

Knowledge and Material of Choice for Pedodontic Restoration by Undergraduate - A Questionnaire Survey

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Abstract: ***Background:** Restoration of decayed primary teeth is important and significant for proper maintenance of child health and also for development of permanent teeth. Composite, glass ionomer, amalgam, compomer, resin modified glass ionomer cement, stainless steel crown are materials preferred for restoration. It is important for undergraduate to have knowledge about materials and its uses which makes durability of restoration longer. **Aim:** The aim of the study is to assess the knowledge and material used by undergraduate for pedodontic restoration. **Materials and Methods:** A questionnaire was designed to obtain information about knowledge, materials of choice by dental students for pedodontic restoration. A questionnaire of 10 question based on different materials is issued to dental students. The sample (n=100) comprised of 30 third year student, 30 final year student and 40 intern. The obtained data were extracted, tabulated and interpreted.*

Keywords: knowledge, restorative material

1. Introduction

Alterations in dental restorative patterns combined with the introduction of new and improved restorative materials and techniques affect the efficacy of longevity of dental restorations. [1] Marked changes in the use of restorative materials have occurred during the past 10 to 20 years. [2,3] Alleged adverse health effects and environmental concerns due to the release of mercury gave rise to controversial discussions about the use of amalgam as a contemporary restorative material. [3,4] Microleakage is the most common cause of failure of almost all restorative materials since it is a major contributing factor to secondary caries and pulpal irritation. [5-7] Accordingly, there is an interest in finding a restorative material which has better bond characteristics, thus minimizing micro leakage and reducing the potential for caries development at the tooth surface interface and resultant pulpal irritation. The choice of the best restorative material becomes even more difficult as the desired survival period for a restoration ideally coincides with the time of primary tooth exfoliation, a maximum of 8 to 9 years.

Recently, there has been an expansion in the range of tooth-coloured materials available for restoring primary and young mixed dentitions. In addition to amalgam and stainless steel crowns, improved conventional glass ionomer cements and composite resins, resin-modified glass ionomer cements and polyacrylic acid modified composites (compomers) have become available. [8-10]

2. Materials and Methods

A questionnaire was designed to obtain information about knowledge and material of choice among dental students. The study population comprised of clinical dental students from a dental school in Chennai, India. A total of 100 clinical students were randomly selected for this questionnaire survey. The survey was conducted in July

2016. Self-administered questionnaire of about 10 questions were distributed, and all participants were given information on survey distribution as well as the number and type of questions, topics covered and the assurance that the anonymity would be maintained. The questionnaire addressed the following topics: materials used commonly, material with more success rate, other material preferred for restoration. The sample (n=100) comprised of 30 third year students, 30 final year students and 40 interns. Questionnaire that consist of multiple-choice and open-ended questions. The collected data is analysed & entered in the Microsoft excel and the result is represented in percentage as in bar chart.

3. Result

This study revealed more than 80% of dental students chose GIC as material of choice for restoring molar, 10% chose compomers, 5% chose composite and amalgam. More than 70% of dental students have knowledge about the material they use. More than 60% suggest resin modified GIC is material with more success rate.

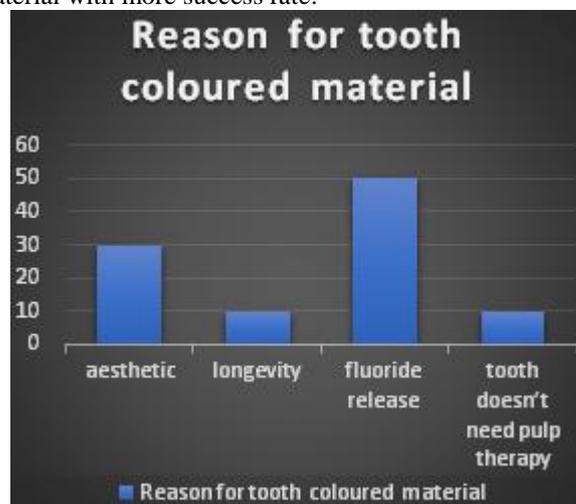


Figure 1

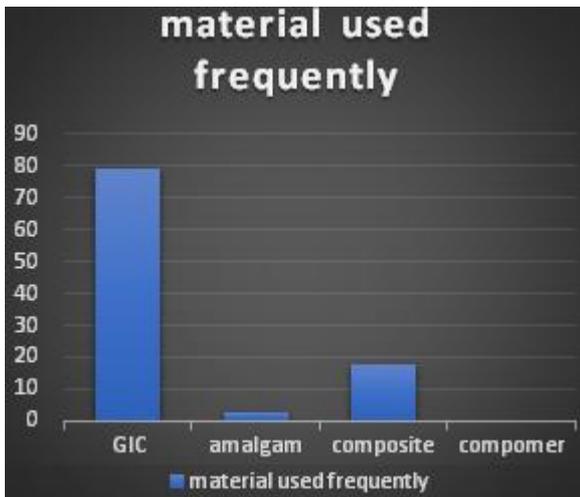


Figure 2

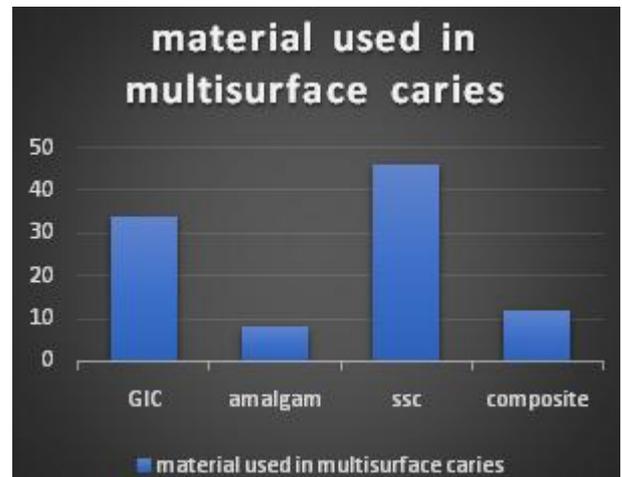


Figure 5

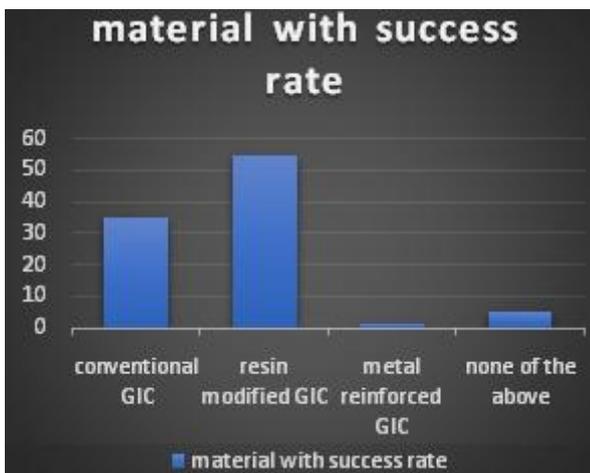


Figure 3

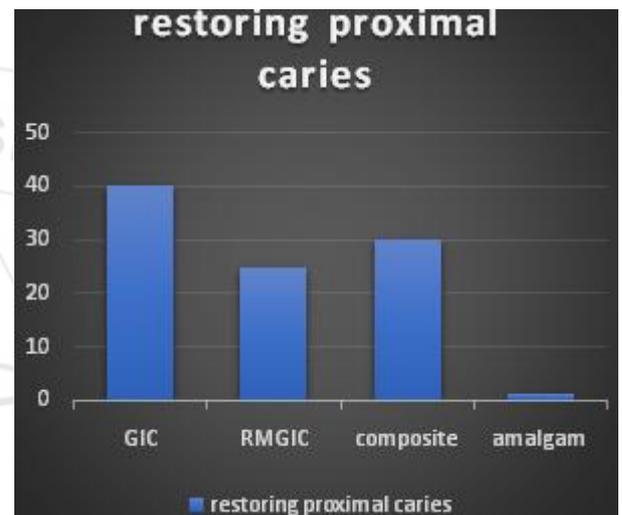


Figure 6

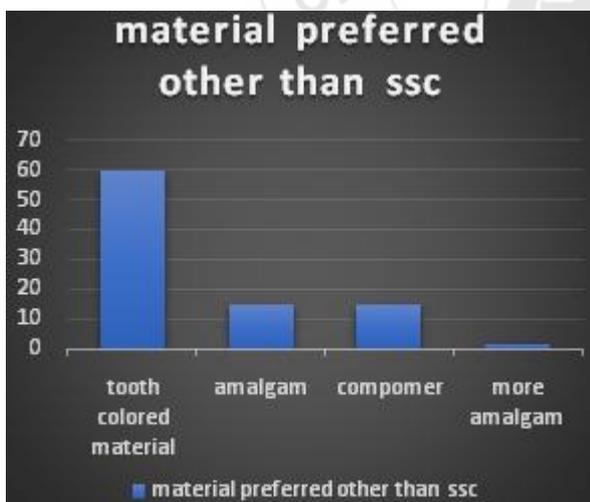


Figure 4

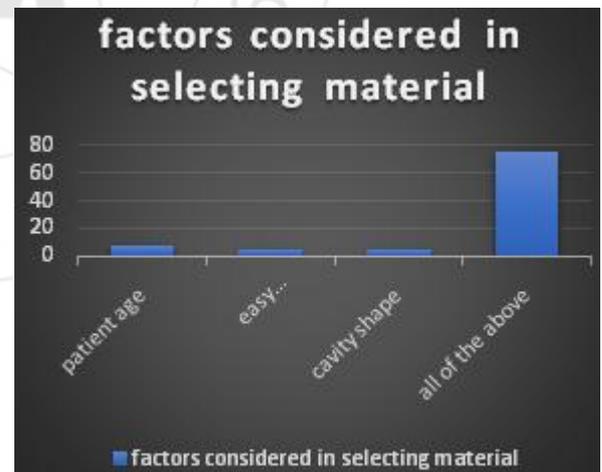


Figure 7

4. Discussion

The purpose of this study is to know about the knowledge of the dental students in selecting materials for restoring primary molar. As there are many materials available. Primary molar restoration is very important as it needs to be good esthetically as well as for mastication. This study is conducted in the private dental college in Chennai. In this study third year, final year and intern were included. A

- 7) Pattern of usage of dental restorative material other than SSC?
 - a) Amalgam only
 - b) More amalgam than tooth colored material
 - c) More tooth colored material than amalgam
 - d) Compomers only.
- 8) Material of choice for restoring primary molars with multisurface carious lesion
 - a) GIC
 - b) Amalgam
 - c) SSC
 - d) Composite
- 9) Rrestoring proximal lesion in primary molars is better with
 - a) Composite
 - b) RMGIC
 - c) GIC
 - d) Amalgam
- 10) contra indication of SSC?
 - a) Teeth close to exfoliation
 - b) When more than half the roots resorbed
 - c) With known nickel allergy
 - d) All of the above.

5. Conclusion

Based on the questionnaire responses, tooth-coloured materials were the most popular choices for restorations of the primary dentition; use of amalgam and stainless steel crowns was low. Glass ionomer cement was the most popular tooth-coloured material chosen and it is followed by compomers. Recently, glass ionomer (GI) cement has been suggested as a suitable material for primary tooth restoration, but very few controlled clinical studies have tested this suggestion. Resin modified GIC is more caries preventive than composite which is also used more vividly.

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