

# Knowledge and Practice of Interdental Cleansing Aids among the Undergraduate and Post Graduate Students

Dr. Saleem Khan Postgraduate Student Department of Periodontology Midsr Latur

Dr. Om K Professor Department of Periodontology

## Abstract:-

### ➤ *Introduction:*

Bacterial plaque is the dominant etiological factor in periodontitis, furthermore it has been convincingly demonstrated that gingivitis is most frequent and most severe in interproximal area. Tooth brushing is indispensable for maintaining oral hygiene. However tooth brushing alone is not sufficient in interproximal area. Interdental aids provide auxiliary assistance. Lack of use of these may leads to interproximal caries and periodontitis.

### ➤ *Aims and Objectives:*

This study is carried out to assess the knowledge and practice about interdental cleansing aids among undergraduate & postgraduate students of MIDSr Dental College Latur.

### ➤ *Methodology:*

A Cross-sectional Questionnaire Survey was carried out among Undergraduate and Post –Graduate Students of MIDSr Dental College Latur. They were divided into three groups[Group A -Ist & IInd years, Group B –IIIrd & IV year, Group C consist of Interns and post-graduate students]. A prepared questionnaire is distributed to all subjects participating in the study and answers are collected in presence of principal investigator. Appropriate statistical analysis will be performed.

### ➤ *Results:*

Among 465 subjects 324 voluntarily participated in the study. The knowledge and awareness was found to be 69.53% in Group A, 96.33% of Group B & 100% among Group C. while 55.38% in group A, 62.38% in group B and 66.67% in group C are practicing interdental aids.

### ➤ *Conclusion:*

The preliminary data shows that dental student is quite aware and knows about interdental cleansing aids, very less population practicing it. Practicing interdental cleansing aids will benefit for maintaining of oral hygiene, for plaque control, and for prevention of periodontal disease and Dissemination of information about the importance of interdental cleaning is therefore recommended.

## I. INTRODUCTION

Dental plaque is the community of microorganisms found on a tooth surface as a biofilm, embedded in a matrix of polymers of host and bacterial origin.<sup>1,2</sup> Dental plaque or biofilm is the main etiological factor in the causation of periodontal disease and effective removal of bacterial plaque is the gold standard for its prevention. The mechanical method of plaque control is indisputably the easiest and most effective measure to prevent periodontal diseases.<sup>3,4</sup> It has been reported that toothbrush alone is inadequate for effective removal of dental plaque.<sup>5</sup> Self-cleaning of the teeth provides mechanical removal of bacteria plaque, which if adequately carried out leaves the dental surfaces free. Incorporation of the appropriate skills of tooth cleaning should include all the teeth surfaces with emphasis on interdental areas that have been reported as the initiating sites for periodontal diseases.<sup>6</sup> Similarly, the interdental surfaces are the most implicated locations for the development of periodontal diseases and dental caries.<sup>4</sup> Gingival inflammation is, in addition, worst in these areas.

Although the toothbrush remain the most commonly used nonprofessional means of bacteria plaque control, it may leave the interdental areas incompletely cleaned of bacteria plaque thus additional conscious and regular cleaning with interdental cleaning aids is required.<sup>4,7</sup>

Common interdental cleaning aids include dental floss, interdental wood sticks, interdental brushes and tapes. The use of any of these aids is mostly dependent on the morphology of the interproximal tooth surface, the size and shape of the interdental area as well as patient factor in maintaining oral hygiene.<sup>7</sup> Recent studies have shown that interdental cleaning of teeth with the appropriate aids reduces plaque accumulation and gingivitis, and that interdental cleaning is not associated with periodontal pocketing.<sup>7,8</sup> However, most people tend to neglect this important habit, cleaning all other tooth surfaces and leaving the interdental areas untouched as the task is tedious, require meticulousness, as well as good manual skills.<sup>9</sup>

### ➤ *Aim and Objectives*

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➤ *Methodology*

A Cross-sectional Questionnaire Survey was carried out among UG and PG Students of MIDSR Dental College Latur. A questionnaire of 18 multiple choice questions were given to

dental student 324 subjects were grouped into Group A -I<sup>ST</sup> & II<sup>nd</sup> years students ,Group B -III<sup>rd</sup> & IV year students and Group C consist of Interns and postgraduate students.

**Questionnaire**

**1) What do you use for cleaning the teeth?**

- Tooth Brush & toothpaste only**
- Tooth Brush & toothpaste+ interdental cleansing aids**
- Interdental cleansing aids only**
- None of these**

**2) Do you know about interdental cleansing aids?**

- Yes**
- No**

**3) If yes, how come you know that?**

- Through mass media/advertising**
- Through dentist**
- Family**
- Other sources**

**4) Why it is used?**

- To remove food accumulation**
- To remove stain**
- When there is a bleeding**
- Don't know exactly**

**5) In what kind or form it is available?**

- Cone -shaped /cylindrical brush**
- Wooden /rubber tips**
- Floss**
- All of the above**

**6) Do you clean your teeth with interdental cleansing aids?**

Yes                       No

**7) Do you regularly clean your teeth with interdental cleansing aids?**

Yes                       No

**8) If yes, which type of interdental cleansing aids you used?**

Dental floss

Tooth pick

Rubber tips

Interproximal brush

**9) When did you start using interdental cleansing aids?**

After advice of a dentist

Before joining dental college

After joining dental college

Any other

**10) Is it time consuming?**

Yes                       No

**11) Is there any harmful effect on soft tissue during the use?**

Yes                       No

**12) At what interval do u use?**

Daily  Once in a week

Twice in a week  Once in a month

**13) How much time do you spend for cleaning the teeth with interdental cleansing aids?**

2-3 MIN  3-5 MIN

5-10 MIN  >10 MIN

**14) Are you happy with the use of interdental cleansing aids?**

Yes  No

**15) What secondary methods do you employ other than brushing for maintaining oral hygiene?**

Mouthwashes

Ayurvedic / Herbal tooth powder

Neem stick /Miswak stick

Any other

**(For post graduates student and intern only)**

**16) Do you recommend your patients to use interdental cleansing aids?**

Yes  No

**17) If yes How many times a day?**

Once a daily  Twice

Thrice  after every meals

**18) At what time?**

Before meals

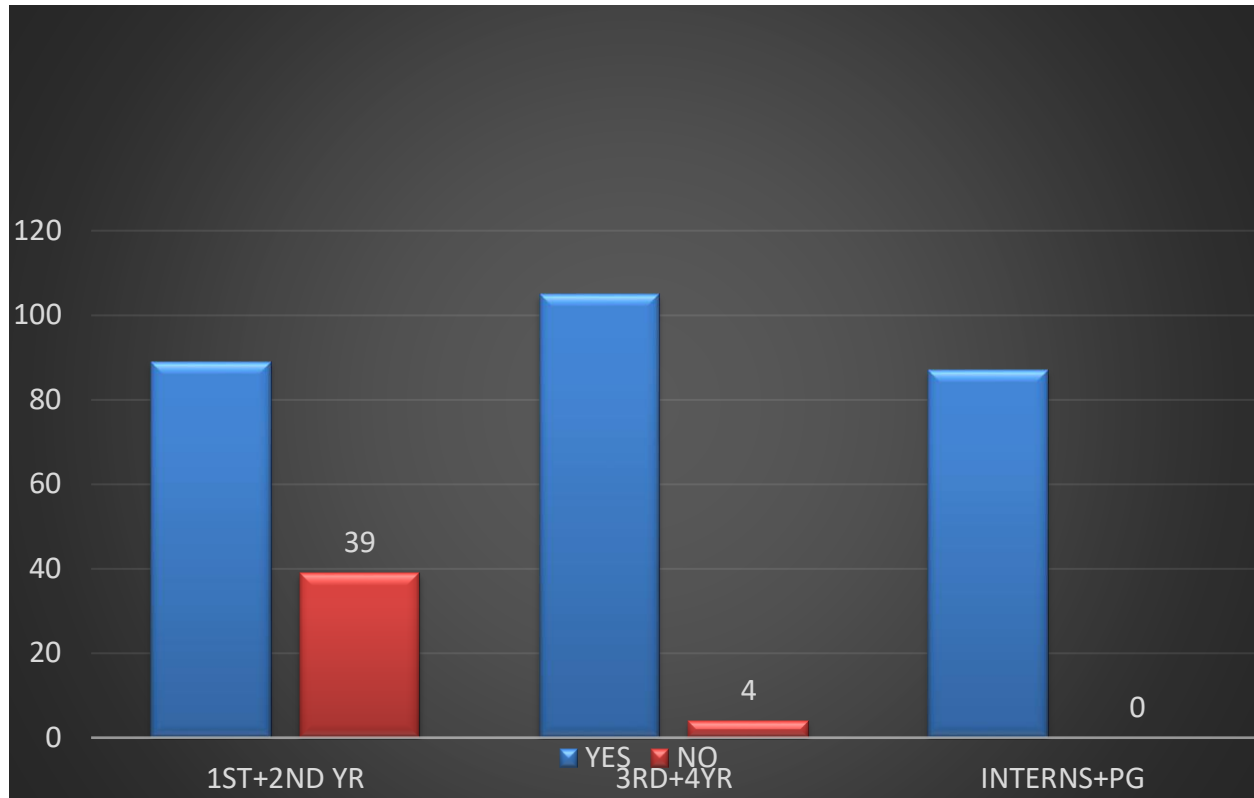
After meals

**II. RESULTS**

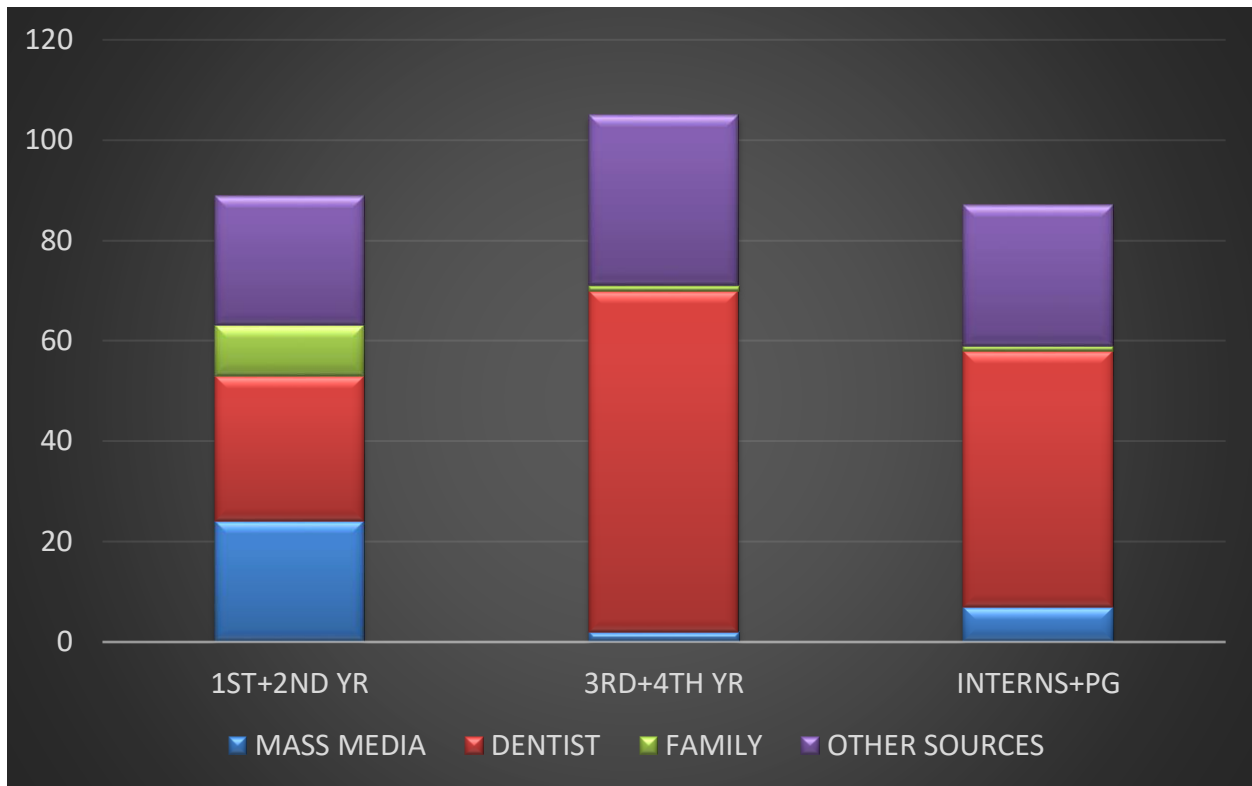
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➤ **KNOWLEDGE**

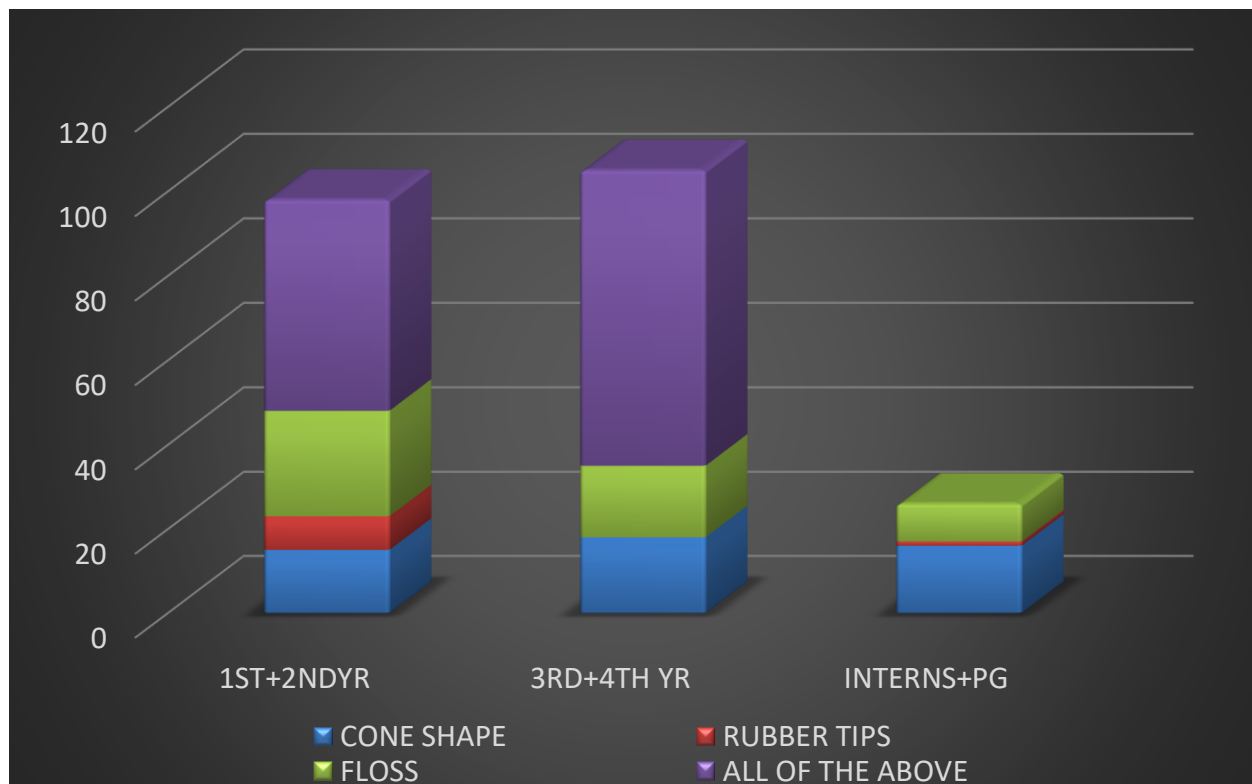
**Do you know what are interdental aids?**



**How come you know that?**

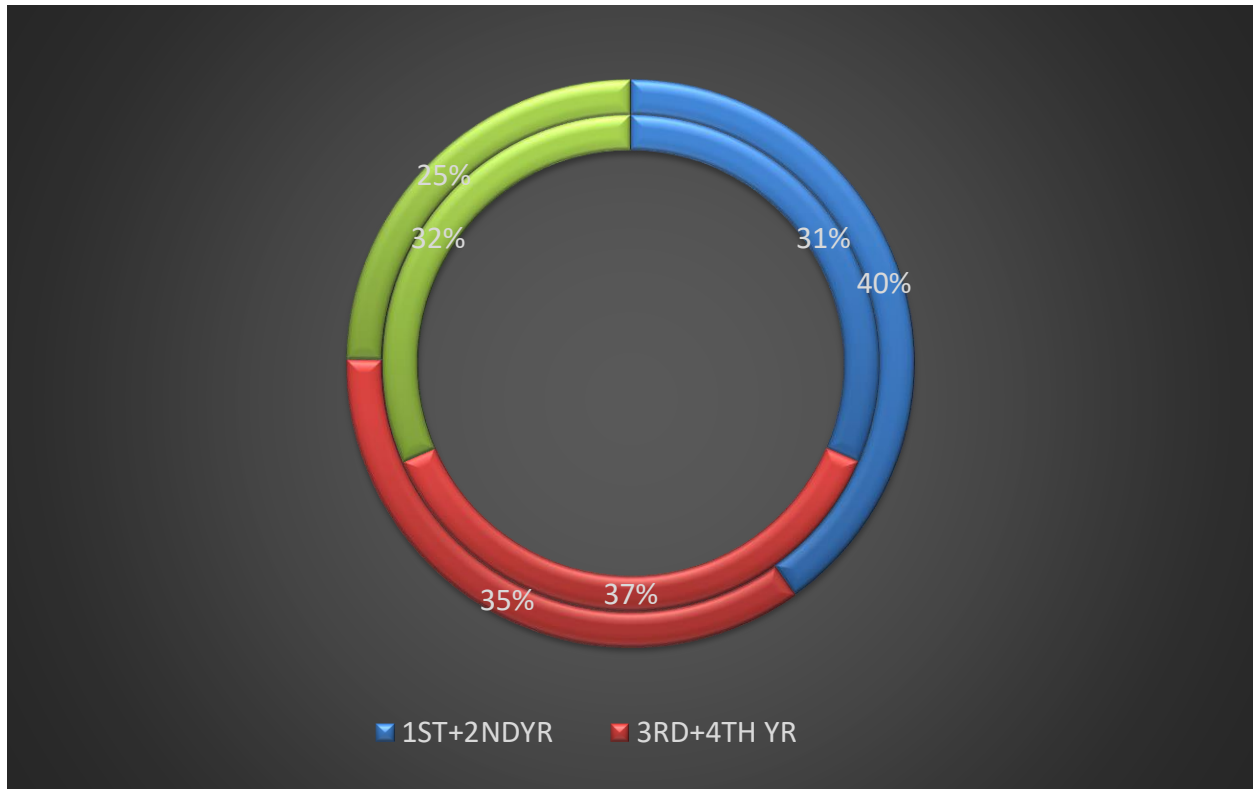


**In what kind or form it is available?**

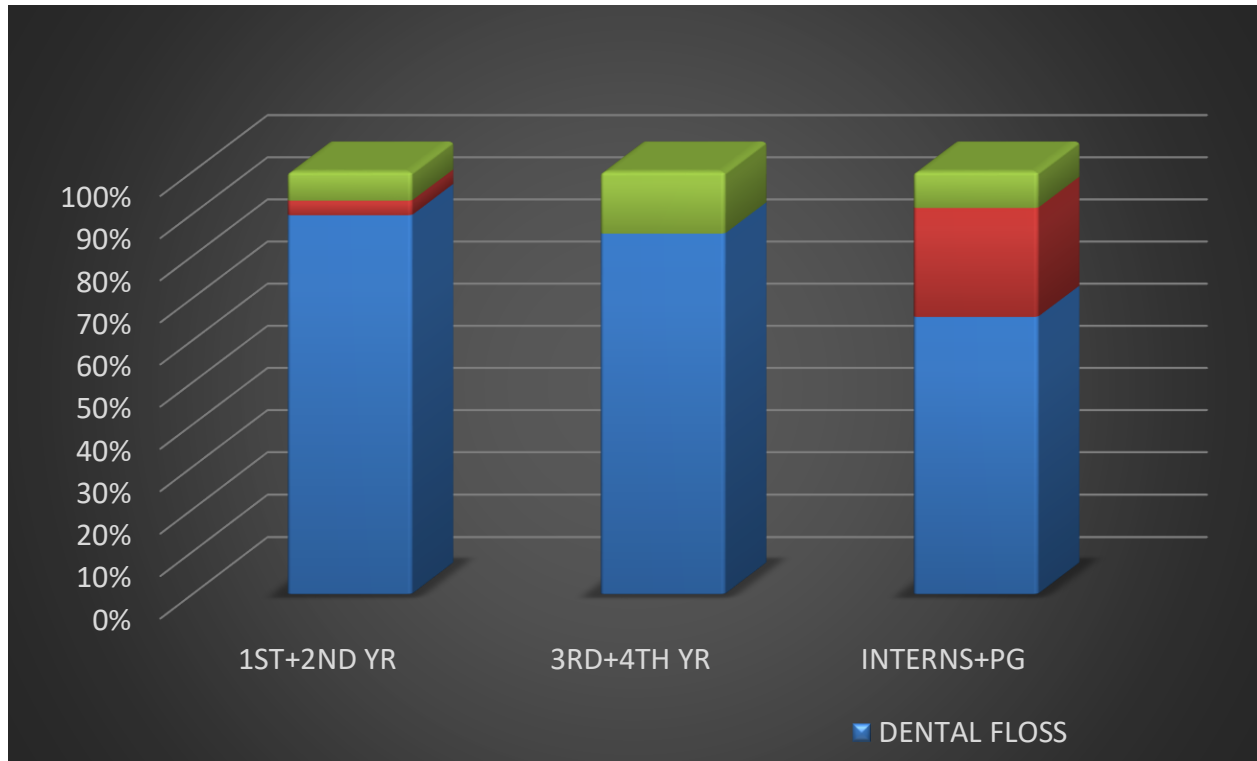


**PRACTICE**

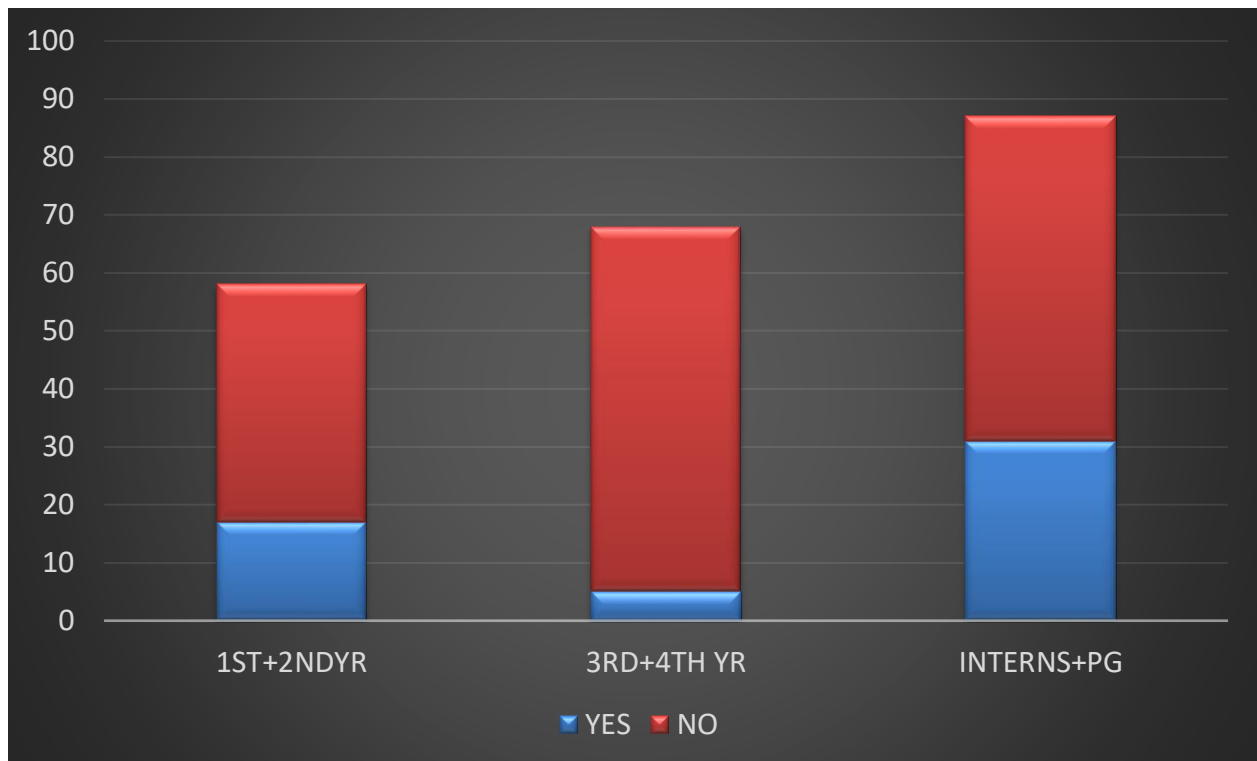
**Do you clean your teeth with inter dental aids ?**



**Which type of interdental cleansing aids you used ?**

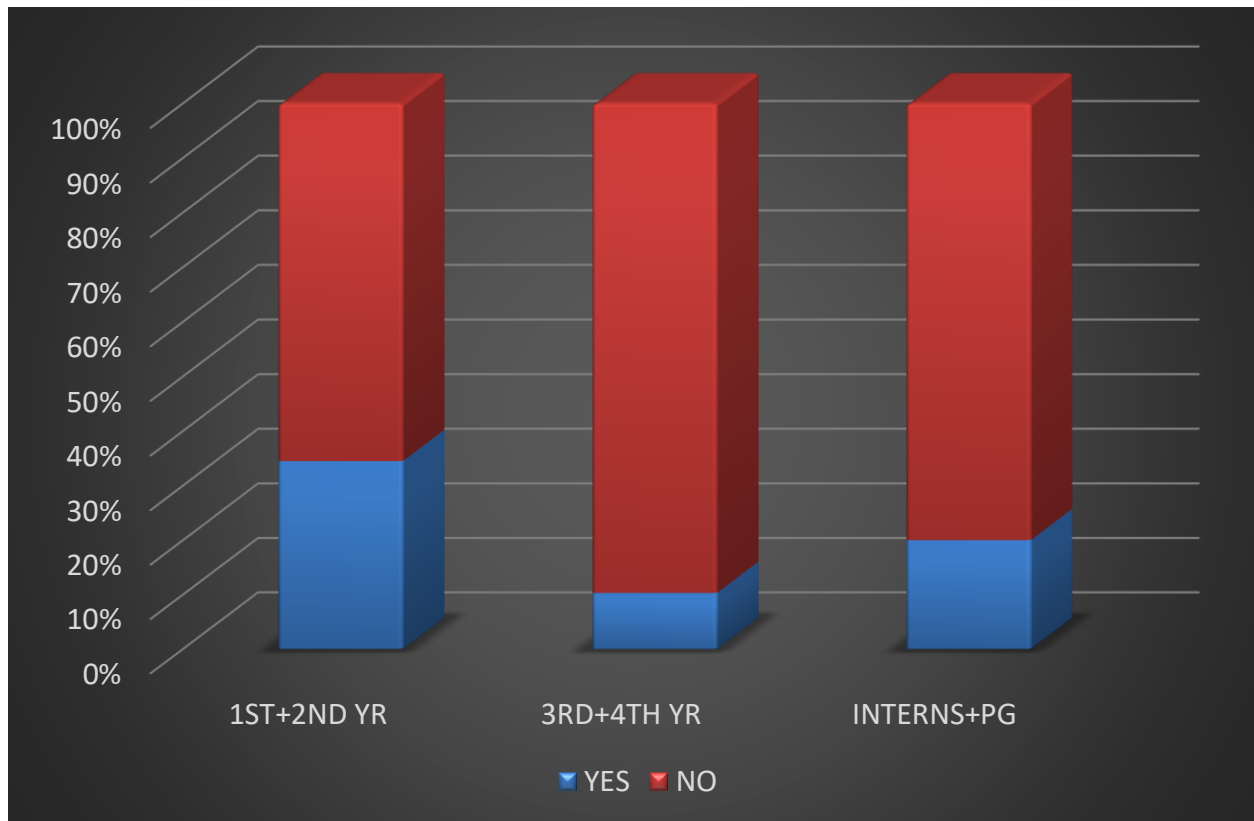


**Is it time consuming?**

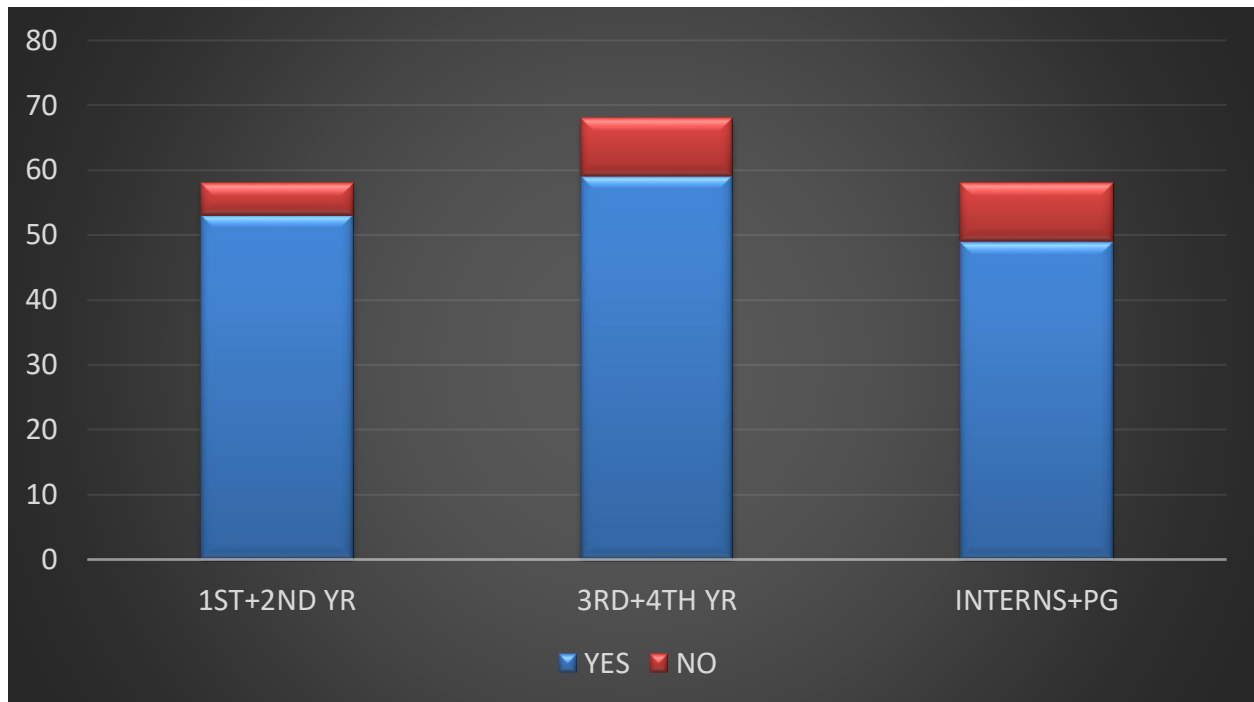




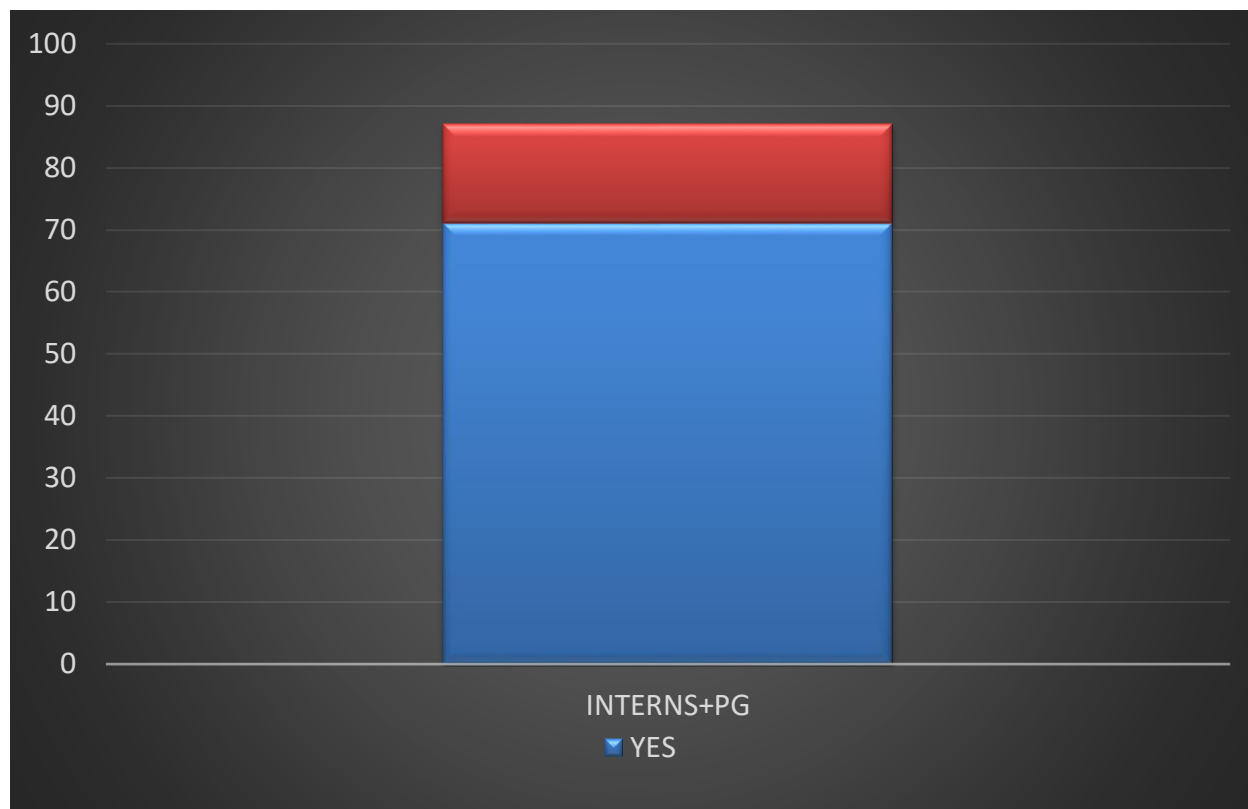
**Is there any harmful effect on soft tissue?**



**Are you happy with use of interdental cleansing aids?**



**Did you recommend your patient to use interdental aids?**



**III. DISCUSSION**

The present study has investigated the knowledge of oral hygiene aids and practice of it among dental student. Professional plaque removal and regular follow- up combined with patient oral hygiene instructions can minimize the level of gingival inflammation and swelling.<sup>10</sup>

The result of the study shows that dental students are quiet aware of the adjunctive use of interdental aids only few were relatively practicing it .Brushing was the most commonly used method of teeth cleaning. 90.3% of the total patients cleaned their teeth with toothbrush and toothpaste. In the present study about 20% of the total patients used any of the interdental aids, out of which only 9.8% subjects used dental floss, 6.9% patients used toothpick while only 3.2% subjects used any other interdental aid like interdental brush.

➤ *Knowledge and Awareness of interdental cleaning among the study participants*

A total of 281 (86.0%) patients were aware of interdental cleaning; 148 (52.6%) got to know about interdental cleaning from the dentist and dental health workers, 33(11.7%) from the mass media, 12(4.2%) from family, whereas 88 (31.31%) were informed from other sources such as, physicians and medical health workers, spouse, and friends. The most

commonly used interdental aid in this study was dental floss. This is similar to what had been reported by others.<sup>11,12</sup>A review on interdental cleaning methods concluded that all conventional devices are effective, but each method should be suited to a particular patient and also to the situation in the mouth.<sup>13</sup>

Among 324 subject 184 (56%) practising interdental aids. In the present study about 80% subjects used dental floss, 9.2% patients used toothpick while only 10.3% subjects used any other interdental aid like interproximal brush Although, PG students being 100% aware, the usage was limited. About 70 % demonstrate their patients to use dental floss, 16% does not demonstrate the use of dental floss. Several studies have shown the usefulness of regular dental flossing for removal of inter dental plaque and calculus (Bauroth et al, 2003; Bellamy et al,2004).<sup>14,15</sup>Just being aware is not only important the habit should be instilled since early stage for proper maintenance of oral hygiene. It was observed that a few of the study participants cleaned their teeth twice daily or more often, similar to findings from a previous study.<sup>16</sup> This is suggestive of poor oral hygiene behaviour commoner among the patients, probably a contributing factor to the high prevalence of periodontal disease in this region of the world.

#### IV. CONCLUSION

Present Study showed the knowledge and practice of interdental aids among dental professionals. It should be noted more than 80 % dental student are quite aware and knows about interdental cleansing aids, very few population relatively practicing it. Practicing interdental cleansing aids will help for maintaining of oral hygiene, for plaque control, and for prevention of periodontal disease. This study should be directed to evaluate the oral hygiene and gingival and periodontal status of those subjects using toothbrush alone and combination of toothbrush along with the interdental aids. This would educate the recommendation of interdental aids regularly.

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