

Childrens preference toward color of compomer fillings

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ABSTRACT

Background: Various tooth colored compomer fillings is used for cavity fillings. The compomer filling is a mixture of composite and glass ionomer cement thus combines the advantage of both. It is specially formulated for pediatric dentistry/ children and has an excellent wear resistance for a long-lasting restoration. **Aim:** This study was carried out to assess the like of children with compomer fillings. **Methodology:** A study was conducted toward children with caries tooth and colored compomer fillings were given to choose over eight colors. **Study Population:** A total of 100 children were interviewed. Compomer fillings colors were given to the children to decide which colors that want to be restored the compomer fillings color have eight colors which are pink, blue, gold, silver, green, orange, lemon, and berry. Twinky Star from Vaco was used. **Results:** Female children have chosen 14% of pink color and none from male children has chosen. This indicates that Male children do not like the pink color restoration. Blue is much more preferred in male where 5% of children has chosen against 4% of female children. Green is the highest chosen by female that is 15% and is the highest among all the colors and also against sex and 10% of male has chosen green. **Conclusion:** Most of the children have choose green color as their favorite compomer filling even in both sexes.

KEY WORDS: Color, Compomer, Composite, Pediatric patients, Survey

INTRODUCTION

Compomer dental restorations were developed to combine the mechanical and esthetic properties of composites with the fluoride-releasing advantage of glass-ionomer cement. The fluoride released into the mouth by compomer is intended to help protect against future caries.^[1] It has been shown that compomer does, in fact, release fluoride into the mouth which has a preventive effect against future caries compared with composite materials without fluoride although fluoride-releasing materials, including compomer, inhibit the formation of caries *in vitro*, such effects have not yet been determined *in vivo*.^[1] In addition, there is very limited study regarding the comparison of compomer with amalgam.^[2] The periodicity of professional oral health intervention and services is based on a patient's individual needs and risk indicators. Continuity of care is based on the assessed needs of the individual patient and assures appropriate management of all oral conditions,

dental disease, and injuries. The early dental visit to establish a dental home provides a foundation on which a lifetime of preventive education and oral health care can be built.

Compomers have sustained rechargeable fluoride release on tooth internal surface to avoid secondary caries.^[2] These are available in tooth colors matching shade. Compomer filling materials are also available in six particular appealing hues with sparkle impact for reclamations of deciduous teeth offers an ideal answer for apprehensive, terrified, and fretful youngsters. Although amalgam has no fluoride to protect against future caries, it has many different properties compared with compomer and composite, which does protect against future caries by other means.^[3] A study of twins discordant for amalgam exposure failed to find significant differences in mental health. Individuals with self-identified "amalgam disease" had more symptoms than did control individuals, but symptom prevalence was not strongly associated with mercury biomarker levels.^[4]

Compomers are derived from a composite resin with glass ionomer components, the etchable glass fillers which provide fluoride release. The wear resistance

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and mechanical properties of a compomers are very much lesser than composite resin, but the release of fluoride and intake is good. Ease of handling is a compomer's greatest asset, which led to its popularity. This single-component, light-cured materials contain no water. Water is sorbed into compomers after they contact saliva and produces the small acid-base setting reaction. The auxiliary reaction has increase strength and setting expansion of all compomers as they age. All compomers require cement holding operator to attach to the tooth; diminishing fluoride discharged from the rebuilding into the arranged tooth. The resin-based composite comprises basically of a gum. The primary constituents of the resin matrix are resin monomers and an initiator/catalyst system for polymerization.^[5,6] Polymerization occurs through a free radical addition reaction. The two-fold fortified carbons of the methacrylate bunches at each finish of the dynamic site on the monomer cross-joins amid the polymerization procedure, creating at first a direct polymer; at that point by reacting with the second site, a highly cross-linked polymer is produced.^[7]

Oral bacteria organisms flourish in a domain with accessible dietary carbohydrates; thus, guardians must be educated to deal with the baby/preschool kids' eating regimen and their oral cleanliness propensities. As it was conceived long ago, children are an important target group for oral health education and thus agreed among health educators. Dental health education given to mothers and aimed at children is more concerned with forming habits, rather than trying to manage established routines. This concept has yet another advantage when it comes to intervention. Behavior learned during the child's 1st year becomes deeply ingrained and resistant to change. Children at this tender age inherit health practices from their parents, but in this workaholic era children often find themselves under the care of caretakers in places such as daycare centers. Daycare is care of a youngster amid the day by a man other than the tyke's folks or legitimate guardians. The growth of industrial sectors has presented the city with unique circumstances, which were never seen before, wherein lately, a number of mothers are employed outside their homes to improve their family living conditions. As a result, young children spend a considerable amount of time in daycare centers under the custody of caretaker.

Caretakers in day-mind focuses assume a critical part in granting great oral cleanliness hones and furthermore broaden a working association with guardians as to youngster's oral health. As a result of this, a young child's dental environment becomes complex because his/her mother's and/or caregiver's dental knowledge, attitudes, beliefs, and practices affect the child's oral condition.^[8] Among the dental problems, dental caries is the most existing and prevailing problem which effects

the children of low and high economic communities without any discrimination. Now, as children spend most of their time in a day outside the home it is time to watch out what are the factors which lead to the disease.

Dental health education given to mothers and aimed at children is more concerned with forming habits, rather than trying to manage established routines. Behavior learned during the child's 1st year becomes deeply ingrained and resistant to change. Children at this tender age inherit health practices from their parents, but in this workaholic era children often find themselves under the care of caretakers in places such as daycare centers. Daycare is a care of child during the day by a person other than the child's parents or legal guardians. Now the role of caretaker comes into existence. Here, the role of the caretaker is similar to that of a school teacher and maybe even more important as they are involved with children's daily diet, general hygiene, and oral health care. Because it is hard to get cooperation toward kids sometimes, the objective of this study was to assess the like of children with colored compomer fillings in Saveetha Dental College.

MATERIALS AND METHODS

Methodology

A study was conducted towards children with caries tooth and colored compomer fillings were given to choose over eight colors.

Study population

A total of 100 children were interviewed.

Data collection

Compomer fillings colors were given to the children to decide which colors that want to be restored the compomer fillings color have eight colors which are pink, blue, gold, silver, green, orange, lemon, and berry. Twinky Star from Vaco was used. The instruction was given in a simple English or Tamil.^[9] This pilot study also helped in exacting the pre-designed pro forma (which included questions on socio-demographic factors such as age, sex, and questions regarding their knowledge on oral health and diet) and in making modifications wherever necessary to design the final pro forma.

RESULTS

Graphs 1 and 2, it shows the number of colored compomer fillings which were chosen by children according to the age. Female children have chosen 14% of pink color and none from male children has chosen. This indicates that male children do not like the pink color restoration.

The results show the colored compomer fillings that are chosen by children according to their sex.

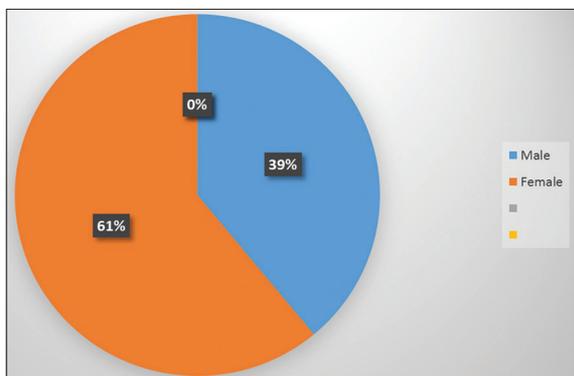
Blue is much more preferred in male where 5% of children have chosen against 4% of female children. Only 1% of female children have chosen gold and none goes for male. This shows gold is not a very eye-catching color towards children. About 3% of silver was choose for male and 4% for female. Silver has not much different against the sex. Green is the highest chosen by female that is 15% and is the highest among all the colors and also against sex and 10% of male has choose green. Orange has the same number of in both sexes that is 9%. Lemon shows 4% was choose on male and 3% choose for female. Finally, 8% of berry were chosen by boys and 11% were chosen by girls.

DISCUSSION

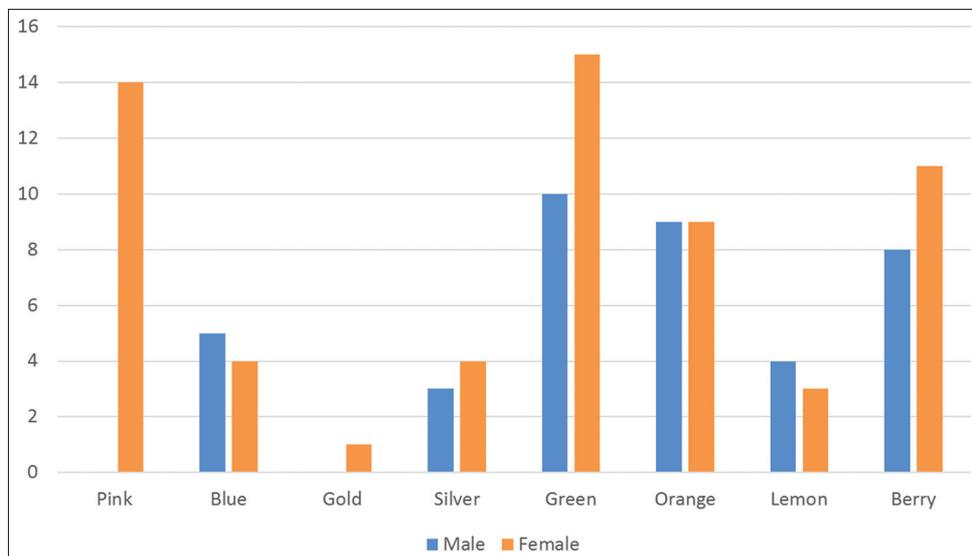
Many studies have focused on parents, school teachers, and school children oral health knowledge, attitudes and practices, there are not many studies which focused on the role of caretakers in promoting the oral health of the children under their care in daycare center. The possibility to choose their

favorite color improves motivation and cooperation of children. Fear will disappear and they will accept the dental treatment.^[10-14] Parents and the caretakers of the children are held responsible for their oral hygiene, and their dietary practices and in turn, dental caries experience also. In the present study, 100 children participated and the preferred color compomer is green in both male and female. This study done on caretakers gives us information about their knowledge toward oral health but they are not able to encounter the barriers due to lack of education, their working schedule and the knowledge about what type of diet should be given at what age and this is the main drawback in giving good preventive care to the child.^[15] Parents of the children are held responsible for their oral hygiene and also their dietary practices and the experience of dental caries also. This study done on parents gives us information about their knowledge toward oral health but they are not able to encounter the barriers due to lack of education, their working schedule and the knowledge about what type of diet should be given at what age and this is the main drawback in giving good preventive care to the child. The parents also should have awareness regarding dental hygiene. This will reflect against children oral hygiene. Polyacid-modified resin composites have been introduced as materials for the conservative restoration of primary teeth based on the results of clinical trials.^[16] Its been reported that young patient is allowed the colored restoration where they have accepted the idea of the treatment. Colored restoration can be used as an alternative of the composite to attract the children.

The study also reveals that children preferred colored restoration over the regular tooth-colored restoration.^[17-19] Other studies show that children will look forward to their dental restoration to unable them



Graph 1: Percentage of different sex



Graph 2: Percentage of different color

to visit the dentist more often. Other studies also state that multi-colored restoration effects motivational tools for oral hygiene at home.^[20,21]

CONCLUSION

Most of the children have choose green color as their favorite compomer filling even in both sexes. Caregivers knowledge toward oral health plays an important role in maintaining the oral hygiene and oral health of the child. Dental care needs should be improved and the study gives us an insight to so far an unknown domain.

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