

Assessment of knowledge, attitude and practice about child oral health in district oral health centre in Haryana¹Dr. Heena Sarangal, ²Ritu Namdev, ³Shruti, ⁴Radhey Shyam

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Corresponding Author: Dr. Heena Sarangal, Post Graduate Institute of Dental Science, Rohtak, Haryana**Citation of this Article:** Dr. Heena Sarangal, Ritu Namdev, Shruti, Radhey Shyam, “Assessment of knowledge, attitude and practice about child oral health in district oral health centre in Haryana”, IJDSIR- September - 2020, Vol. – 3, Issue - 5, P. No. 137 – 144.**Copyright:** © 2020, Dr. Heena Sarangal, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License. Which allows others to remix, tweak, and build upon the work non commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.**Type of Publication:** Original Research Article**Conflicts of Interest:** Nil**Abstract****Introduction:** Most important aspect of general health and well being is oral health. WHO has recommended the promotion of oral health through schools for improving knowledge, attitude and practice related to oral health among parents and care givers.**Objectives:** This study was conducted to determine the knowledge, attitude and practice among parents regarding their children oral health in Rohtak city.**Material and methods:** a cross-sectional study was conducted in Rohtak city, Haryana. A total of 500 parents who reported in out-patient department of Pedodontics and Preventive Dentistry at Post Graduate Institute of Dental Sciences, Rohtak were included. A self-administered questionnaire was designed for data collection. Statistical Package for Social Sciences Software (21.0 version) was used for the statistical analysis. $P < 0.005$ was chosen as statistically significant.**Results:** The result of this research showed that the study sample selected had a relatively good knowledge regarding the importance of primary dentition, daily basis

brushing frequency, brushing aids, causes of dental caries and supervision of children while they brush their teeth. Attitude regarding the importance of brushing of primary teeth also showed positive results. Participants were also having good knowledge that the use of ground water (wells, tubewells, handpumps) causes discoloration.

Conclusion: In the present study, it was concluded that despite the good knowledge and attitude, participants have poor practical behavior towards oral health. This is the reason of high dental caries prevalence in patients reporting to out-patient department.**Keywords:** knowledge, attitude, practice and oral health**Introduction**

Oral health of an individual tells a lot about the general health. Good oral health status is determined by the proper brushing habits and other self care practices. Dental caries is the most common disease of early childhood. The American Academy of Pediatric Dentistry (AAPD) defines this early childhood caries (ECC) as “the presence of one or more decayed (noncavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces in

any primary tooth in a child under the age of six.” However, in children younger than 3 years of age, this pattern is called severe ECC which is defined as the presence of one or more cavitated, missing (due to caries), or filled smooth surfaces in primary maxillary anterior teeth or a decayed, missing, or filled score of ≥ 4 (age 3), ≥ 5 (age 4), or ≥ 6 (age 5) surfaces.^{1,2}

A number of risk factors associated with dental caries are high consumption of sugar, low socioeconomic status, less awareness, night bottle feeding, frequent in-between meal consumption, consumption of sugar added snacks and beverages, less parental education etc.¹ for the maintenance of good oral hygiene, both the parent and the child play an important role.

Literature reports that increased knowledge leads to good oral health. Therefore, the primary concern is to impart knowledge about the good oral health among people. The main factor which plays important role is practice of oral health regardless of having knowledge and attitude of the same.² Hence, the present study was conducted in the Department of Pedodontics and Preventive Dentistry at Post Graduate Institute of Dental Sciences, Rohtak, Haryana to evaluate the knowledge, attitude and practice of parents regarding their child's oral health.

Materials and methods

The study was conducted on parents who reported in the outpatient department in the Department of Pedodontics and Preventive Dentistry at Post Graduate Institute of Dental Sciences with their children. A total of 500 parents were selected using random sampling technique and each of them was provided with a questionnaire for the study containing 16 questions, which was pretested on 50 OPD patients. The questionnaire contains 9 questions about knowledge, 4 questions about attitude and 3 questions regarding practice about oral hygiene as shown in table no. 1. Parent's participated in this study voluntarily,

without curb, and in fully informed manner. The questionnaire was delivered on a face-to-face interview basis. Data were analyzed using the Statistical Package for Social Sciences 21.0 version (SPSS 21.0) for descriptive and multivariate analysis, and $P < 0.005$ was considered as statistically significant.

Data analysis and results

Out of 500 parents selected for this study, 55% were female and 45% were male as shown in figure 1. With regard to the importance of the primary teeth, 80% believed that primary teeth are important, whereas 10% did not and 10% did not know about it (figure 2). Majority of the participants thought that problems in primary teeth could affect the permanent teeth (66.80%), while 18.20% did not. Interestingly, 15% of the participants did not know about it (figure 3).

Around 25.60% of the participants reported that the first dental visit should be at age of 6 months and 64.80% believed that first dental visit should be when child has dental problem. 9.60% did not know about the timing of first dental visit (figure 4).

Figure 5 shows that more than half of the participants (63.60%) brushed their teeth twice daily and 35.40% once in a day. Only 1% participants reported occasional tooth brushing and no participants thought that they should never brush their teeth. In terms of dental visit, few participants (12.20%) reported that they would go every six months and only 2.20% would go every year. However, 85.60% believed that they would go when they have dental problem (figure 6).

Among all participants, 83% held the attitude that daily cleaning of teeth can prevent dental caries and 15% believed that caries can occur in spite of daily cleaning of teeth (figure 7). In all, 93.60% reported that oral health will be in good condition if they visit the dentist regularly (figure 8). Regarding the cause of the dental caries,

61.80% believed that improper oral brushing, imbalanced diet and sticky food are the cause of dental caries, 22.20% believed that sticky and sweet food is the main cause of dental caries, 15% believed improper oral brushing as the main causative factor for dental caries and only 1% believed that imbalanced diet could be a cause of dental caries (figure 9).

More than half (80.20%) of the participants supervised their child while they brushed their teeth and 18.20% thought that it is not important to supervise your child while they are brushing (figure10). With regard to awareness about impact of oral health on general health, 94.80% of the participants agreed that oral health will impact the general health and 2.40% did not agree (figure11).

Interestingly, more than half of the parents (69.20%) knew that continuous oral habit such as thumb sucking, mouth breathing, lip sucking and nail biting could cause malocclusion (figure12). Figure 13 shows that 94.20% participants used tooth brush for cleaning of teeth, 5.20% used neem twig and 0.60% used tooth powder as cleaning aid for teeth. Majority of the participants believed that brushing of child teeth is important for their general health. With regard to interval of change of tooth brush (participants who used tooth brush as cleaning aid for their teeth), 77.40% changed their tooth brush in 1-3 months, 20.60% in 4-6 months, 1.60% in 7-12 months and 0.40% changed their tooth brush more than a year (figure 14).

Regarding the effect of prolonged and frequent breast/bottle feeding, 71% believed that it can affect the child's oral health and 24.40% did not know about it and 4.60% did not believe that it has any affect on oral health of the child (figure 15). As the study was conducted in a fluoride high area, we added a question in the questionnaire regarding the fluoride role in tooth discoloration. Interestingly, 68% participants were having

good knowledge regarding fluoride role in discoloration (figure 16).

Discussion

This study was conducted with an aim to evaluate knowledge, attitude and practices among parents visiting to outpatient department, department of Pedodontics and Preventive Dentistry, Rohtak, Haryana. Parents play a pivotal role in child's oral health habits in the initial years of life as children are dependent upon their parents and guardians for basic needs and they also learn most habits from their parents/guardians during this time period of life. Hence, parent's knowledge, attitude and practice regarding oral health of child's can help in determining oral health status of their children.

In the present study, majority of the participants cleaned their teeth twice daily and agreed that proper brushing habits and regular visits to dentist can prevent dental caries; this finding resembles that in the study by Varenne et al.⁴ There was vast knowledge about the causative factors for dental caries among the participants. They knew that improper oral brushing, imbalanced diet and sweet/ sticky food, all can cause dental decay. These findings are in accordance with those of Lin et al⁵ and Suresh et al⁶, who also reported that parents were having good knowledge about diet as causative factor. As majority of the patients reporting to the outpatient department are of rural area, question regarding dental aids used for cleaning of teeth was added. To our surprise, majority of the participants answered tooth brush as cleaning aid and only few participants used neem twig for cleaning of their teeth.

Out of female and male participants, females were having good knowledge regarding the effect of frequent bottle/ breast feeding on oral health of the child. Most of the participants agreed that oral health greatly impact the general health of the child.

As the Haryana has moderate to high fluoride regions, a closed ended question regarding the discoloration caused by fluoride was added in questionnaire, about which majority of the participants agreed. However, knowledge regarding the first dental visit of child among parents was poor and they reported that first dental visit should be when child has any dental problem; same findings were given by Chabra et al⁷, who reported that only 15.2% of the participants were aware about the timing of first dental visit.

Majority of the parent respond affirmatively about understanding the importance of teeth; however they do not implement the understanding or knowledge of the same into habits or practice in terms of oral hygiene and daily brushing of their teeth. This highlights the facts that Haryana, still the oral health is neglected and patients underestimate the importance of daily brushing and report to dentist only in case of pain. Repeated and vigorous reinforcement is the need of the hour and mass media like television, radio, newspaper and internet can be utilized for knowledge enhancement of general public regarding oral health.

Conclusion

This study revealed that the knowledge, attitude and practice of parents towards their child's oral health are relatively good. However, cases of oral health diseases reporting to the outpatient department are contradicting the same. Despite good amount of parent's knowledge regarding oral health, they were unable to apply this knowledge due to negative attitude. Hence, initiatives should be done from a dentist's counseling regarding oral health up to community level programs to impart knowledge regarding oral health improved attitude for the same.

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Legends Table and Figure

Table 1

| Question | Options | Participant % |
|--|---|---------------------------------|
| Importance of primary teeth | Agree Disagree Neither agree nor disagree | 80.00 10.00 10.00 |
| Can problem in primary dentition affect the permanent dentition | Agree Disagree Neither agree nor disagree | 66.80 18.20 15.00 |
| When should be the first dental visit | 6 months When dental problem arise Do not know | 25.60 64.80 9.60 |
| How many times do you brush your teeth in a day | Once Twice Occasional Never | 35.40 63.60 1.00 0.00 |
| How often do you visit dental clinic | After 6 months After 1 year Whenever need arise | 12.20 2.20 85.60 |
| Daily cleaning of teeth can prevent dental caries | Agree Disagree Neither agree nor disagree | 83.00 15.00 2.00 |
| Regular visit to dentist helps to keep your teeth in healthy state | Agree Disagree Neither agree nor disagree | 93.60 4.60 1.80 |
| What causes dental caries | Improper oral brushing Imbalanced diet Sticky and sweet food All of them | 15.00 1.00 22.20 61.80 |
| Do you supervise your child while they brush their teeth | Yes No Do not know | 80.20 18.20 1.60 |
| Does oral health impact the general health | Agree Disagree Neither agree nor disagree | 94.80 2.40 2.80 |

| | | |
|--|----------------------------|-------|
| Do continuous oral habits cause malocclusion | Agree | 69.20 |
| | Disagree | 6.20 |
| | Neither agree nor disagree | 24.60 |
| What are the brushing aids that you use for cleaning your teeth | Neem twig | 5.20 |
| | Tooth brush and paste | 94.20 |
| | Tooth powder | 0.60 |
| Is brushing of babies teeth important for oral health | Agree | 95.40 |
| | Disagree | 3.60 |
| | Neither agree nor disagree | 1.00 |
| Frequency and prolonged breast/ bottle feeding can cause tooth decay | Yes | 71.00 |
| | No | 4.60 |
| | Do not know | 24.40 |
| Intervals for change of toothbrush | 1-3 months | 77.40 |
| | 4-6 months | 20.60 |
| | 7-12 months | 1.60 |
| | More than 1 year | 0.40 |
| Does the use of ground water (wells, tubewells, handpumps) cause tooth discoloration | Yes | 68.00 |
| | No | 12.00 |
| | Do not know | 20.00 |

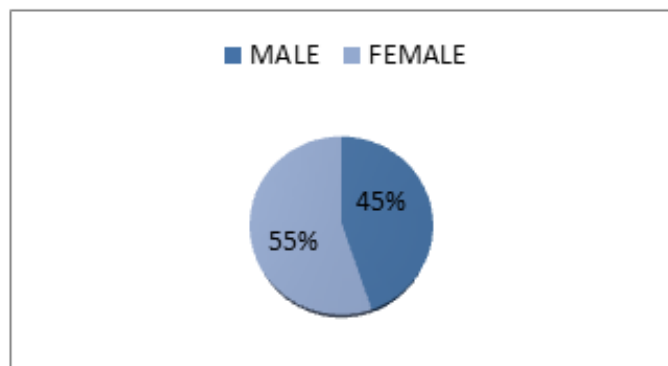


Figure 1: Gender Distribution

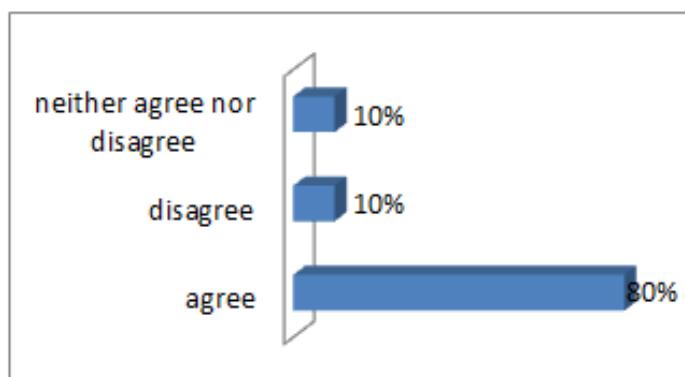


Figure 2: Primary dentition importance

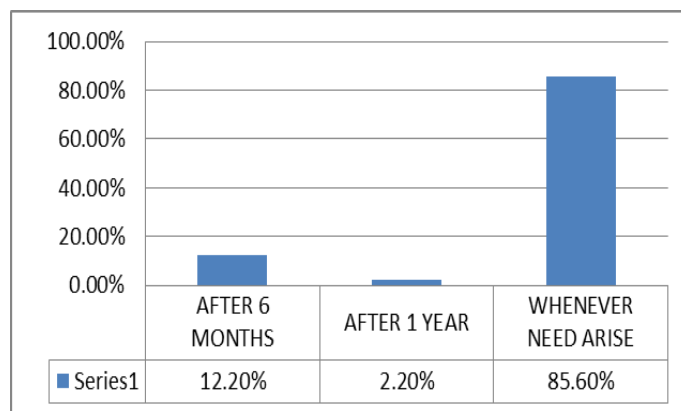


Figure 6: Frequency of regular dental visit

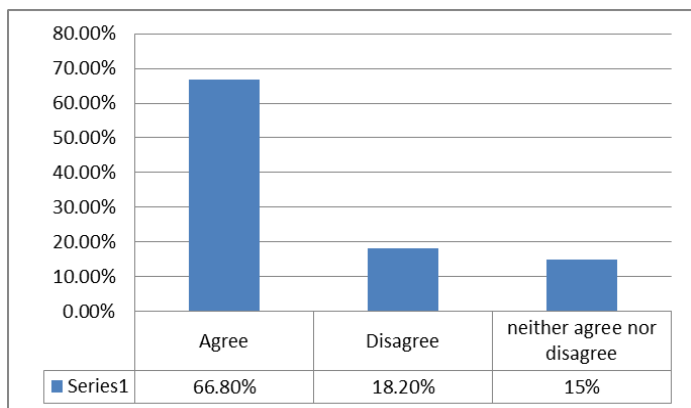


Figure 3: Problem in primary dentition affects the permanent dentition

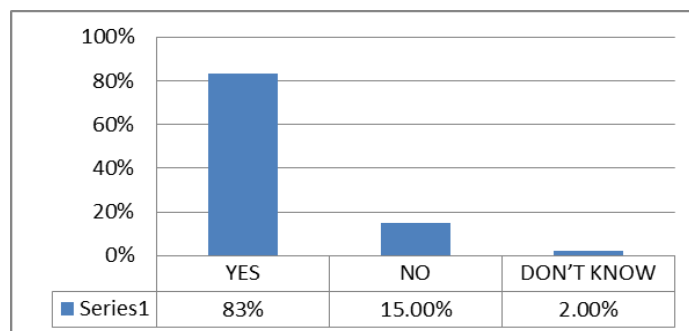


Figure 7: Daily cleaning of teeth can prevent dental caries

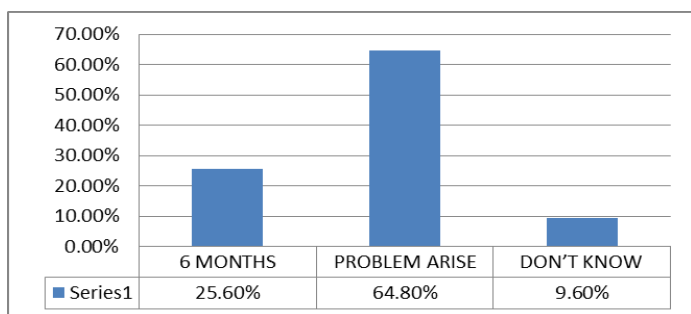


Figure 4: First dental visit

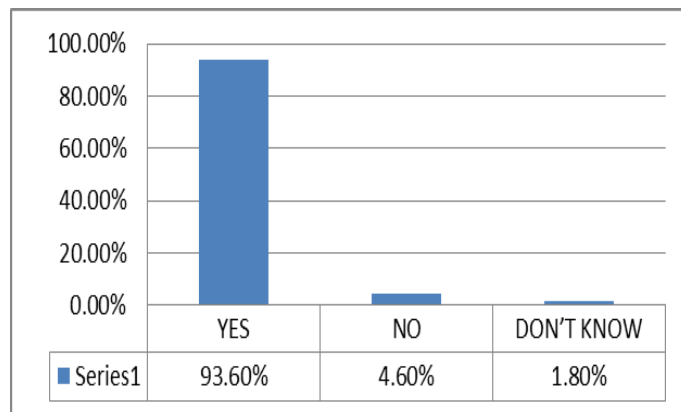


Figure 8: Regular visit to dentist helps to keep your teeth in healthy state

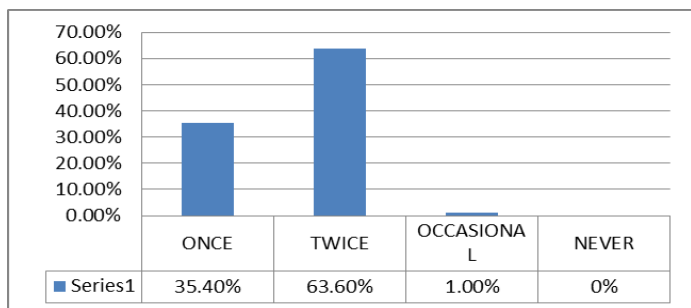


Figure 5: Frequency of tooth brushing in a day

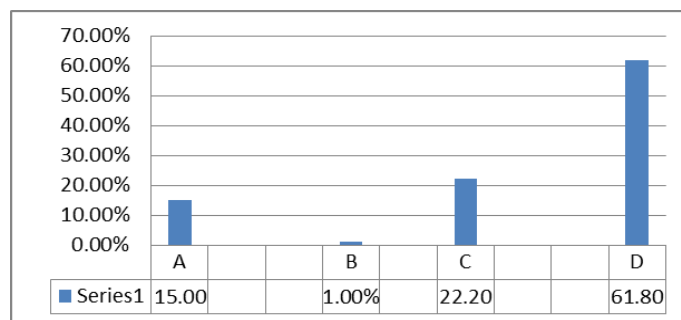


Figure 9: Cause of dental caries

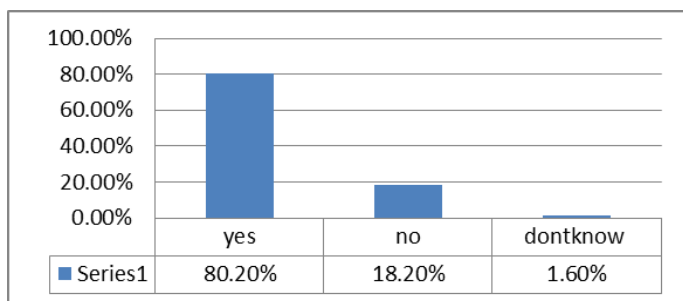


Figure 10: Do you supervise your child while brushing

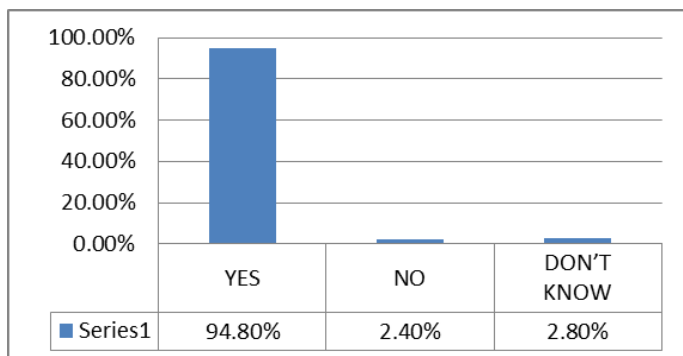


Figure 11: Does oral health impact the general health

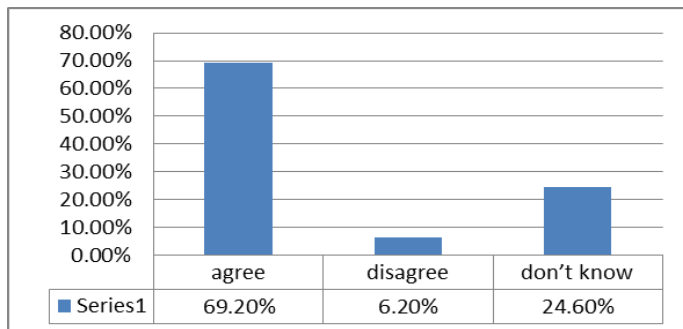


Figure12: Do oral habits cause malocclusion

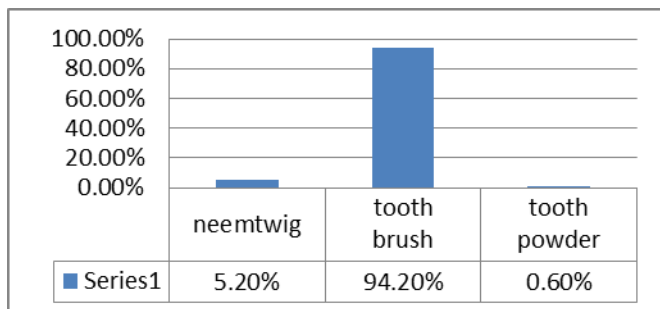


Figure 13: Brushing aids

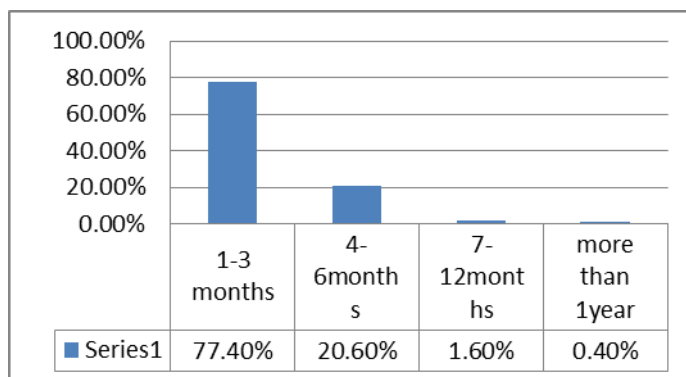


Figure 14: Interval for change of toothbrush

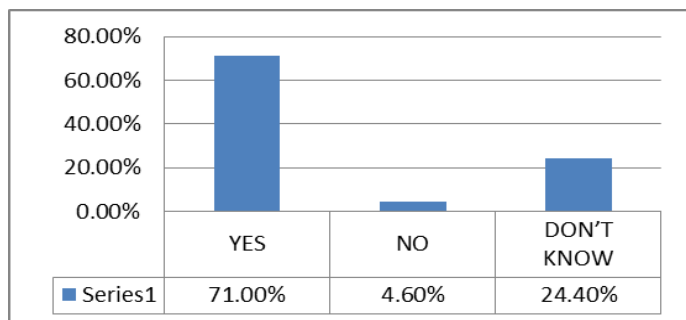


Figure 15: Frequency and prolonged breast/ bottle feeding can cause tooth decay

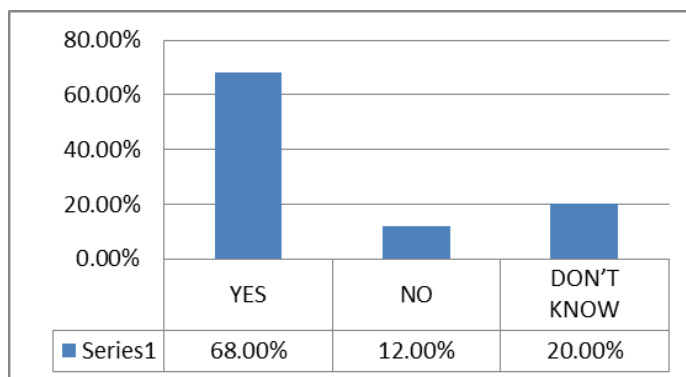


Figure 16: Does the use of ground water (wells, tube wells, hand pumps) Cause tooth discoloration