

Original Research Article

Prevalence of Neck Pain among Students in Dentistry

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ABSTRACT

Question: what is the prevalence of neck pain among dental students? **Design:** Cross sectional observational study **Participants:** 100 Dental students which include final year students, interns & Post-graduate students who work atleast 4-5 hours per day since last 1 year. **Intervention:** Incidence of neck pain and functional disability is observed using "neck disability index". **Outcome measures:** Neck disability index. **Results** Prevalence of neck pain among dental students was 42%. Among which 37% had mild disability and 5% had moderate disability. **Conclusion:** Spine problems are stated to be common problems among dentists. In order to reduce spine problems, correct postural practices, relaxation interval sessions during work could be utilized. It is concluded postural problems leading to neck pain.

Key words: Neck pain, Neck disability index, Dental students.

INTRODUCTION

The dentists are at high risk of neck and lower backache problems due to the limited work area with a limited scope of movement and narrow visual field associated with the oral cavity. These working restrictions frequently cause a clinician to assume stressful body positions to achieve good access and visibility inside the oral cavity. Furthermore, dental procedures are usually long; require much more concentration during work.^[1]

Dentist often cannot avoid prolonged static postures. Even in optimal seated postures, more than one-half of the body's muscles are contracted statically, and there is little movement of the vertebral joints. This may result in damaging physiological changes (micro changes) that can lead to back, neck or shoulder pain or musculoskeletal disorders (MSDs) (macro changes)^[2] in dentistry, overstrained and awkward postures, repetitiveness of different joint movements, use of high

frequency vibration tools, and psychological stress have been identified as risk factors.^[3,4] Studies have shown that dentists report more frequent musculoskeletal pain^[5,6] particularly back and neck pain, has been found to be a major health problem for dental practitioners.^[7,8] its exact causes are legion, and an exact diagnosis is often difficult.

It has been demonstrated that prolonged static neck position and repeated movements are work-related risk factors for neck pain.

METHOD

Design

Cross sectional observational study

Participants, therapists, centers

Total 100 Dental students from Government dental college, Civil, Ahmedabad which includes final year students, interns & Post-graduate students who works atleast 4-5 hours per day since last 1 year.

Inclusion criteria –

1. Dental students of final year, interns & post-graduate students
2. age group of 20 to 30, males and females both
3. students who works atleast 4-5 hours per day since last 1 year.

Exclusion criteria –

1. Vertebro basilar insufficiency symptoms
2. Any condition involving cervical spine including fracture or dislocation
3. Recent undergone surgery
4. Acute inflammatory problem
5. Tumors
6. Ankylosing spondylitis
7. Pregnant women

Centers - Government dental college, Civil, Ahmedabad

Intervention

Incidence of neck pain and functional disability among 100 students are observed using "neck disability index". This patient-completed, condition-specific functional status questionnaire with 10 items including pain, personal care, lifting, reading, headaches, concentration, work, driving, sleeping and recreation were completed by subjects themselves and collected back to analysis the data.

Outcome measures [9]

Primary outcome: The NDI is a modification of the Oswestry Low Back Pain Disability Index. NDI can be scored as a raw score or doubled and expressed as a percent. Each section is scored on a 0 to 5 rating scale, in which zero means 'No pain' and 5 means 'Worst imaginable pain'. All the points can be summed to a total score. The test can be interpreted as a raw score, with a maximum score of 50, or as a percentage.

0 points or 0% means: no activity limitations

50 points or 100% means complete activity limitation.

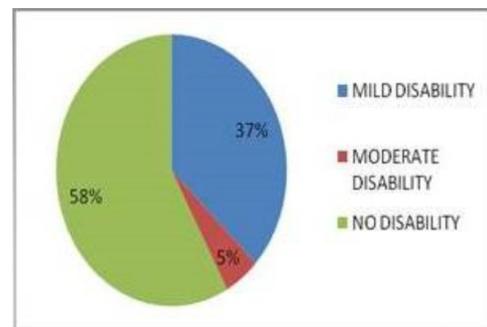
Interpretation

- 0-4points (0-8%) no disability,

- 5-14points (10-28%) mild disability,
- 15-24points (30-48%) moderate disability,
- 25-34points (50- 64%) severe disability,
- 35-50points (70-100%) complete disability

RESULTS

Prevalence of neck pain among dental students was 42%. Among which 37% had mild disability and 5% had moderate disability as shown in pie chart.



DISCUSSION

The severity of pain encountered by dental students in our study varied from mild to severe. The majority of the dentist (58%) experienced mild pain which subsided with rest and 5% experienced severe pain. Khalid *et al.*, in their study, reported that only 37% of those suffering back and neck pain sought medical treatment and concluded that these symptoms among dental personnel are not severe enough to ask for medications. [1]

Most of the respondent in our study were a young practitioner (21-30 years). However, no correlation was found between age and severity or incidence of pain.

For dentists, neck and lower back pain is not a new problem, nearly most of the dentists have suffered from it sometimes during their practice of dentistry. Lower back pain is more prevalent than neck pain mainly due to faulty postural habits.

CONCLUSION

It can be concluded that neck pain among dental students is not of severe nature. The neck is largely prevalent in dental practitioners. That brings along with it a considerable amount of discomfort, lost working time, and economic loss. What we need is not preventing its incidence and recurrence by including preventive aerobic and relaxation exercises in weekly activities of dental students. This will help in improving the quality of work in their clinical practice

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