

Assessment of Knowledge of Occupational Hazards among Practicing Dentists in Nalgonda

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Abstract

Statement of Problem: Although identification of risks to dental healthcare workers has been explored in several industrialized nations, very little data is available from semi urban population. This paper examines the occupational hazards present in the dental environment and reports survey results concerning attitudes and activities of a group of practicing dentists belonging to Nalgonda population. **Aim:** This study was conducted to assess occupational hazards among the dental surgeons of Nalgonda town. **Methodology:** A self assessing questionnaire was provided among 100 practicing dentist belonging to Nalgonda population so as to survey the risk encountered through occupational hazards. **Results:** out of the study conducted only 2% of the study population suffered from very severe occupational stress, severe stress levels among 4%, moderate among 18%, mild among 31%, mild among 40% and 5% experienced no occupational stress levels. 53% of the practicing dentists suffered from musculoskeletal problems. **Conclusion:** It can be concluded that most of the occupational stresses are musculoskeletal pain. These problems are mainly because of not following proper ergonomics into practice.

Keywords: Occupational hazards, cross infection control, Ergonomics.

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INTRODUCTION

Occupational hazards are the risks to a person arising out of employment. Dentists report more frequent and worse health problems than other high risk medical professionals. The practice of dentistry exposes dental professionals to a variety of work-related hazards, they include: Working long hours at a high level of concentration, Working in a sedentary state, Working with anxious patients, Exposure to microbial aerosols generated by high-speed rotary hand pieces, Exposure to various chemicals used in clinical dental practice and other hazards. These hazards can pose significant risks to dental practitioners [1].

Occupational hazard refers to a risk or danger as a consequence of the nature or working conditions of a particular job [2]. It can also refer to a work, material, substance, process, or situation that predisposes, or itself causes accidents or disease, at a work place [3]. The history of occupational hazard awareness can be traced back to the 18th century when Bernadino

Ramazzini, who is referred to as the father of occupational medicine, recognized the role of occupation in the dynamics of health and diseases [3]. Occupational health hazards are not uncommon, although modern dentistry has been cited as the least hazardous of the all the occupations, many risks still challenge the status of this occupation. There are so many clinical situations which could be a source of stress for dental practitioners. Hence this study was planned to assess the frequency of occupational hazards among various dental surgeons.

METHODOLOGY

Descriptive cross sectional questionnaire based survey was conducted among dentists who were working in Nalgonda district. The sample frame consisted of registered dentists in Nalgonda town. In Nalgonda town, dental care is provided through - one Private College and Hospital as well as dental clinics in the district. Dental Care in private set up is being provided through private clinics. 100 dentists above the age 25years were included in the study by convenience

sampling method practicing in Nalgonda town. Informed consent was obtained from the participants. Non dental surgeons and undergraduate students were excluded in the study. A self-administered questionnaire was designed and distributed to the 100 dentists. The questionnaire included the following questions:

- Did you experience any injury from sharps?
- Do you experience any musculoskeletal problems?
- Have you experienced any allergies from materials?
- Are you immunized against hepatitis b?
- Does your clinic strictly follows infection control methods and hospital waste disposal?
- Do you use appropriate protection barrier while taking radiograph?
- Do you take any preventive measures while treating hepatitis b patients?
- Have you ever suffered with herpetic whitlow?
- Have you encountered any psychological problems?
- Does long working hours affect your general health?
- Have you experienced nervousness and anxiety after work?
- Are you using TLD badges for self-monitoring?

The questionnaire was answered in terms of YES/NO. The data obtained from the questionnaire was subjected to statistical analysis using Chi-square test.

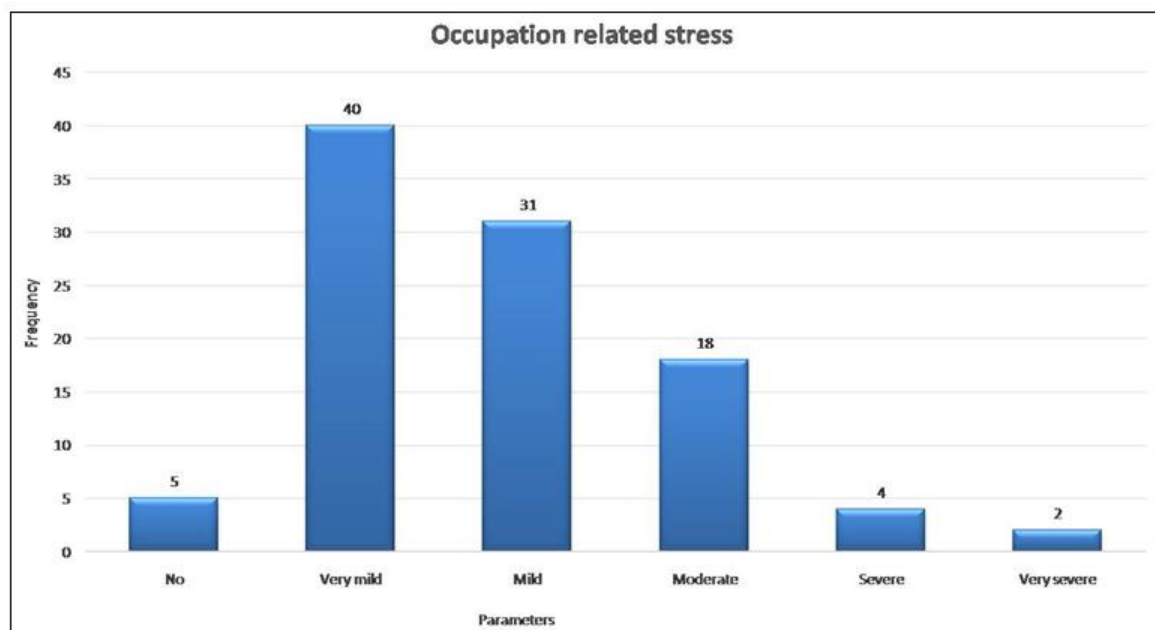
RESULTS

The study comprised of 100 dentist (n=100) who were actively practicing dentistry in Nalgonda town. Out of the data subjected to statistical analysis revealed that the stress related to occupation among the practicing dentist were very severe among only 2% among the study population, occupational stress was severe among 4%, moderate among 18%, mild among 31%, mild among 40% and 5% experienced no occupational stress levels (Graph-1).

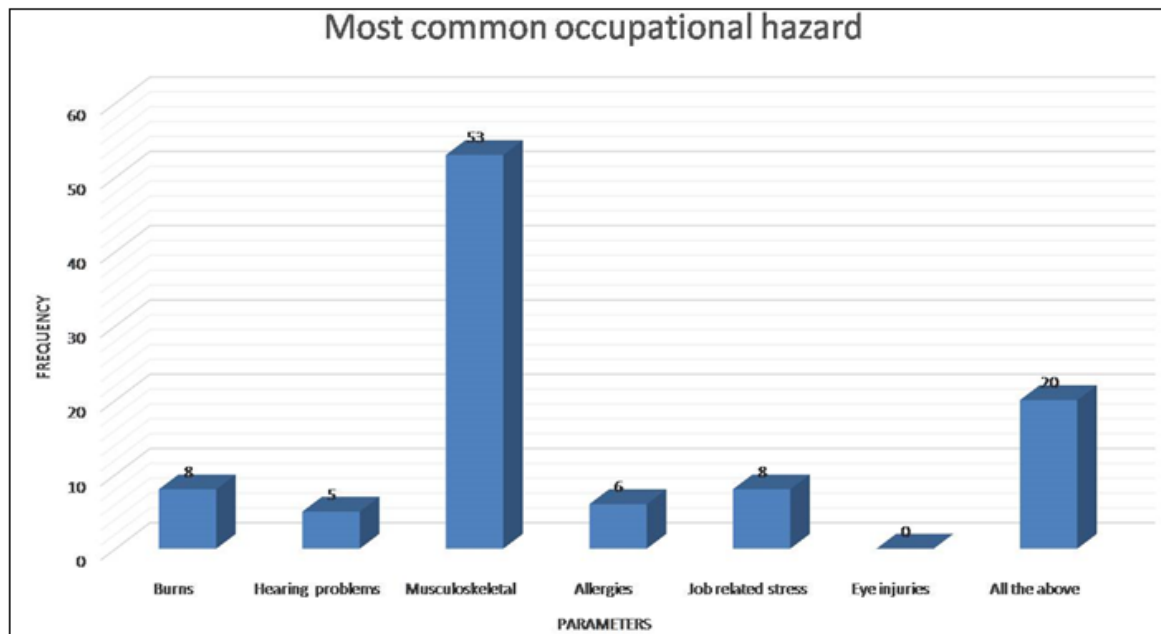
Proceeding to compare the frequency of various types of occupational hazards, musculoskeletal problems were most common among the study group. 53% of the study population suffered from musculoskeletal problems, 8% experienced burns, 6% suffered from allergies, 8% underwent job related stress, 5% had hearing problems, none suffered from eye injuries. But, 20% out of 100 experienced at least one of the above mentioned problems at least once in the practice (Graph-2)

Further, the most commonly experienced musculoskeletal problems were related to back, followed by neck pain, waist pain and shoulder pain. Almost 32% of the dentist suffered from either one or the other type of musculoskeletal problems (Graph-3).

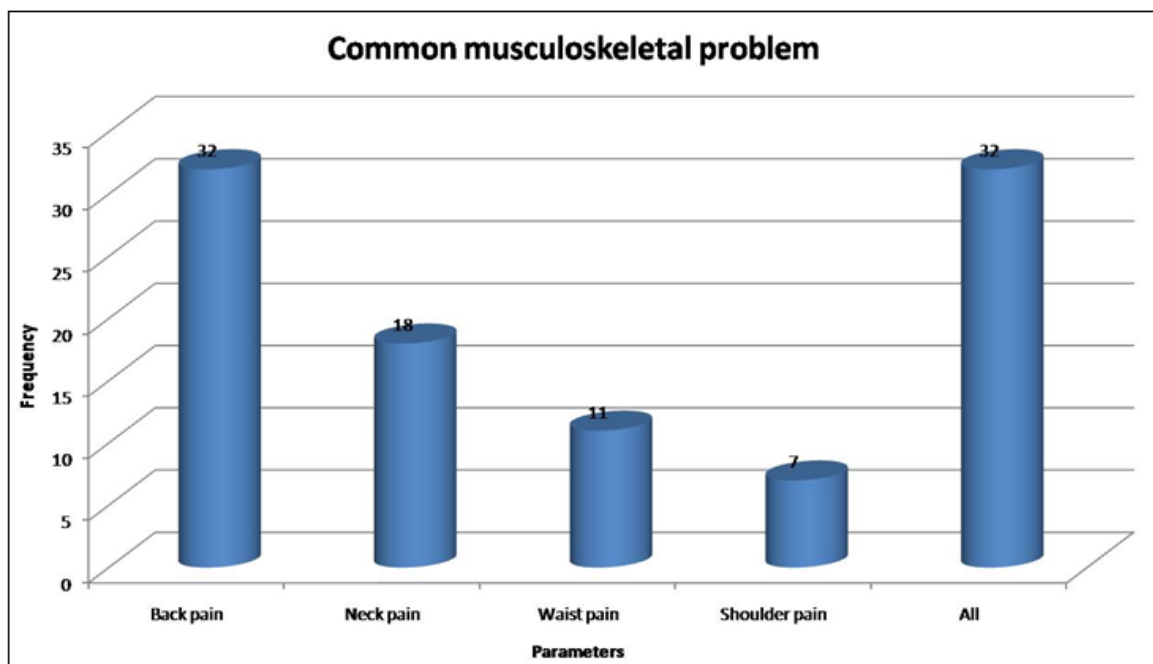
Almost all the dentist did not experience problems related to hepatitis b, this was probably because they were not exposed to patients suffering from hepatitis b, or may be as most of the dentist were vaccinated for hepatitis. Further there were no reports of either of them suffering from herpetic whitlow. Neither of the dentists experienced radiational hazards as they were using protective barriers.



Graph-1: Occupation Related Stress



Graph-2: Most Common Occupational Hazard



Graph-3: Common Musculoskeletal Problem

DISCUSSION

A healthy dentist is one of the most important components in a successful dental practice. Dentists as well as other dental personnel's are constantly exposed to a number of specific occupational hazards. Many occupations involve exposure to special and peculiar hazards. The most pernicious are not those where the effects appear immediately, as in accidents, but rather those that run an insidious course over a period of years [3]. As clinical dental personnel adapt to the workplace and routine functions over a long period of time, they are exposed to potential hazards with the constant

handling of potentially dangerous materials and working in a potentially polluted atmosphere. A worker's safety may be severely jeopardized if adequate safety measures are not taken [4, 5].

Studies across the world have shown that, dentists as compared to other medical profession have reported more frequent and serious health problems [5]. These problems include increased psychological stress, musculo- skeletal disorders and allergic reactions [6]. Beside that dental professionals on daily basis are in contact with tissues, saliva and blood directly or

indirectly [7]. Similar results were found in among the practicing dentist belonging to this study.

The most suffered problem among the dentists were musculoskeletal pain. However, apart from musculoskeletal pain, there are reports which suggest that prolonged static posture also leads to occupational stress.

Clinical symptoms of latex allergies include: urticaria, conjunctivitis accompanied by lacrimation and swelling of eyelids, mucous rhinitis, bronchial asthma and anaphylactic

Reaction [8] 6% of the study group in the present study also experienced allergies due to chemical agents.

In this study there were no reports of patients suffering from contagious diseases like Hepatitis B, Herpetic Whitlow. This could be due to awareness among the dentist to be vaccinated for diseases like Hepatitis.

CONCLUSION

In present study, Nalgonda dentists are suffering with one or the other occupational hazard related to dentistry. Among them Physical hazard in the form of musculoskeletal pain was very common. This may be due to the fact that Ergonomics as a subject is still not that popular and has been not added in regular curriculum and Dental Council of India should take interest in ergonomic issues as these concepts are extremely important for dental offices. Continuing dental education programmes should include education regarding ergonomics, new materials, operating methods, new laws, vaccination etc.

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