

Influence of toothpaste flavour options on toothbrushing compliance in children

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ABSTRACT

Background: Developing good oral hygiene habits early helps prevent dental diseases in children. Toothpaste flavour may influence a child's willingness to brush regularly. Pediatric dentifrice formulations cater to taste preferences, with the intent of making brushing more enjoyable and consistent. Offering diverse flavours may improve children's attitudes toward oral care and enhance dental health. This study aimed to evaluate the effect of multiple-flavour versus single-flavour toothpaste on brushing compliance and oral hygiene in children aged 5–8 years. **Materials and Methods:** This parallel-arm randomized study included 100 children aged 5-8 years, allocated into two groups of 50. Group I received three flavoured toothpastes (Bubble Gum, Green Apple, Melon) to choose from, while Group II received a single-flavour toothpaste (Green Apple). Baseline oral health was assessed using Plaque Index (PI), Gingival Index (GI), and Oral Hygiene Index – Simplified (OHI-S) prior to prophylaxis. Participants brushed twice daily with follow-ups at 15 and 30 days, and a guardian feedback questionnaire measuring compliance was completed. Data were analysed using the paired t-test, independent t-test, and Mann-Whitney U test. **Results:** Both groups showed significant improvement in plaque and oral hygiene scores ($p < 0.001$); Group I showed slightly greater reductions in plaque (0.86 to 0.24) and OHI-S (0.99 to 0.14) compared to Group 2. Improved compliance was observed with multiple flavours ($p < 0.05$). **Conclusion:** Parental feedback indicated higher acceptance and adherence to brushing routines in the multi-flavour group. Flavour diversity in pediatric toothpaste may positively influence children's oral health behaviours and outcomes.

Keywords: children; dental plaque index; flavoured toothpaste; gingival index, oral hygiene; toothbrushing

CDHA Research Agenda category: oral health frameworks

PRACTICAL IMPLICATIONS OF THIS RESEARCH

1. Flavoured toothpastes can increase children's interest and motivation to brush regularly, improving oral hygiene compliance.
2. Offering a variety of flavours may reduce brushing resistance and make the habit more enjoyable for young children.
3. Parents and pediatric dentists can use flavoured toothpaste as a behavioural tool to reinforce daily brushing routines.
4. Toothpaste manufacturers can consider developing multi-flavour packs specifically targeted at pediatric populations to support better oral health outcomes.

INTRODUCTION

Oral health is an integral part of a child's overall physical and developmental well-being. Poor oral hygiene in early childhood is associated with an increased risk of dental caries, gingivitis, and periodontal infections, which may also contribute to systemic health complications and impaired development.¹ Establishing good oral hygiene practices during early childhood is essential for long-term oral and general health.²

The primary objective of oral hygiene is to prevent the accumulation of dental plaque - a bacterial biofilm that adheres to the tooth surface and surrounding periodontal structures. If not regularly removed, plaque can lead to enamel demineralization, caries, gingival inflammation, and periodontitis.³ Mechanical methods such as toothbrushing with fluoridated toothpaste remain the most effective approach for plaque removal and maintenance of gingival health.⁴ In pediatric

dentistry, brushing habits are influenced by a child's age, motivation, manual dexterity, and parental guidance, all of which determine the effectiveness of plaque control.⁵

Toothpaste is a vital adjunct to toothbrushing and plays a multifaceted role in reducing plaque, preventing cavities, strengthening enamel, removing stains, and freshening breath.⁶ The American Dental Association defines toothpaste (dentifrice) as a substance used with a toothbrush to clean the teeth and oral tissues. Modern pediatric toothpastes are formulated with child-friendly fluoride concentrations and pleasant flavours to improve brushing compliance.^{1,7}

The evolution of toothpaste formulations has significantly impacted oral hygiene practices, particularly in children. Toothpaste has long been integral to oral hygiene, serving to clean teeth and enhance oral aesthetics. While adult toothpastes effectively address general oral health concerns, their use in children presents challenges. Children are more prone to ingesting toothpaste, and excessive fluoride intake during tooth development can lead to dental fluorosis. To mitigate such risks, pediatric-specific toothpastes have been developed. These formulations often contain lower fluoride concentrations and are designed with child-friendly flavours and textures to encourage regular brushing while minimizing ingestion risks.

The introduction of pediatric toothpastes underscores the importance of tailoring oral hygiene products to the unique needs of children, balancing efficacy in preventing dental caries. Pawlaczyk-Kamieńska T et al. in their cross-sectional study, observed that a significant portion of children had a clinically healthy periodontium, with a small percentage showing signs of gingivitis, supporting the importance of appropriate oral hygiene products in maintaining children's oral health.⁸

Children often face unique challenges in maintaining oral hygiene. Their limited dexterity can hinder effective plaque removal, and their preference for sweet foods increases the risk of plaque accumulation and subsequent gingival inflammation. Moreover, the taste and texture of toothpaste may play a significant role in their willingness to brush regularly. Unpleasant flavours may discourage consistent brushing, leading to increased plaque buildup and gingival issues.

It is speculated that a favourable sensory experience - especially taste, could positively influence a child's willingness to brush regularly and for an adequate duration, thus supporting better plaque control and overall oral health. On the contrary, unfavourable flavours may lead to resistance or avoidance of toothbrushing, as unpleasant taste is a common reason for reduced toothpaste use and potentially compromising oral hygiene.⁹ Flavoured toothpaste, including commonly available child-friendly options, not only fulfil therapeutic goals but also enhances acceptability by encouraging the brushing an enjoyable activity for children.^{4,10}

A few recent studies have highlighted the impact of flavour on children's dental behaviour. Karim et al. demonstrated that the choice of fluoride varnish flavour influenced children's behaviour during dental visits, suggesting that flavour preferences can modify compliance and reduce anxiety.¹¹ Similarly, Mohan et al. evaluated taste acceptance of different fluoride varnishes in children with autistic spectrum disorder and found that flavour selection improved acceptance and willingness to participate in oral care procedures.¹²

Despite the wide availability of flavoured pediatric toothpaste, limited data exist on how these sensory factors impact children's brushing habits and oral hygiene. The 5 to 8-year age range is critical due to the transition from primary to permanent dentition, where effective plaque control helps prevent early gingival issues and caries.^{13,14} Therefore, the aim of this study was to assess whether flavoured toothpaste choices influence brushing compliance and oral hygiene as measured

by plaque accumulation and gingival health, highlighting the potential role of taste in promoting consistent oral hygiene practices in young children.

METHODS AND MATERIALS

Study design

This randomized, controlled, in-vivo study was conducted in the Department of Pediatric and Preventive Dentistry, in a Dental College and Hospital, to evaluate the effect of toothpaste flavour variety on oral hygiene status and brushing compliance in children aged 5-8 years. Ethical approval was obtained from the Institutional Ethical Committee (IIEC/RP/2024/035).

A total of 100 children attending the outpatient department were screened. Only those meeting the specified inclusion and exclusion criteria were eligible. Written informed consent was obtained from parents or guardians prior to enrolment.

Inclusion criteria

- Healthy children aged 5-8 years classified as ASA I according to the American Society of Anaesthesiologists physical classification system.
- Parents willing to provide informed consent.

Exclusion criteria

- Severe gingival inflammation.
- Poor cooperation reported by parents.
- Known hypersensitivity to toothpaste components.
- Systemic diseases or conditions affecting gingival health.

Sample size calculation

The abovementioned sample size was determined using the estimates of mean and standard deviation values from literature using the formula:

$$n = \frac{(\sigma_1^2 + \sigma_2^2)(Z_{1-\alpha/2} + Z_{1-\beta})^2}{\Delta^2}$$

Based on this calculation, the minimum required sample size was 90. To account for potential dropouts and improve statistical power, the sample size was rounded to 50 children per group (total n =100). The sample size calculation done in the present study was based on previous research done by Varma et al.¹⁵

Randomisation and allocation

Participants were randomly allocated into two equal groups (n = 50 each) using an online computer-generated random number table (<https://randomizer.org/>). Group 1 (Test Group): Received three flavoured toothpastes (Bubble Gum, Green Apple, Melon; Pediflor Kidz, Group Pharmaceuticals Ltd., India). Group 2 (Control Group): Received a single-flavour toothpaste (Green Apple; Pediflor Kidz, Group Pharmaceuticals Ltd., India). Parents were instructed to ensure their child used only the assigned toothpastes. Those in the test group were free to use any of the three assigned toothpastes throughout the study. A daily brushing log was provided to the parents in both groups to record daily adherence.

Intervention

On Day 1, all participants underwent a baseline oral examination using a periodontal probe (API, India) and validated indices to measure and record plaque (PII); gingiva (GI), and oral hygiene (OHI-S).

All children then received oral prophylaxis (Ultrasonic Scaler, Woodpecker UDS-J Non-Optic, India) to remove plaque, stains and calculus. Current oral hygiene practices were not modified.

Participants were instructed to brush twice daily for 2 minutes using the allocated toothpaste. A mid-study reinforcement session on Day 15 reviewed brushing technique and included a second oral hygiene assessment of the three indices (PII, GI, OHI-S). On Day 30, a final oral examination was conducted using the same three indices. At study completion, parents of Group 1 children completed a toothpaste flavour preference questionnaire to indicate the child's preferred flavour.

Assessment Tools

- Plaque Index (PII)¹⁶
- Gingival Index (GI)¹⁷
- Simplified Oral Hygiene Index (OHI-S)^{18,19}
- Daily Parent/Guardian Feedback Brushing Log (See Supplementary Material)

Assessments were performed at baseline, 15 days, and 30 days.

Statistical analysis

All collected data were entered into Microsoft Excel and subjected to statistical analysis using SPSS software version 16.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics, paired and unpaired t-tests, and ANOVA were used to evaluate intra- and intergroup differences in oral hygiene indices. A *p*-value of <0.05 was considered statistically significant.

RESULTS

Baseline characteristics of the study population are summarised as a total of 91 children completed the study (Group 1; $n = 45$; Group 2; $n = 46$). All participants were between 5 and 8 years of age, as per the study's inclusion criteria.

However, individual-level baseline variables such as mean age, sex distribution, deft index and DMFT index were not recorded in the study proforma, and therefore excluded from analysis.

At baseline, both groups demonstrated comparable oral health status, as reflected in the absence of statistically significant differences in Plaque Index, Gingival Index and OHI-S score ($p > 0.05$), confirming that the groups were similar prior to the intervention.

Out of the initially recruited 100 children (50 in each group), a total of 91 participants completed the study. Five children from Group 1 and six from Group 2 were lost to follow-up due to failure to report. Hence, the final analysis was conducted on 45 children in Group 1 and 46 in Group 2.

A progressive and statistically significant improvement in oral hygiene and gingival health over time was observed within Group 1. The trend is graphically represented (Graph 1) showing the decline in all three indices over the 30-day period. Statistically significant reductions were observed in the mean gingival index, plaque index, and OHI-S index values in Group 1 from baseline to the 30th day ($p < 0.001$). The Gingival Index showed a significant decrease from 0.82 at baseline to 0.43 on the 15th day and 0.39 on the 30th day ($p < 0.001$). Plaque Index decreased from 0.86 at baseline to 0.41 on the 15th day and 0.24 on the 30th day ($p < 0.001$). OHI-S Index showed the most prominent reduction, declining from 0.99 at baseline to 0.24 on the 15th day and further to 0.14 on the 30th day ($p < 0.001$).

Similarly, a significant reduction was observed in the mean gingival index, plaque index, and OHI-S index values in Group 2 from baseline to the 30th day ($p < 0.001$) (Graph 2). The Gingival Index decreased significantly from 0.96 at baseline to 0.52 on the 15th day and 0.34 on the 30th day ($p < 0.001$). The Plaque Index reduced from 0.89 at baseline to 0.43 on the 15th day and further to 0.31 on the 30th day ($p < 0.001$). The OHI-S Index showed a marked reduction from 0.96 at baseline to 0.34 on the 15th day and 0.24 on the 30th day ($p < 0.001$).

At baseline, there was no significant difference between Group 1 and Group 2 ($p = 0.527$). On the 15th day, Group 1 showed a significantly lower gingival index than Group 2 ($p = 0.038$), indicating faster improvement in gingival health (Graph 3). By the 30th day, the difference was not statistically significant ($p = 0.111$), suggesting that both groups achieved comparable gingival health over time. While both interventions were effective, Group 1 demonstrated earlier reduction in gingival inflammation, but by day 30, both groups reached similar clinical outcomes (Graph 3).

At baseline, 15th day, and 30th day, there was no statistically significant difference between Group 1 and Group 2 ($p > 0.05$). The mean plaque index was 0.86 in Group 1 and 0.99 in Group 2 (Graph 4). On the 15th day, the mean values were 0.41 for Group 1 and 0.43 for Group 2. By the 30th day, Group 1 had a mean plaque index of 0.24, while Group 2 had 0.31. Both groups showed a progressive reduction in plaque index over time, from 0.86 to 0.24 in Group 1 and from 0.89 to 0.31 in Group 2. However, there was no statistically significant difference between the groups at any time point, but no group demonstrated superior plaque control compared to the other at any time point (Graph 4).

At baseline, 15th day, and 30th day, there was no statistically significant difference between Group 1 and Group 2 ($p > 0.05$) (Graph 5). However, by the 30th day, Group 1 exhibited a significantly lower mean OHI-S score (0.14) compared to Group 2 (0.24), indicating a greater improvement in

oral hygiene status over time. Henceforth, both groups showed a progressive reduction in plaque index over time, but no group demonstrated superior plaque control compared to the other at any time point (Graph 5).

Most children in both groups brushed regularly with the provided toothpaste (Group 1: 88.9%, Group 2: 95.7%; $p = 0.226$). Morning and evening brushing rates were similar and low across both groups (~53%; $p = 0.923$). A high percentage of participants liked the toothpaste flavour (Group 1: 95.6%, Group 2: 84.8%; $p = 0.085$), though not statistically significant (Table 1).

Flavour preferences differed significantly ($p = 0.001$): Group 1 preferred Bubble gum and Melon, while Group 2 overwhelmingly preferred Green Apple. Willingness to continue using the toothpaste was high and comparable (Group 1: 88.9%, Group 2: 84.8%; $p = 0.563$).

While brushing habits were comparable across groups, flavour played a key role in preference, with statistically significant differences observed. The data reflects that children in each group clearly preferred the flavour they were provided, suggesting good palatability and product acceptance in both formulations.

DISCUSSION

This present study which investigated the effects of flavoured toothpastes on oral hygiene and brushing compliance, selected children aged 5-8 years as this age range represents a developmental stage in which children are able to recognise sensory attributes such as taste and flavour and clearly express their preferences. Previous studies have shown that school- aged children are particularly influenced by flavour when using oral hygiene products, making this age range suitable for evaluating how taste affects brushing behaviour and oral hygiene practices.²⁰

To evaluate oral hygiene status and the effectiveness of interventions in children, several standardized and validated indices are typically employed to measure the thickness of dental plaque at the gingival area; to assess the severity of gingivitis based on colour, consistency, and bleeding on probing; and to measure and evaluate the presence of debris and calculus on specific tooth surfaces to determine oral cleanliness. These indices provide standardized methods to quantify oral hygiene and gingival health, facilitating the comparison of different oral care interventions.

Thus, one of the strengths of this current study on the effectiveness of single-flavour and multiple-flavour pediatric toothpastes on children's oral hygiene, was the utilization of the validated indices over a 30-day period.

The results demonstrated that both groups of toothpastes were effective in significantly improving oral health indicators, with no statistically significant difference between the groups in gingival and plaque scores. However, Group 1 (multiple flavours) showed marginally better outcomes across all indices, suggesting that the inclusion of flavour variety may offer a slight advantage in enhancing children's oral hygiene practices.

Gingival health, in both groups showed significant reductions in gingival index (GI) scores over the study period. The improvement from 15th to 30th day also remained significant. Notably, group 1 achieved slightly greater improvement than group 2 which leads to gingival health improvement by reducing bacterial biofilm accumulation and gingival inflammation^{6,8}.

The Plaque Index (PII) scores also decreased significantly in both groups. However, consistent with Gingival Index trends, Group 1 outperformed Group 2, which might be attributed to the increased sensory appeal and reduced monotony associated with flavoured toothpaste. This

assumption is consistent with findings from a recent survey by Vijayakumar and colleagues that reported consumer preference for flavoured toothpaste, particularly among paediatric users, due to its influence on motivation and brushing adherence ¹.

OHI-S Index scores showed notable reduction in both groups. Although both groups improved significantly, the larger change observed in Group 1 further underscores the potential benefit of varied flavours in promoting better oral hygiene practices. These results are consistent with evidence from previous experimental studies that emphasized characteristics such as taste and colour in toothpaste strongly influence brushing duration and enthusiasm in young children.^{20,21}

The greater reductions observed in Group 1 across all indices support the hypothesis that variety in flavour enhances engagement and reduces behavioural fatigue, as also noted in studies by Baskran et al. and Deinzer et al. who linked sensory factors and behavioural performance during brushing.^{22,23}

Brushing compliance, measured by feedback collected from the parents, provided valuable insights into the children's oral hygiene practices and toothpaste preferences, shedding light on the effectiveness and acceptability of the provided toothpaste in both groups. The results showed that a majority of children in both groups (88.9% in Group 1 and 95.7% in Group 2) brushed regularly using the provided toothpaste, with no significant difference between the two groups ($p = 0.226$).

This finding suggests that the type of toothpaste did not influence the frequency of brushing, indicating that consistent brushing habits, rather than the specific toothpaste used, are essential in maintaining oral hygiene, as supported by Krol et al.⁴ Additionally, there was no notable difference

in morning or evening brushing habits ($p = 0.923$), further emphasizing that the toothpaste type had little effect on the time-of-day children chose to brush.

Parents reported that flavour preference played a crucial role in children's acceptance of the toothpaste. The majority of children in both groups (95.6% in Group 1 and 84.8% in Group 2) liked the flavour of the toothpaste. This suggests that while flavour is an important factor in encouraging children to brush regularly, it did not lead to significant variations in usage between the two groups. However, this could be due to the use of the Green Apple flavoured toothpaste in the control group.

The clear difference in preferred flavours between the groups was striking, with Group 1 primarily favouring Bubble Gum (46.7%) and Group 2 showing a strong preference for Green Apple (93.5%) ($p = 0.001$), although not surprising since Green Apple was the only flavour available to Group 2. This highlight how children's flavour preferences can vary greatly and influence their choice of oral care products. Since children in both groups brushed regularly, it could be assumed that the toothpaste was perceived as enjoyable, and had an influence on their oral hygiene practices.

There are several limitations to this study. First, the control toothpaste was a pleasantly flavoured paste that may have skewed the results. The results may have been different had the control paste been a non-flavoured one or had both a flavoured choice as well as a non-flavoured choice. Another limitation could have been due to reliance on parental reporting, which may have introduced bias in tracking children's brushing habits. Additionally, dietary factors such as sugar intake were not controlled and may have influenced oral health outcomes. The novelty of flavoured toothpastes could have temporarily increased brushing enthusiasm without reflecting long-term habits.

Future studies are needed to include large number of sample size to evaluate the long-term behavioural impact of multiple toothpaste flavours on children brushing habits, assess their effectiveness in combination with other oral hygiene aids and determine their influence on oral microbiota, particularly in reducing cariogenic and gingival associated problem.

CONCLUSION

The use of a variety of multiple flavoured toothpastes improved oral hygiene and brushing compliance in children compared to a single-flavour toothpaste, although not statistically significantly. This however suggests that flavour variety may be an effective strategy to promote better oral care habits in children.

CONFLICTS OF INTERESTS

The authors have declared no conflicts of interest.

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Table 1. Parent/Guardian Feedback Summary (Group 1 vs Group 2)

Parameter	Group 1 (n = 45)	Group 2 (n = 46)	<i>P</i> value
Regular Brushing with Provided Paste	40 (88.9%) Yes, 5 (11.1%) No	44 (95.7%) Yes, 2 (4.3%) No	0.226
Morning Brushing	24 (53.3%) Yes, 21 (46.7%) No	25 (54.3%) Yes, 21 (45.7%) No	0.923
Evening Brushing	24 (53.3%) Yes, 21 (46.7%) No	25 (54.3%) Yes, 21 (45.7%) No	0.923
Liked Toothpaste Flavour	43 (95.6%) Yes, 2 (4.4%) No	39 (84.8%) Yes, 7 (15.2%) No	0.085
Flavour Preference	Bubble gum (46.7%), Melon (24.4%), Green Apple (24.4%)	Green Apple (93.5%)	0.000**
Willing to Continue Usage	40 (88.9%) Yes, 5 (11.1%) No	39 (84.8%) Yes, 7 (15.2%) No	0.563

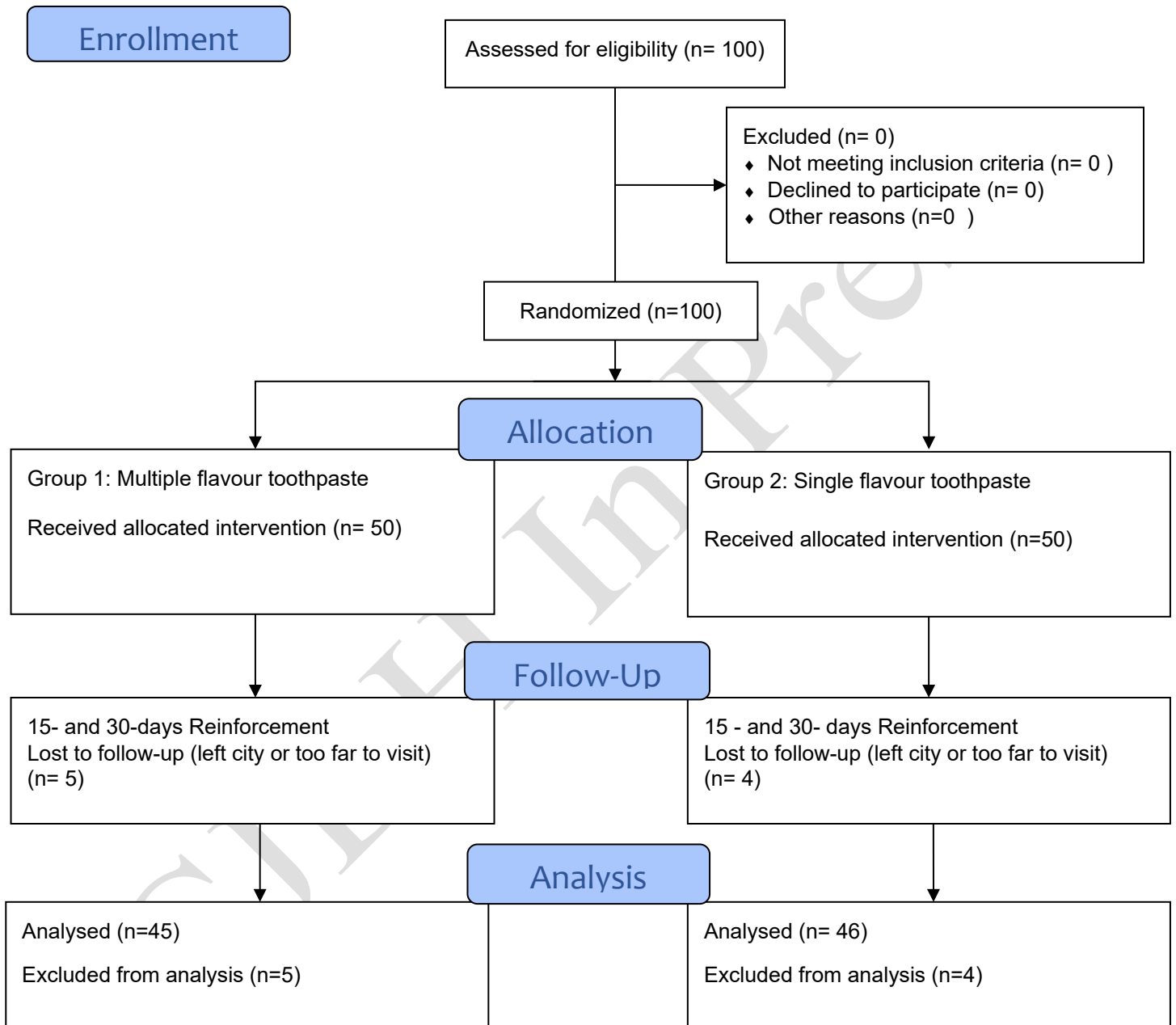
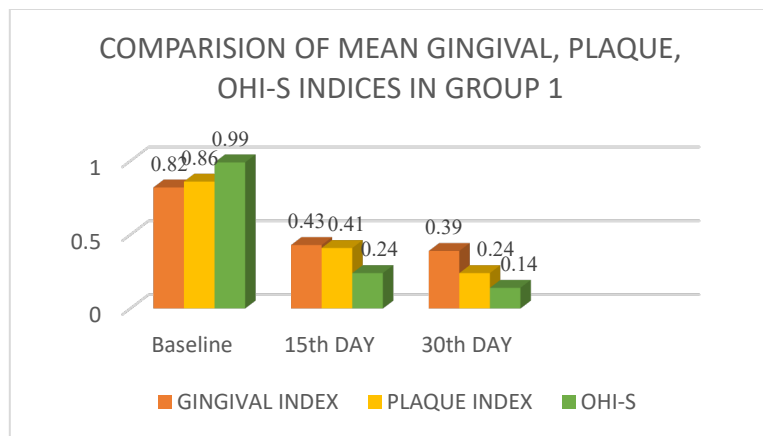
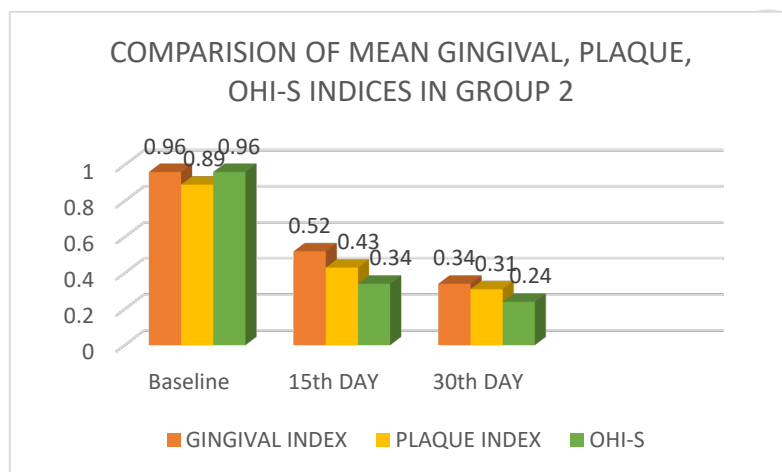


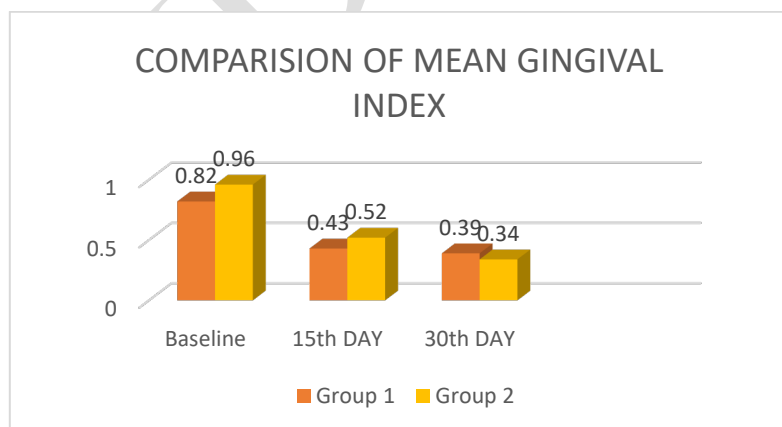
Figure 1: CONSORT Study Design



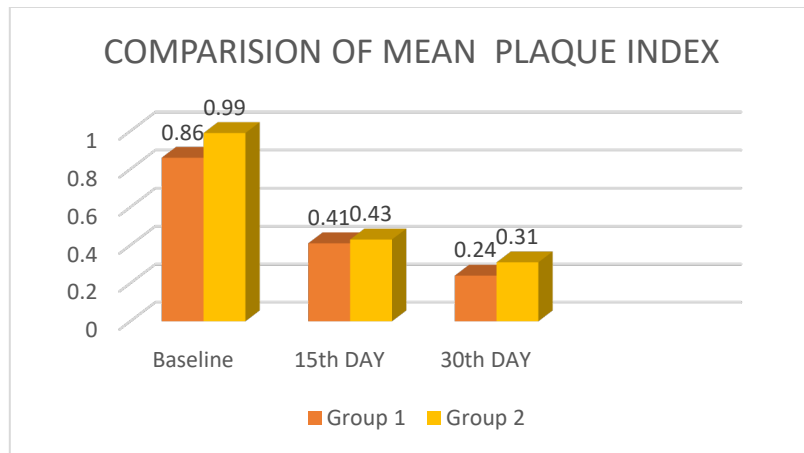
Graph 1: Bar graph showing intragroup comparison of mean gingival index, plaque index, and OHI-S index in Group 1 at baseline, 15th day, and 30th day.



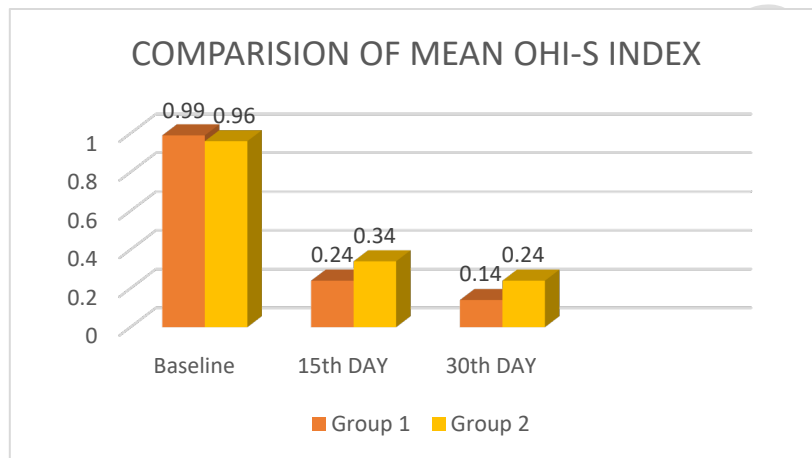
Graph 2: Bar graph depicting intragroup comparison of mean gingival index, plaque index, and OHI-S index in Group 2 at baseline, 15th day, and 30th day.



Graph 3: Bar graph comparing the mean gingival index values between Group 1 and Group 2 at baseline, 15th day, and 30th day.



Graph 4: Bar graph comparing the mean of Plaque Index values between Group 1 and Group 2 at baseline, 15th day, and 30th day.



Graph 5: Bar graph comparing the mean of OHI-S values between Group 1 and Group 2 at baseline, 15th day, and 30th day.

MATHUR ET AL. Supplementary Material

STUDY PROFORMA

Date:

Name:

Age:

Address:

C.R. NO.:

Sex:

Phone No.:

1. GINGIVAL INDEX:

Instrument used – Mouth Mirror, Periodontal Probe

Surfaces Examined – disto-facial papilla, facial, mesio-facial papilla & lingual

Silness-Loe Gingival Index	Criteria
0	Absence of inflammation/normal gingiva
1	Mild inflammation, slight change in color, slight edema; no bleeding on probing
2	Moderate inflammation; moderate glazing, redness, edema, and hypertrophy, bleeding on probing
3	Severa inflammation; marked redness and hypertrophy, ulceration, tendency to spontaneous bleeding

Index teeth to be examined

16	
12	
24	
36	
32	
44	

SCORE	CONDITION
0.1-1.0	Mild gingivitis
1.1-2.0	Moderate gingivitis
2.1-3.0	Severe gingivitis

2. PLAQUE INDEX

Instrument used – Mouth Mirror, Dental Explorer

Surfaces Examined – disto-facial, facial, mesio-facial & lingual

Index teeth to be examined

Silness-Loe Plaque Index	Criteria
0	No Plaque
1	Thin film of plaque adhering to the free gingival margin & adjacent area of the tooth
2	Moderate accumulation of soft deposits in the sulcus
3	Abundance of soft matter within the gingival pocket &/or on the gingival margin and adjacent tooth surface.

16	
12	
24	
36	
32	
44	

SCORE	CONDITION
0	Excellent
0.1-0.9	Good
1.0-1.9	Fair
2.0-3.0	Poor

3. SIMPLIFIED ORAL HYGIENE INDEX

Instrument used – Mouth Mirror, No. 23 explorer (Shepherd's Hook)

Surface and teeth to be examined

16	Buccal
11	Labial
26	Buccal
36	Lingual
31	Labial
46	Lingual

Substitution

For tooth 16	Tooth 17
If 17 is missing	Tooth 18
For tooth 11	Tooth 21
If 27 is missing	Tooth 28
For tooth 36	Tooth 37
If 37 is missing	Tooth 38
For tooth 31	Tooth 41
For tooth 46	Tooth 47
If 47 is missing	Tooth 48

Debris Index – Simplified

Score	Criteria
0	No debris or stain present
1	Soft debris covering not more than one third of the tooth surface
2	Soft debris covering more than one third, but not more than two thirds of the exposed tooth surface
3	Soft debris covering more than two thirds of the exposed tooth surface

Calculus Index – Simplified

Score	Criteria
0	No calculus present
1	Supragingival calculus covering not more than one third of the tooth surface
2	Supragingival calculus covering more than one third, but not more than two thirds of the exposed tooth surface
3	Supragingival calculus covering more than two thirds of the exposed tooth surface

Good	0.0 – 1.2
Fair	1.3- 3.0
Poor	3.1- 6.0

RECORDING FORMAT FOR OHI-S**Debris Index – Simplified (DI-S)****Calculus Index –****Simplified (CI-S)**

16 11 26

36 46 31

SCORE

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16 11 26

36 46 31

SCORE

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OHI-S = DI-S + CI-S

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STUDY PROFORMA: TOOTHPASTE USAGE AND COMPLIANCE

Date:

Name:

Age:

Address:

C.R. NO.:

Sex:

Phone No.:

<u>PARAMETER</u>	<u>On Day of Examination</u>	<u>Reinforcement appointment after 15 days</u>	<u>After 30 days</u>
Gingival Index (GI)			
Plaque Index (PII)			
Oral Hygiene Index – Simplified DI-S CI-S			

PARENTS/GUARDIAN FEEDBACK

A. Did the child brush their teeth regularly using the provided toothpaste?

- Morning: Yes ☐ No ☐
- Evening: Yes ☐ No ☐

B. Was there any preference shown for a specific flavour?

- ☐ Yes
- ☐ No

C. Which toothpaste flavour did child like the most?

- ☐ Orange
- ☐ Bubble gum
- ☐ Green Apple
- ☐ No Preferences

D. Would you consider continuing with this toothpaste flavour?

- ☐ Yes
- ☐ No

E. Additional Comments:

(Include any further observations or feedback from the parent/guardian)

PARTICIPANT INFORMATION

A. Participant Name: _____

B. Age/Sex _____

C. Group Assignment

☐ Group A

☐ Group B

I BRUSHED MY TEETH

NAME: _____

DATE: _____

	WEEK 1	WEEK 2	WEEK 3	WEEK 4
DAY 1	 	 	 	 
DAY 2	 	 	 	 
DAY 3	 	 	 	 
DAY 4	 	 	 	 
DAY 5	 	 	 	 
DAY 6	 	 	 	 
DAY 7	 	 	 	 