

## *Original Research Article*

# **Ramification in Dental Practice with a Knowledge and Awareness in the Subject of Tooth Morphology**

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### **Abstract**

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The concept of assessing that the knowledge and awareness of the subject of tooth morphology among the undergraduates and house officers is helpful in their clinical practice. The objective of this study is the ramification in dental practice to assess the knowledge, attitude and awareness of the subject of tooth morphology in undergraduates and house officers. The study was conducted among the undergraduate students and house officers. Data was collected by predesigned proforma. The sample size calculated was 310 by keeping proportion 52% and confidence interval 95% and margin of error 5% in OpenEpi. 3.01.  $N = Z^2 P (1-P) / d^2$ . Results of the survey and feedback revealed that the difficulties had been faced during clinical practice in different fields of dentistry due to lack of basic knowledge of the subject. On an average nearly 25% of the students who had taken part in the survey were unable to answer research proforma positively.

**Keywords:** Dental practice, Ramification, Tooth morphology.

## **INTRODUCTION**

Tooth morphology is that subject which deals with the gross morphology and endodontic anatomy of human dentition, also the knowledge about eruption pattern, and alignment in different quadrant of maxillary and mandibular arches (Trinaina et al., 2017).

A strong base of this knowledge is important and helpful in dental practice. To understand the association between the basic knowledge and clinical skills, a study was designed to reveal the outcome of the objective (Dental Awareness and Attitudes among Medical Practitioners in Chennai, 2011).

## **MATERIAL AND METHODOLOGY**

A descriptive cross sectional study was conducted in open patient department of Baqai Dental Hospital, Drul Sehat, KMDC, OJHA DOW by using 10 close ended self administered questionnaire by simple random sample

technique to reach the required sample size of 312 to evaluate the awareness and attitude among undergraduates. This study was conducted in the teaching hospital (Baqai Dental College) by a survey using predesigned questionnaire form. Enough time was given to all the participants to fill up the questionnaire. Also visited the participants personally and discussed problems personally. Table 1

### **Sample size**

The sample size calculated was 312 by keeping proportion 52% and confidence interval 95% and margin of error 5% in OpenEpi. 3.01.

$$N = Z^2 P (1-P) / d^2$$

A questionnaire is designed as a tool to take the feedback of the clinician.

Table 1. Research Proforma

SR. #	QUESTIONNAIRE	RESPONSE
1.	What do you feel/experience in your clinical practice, having a strong base of basic knowledge of Anatomy and tooth Morphology?	a) Yes, I agree it is ----- necessary to have a strong base of knowledge. b) It is not that important.
2.	During endodontic treatment, is the basic knowledge of endodontic Anatomy helpful for you while treating the patient?	a) Yes, it is very necessary ----- b) I don't feel it is-----
3.	Have you faced any difficulty in performing root canal treatment of 1st pre molar, if yes, Why?	a) Yes, I faced the problem ----- b) No, it was not difficult ----- c) I have not performed the root canal treatment of 1st premolar.
4.	Have you felt effectiveness of anesthesia in your 1st go while giving nerve block? If not, what could be the expected reasons? Is it related to age also and why?	a) Yes, it was effective in 1 <sup>st</sup> go ----- b) Not always effective Reason :-----
5.	Regarding the intensity of dental pain, at which age the sensitivity is experienced in clinical practice of restorative dentistry?	a) In restorative dentistry intensity of pain is same in all ages ----- b) It is different with age----- Reason:-----
6.	Do you think that root completion is important before root canal treatment?	a) Yes, it is important ----- b) No, it is not important -----
7.	During extraction of tooth or minor dental surgeries in the mental foramen area, what post operative problems have you faced and why?	a) I have never faced any post operative problem----- b) Yes, post operative problems are usually faced-----
8.	While doing extractions or removing broken down root in Maxillary Molars, have you faced any problem and why?	a) Never faced any problem----- b) Yes, there are some----- Reason:-----
9.	While taking secondary impression of human upper & lower jaw, which landmarks would be registered, and why it is necessary?	a) Yes, landmarks are important for perfect impression ----- b) No, landmarks are not important -----
10.	What would be the effect of alignment in proclination of anterior segment of lower incisors during orthodontic treatment?	a) thinning of gingival b) thickening of gingiva

### Inclusion Criteria

Undergraduate and house officers of Baqai Dental College

### Exclusion Criteria

Undergraduates and house officers of KMDC, DARUL SEHAT, DOW OJHA

### RESULT

There was a statistically significant difference in the knowledge ( $P = 0.005$ ) and practice ( $P = 0.003$ ) of tooth morphology. The study was very helpful to understand experiences of undergraduate and house officers. It was revealed by this study that how much basic knowledge is necessary for clinician to do successful practice. We found a significant difference in the knowledge and practice of tooth morphology between these universities. Figure 1, Table 2

### DISCUSSION

This study was undertaken to assess the comprehensive skills and application of tooth morphology among dental

students who are exposed to clinics, using a questionnaire, which may give a clue for revision of curriculum if necessary (<https://pdfs.semanticscholar.org/8b2e/5b19e79611be2d23bcfe0fe170628c8ee831.pdf> 20 15)

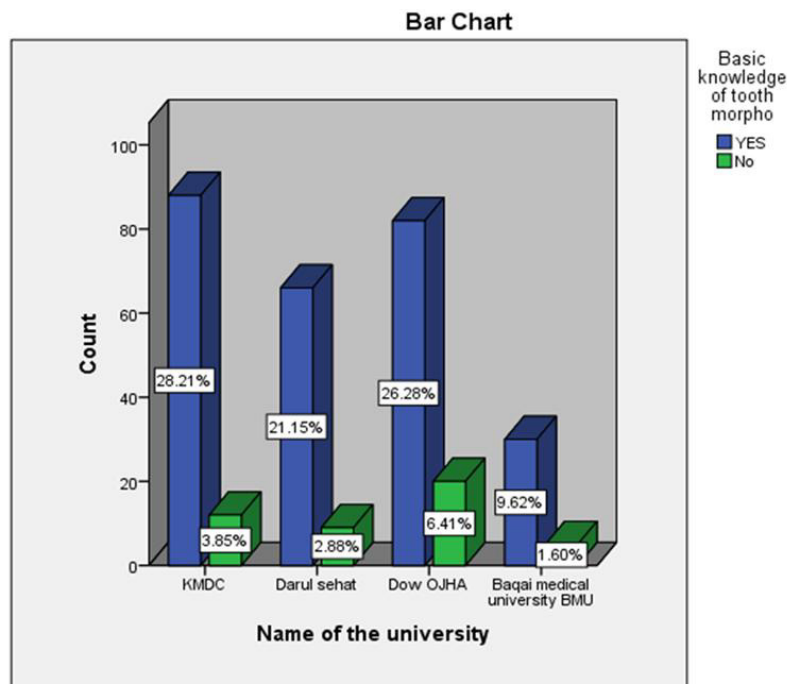
Results of the study showed that the dental house officers had good knowledge about dentistry. It plays a vital role in enriching the students about the basic morphology of teeth so that as they mature into dentists, they will be confident practitioners and will be highly proficient.

From the above obtained results it is seen that most students were face the post operative problems during extraction of mental foramen when asked. It was also seen that most students had difficulty in giving nerve block because some said pterygomandibular raphe does not feel.

Nearly 25% of the students who answer the questionnaire seemed to be rather unclear about their concepts.

In the present study with regards to dental knowledge 273 (89%) have said that they have knowledge of endodontic treatment. This result is in coordination with the results of study performed in Kandhan et al. (2017). Dental College and Hospitals, Poonamallee Road, Chennai in which 271 (90.3%) of medical practitioners had the knowledge about endodontic treatment and tooth morphology (Abu Eid et al., 2013).

In the present study 266 (85.3%) medical practitioners



**Figure 1.** Bar chart

**Table 2.** Provide table legend

S.#	QUESTIONS	YES. n (%)	NO. n (%)
1.	Knowledge of endodontic treatment	273(89%)	34(10.9%)
2.	Basic knowledge of tooth morphology	266(85.3%)	46(14.7%)
3.	Difficulty in performing RCT	177(56.7%)	135(43.3%)
4.	Effectiveness of anesthesia	192(61.5%)	120(38.5%)
5.	Root completion is important before RCT	263(84.3%)	49(15.7%)
6.	Post operative problems during extractions in mental foramen area	179(59.4%)	133(42.6%)
7.	Problems faced while removing max. molars BDR	105(33.7%)	207(66.3%)
8.	Important landmarks during secondary impression making	276(88.5%)	36(11.5%)
9.	Alignment in proclination in anterior segment of lower incisor	199(63.8%)	113(36.2%)
10.	Sensitivity in clinical practice of restorative dentistry	98(31.4%)	214(68.6%)

answered positively that it is necessary to have a strong base of knowledge. Their result and our result aligned with each other.

Since the response to attitude toward understanding and applying tooth morphology knowledge was positive by the majority of the dental students in this study, dental anatomy importance is highlighted again as suggested by various authors (<https://pdfs.semanticscholar.org/8b2e/5b19e79611be2d23bcfe0fe170628c8ee831.pdf> 2015).

## CONCLUSION

We have concluded from this study that students of final

year and going up to the level of internship and house job practitioners faced difficulties in their practice i.e: endodontic treatment and surgeries even in giving local anesthesia they felt difficulties without having strong basic knowledge of anatomical landmarks. They should be updating their basic knowledge.

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