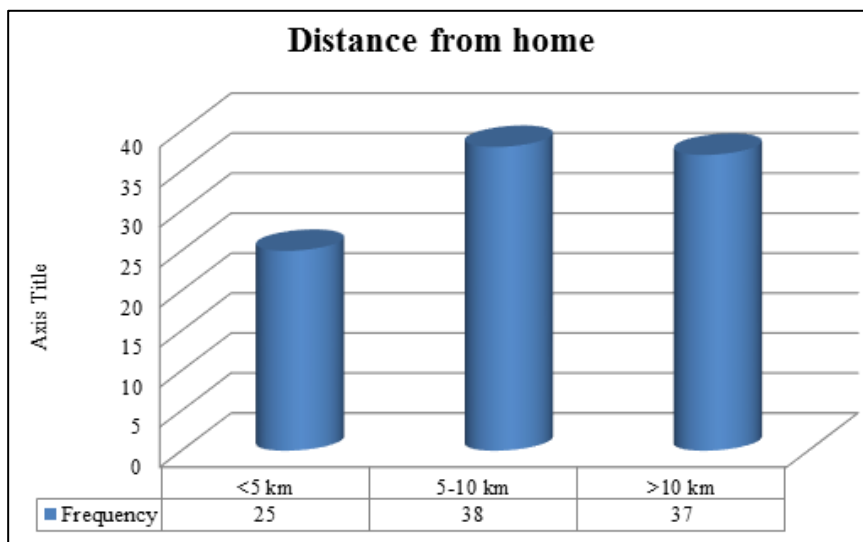


Fig. 7: Classification of respondents based on Distance from home

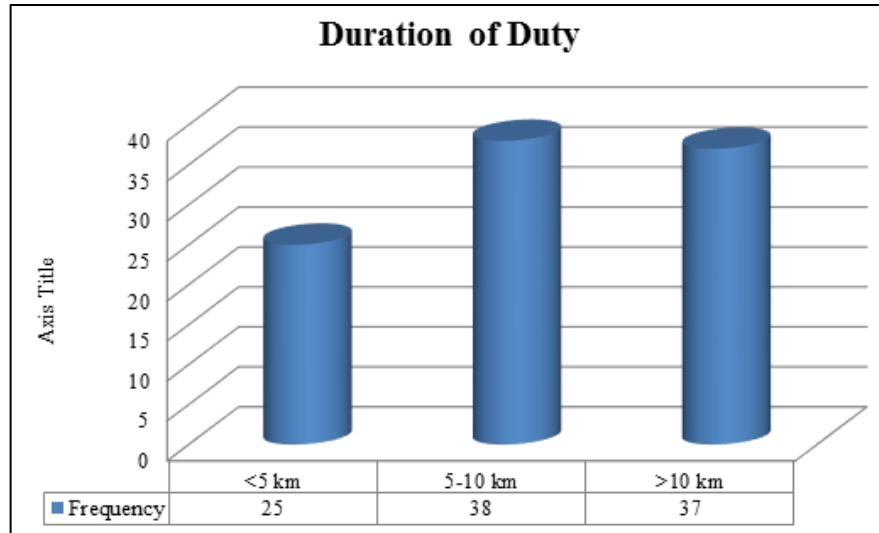


Fig. 8: Classification of respondents based on Duration of duty

Section B: Assessment of knowledge of staff nurses on musculoskeletal health problems

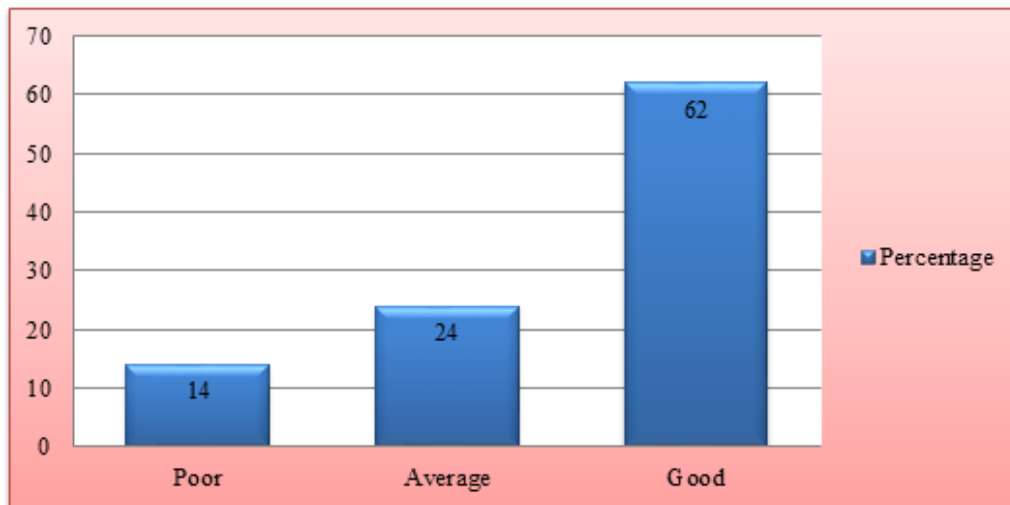


Fig. 9: Assessment of knowledge of staff nurses about musculoskeletal health problems

Section C: Association between the knowledge of staff nurses on musculoskeletal health problems with their selected socio demographic variables

Table 1

S. No.	Demographic variables	Frequency	df	Knowledge score			Chi-Square
				Poor	Average	Good	
01	<b>Age Group (years)</b>						0.871 (NS)
	21-30	45	1	2	18	25	
	31-40	38		6	08	24	
	41-50	11		3	5	3	
51-60	6	0		1	5		
02	<b>Sex</b>						1.26 (NS)
	Male	57	1	7	20	30	
	Female	43		0	11	32	
03	<b>Marital Status</b>						0.266 (NS)
	Married	64	1	9	17	38	
	Unmarried	36		1	8	27	

04	<b>Total Monthly Income</b>						
	10000-25000	52	2	0	21	35	0.553 (NS)
	25001-50000	34		1	14	30	
	>50001	14		0	4	10	
05	<b>Educational Status</b>						
	Graduates	47	1	5	18	24	1.26 (NS)
	Postgraduates	53		1	27	25	
06	<b>Distance from home</b>						
	<5 km	25	2	0	14	11	1.26 (NS)
	5-10 km	38		0	8	30	
	>10 km	37		0	5	32	
07	<b>Duration of duty</b>						
	8-9 hrs	83	1	0	15	68	0.266 (NS)
	>10 hrs	17		0	7	10	

## Discussion

### Major Findings of the Study:

#### Section A:

1. Maximum numbers of Staff nurses (38%) were of 31–40 years of age, 45% were of 21 – 30 years, 11% of staff nurses were 41 – 50 years and only 6% are of 51–60 years.
2. Out of 100 staff nurses 57% were male staff nurses and 43% were females.
3. Out of 100 staff nurses 64% are married and 36% are single.
4. Maximum number (52%) of staff nurses are getting salary of 10000 – 25000, 34% of staff nurses are getting salary between 25001 - 50000 and only 14% of staff nurses are getting salary more than 50000.
5. 53% of staff nurses are postgraduates and 47% of staff nurses are graduates.
6. 25% of staff nurses having distance from home is about <5 km, 38% of staff nurses having distance from home is about 5-10 km and 37% of staff nurses having distance from home is about >10 km.
7. 83% of staff nurses having working time about 8-9hrs and 17% of staff nurses having working time about >10 hrs.

**Section B:** The data clearly indicates that 62 (62%) of staff nurses having good knowledge regarding musculoskeletal health problems, 24 (24%) having average knowledge, & 14(14%) staff nurses had poor knowledge regarding musculoskeletal health problems. The mean is 9.53 and standard deviation is 19.412.

**Section C:** The association between the knowledge and demographic variables like age, sex, marital status, total monthly income, educational status, distance from the home and duration of duty. A chi square test was done at 5% level of significance to find out the association between coping responses and selected variables.

## Conclusion

The present study would help the staff nurses to gain more knowledge musculoskeletal health problems

which in turn helps to increase the work efficiency and reduce the work pressure by adopting suitable coping skills. This helps to reduce job burnout. Different methods of entertainment will also help them to overcome the psychological discomforts and further complications of stress.

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