

Gender wise Comparative Study on the Prevalence of Neck Pain among Dentist in Single Dental Treatment

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Abstract--- *Objective: To ascertain common gender in dental professionals for prevalence of developing neck pain in single dental procedure.*

Setting and Participants: *The dental professionals have private clinics and dental hospitals. Sixty samples were selected, and among this thirty number are grouped in each gender.*

Outcome Measure: *Numerical pain rating scale was used in this study.*

Result: *Both the gender developed pain in neck during single dental treatment application. But the intensity of pain discrepancy is seen in both genders.*

Conclusion: *From the results, both gender of the dentist elicit neck pain during their treatment of the patients. So better they can have ergonomics and neck exercises for prevention of neck pain developing.*

Keywords--- *Dentist, Neck Pain, Numerical Pain Rating Scale, Posture, Single Dental Treatment and Ergonomics.*

I. INTRODUCTION

The scope of dental professional's manual and skill work by using their hands throughout the treatment procedure. The musculoskeletal health issues are a common prone in dental professional's nowadays. There is several well supported research literature about this concept. The dentist, while performing treatment to the patients, they can be high-level possibilities to develop pain especially in neck and back region. Rationale the dentist has to spend more time duration for each patient treatment. The human population having well awareness about health issues in tooth and can be treated by dental professionals. Naturally the human mouth is small within optimum and a narrow region. Hence the dentist have need visual attention and have to more sharply observe for treating each teeth. So in this profession for the treatment to the patients the dentist's vision and both hand involve. This follows the automatic participation of neck region.

The occupational hazards are commonly experienced in dentist atmosphere than that of other health workers in modern medicine. Even though several article suggested about developing of neck and back pains of the dental professionals while their work, whenever enquired about pain, they respond positively. The dentist have patients service experience or handling many patients per day may be this is not appropriate cause for inducing neck pain of

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the dental professionals during their treatment. This is a another option that there will be a chance to arise that throught out the course of dental treatment the body position of the dentist and patients. They are not considered for maintaining proper posture, constant musculature work and stress also. The mentioned factors are clearly understood as the reason to initiate neck pain among dentist. The need of neck pain recognition development in young dental professionals is easy to create awareness and they can maintain regular and properly whenever the young dental professionals performing their service to patients, it provide comfortable and effective treatment in their dental life period.

Hence the objective of the study is to determine common gender prevalence for developing neck pain in single dental treatment.

II. MATERIALS AND METHODS

Regarding this study, sixty dentist were selected. Among sixty it is divided into two group as Group A and Group B. Group A consists of male dentist whereas Group B possess female dentist. Each group has thirty samples ranging between the ages 25 to 40 years. There are no previous health issues in neck region of the dentist. No limitation in the year of experience. The study was carried out in dentis”t own clinic and hospital. For this study personnel visit to the both male and female dentist was made and enquired about pain. The quantity and quality of pain have been assessed by using numerical pain rating scale.

III. DATA ANALYSES

Table 1: Shows No of Male Dentist have Pain Category

<i>No Pain</i>	<i>Mild Pain</i>	<i>Moderate Pain</i>	<i>Total</i>
10	6	14	30

Table 2: Shows No of Female Dentists have Pain Category

<i>No Pain</i>	<i>Mild Pain</i>	<i>Moderate Pain</i>	<i>Total</i>
9	15	6	30

Table 3: Distribution of Pain with Reference to Gender

<i>Gender</i>	<i>Pain Intensity</i>							
	<i>NO Pain</i>		<i>Mild Pain</i>		<i>Moderate Pain</i>		<i>Total</i>	
	N	%	N	%	N	%	N	%
Male	10	33.3	6	20	14	46.7	30	100
Female	9	30.0	15	50	6	20.0	30	100
Total	19	31.7	21	35	20	33.3	60	100
Persons Chi –square					Value(x ²)		‘P’	
					7.11		.029	

N- number ,x²- chi-square and p- probalbility

Overall 68.3 % of the dentist had pain during the single dental procedure, of which 35% had mild pain and 33.3% moderate pain with reference to gender 33.3% of the male dentist had no pain during the single treatment procedure likewise 30% of the female dentist has not reported any pain such treatment. But in reference to severity of pain, the majority of the male dentist had moderate level (46.7%) whereas female dentist had mild level of pain(50%). The chi-square test of association was statistically significant x²=7.11, p= .029. Therefore significant

difference observed in the level of pain between male and female dentist in the single treatment procedure procedure.

IV. RESULTS

From the statistical analysis of this study , on the basis of objective the dentist of both genders has developed neck pain during single treatment. But, in intensity wise, male dentist felt moderate pain and female dentist felt mild pain.

V. DISCUSSION

In this study sixty dentist were selected and the sixty is divided into two groups. Group A and Group B. Group A has thirty male dentists and Group B consists of thirty female dentist. All belong to age group between 25 to 40 years. The sixty samples are all full time clinical practice. This study was carried out for three months. There are several literature suggesting positively about developing of neck pain among dentist in their dental service to the patients. It may be due to some reasons such as improper posture, stress, constant musculature work and and the position both the dentist as well as patients while treatment protocols. In this study within short duration samples were collected and the neck pain between two genders of the dentis were compared. In this study the result showed that both the gender has developed neck pain. The intensity of pain was altered. According to that the male dentist had moderate pain , female dentist possess mild pain according to numerical pain rating scale. This may be due to the female dentist alert and care of their body posture and may be mostly less duration of working time in each treatment. Even though the female dentist taking care of their posture while treatment application, the developing of mild pain is due to sustained and constant neck flexed position during treatment application. The moderate pain developed in male dentist may be that they have to take long duration of treatment time, may be due to chance of stressful and severe neck flexed position throughout the course of treatment. Finally it is clearly understood that the developing of neck pain is an unavoidable one.

VI. CONCLUSION

From this study both genders of the dentist developed neck pain, only there is variation in intensity of pain. So it is concluded that awareness should be created about their body posture, ergonomics and performing warm-up and stretching of the muscles before they commence dental treatment to the every patients. And moreover the dentist should have very minimum time of relaxation during their during treatment protocols for each patient.

VII. RECOMMENDATION

The same methodology of this study should be reviewed in long study duration with large sample size in future. It helps to recognize, make compulsory to follow ergonomics ,maintain the appropriate body posture and exercises , and it concludes that dentist can be peacefully, comfortably and effectively provide treatment to the patient in their dental life period.

REFERENCES

- [1] Fadil, Adil Ghalib. "Knowledge and Practice Regarding Infection Control among dental students at Basra University College of Dentistry, Iraq." *International Journal of General Medicine and Pharmacy (IJGMP)* 5.6 (2016):35-46
- [2] Wadood, Sundus Abdul, Hussein Shatti AL-essa, and Adil Galib Fadil. "Causes of Teeth Extraction in Patients Attending the Outpatient Teaching Clinic in College of Dentistry, University of Basrah From 2012-2014." *International Journal of General Medicine and Pharmacy (IJGMP)* 5.6 (2016):27-34.
- [3] Premkumar, KS. "Ergonomics in Orthodontics-A Review." *International Journal of Dental Research & Development (IJDRD)* 6.4 (2016):15-22
- [4] Senthilnathan, CV, A. Gurulakshmi, and G. Mohan Kumar. "Effects of Isometric Neck Exercises in Improving Cervical Range of Motion in Long Time Helmet Wearers." *International Journal of Physiotherapy & Occupational Therapy (TJPRC: IJPOT)* 1.1 (2015):9-16
- [5] Ramanathan, K., et al. "Effect of Conventional Physiotherapy [Tens and Ultrasound] vs. Ischemic compression With Stretching in the Treatment of Active Myofascial Trigger Points for Upper Back." *International Journal of Physiotherapy & Occupational Therapy (TJPRC: IJPOT)* 2.2 (2016):9-16
- [6] Sivaranjani, SS, et al. "Single Immediate Denture for a Diabetic Patient-A Case Report." *International Journal of Dental Research & Development (IJDRD)* 6.6 (2016):17-22
- [7] Dharuman, M.U.T.H.U.M.A.T.H.I., S. Gopalakrishnan, and R.B. Velmurugan. "Development of biomedical publications on orthodontics research in PubMed from 1991 to 2013: A bibliometric analysis." *International Journal of Orthodontics & Research (TJPRC: IJOR)* 1.2 (2015): 1-6.