

# Knowledge and Awareness of Primary Teeth and Their Importance among Parents

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## Abstract

The primary dentition for children is, perhaps, the most essential and yet the most neglected concern by a parent. Often, these parents who are responsible for the health of the primary dentition of their children feel that primary teeth eventually shed, and hence do not deserve heed to providing adequate oral health. The aim of this study was to evaluate the parental knowledge, attitude, and practices on the importance of primary dentition of their children. A well structured, self-prepared questionnaire was circulated among parents of the dental students within the university. The results obtained were collected and analysed to find out the awareness levels among the parents and to find out which group had the highest knowledge on primary teeth. The statistical tests used were descriptive analysis and Chi square tests. The confidence level was 95% and the data was considered statistically significant if P value < 0.05. In our study, it was found that among the parents, graduated individuals had the highest knowledge on primary dentition, especially the Post graduate level parents

**Key Words:** Dentition; primary teeth; children; awareness; parents.

## Introduction

Primary teeth are valuable assets of a child. The primary dentition involves 20 teeth. Regularly these teeth are alluded to as deciduous teeth. These teeth will be shed (lost) as the permanent teeth erupt. They play a vital role in eating, phonetics, aesthetics. Parents are considered as the primary Knowledge Source of maintaining a child's oral health. Child rearing and health habits for children undoubtedly lag a long term influence determining a child's oral health.<sup>1</sup> Indian Parents "have very low knowledge and Awareness on primary teeth and their Importance. Parents who believed that baby teeth were important had children with significantly lower Caries.

The establishment for sound perpetual teeth in kids and young people is laid during the first year of life. A few examinations have demonstrated that inappropriate recurrence of diet, undesirable dietary patterns, and lacking oral cleanliness measures during the initial 3 years of life are identified with tooth rot in children. A dismissed carious essential teeth further builds the danger of creating caries in changeless teeth and in this manner influencing personal satisfaction. Although permanent teeth are already partly formed in children aged 0–3 years, an eruption occurs from about 6 years on. As the first molar erupts, the oral cavity constitutes of mixed dentition, thus heightening the risk of caries.

In certain cultures, little value is given to primary teeth, which resulted in Caries and early loss of the primary dentition. Previously our team had conducted numerous original studies<sup>3-9</sup> and surveys<sup>10-17</sup> over the past 5 years. Now we are focussing on epidemiological surveys. The idea for this survey stemmed from the current interest in our community. The aim of this study was to evaluate the parental knowledge, attitude, and practices on the importance of primary dentition of their

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children.

### Materials And Methods

This cross sectional questionnaire study was conducted in 2020 and approval was received by the institutional review board. The Sample Size was 140 parents. Random Sampling Method was followed. Questions were in English. The nature and purpose of the study was explained and strict Confidentiality was assured. The Questionnaire was self structured with 15 questions in total.

Data Collection software used was Google Forms. Analytics software used was SPSS, IBM. Pie Charts and bar diagrams are used as methods of representation of each output variable. Descriptive Statistics and Chi square test was used<sup>18</sup>. P value less than 0.05 was

considered as statically insignificant and confidence level set as 90%.

### Results and Discussion

In the present study, 70% agreed that frequency of sugar consumption affects consumption compared to amount of sugar consumed, 64.29% agreed the maintenance of good dental health can prevent dental Caries, The correct option was mainly coming from the graduate level educated parents. when asked about milk teeth, 37% of graduated parents answered as ‘teeth which erupt first’, When asked about the first dental visit, 31% of parents answered it as 6 months after eruption of first tooth. 35% of the parents said that all primary teeth will Shed, 35% of graduated Parents answered that there are 20 milk teeth. (Table 1)

**Table 1: Table showing percentage of responses to the questionnaire**

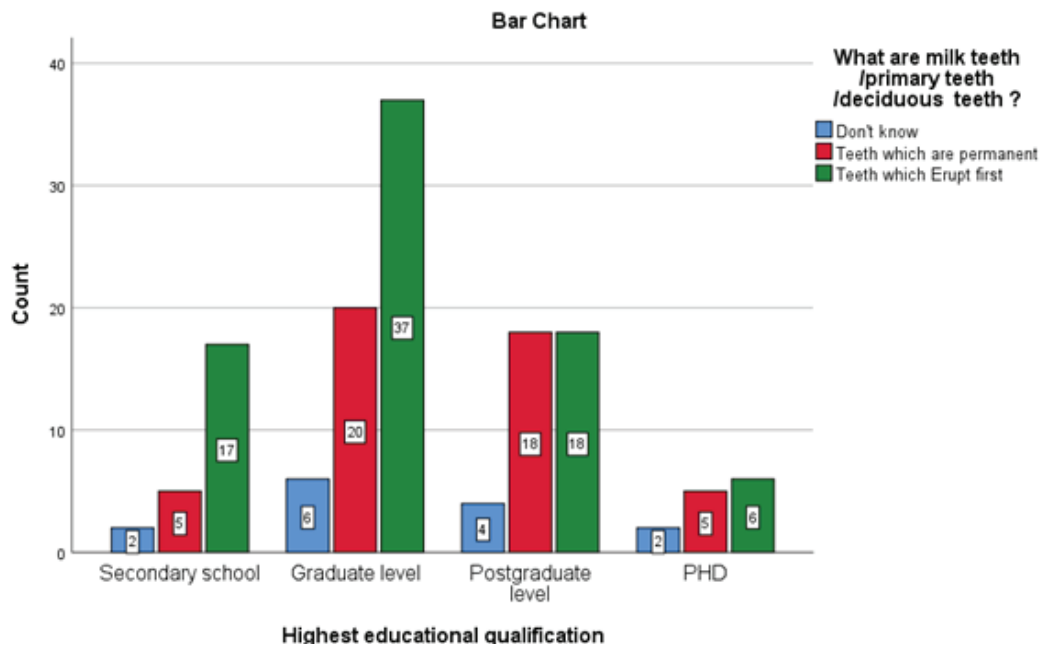
|                                                          |                                |         |
|----------------------------------------------------------|--------------------------------|---------|
| 1. What are Milk teeth?                                  | A. A.teeth which erupt first   | 55.71%  |
|                                                          | B. B.teeth which are permanent | 34.29%  |
|                                                          | C. C.dont know                 | 10%     |
| 2. How many milk teeth are there?                        | A. A.20                        | 47.86%  |
|                                                          | B. B.32                        | 41.43%  |
|                                                          | C. C. Dont know                | 10.71%  |
| 3. Will all primary teeth shed?                          | A. A. Yes                      | 55.71%  |
|                                                          | B. B. No                       | 41.29%  |
| 4. At what age should a child start brushing unassisted? | A. A. 1–3 years                | 37.68%  |
|                                                          | B. B. 4–6 years                | 44.83%  |
|                                                          | C. C. 7–9 years                | 17.89 % |
| 5. When do milk teeth start to erupt?                    | A. 6 months                    | 14%     |
|                                                          | B. 10 months                   | 52.86%  |
|                                                          | C. 1 year                      | 35%     |

**Cont... Table 1: Table showing percentage of responses to the questionnaire**

|                                                                                                                          |                                               |         |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------|
| 6. When should an infant's first dental visit be?                                                                        | A. Immediately after birth                    | 28.57%  |
|                                                                                                                          | B. Within 6 months of eruption of first tooth | 52.86%  |
|                                                                                                                          | C. Whenever necessary                         | 18.57%  |
| 7. Do you think early loss of milk teeth can lead to malocclusion of permanent teeth?                                    | A. A. Yes                                     | 68.57%  |
|                                                                                                                          | B. B. No                                      | 31.43%  |
| 8. Do you think primary teeth are as important as permanent teeth?                                                       | A. Yes                                        | 63.57%  |
|                                                                                                                          | B. No                                         | 36.43%  |
| 9. When should a mother start cleaning her child's teeth?                                                                | A. When the first milk tooth erupts           | 43.28%  |
|                                                                                                                          | B. When all milk teeth have erupted           | 41.79 % |
|                                                                                                                          | C. When the first permanent tooth erupts      | 14.93%  |
| 10. Food plays an important role in the oral health                                                                      | A. Yes                                        | 77.14 % |
|                                                                                                                          | B. No                                         | 22.86%  |
|                                                                                                                          | C. Dont know                                  | 0%      |
| 11. Frequency of sugar consumption plays a greater role in producing caries than does the total amount of sugar consumed | A. Yes                                        | 70%     |
|                                                                                                                          | B. No                                         | 30%     |
|                                                                                                                          | C. Dont know                                  | 0%      |
| 12. Retentiveness of a food in the oral cavity is linked to dental caries                                                | A. Yes                                        | 64.29 % |
|                                                                                                                          | B. No                                         | 35.71 % |
|                                                                                                                          | C. Dont know                                  | 0%      |
| 13) Does fluoride prevent dental caries ?                                                                                | A. Yes                                        | 43.57%  |
|                                                                                                                          | B. No                                         | 35.71%  |
|                                                                                                                          | C. Maybe                                      | 20.71%  |
| 14. Is it ok for a child to sleep with a milk bottle in its mouth ?                                                      | A. Yes                                        | 61.43%  |
|                                                                                                                          | B. No                                         | 38.57%  |

**Cont... Table 1: Table showing percentage of responses to the questionnaire**

|                                                             |                        |        |
|-------------------------------------------------------------|------------------------|--------|
| 15. How often do you take your child to visit the dentist ? | A. Once in 3 -6 months | 46.43% |
|                                                             | B. Once in an year     | 47.16% |
|                                                             | C. Not at all          | 6.4%   |
| 16.How often do you change your child's toothbrush?         | A. Once in 3 -6 months | 55.71% |
|                                                             | B. Once in an year     | 34.29% |
|                                                             | C. less than 3 months  | 10%    |



**Figure 1: The bar graph showing the chi square analysis of association between different education levels of parents on knowledge of milk teeth. X-axis represents the highest educational qualification; Y-axis represents the count of parents; Green colour represents the teeth which erupt first, Red colour represents the teeth which are permanent, Blue colour represents don't know. Graduate level educated parents showed more awareness(37),But it was not statistically significant [chi Square test, p-value=0.497( p>0.05,indicates statistically not significant)**

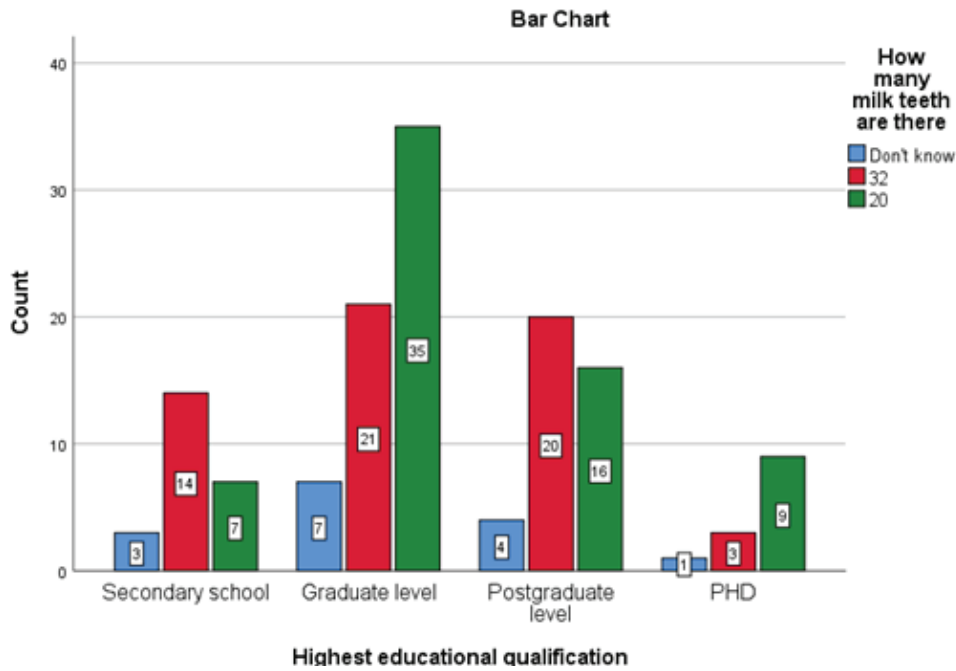


Figure 2: The bar graph showing the chi square analysis of association between different education levels of parents' knowledge on the number of milk teeth. X-axis represents the highest educational qualification; Y-axis represents the count of parents. Green colour represents 20 teeth, Red colour represents 32 teeth, Blue colour represents don't know. Graduate level educated parents showed more awareness (35) on correct number of milk teeth, But it was not statistically significant (Chi square test  $p=0.178$ ,  $p>0.05$ - indicating Statistically not significant)

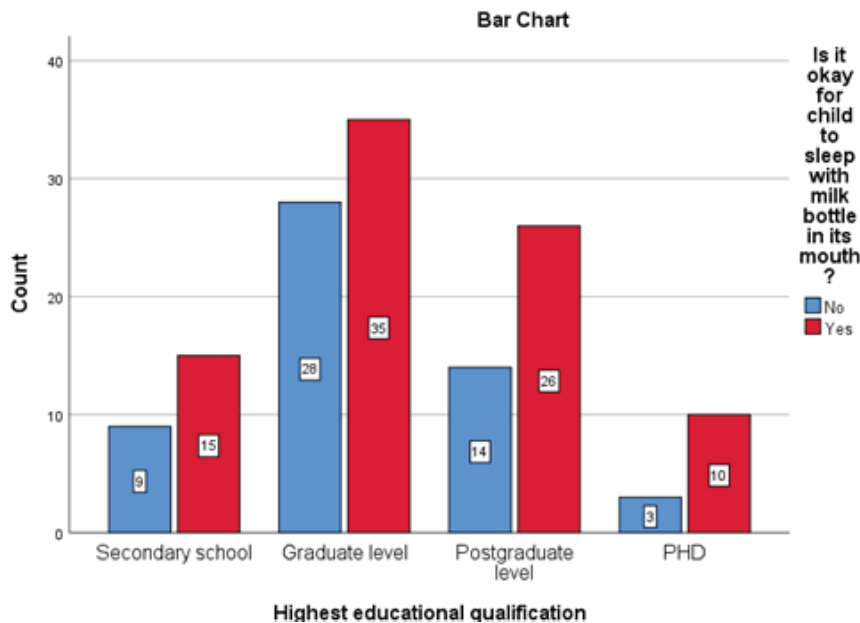


Figure 3: The bar graph showing the chi square analysis of association between different education levels of parents' knowledge on whether it is okay for a child to sleep with a milk bottle in his mouth or not. X-axis represents the highest educational qualification; Y-axis represents the count of parents; Red colour represents Yes, blue colour represents No. Majority of the parents of all education levels did not have awareness on whether it is okay for a child to sleep with a milk bottle in his mouth or not. Comparison between different educated level parents was not statistically significant (Chi square test  $p=0.432$ ,  $p>0.05$ - indicating Statistically not significant)

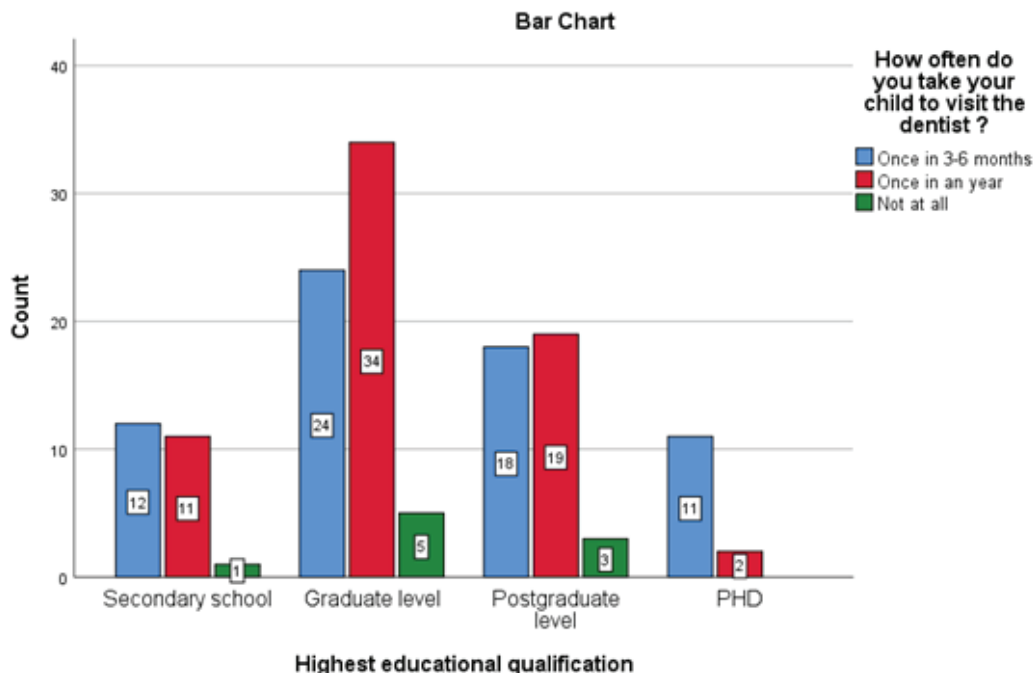


Figure 4: The bar graph showing the chi square analysis of association between different education levels of parents’ knowledge on taking their children to visit the dentist. X-axis represents the highest educational qualification; Y-axis represents the count of parents; Red colour represents once in a year, blue colour represents once in 3-6 months, green colour represents not at all. Graduate level educated parents showed more awareness (34), But it was not statistically significant (Chi square test  $p=0.131$ ,  $p>0.05$ - indicating Statistically not significant)

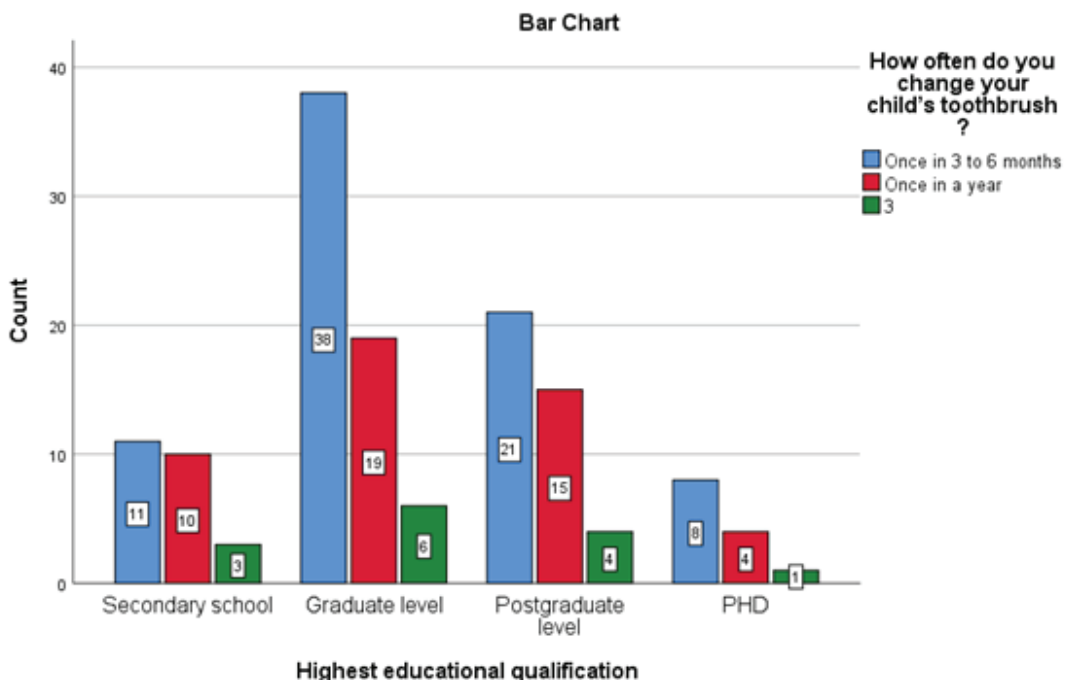


Figure 5: The bar graph showing the chi square analysis of association between different education levels of parents’ knowledge on changing their children’s toothbrush. X-axis represents the highest educational qualification; Y-axis represents the count of parents; Red colour represents once in a year, blue colour represents once in 3 -6 months, green colour represents once in 3 months. Graduate level educated parents showed more awareness(36), But it was not statistically significant. (Chi square test  $p=0.92$ ,  $p>0.05$ -

**indicating Statistically not significant)**

What are milk teeth ?

55.71% people Responded that they are the tooth which erupts-first, 34.29% responded that they are teeth which are Permanent : 10 % didn't know . 37% of the Graduate level educated parents answered as teeth which erupt first (Figure.1), showed (p)= 0.497 (P>0.05 )- (Statistically not significant). Similar findings were seen in studies like Vennila chandran- Et al<sup>20</sup> and Jyotsna Vittoba Shetty et.al <sup>21</sup> . Milk teeth are the one which erupt firsts and the awareness about it was average among parents

How many Milk teeth are there ?

47.86% of the participants said that there are 20 milk teeth,41.43% - Said that 32 milk teeth are there, 10.71% - said that they don't know. 35% of the Graduate level educated parents said it's 20 milk teeth(Figure.2). (p)= 0.178 ,(P>0.05 )(Statistically not significant) .The research done by Jyotsna Vittoba Shetty<sup>21</sup> and Vennila chandran were similar to our findings. The awareness on the number of milk teeth was found to be average.

Will all primary teeth Shed ?

55.71% of the participants responded that they will shed, 41.29% of the participants said they won't shed. 35 % of the Graduate level educated parents said that all milk teeth will shed.(p) = (0.138) (Statistically not significant) Similar Findings were seen in research done by Jyotsna Vittoba Shetty Et. Al<sup>21</sup> , Vennila chandran Et. Al<sup>20</sup>- and Sarnat H. Et Al.<sup>1</sup> All milk teeth in Infants sheds at different times and awareness on it is average among parents

At What Age should a child start Brushing Unassisted ?

44.83% of the population said that it's between 4-6years, 37.68% of the population said that it's between 1-3 years, 17.89 % of the population said that it's between 7- 9 years. 31.71 % of Graduate level educated parents responded as a 4-6 year age group. ( p ) = 0.687 (Statistically not significant) . The research done by Pinkham Et al<sup>22</sup> is similar to this study. Unassisted brushing Can be from 4 - 6 years.

When do milk teeth start to erupt?.

14% of the respondents said it's 6 months, 52.86% of the respondents said that they will erupt from 10 months,whilst 35% of them said it's from 1st year. 35% of Graduate level educated parents said it's 10 months. ( p ) = 0.770 : (Statistically not significant). The research done by Abdulrahman alshehri <sup>23</sup> is similar to this study. Milk teeth start to erupt before 1 year of age.

When should an Infant's First Dental Visit be ?

52.86% of people said that the first visit should be within 6months of first teeth , whilst 28.57% of them said that it should be Immediately after birth,and 18.57% said whenever necessary . 36% of the Graduate level educated parents said that its “: within 6 months of eruptions first teeth. (p)= 0.750 ; (p>0.05 ), (Statistically not significant) . Similar finding was found in the research done by Adimouleme Sanguida<sup>17</sup>, Opposite Finding to this study was found in the research done by Amid 1. Ismail, et al., in which participants responded first to a dental visit 2-3 years after teeth erupts. This disagrees with present study,which is due to differences in the study population. Infants first dental visit, should be after 6 months of eruption the first teeth and awareness to this was found to be average.

Do you think early loss of Milk teeth can lead to Malocclusion of permanent teeth?

68.57% of the participants said that loss of milk teeth can lead to malocclusion of permanent teeth(24) (p) = 0.746 (Statistically not significant), 31.43% of the Graduate level educated parents responded that early loss of milk teeth don't lead to malocclusion of permanent teeth . 46% of the Graduate level educated parents said yes, Similar findings were found in the research done Adimoulane Sandigua<sup>17</sup>- Early loss of teeth causes malocclusion. And awareness of this was present among parents.

Do you think primary teeth are as Important as permanent teeth ?

63.57% of the people responded as Yes, 36.43% of the people opted for the option -'No' . 41% of the Graduate level educated parents said it's important. (p)=0.925, (Statistically not significant) . Similar research is done by Abdulrahman Alshahri<sup>23</sup>. Both teeth

are very important and have their own significance.

When Should a mother start cleaning her child's teeth ?

14.93% of the participants opted for the option-when first permanent teeth erupt, 41.79 % of them opted for the option 'when all milk teeth start to erupt', whilst 43.28% of the participants opted for the option- 'when the first milk teeth erupt'. In the graduated Parents 28% of them opted for the option ,when 1st milk tooth erupts. (p)=0.939 (Statistically not significant) .Similar findings were found in the research done by Abdulrahman Alshahri<sup>23</sup>, Cleaning a child's teeth should be done after the eruption of the first milk tooth.

Food plays an Important role in oral health

77.14 % of the population said yes whilst 22.86% said No. 52.6% of the Graduate level educated parents said yes. (p) = 0.558 (Statistically not significant). Similar findings were found in the research done by Abdulrahman Alshehri<sup>23</sup>. Food plays an Important role in oral health

Frequency of sugar consumption plays a greater role in producing caries than the total amount of Sugar consumed? 70% of the people said yes whilst 30% said no. 49% of the Graduate level educated parents said yes. (p) = 0.317 (Statistically not significant). The research done by Adimoulame Sanguida<sup>17</sup> is similar to this study. The Frequency of Sugar affects caries more than the amount of sugar and awareness was present among parents.

Retentiveness of a food in the Oral cavity is linked to Dental caries ?

35.71 % of the people said No , 64.29 % of the people said ,Yes. 44% of the postGraduate level educated parents said Yes. The research done by Abdulrahman Alshehri<sup>23</sup> was similar to our study. Dental caries are caused due to the retention of food in the oral cavity<sup>25</sup>.

Does fluoride prevent Dental Caries ?

20.71% of the people said maybe, 43.57% of the people Said Yes, whilst 35.71% said No . 24% of the Graduate level educated parents said Yes. (p) = 0.230 (Statistically not significant). Similar Findings were found in the research done by, Adimoulane.Etal <sup>17</sup>,

gruyten. J. Et. Al<sup>26</sup> , Schroth Et. Al<sup>27</sup> and Clarke Mist. Al<sup>28</sup> . Fluoride prevents Dental Caries, but the awareness about it was average among parents.

Is it okay for a child to sleep with a milk bottle in its mouth ?

61.43% of the people said yes, 38.57% of the people said no. 35 % of Graduate level educated parents agreed (Figure.3). The research done by Jyotsna vittoba et Al<sup>21</sup> was similar to this study. It's not okay to sleep with a bottle in your mouth, but many of the parents were not aware of it. This is one of the reasons for development of rampant caries.

How often do you take your child to visit the Dentist?

47.16% of the population said once in a year, 46.43% of the participants said it's once in 3-6 months, whilst 6.4% of the people said not at all. 34% of the Graduate level educated parents said it's once in 6 months. (Figure.4) (p)=0.131(Statistically not significant). The research done by Jyotsna vittoba Et al<sup>21</sup> was similar to this study . Taking the child to the dentist once in 6 months is advisable

How often do you change your child's toothbrush ?

Once in 3-6 months is the option selected by 55.71%, less than 3months is the option selected by 10 % whilst Once in a year option is selected by 34.29 % of the population. (Figure.5) (p)=0.928 (Statistically not significant) . The research done by Jyotsna vittoba Shetty Et. Al <sup>21</sup> similar to this study. Toothbrushes should be changed once in 3-6 months<sup>29,30</sup>

The limitations of our study include limited sample size, homogenous population and regionalism, overcoming which we can get more accurate results. The study shows that Secondary school level parents had less knowledge. Need awareness programmes on infant oral health to boost the knowledge on this topic.

## Conclusion

Knowledge and awareness on Primary teeth among the parents was found to be moderate. The Graduate level educated parents have a higher knowledge on Primary teeth and its importance, Secondary school level educated parents have lesser awareness on primary teeth. Post graduate level parents have the highest

awareness on infant oral health. We can conclude that there is definitely a need to create more awareness on primary dentition and its importance .

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**Source of Funding:** Self.

**Ethical Clearance:** Not required

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