



“PREVALANCE OF MECHANICAL NECK PAIN AMONG NURSING STAFF IN VADODARA CITY.”

Dr. Chintan Patel¹, Miral Mathukia², Yukta Kakva³, Shraddha Mandal⁴

¹Assistant professor, Parul Institute of Physiotherapy, Parul University,

^{2,3,4}BPT, Parul Institute of Physiotherapy, Parul University, Vadodara

ABSTRACT

Background: Mechanic neck pain implies that the source of pain is the result of something working properly in the spine and/or its supporting structure [ligaments, muscles]. This condition is probably the most common source of neck pain. Generally, mechanical neckpain occurs when one or more of the joints in the neck loses its normal joints motion [resiliencyand shock absorption]. In addition, joints dysfunction can lead to a muscle imbalance and muscle pain. Prevalence of neck pain was 57.8 percent. We found that 27.2 percent had mild pain and 30.6 percent moderate pain¹.

Objectives: To determine the prevalence of mechanical neck pain among nursing staff.

Methodology: Total 120 subjects nursing staff from PSH (Parul Sevashram Hospital) were taken with age between 20-50 years both male and females. Those with any previous history of injury to cervical spine, diagnosed case of cervical spondylosis and age more than 50 years were excluded. Northwick park neck pain questionnaire used to give us information as how Neck pain has affected your ability to manage in everyday life.

Results: out of 120 nurses shows percentage of pain in varies age group 20-30 years have70% pain, 30-40 years have 35% pain and 40-50 years have15% pain.

Conclusion: This study was concluded that out of total subject 75% subjects were found to be prevalent for mechanical neck pain. Study shows that female nurses are more prone for mechanical neck pain.

Keywords: Mechanical neck pain, nurses.

INTRODUCTION:

Mechanical neck pain implies that the source of pain is the result of something working properly in the spine and/or its supporting structure [ligaments, muscles]. This condition is probably the most common source of neck pain. Generally, mechanical neck pain occurs when one or more of the joints in the neck loses its normal joints motion [resiliency and shock absorption]. In addition, joints dysfunction can lead to a muscle imbalance and muscle pain.

Prevalence of neck pain was 57.8 percent. We found that 27.2 percent had mild pain and 30.6 percent moderate pain.^[1] Mechanical neck pain commonly arise inside and is generally multifactorial in origin, including one or more of the following^[7]:

- Poor posture
- Anxiety
- Depression
- Neck strain
- Sporting or occupational activities

➤ What causes mechanical neck pain

Mechanical neck pain is caused by the straining of the neck, which occurs through sustained of the posture or certain movements. This pain can affect the tendons, muscles, and disc as well as the spine's joints. Those with occupations which require repeated movements of the neck, or keeping the neck in the same posture for long periods, such as jobs which involve computer work, can be typical candidates for mechanical neck pain. It can cause like muscle strain, spondylosis, arthritis, cervical radiculopathy

➤ Work related to neck pain

To compare the list of risky occupations, occupational safety and health experts analyze many factors including job requirements and the work environments. Heavy physical work, forcefully and lifting movements, bending and twisting, award work postures, whole body vibrations, and static work posture [standing, sitting] compound the risk to workers. Tow occupations lead the list of jobs placing workers at highest risk for neck injury construction and nursing home workers, including nurses.

• Nursing home workers and nurses:

The population as a whole is growing older which, in part accounts for the growing number of nursing homes and employment opportunities. Nursing home workers are at high risk and for back pain and neck pain. The labor statics reports nearly 80 percent of all neck and basic injuries results from moving patients. Transferring a patient between their bed, carrying, holding, pulling, pushing and turning patients

➤ Mechanism of neck pain

The neck pain or cervical spine is a coordinated network of nerves, bones, joints, and muscles. It has the important job of providing support and mobility for the head, but sometimes it can become painful. There are a number of problems that cause pain in neck. Irritation along nerve pathway in the neck can cause pain in the shoulder, head, arm, and hand. Additionally, irritation of the spinal cord can cause pain into legs and other areas below the neck. Neck pain usually goes away within a few days or weeks, but pain that persist for months could signal an underlying medical cause that needs to be addressed. In some cases, early intervention may be necessary for the best result.

➤ Problems due to neck pain

- Neck pain [and related disability] is a common problem in nursing.
- Physical and psychological risk factors contributive to neck pain related disability
- The working environment determines the physical and psychological exposure for nurses
- Neither lifting and bending nor the arability or usage of technical lifting aids was consistently associated with neck related disability⁶.

METHODOLOGY

Material used:

- 1) Consent form
- 2) Questionnaire
- 3) Paper
- 4) Pencil/pen

Study design: Survey study

Sample size: 120

Sources of data: Nursing staff from PSH (Parul Sevashram Hospital)

Sampling design: Simple Randomized Sampling

CRITERIA FOR SELECTION

➤ INCLUSION CRITERIA

- Age: 20-50 years
- Working days: Minimum 3 days per week
- Both male and females
- Subject who are working for more than 6 hours per day.

➤ EXCLUSION CRITERIA

- Any previous history of injury to cervical spine
- Diagnosed case of cervical spondylosis
- Age more than 50 years

Outcome Measures

Northwick Park Neck Pain Questionnaire

Procedure:

Each participant has given the 2 form which are

- Consent form
- Northwick Park Neck Pain Questionnaire

All selection criteria participants were invited to participate in the study. Total (?) populations are taken who were fulfilling the inclusion and exclusion criteria and were assessed using physiotherapy assessment. The participants were explained about the study procedure. Participants volunteer to participate were asked to sign the consent form.

DATA COLLECTION PROCEDURE:

All participants fulfilling the selection criteria were invited to participate in the study.



Participants who volunteer to participate were requested to sign the consent form.



Collection of socio-demographic details.



Participants were interviewed by Northwick Park Neck Pain Questionnaire

RESULT

Table 1 - Mechanical neck pain percentage below table shows that 75% individuals are having mechanical neck pain.

Pain	Percentage
Yes	75
No	45

Table 2 - Age Distribution

Age Group	Number Of Patients
20-30	70
30-40	35
40-50	15

The Above table shows percentage of pain in various age groups. Participants of age 20 -30 years have 70 % pain,30-40 years have 35 % pain and 40-50 years have 15% pain.

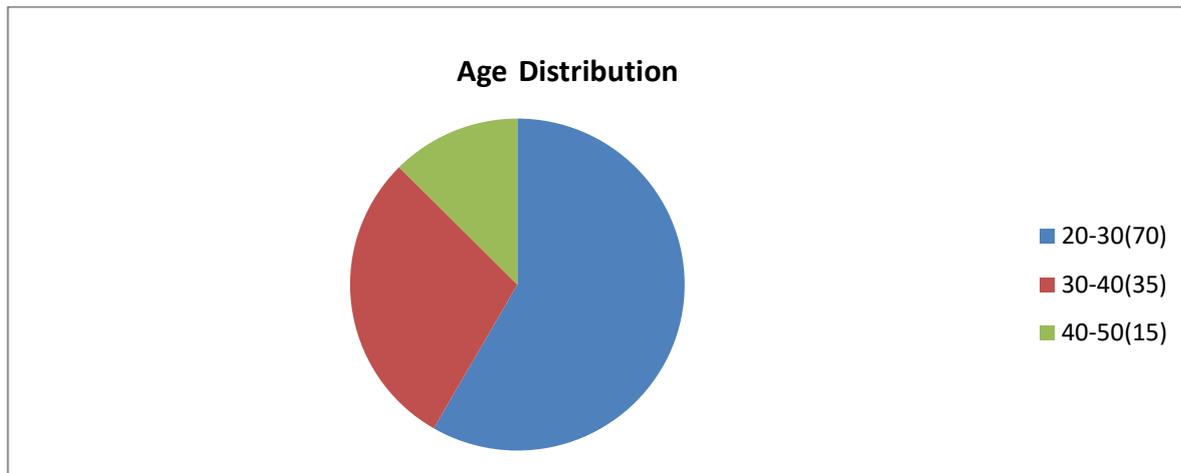


Table 3 - Percentage of Pain in male and Female

Pain	Percentage
Male	21
Female	99

Above table shows that mechanical neck pain is present more in females than males.

DISCUSSION

This study 'prevalence of mechanical neck pain among nursing staff was conducted to find out the prevalence of mechanical neck pain in nursing staff employees and to find whether ratio of mechanical neck pain is more common in females or males. Previous literatures shows that Prolonged mechanical neck pain may lead to various serious disorders of neck hence there is necessity of evaluating prevalence of mechanical neck pain in nursing staff as to minimize further complications.

The participants were recruited from Parul sevashram hospital, Vadodara city. Participants who were age between 20-50 were included in a study. Any previous history of injury to cervical spine, diagnosed case of cervical spondylosis, age more than 50 years were excluded. In this study total 120 numbers of samples were collected in between age of 20-50 years. In this study Northwick Park neck pain questionnaire was used to assess the percentage of pain in male and female.

The objectives of this study were to find the prevalence of mechanical neck pain in nursing staff employees and to find whether ratio of mechanical neck pain is more common in females or males. Study was conducted among nursing staff employees in Parul Sevashram Hospital, Vadodara Considering inclusion and exclusion

criteria they were requested to participate in the study. Their demographic information was taken. For participation in this research, the subject must be a nurse who was working more than 6 hours per day

The subjects were assessed by using Northwick Park Neck Pain Questionnaire. Statistical analysis of collected data was done accordingly so result shows that 75 % individuals are having mechanical neck pain in both males and females. Percentage of pain is more common in females than males, according to various age groups percentage of age 20-30 years have 7% pain, 30-40 years have 35% pain and 40-50 years have 15% pain.

In March 2021 international university Lahore conducted study on 360 nurses of neck pain they found 92% female were having neck pain. In 2018 Dr Meenakshi conducted study on non-specific neck pain and she concluded that 52% of nurses having nonspecific neck pain.

CONCLUSION

The outcome of this study, it was concluded that out of total subject 75% subjects were found to be prevalent for mechanical neck pain. Study shows that females nurses are more prone for mechanical neck pain. According to various age groups individuals in 20-30 years had 70% pain, 30-40 years had 35% pain and 40-50 years have 15% pain.

REFERENCES

1. Nosheen D, Tauqeer S, Arooj A, Anwar N, Ikram A, Farooq N. Prevalence of work-related neck pain among nurses. Rawal Medical Journal. 2021 Jan;46(1):111-3.
2. worNosheen D, Tauqeer S, Arooj A, Anwar N, Ikram A, Farooq N. Prevalence of k related neck pain among nurses. Rawal Medical Journal. 2021 Jan;46(1):111-3.
3. Hongyun Dong, Qiong Zhang, Tingguo Shao. Prevalence of neck /shoulder pain among public hospital workers in China and its associated factors. Scientific reports 2020, 10(1), 1-9
4. Östergren PO, Hanson BS, Balogh I, Ektor-Andersen J, Isacsson A, Örbæk P, Winkel J, Isacsson SO. Incidence of shoulder and neck pain in a working population: effect modification between mechanical and psychosocial exposures at work? Results from a one year follow up of the Malmö shoulder and neck study cohort. Journal of Epidemiology & Community Health. 2005 Sep 1;59(9):721-8.
5. ChauDr. Meenakshi han. Prevalence of work related chronic specific neck pain in nurses. International journal of research and review. October 2018, 5(10), 447-450
6. Michael Simon, Albert Nienhaus, Peter Tackenberg. Back or neck pain related disability of nursing staff in hospitals, nursing homes and home care in seven countries. International journal of nursing studies. 2008, 45(1), 24-34

7. Lucy Joslin, Christopher Davis, Patricia Dolan Quality of life and neck pain in nurses international journal of occupational medicine and environmental health. 2014, 27(2),236-242
8. Yoichi Lizuka, Tetsuya Shinozaki, Toshihisa Osawa. Characteristics of neck and shoulder pain among members of the nursing staff. Journal of orthopedic science 2012, 17(1), 46-50
9. Derek Richard smith, Mitsuko Sato, Taeko Miyajima. Musculoskeletal disorders self-reported by female nursing students. International journal of nursing studies. 2003, 40(7), 725-729
10. Victor Cw Hoe, Helen I Kelsall, Donna M Urquhart. Risk factors for musculoskeletal symptoms of the neck or shoulder alone or neck and shoulder among hospitals nurses. Occupational and environmental medicine. 2012, 69(3), 198-204
11. Soo-Jeon Lee, Julia Faucet, Marion Gillen. Musculoskeletal pain amoby availability and use of patient lifting equipment. International journal of nursing studies. 2013, 50(12), 1648-1657
12. Malin Lovgren, Petter Gustavsson, Bo Melin Ann Rudman. Neck/ shoulder and back pain in new graduate nurses. International journal of nursing studies. 2014, 51(4), 625-639
13. Jolands J Juime, Bart W Koes, Harald S Miedem, Jan an Verhaar. High incidence and recurrence of shoulder and neck pain in nursing home employees was demonstrated during a 2-year follow up. Journal of clinical epidemiology. 2005, 58(4), 407-413
14. Mohammed Younus Mustafa, A Prof, R Sultan. Work related neck pain and its associated factors among registered females' nurses who are computer users. J Nurs health sci. 2013, 1, 41-53