



# Awareness of Different Types of Finish Lines of Tooth Preparation among Working Dental Students- A Questionnaire Based Study.

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**Abstract:****Aim:**

The aim of the survey is create an awareness among dental students regarding the types of finish line .

**Objective:**

To carry on a survey to know about the knowledge of types of finish line and working Dental students.

**Background:**

The fixed and removable prosthodontics aims at the maintenance and preservation of the tooth structure.Restoration of teeth is possible only if sufficient space is created for the application of thickness of material required. The types of finish line given for all ceramic,metal ceramic and all metallic tooth preparations are Chamfer,Shoulder finish line .

**Reason :**

The reason for this study is to create an awareness regarding the types of finish line in a fixed prosthesis.

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**INTRODUCTION :**

The fixed and removable prosthodontics aims at the maintenance and preservation of the tooth structure.Restoration of teeth is possible only if sufficient space is created for the application of thickness of material required. It is given for better marginal adoption and fitting of the restoration[3] . The types of finish line given for all ceramic,metal ceramic and all metallic tooth preparations are Chamfer,Shoulder,knife edge finish lines. These are given on basis of the requirement and tooth structure.

Ideally, all finish lines should be placed supragingivally. Due to esthetic and carious considerations, however, subgingival placement of the finish line is preferred. No one type of finish line can be used for all crown preparations. In lower anterior teeth or periodontically-treated teeth, the knife-edge finish line appears to be the treatment of choice. In short teeth and preparations for porcelain and porcelain-gold crowns, the full shoulder bevelled preparation is the treatment of choice. In full gold and acrylic veneered gold crowns, as in endodontically-treated teeth, the chamfer preparation is the treatment of choice[4].

**MATERIALS AND METHODS :**

Study is focused to evaluate the level of awareness about the different types of Finishline among working dental students This particularly focuses on the knowledge of working dental students regarding the type of Finishline given for different type of restorative material used, uses,indications and contraindications[1]. A total number of 100 working dental students of Saveetha dental college and hospital have participated in the survey and completed successfully.

**INSTRUMENT:**

The questionnaire used in this study has a total of 15 questions, the questions regarding the knowledge of different type of Finishline given based on the use of

restorative material uses,indications and contraindications of types of Finishline were included in the questionnaire.

The responses from each of them were collected and analysed and the results were presented as tables and piecharts.

**RESULT :**

Yes	100%
No	Nil

Among 100 dental students each of them are aware of the types of Finishline given for tooth preparation .

From the study , 100 % of students had basic knowledge about the type of Finishline given for tooth preparation . The most commonly know is Finishline given for metal ceramic tooth preparation (86%) followed by all ceramic (78%) and all metal (46%). The characteristics of ideal Finishline is known by 84% of students out of 100%.

The awareness of characteristics of chamfer (74%) and shoulder (68%) Finishline are moderate among the students. The knowledge about the subgingival and supra gingival margins are well known (84%) out of 100% among working dental students.

Most of the students has better knowledge about the contraindications (94%) and indications((96%) of different types of finish lines . The poor knowledge is seen in case of knife edge (36%) Finishline ,and types of chamfer preparations (35%).

Based on the average assessment and evaluation of answers given by the working dental students , it can be categorised that out of 100% , 85 % of students are aware of Finishline placement and their indications and contraindications . And 15% of students were unaware of Finishline.

Students aware of Finishline	85
Students unaware	15

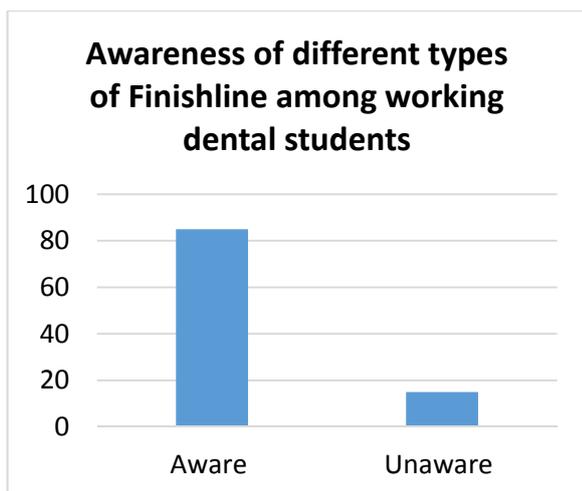


Fig 1: among 100 dental students 85 are aware and 15 were unaware of different types of Finishline

#### DISCUSSION :

The ideal Finishline should have the following characteristics includes, Shallow bevels nearly parallel to the cavosurface should be avoided because the restoration will be too thin at this area and may chip easily. The discrepancy decreases with the increase in angulation of the bevel and The bevel should not produce a very acute margin, which can lead to fracture of the wax pattern during removal.

Ideally, finish line position should be placed supragingivally on sound tooth tissue, but in reality this is often not possible. Sometimes aesthetics dictates a margin to be placed subgingivally and in these situations it should extend by 0.5-1 mm, but certainly not more than half the depth of the gingival sulcus, to ensure the epithelial attachment is not compromised[2]. Insufficient labial reduction, particularly near the finish line, may also result in distortion of the ceramic during fabrication and clinical service which leads to poor marginal adaptation, debonding, and long-term cement failure, all of which have been cited as major factors in the failure of ceramic crowns[3]. The flat shoulder margin provides the required aesthetics and marginal stability necessary during porcelain firing, and it is the most suitable for a labial finishing line for anterior all-ceramic crowns[4]. Proper incisal reduction is of importance as it will improve subsequent preparation access and helps to ensure correct proportioning of axial reduction planes[5].

During finish line preparation, the tooth should not be reduced more than half of the width of the diamond. Over-reduction may lead to the formation of a lip of unsupported enamel (lipping)[6].

The position of the margin relative to the gingiva is driven by a variety of factors, for example position of the tooth in the mouth, height of lip line, periodontal status and stump shade of the underlying tooth. In an ideal world, all restoration margins would be placed supragingivally thus making preparations, impression-taking, cementation and

finishing procedures easier as well as facilitating oral hygiene procedures for the patient[9].

The chamfer finish line possesses a curved slope from the axial wall till the margin It can be produced using a torpedo diamond point. It is the finish line of choice for cast metal restorations and lingual margins of ceramic restorations. It is not indicated in any restoration where the finish line is obvious[8]. The chamfer is considered the ideal finish line for complete veneer preparations for metal crowns[10]. The chamfer is easy to produce, provides space for an adequate bulk of restorative material, allows for a slip-joint effect, and is distinct and readily identifiable to both the dentist and the laboratory technician

Shoulder finish line has a gingival finish wall perpendicular to the axial surfaces of the teeth. If the marginal wall is at 120° to the axial walls, then it is termed a sloping shoulder. A shoulder finish line is preferred for all ceramic restorations where sufficient thickness of the margin is required for structural durability[7]. All anterior restorations are fabricated with a shoulder margin where aesthetics is the primary concern. The placement of finish lines influences the fabrication of the restoration and the final outcome of the treatment[6].

#### CONCLUSION:

From our study we conclude that most of the working dental students have knowledge about Finishline and our study will be helpful to analyse how much additional knowledge they have about the types, uses, indications and contraindications of finish lines. This study will be helpful to create awareness of finishline among working dental students who are least aware of Finishline indications and types given for each type of restorative material. Further awareness among students can be created by organising conferences, lectures and videos regarding the finish line.

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