



Knowledge, Attitude and Practices (KAP) of Oral Hygiene among School Children in Shamli City.

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KEYWORDS

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ABSTRACT:

Introduction: Poor oral health can have a profound effect on the quality of life. The experience of pain, endurance of dental abscesses, problems with eating and chewing, embarrassment about the shape of teeth or about missing, discolored or damaged teeth can adversely affect people's daily lives and well-being.

Aim: To assess the knowledge, attitude, and practices of oral hygiene among college students in Shamli city.

Materials and Methods: A descriptive cross-sectional survey was conducted using a self-administered 13-item structured questionnaire that assessed oral health and hygiene knowledge, attitudes, and practices of 332 students from various Schools. The study was conducted during April and May 2025. The results were analyzed by descriptive statistics using SPSS version 24. All tests were set at a 0.05 significance level.

Results: The toothbrush with toothpaste and Mouthwash is the most common oral hygiene aid used for cleaning teeth, which was adopted by 199 (59.9%) students. 263(79.21%) students felt that the health of the mouth and dentition had an impact on the health of the body. Nearly 115 (34.63%) of the youngsters said they would only go to the dentist if they were in pain, despite the fact that nearly half of the youngster 158 (47.59%) said regular dental checkups were vital. Shortage of time was stated as the primary reason for not attending the dentist 164 (49.39%).

Conclusion: The toothbrush with toothpaste and Mouthwash is the most common oral hygiene aid used for cleaning teeth; it was discovered that a larger proportion of students cleansed their teeth twice in a day. Dental pain was the main reason to visit a dentist. Further studies related to knowledge, attitude and practice (KAP) of the students about oral health can be encouraged.



INTRODUCTION

Most civilizations have a strong emphasis on health. Over the last several decades, there has been a reawakening to the concept that health is a fundamental human right and a global social aim that is crucial to meeting basic human requirements and improving one's quality of life. For all cultural groupings, health is a universal requirement. Without good dental health, it is impossible to achieve or sustain good overall health. Because of their great frequency and severe socioeconomic effect, oral illnesses are classified as serious public health issues. (Kay and Locker, 1997; Navneet and Manpreet, 2007).

Oral health is described as "a level of health of the mouth and associated tissues that enables an individual to eat, speak, and socialize without active illness, discomfort, or embarrassment and adds to overall well-being." This new viewpoint on health recommended that the ultimate aim of dental treatment, namely excellent oral health, should no longer be viewed just as the absence of caries or periodontal disease; a patient's emotional and social well-being should also be addressed (Gopikrishna et al., 2016).

Based on this, the major focus of dental practitioners and oral health educators is to instill oral health awareness and practice in society. There has been a developing concept of health promotion via education, teaching, and motivation all over the

world that fosters an atmosphere suitable to moving the burden of public health from the shoulders of health care professionals to 'people's own hands.' To do so, precise knowledge and comprehension of scientifically evident information and facts are required

MATERIAL AND METHOD

A descriptive cross-sectional survey was conducted in the month of April and May 2025. Five Schools were randomly selected from Shamli City.

The present Cross Sectional study was conducted to create awareness about Oral Health among School Children in Shamli.

RESULTS

Table 1: Response of Participants regarding Oral Health Practices.

<u>Practice</u>	<u>Response</u>	<u>No. Of Participants</u>	<u>Percentage (%age)</u>
Primary Tooth Cleaning Aid	Toothbrush & Toothpaste	126	37.95
	Toothbrush + Toothpaste & Mouthwash	199	59.93

School Children in the age group of 12 to 17 years were included in the study and were randomly selected.

Children who were not willing to participate were excluded from the Study.

Written Permission was obtained from the Principals of the School.

The sampling frame was consisted of 332 students of different Schools situated in city Shamli.

Data were collected randomly by using random sampling technique.

A questionnaire was made containing different questions about oral health and dentistry

students.

The questionnaire or Structured Format was having 4 different sections.

The First section collected Demographic information of the Participants such as Name, Age, Gender, Class, School.

The Second Section was having 3 multiple choice questions regarding Oral Health Practices.

The Third Section was having 6 multiple choice questions regarding Gingival and Periodontal health knowledge.

The Fourth section was having 4 multiple choice questions regarding Attitude towards Professional dental care.

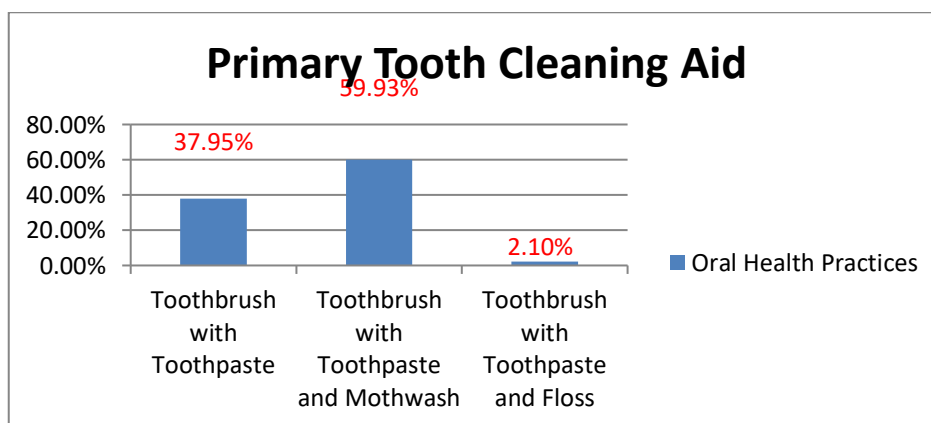
Interview was taken for half an hour (30 min.) to ask the questions mentioned in the questionnaire.

Data analysis: Means, standard deviation and frequency distribution were calculated by using descriptive statistics. Data were statistically analyzed using the Statistical Package for Social Science (SPSS) 24.0.



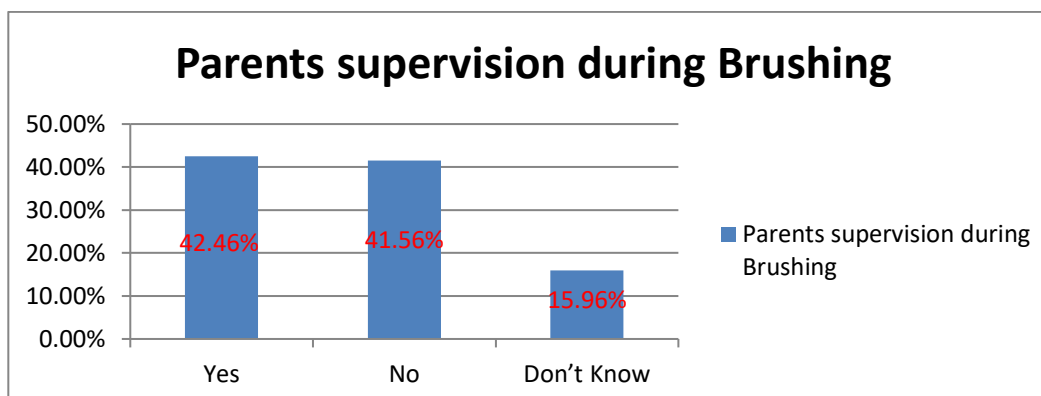
	Toothbrush + Toothpaste & Floss	7	2.10
Parents supervision during Brushing	Yes	141	42.46
	No	138	41.56
	Not aware	53	15.96
Frequency of brushing teeth	One time	132	39.75
	Two times	175	52.71
	Three times	16	4.81
	Several times	7	2.1
	Rarely	2	0.60

It was observed that around 59.93% students used Toothbrush with Toothpaste and Mouthwash, 37.95% used only toothbrush with toothpaste, and only 2.10% students used interdental floss along with Toothbrush and Toothpaste as their Primary tooth cleaning aid.



Around 42.46% students agreed that their parents supervised them during brushing.

Around 15.96% students were not aware about Parents supervision during brushing.



More than half (52.71%) students agreed that they were brushing their teeth twice a day.

Around 39.75% students brushed their teeth only once.



Only 0.60% students brushed their teeth rarely.

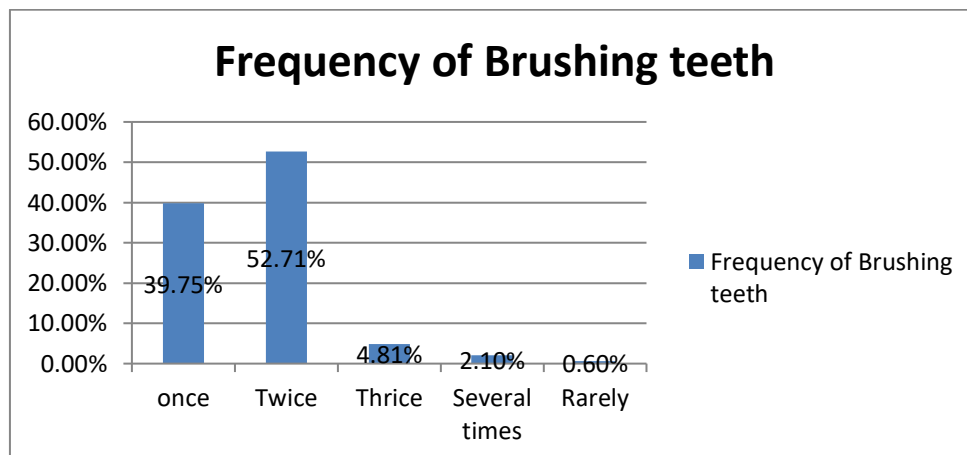


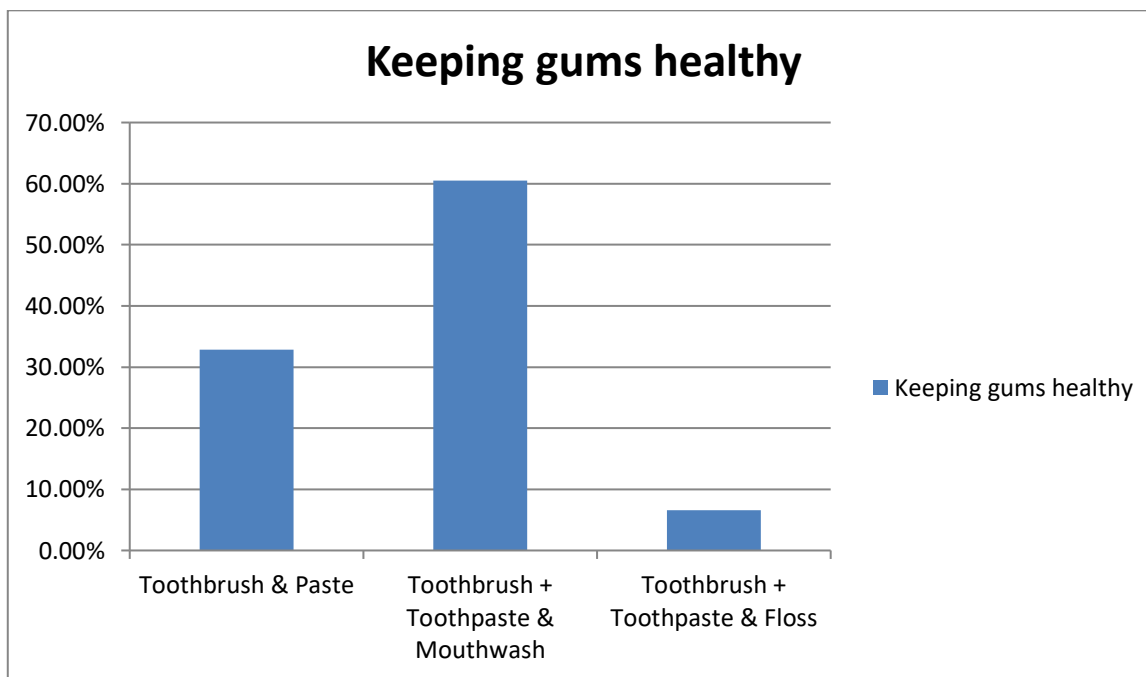
Table 2: Gingival and Periodontal Health Knowledge among the research Population.

<u>Knowledge</u>	<u>Response</u>	<u>Number of Participants.</u>	<u>Percentage (%age)</u>
Keeping gums healthy	Toothbrush & Paste	109	32.83
	Toothbrush + Toothpaste & Mouthwash	201	60.54
	Toothbrush + Toothpaste & Floss	22	6.62
Dental decay occurs due to sugary diet	Yes	217	65.36
	No	58	17.46
	Don't know	57	17.16
Soft drinks effect on dental health	Yes	247	74.39
	No	61	18.37
	Don't know	24	7.22
Gum Bleeding indicates	illness	165	49.69
	Gum disease	101	30.42
	Don't know	66	19.87
Dental and Mouth health affect the body health	Yes	263	79.21
	No	42	12.65
	Don't know	27	8.13
Brushing teeth prevent dental decay	Yes	278	83.73
	No	34	10.24

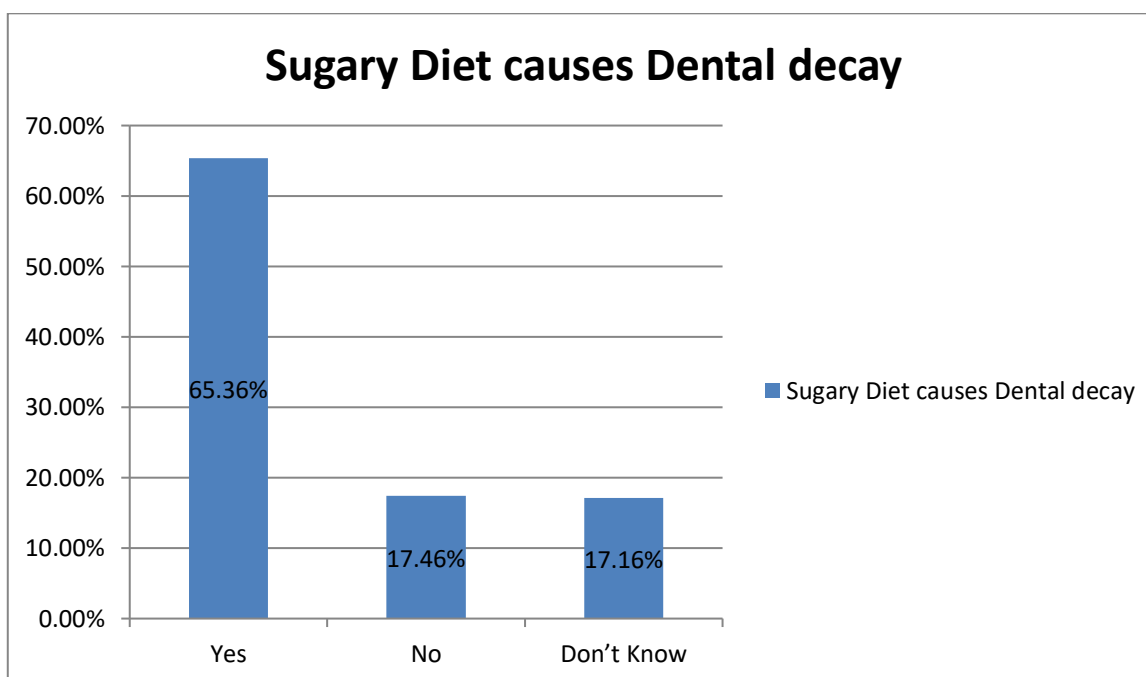


	Don't know	20	6.02
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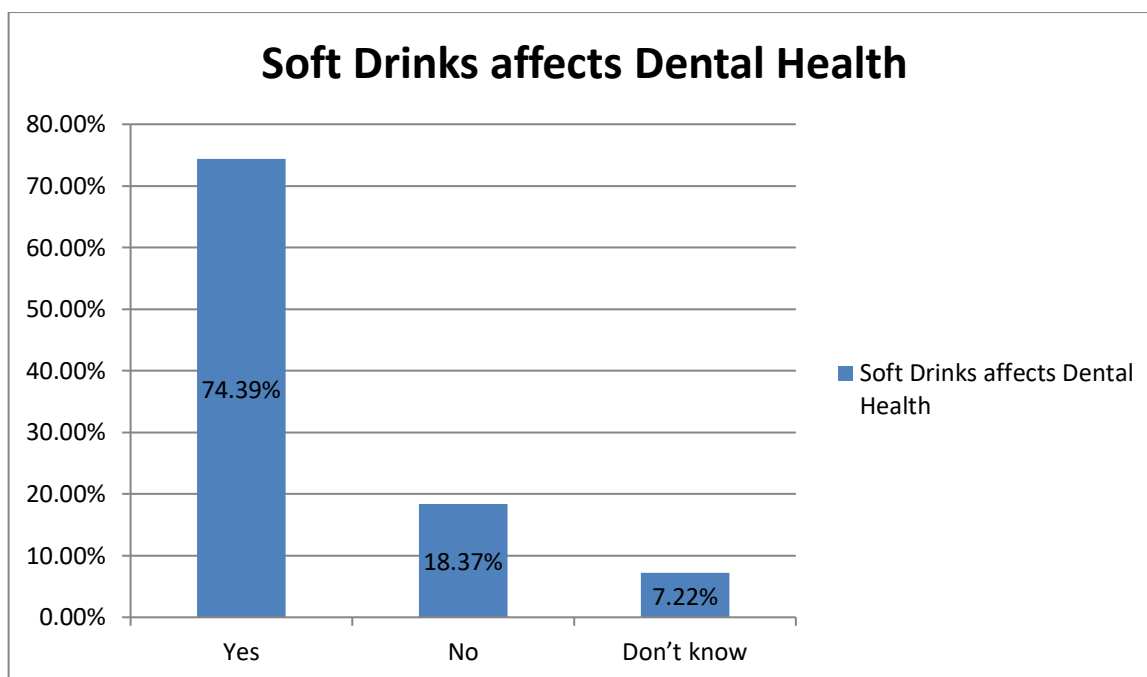
Majority of students 60.54% students agreed that for keeping their gums healthy Toothbrush with Toothpaste and Mouthwash is necessary.



Majority of students 65.36% agreed that Sugary diet causes Dental Decay and around 17.46% students didn't agree. Around 17.16% were unaware about it.

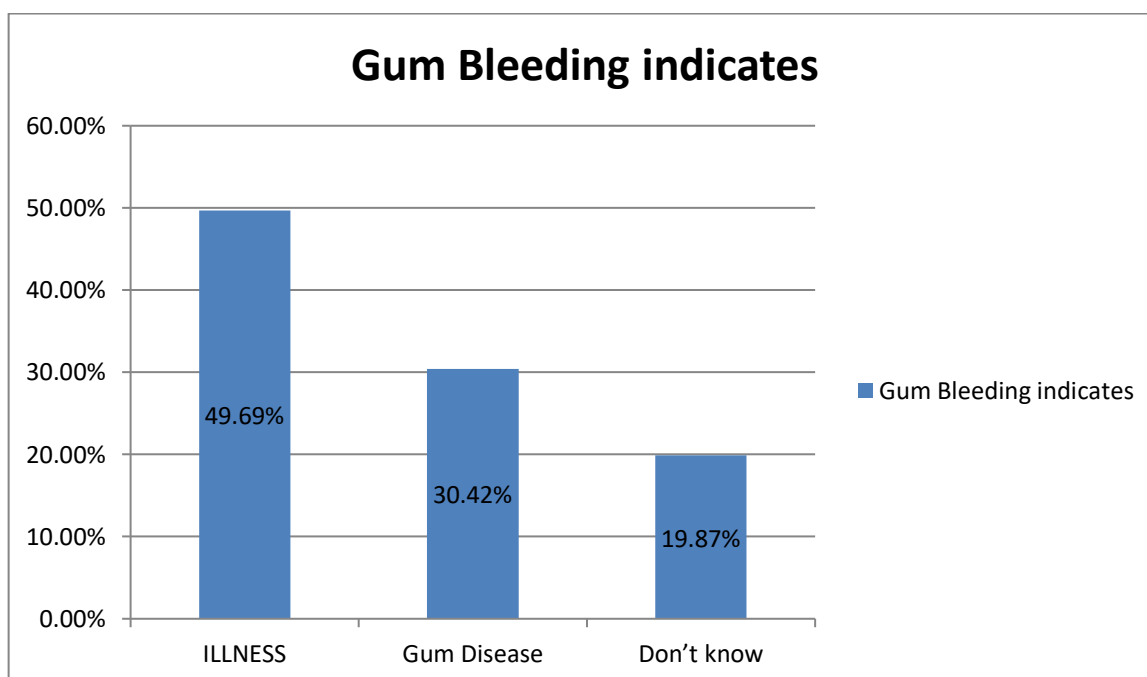


Majority of students 74.39% agreed that soft drinks affects dental health. 7.22% students were unaware of it.

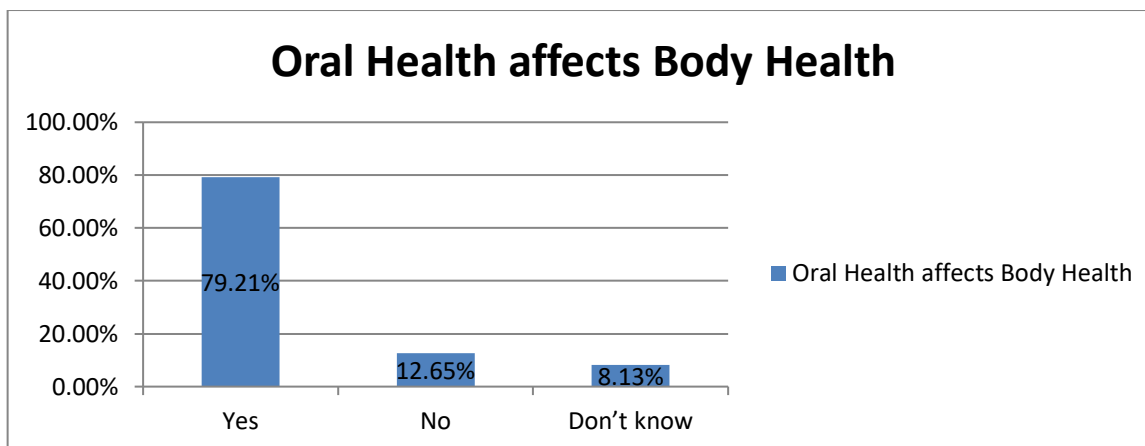


Around half 49.69% students said gum bleeding indicates illness, while 30.42% students gum bleeding indicates Gum Disease.

Around 19.87% students didn't know what gum bleeding indicates.



Majority of students 79.12% said that Oral health affects overall body health, while 12.65% students didn't agreed with that, and around 8.13% students were unaware of it.



Majority of students 83.73% students agreed that Brushing teeth prevent Dental Decay, while 10.24% students denied it, and around 6.02% students were unaware of it.

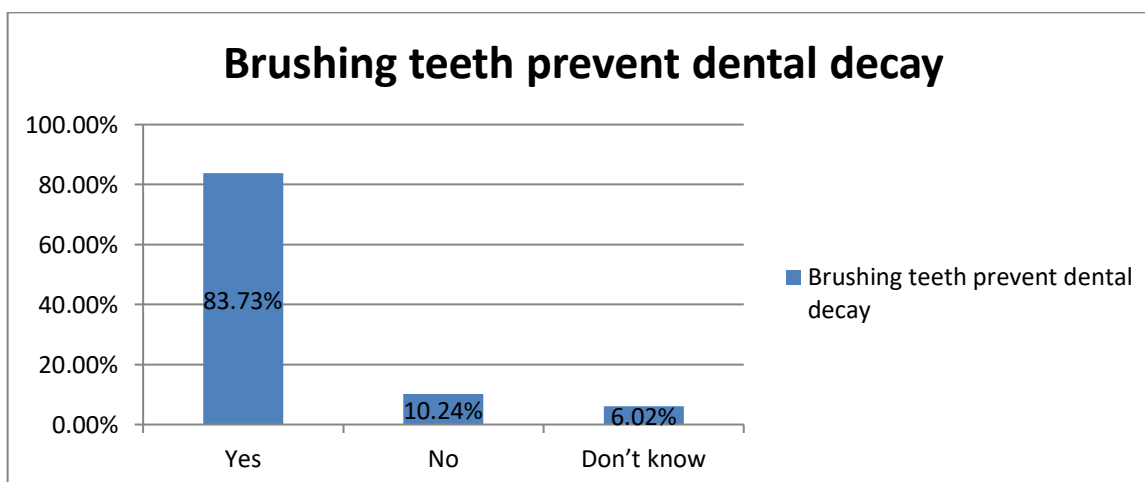


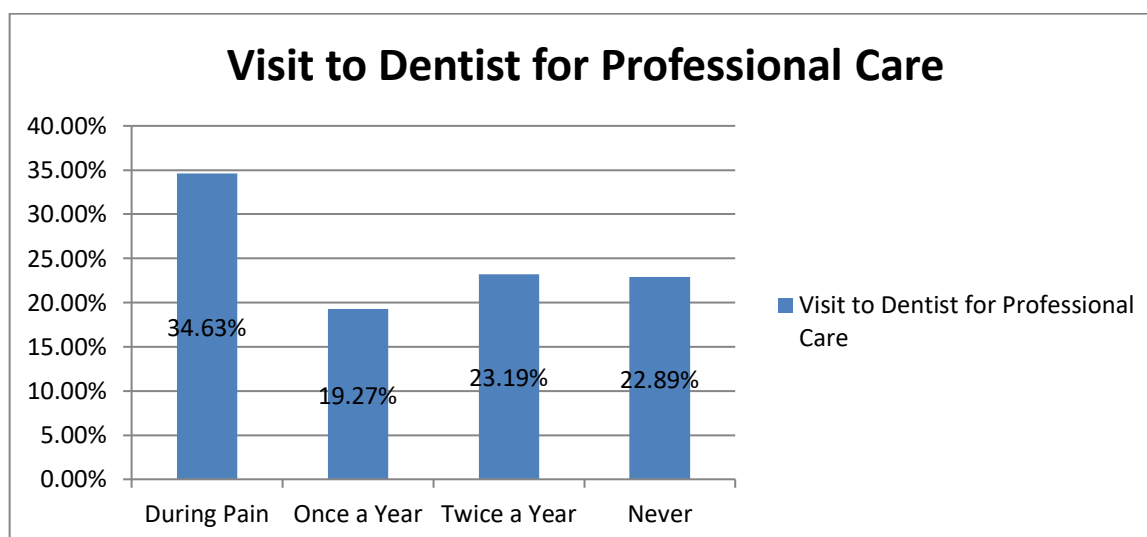
Table 3: Attitude Of Studied Population towards Professional Dental Care.

<u>Attitude</u>	<u>Response</u>	<u>Number of Participants.</u>	<u>Percentage (%age)</u>
Visit to Dentist for Professional Care	During Pain	115	34.63
	Once a year	64	19.27
	Twice a year	77	23.19
	Never	76	22.89
Reasons for visiting the Dentist	Dental pain/ Toothache	137	41.26
	Friend advice	16	4.81
	General checkup	135	40.66
	Parents advice	44	13.25
Reasons for not visiting the	Fear of High cost	32	9.6
	Fear of needle/Drill	106	31.92



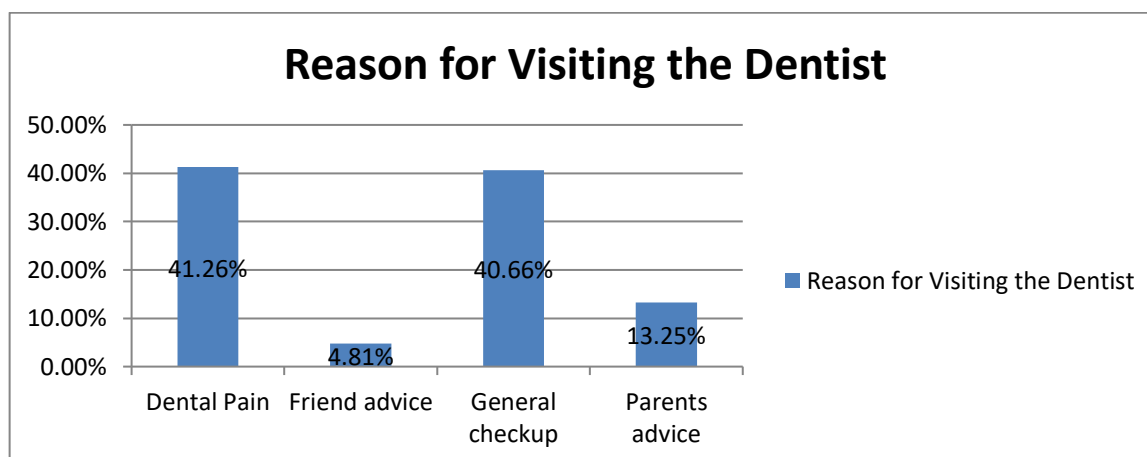
Dentist	Shortage of Time	164	49.39
	No Clinical Facility	30	9.03
Necessity to visit dental clinic regularly	Yes	158	47.59
	No	127	38.25
	Don't know	47	14.15

Around 34.63% students agreed that they visit a dentist only during pain, while 19.27% students said that they visit dentist once every year and 23.19% students said they visit dentist twice a year, while 22.89% students never visited a dentist.

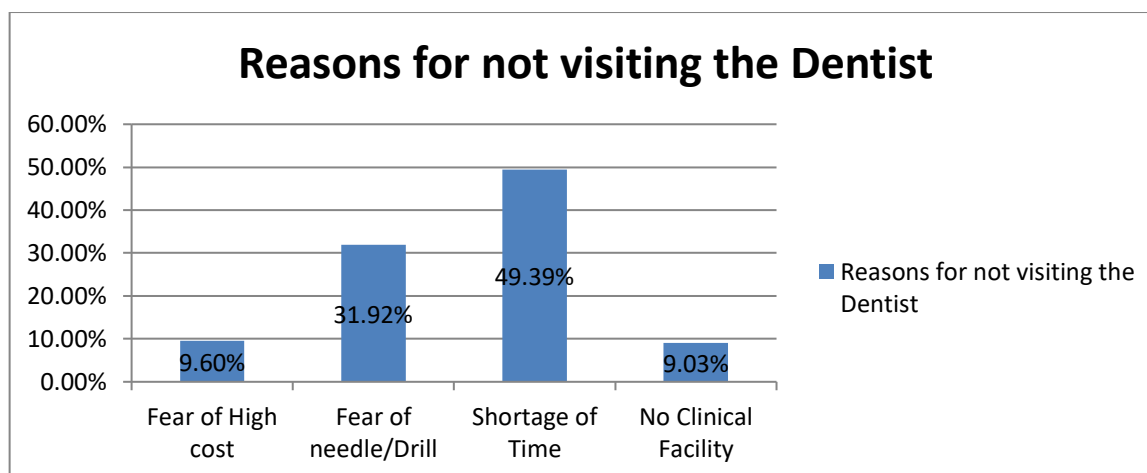


Around 41.26% students said that they visited the dentist due to pain, while 40.66% students said that they visited the dentist for General checkup.

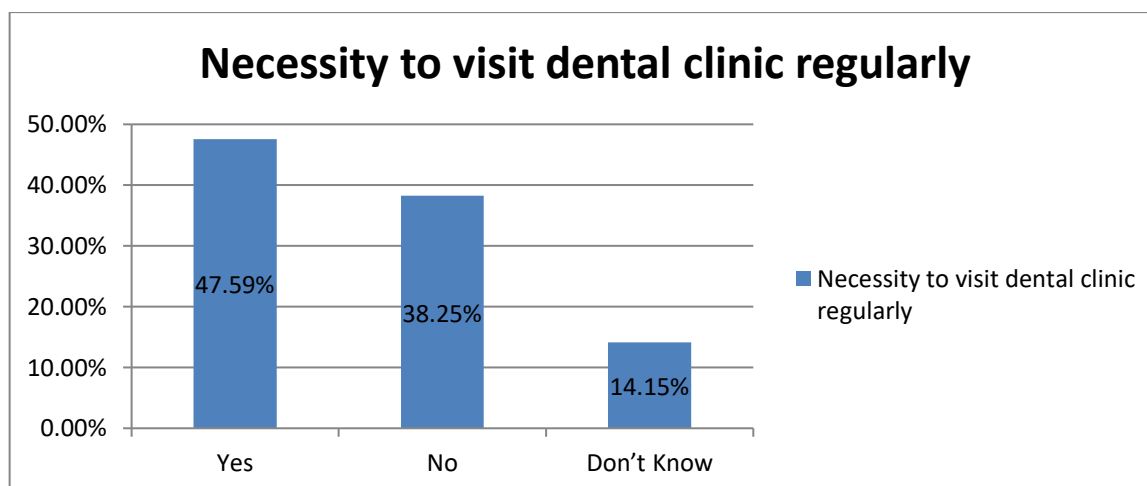
13.25% students visited the Dentist on Parents advice and only 4.81% said they visited on Friend's advice.



Around half of the students 49.39% students said Shortage of time is the Primary reason for not visiting the dentist, while 31.92% said Fear of Needle/Drill , 9.60% said Fear of High Cost and 9.03% said no availability of clinical facility as their primary reason for not visiting the dentist.



Almost half 47.59% students agreed that they think there is necessity to visit dental clinic regularly, while 38.25% denied and 14.15% students didn't know about necessity to visit dental clinic regularly.



DISCUSSION

Dental caries is the most prevalent chronic dental illness, affecting a large number of children and adolescents globally. The similar results have been reported by many other researchers in the world (Kassebaum et al., 2017). It was observed that mostly studies population visited dentists during dental pain and dental advice while many other scientists investigated the similar findings. Pain is the primary motivator for people to attend the dentist. Al-Omiri et al., (2006) had reported the similar findings about toothache in patients. It has also reported that 30.42% studied population were highly aware about gum diseases. They responded that persons can remain safe and sound while keeping oral hygiene practices.

The 40.66% participants visited dentists for general checkup and 41.26% visit only when they feel pain in their teeth.

A study was conducted by Togoo et al., (2012) in Saudi Arabia 2012. They had reported the similar findings about gum diseases in school children. In the current study, it was observed that more than 30% participants are aware about gum diseases while 19.87% people don't know about gum diseases. In terms of manner of cleaning teeth, tooth brushing and Mouthwash was the most prevalent method employed by the research population, followed by Toothbrushing alone and least number of participants used dental floss along with Toothbrushing. Dental floss was recorded the most least popular approach or way to clean the teeth. It was recorded that 52.71% participants cleaned their teeth two times per day while many other researchers investigated once in a day.

In developing countries people cleaned their teeth more than three times in their homes, offices or hotels. Our findings are identical to the findings of previous researchers (Klemola-Kujala and Rasanen, 1979; Al



Tamimi and Peterson, 1998). Furthermore, only 42.46% of children were monitored by their parents while brushing. According to the study of Doshi et al (2007) 28% of the participants brushed their teeth once daily in morning. The morning became feasible for respondents to brush teeth to become fresh while Al-Omiri et al (2006) suggested that 52% of the respondents cleaned their teeth before going to bed.

CONCLUSION

The majority of participants had good understanding of oral health but lack of oral health behaviours. The findings of this study may be useful in assessing the success of public education initiatives in the future. The findings of this study also indicate that parents in rural areas are less concerned about their children's oral health. As a result, parents' education must be incorporated in any program that promotes preventative oral care in schools, as well as other oral health educational initiatives aimed at the general public. Pain is the primary motivator for people to attend the dentist. As a result, more extensive research exploring in depth oral health knowledge, attitude, and practice may always be studied further.

Conflict of interest: Authors declare no conflict of interest.

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REFERENCES

1. Al-Omiri MK, Board J, Al-Wahadni AM, Saeed KN. Oral health attitudes, knowledge and behavior among school children in North Jordan. *J Dent Education* Feb 2006;70(2):179-87. 5.
2. Doshi D, Baldava P, Anup N, Sequiera PS. A comparative evaluation of self-reported oral hygiene practices among medical and engineering university students with access to health promotive dental care. *J Contemp Dent Pract* 2007;8(1):68-75
3. Al-Tamimi S, Petersen PE. Oral health situation of school children, mothers and school teachers in Saudi Arabia. *Int Dent J* 1998; 48:180-86.
4. Kleemola-Kujala E, Rasanen L. Dietary pattern of Finnish children with low and high caries experience. *Community Dent Oral Epidemiol* 1979; 7: 199-205
5. Ronis DL, Lang WP, Fraghaly MM, et al. Tooth brushing, flossing and preventive dental visits by Detroit area residents in relation to demographic and socio economic factors. *J Public Health Dent* 1993;53(3): 138-45
6. Togoo, R. A., Yaseen, S. M., Zakirulla, M., Nasim, V. S., & AlZamzami, M. (2012). Oral hygiene knowledge and practices among school children in a rural area of southern Saudi Arabia. *International journal of contemporary dentistry*, 3(1).
7. Kassebaum NJ, Smith AGC, Bernabe E, et al. Global, regional, and national prevalence, incidence, and disability-adjusted life years for oral conditions for 195 countries, 1990-2015: a systematic analysis for the global burden of diseases, injuries, and risk factors. *J Dent Res*. 2017;96:380-7
8. Navneet, G., Manpreet, K. 2007. Status of Oral health awareness in Indian children as compared to western children. *J Indian Soc Pedod Prev Dent*. 25(1):15-9.
9. Kay, E. and Locker, D. 1997. Effectiveness of Oral Health promotion: A Review, Health Education Authority, London, UK.
10. Gopikrishna V, Bhaskar NN, Kulkarni SB, Jacob J, Sourabha KG. Knowledge, attitude, and practices of oral hygiene among college students in Bengaluru city. *J Indian Assoc Public Health Dent* 2016;14:75-9.
11. Zia T, Dubey A, Naveel T, Arshad S, Elsehrawy M G, Ahmad S. Knowledge attitude and Practices of Oral Hygiene among School Children. *PJMHS* 2022;16(4):503-505