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FACTORS CONTRIBUTING TO DENTAL CARIES AMONG PATIENTS ATTENDING DENTAL CLINIC AT SOROTI REGIONAL REFERRAL HOSPITAL IN SOROTI DISTRICT.

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ABSTRACT

Introduction

Globally, dental caries affects 2 billion people worldwide, and good oral health is important to maintain proper functioning teeth, ensure good breath, and improve nutrition. The study aimed to assess the factors contributing to dental caries among patients attending a dental clinic at Soroti Regional Referral Hospital. The specific objectives is to assess the level of knowledge and dental carries prevention practices of patients attending dental clinic at SRRH

Methodology

A descriptive cross-sectional study design using a quantitative method of data collection was used to carry out the study. A sample of 130 respondents who were attending dental clinics was enrolled using a convenient sampling method. Data was collected using self-administered questionnaires and presented as descriptive data using frequency tables, pie charts, bar charts, and line graphs.

Results

The majority of respondents 71% were females. Respondents had moderate knowledge of dental caries as 102 (78.5%) respondents had ever heard about dental caries. 55.4% of respondents knew about dental flossing and the majority 64.6% knew that dental caries needed treatment. The practices were generally poor as the majority 88% of respondents had never flossed their teeth and the majority 74% didn't regularly brush their teeth after every meal.

Conclusion

There is a high prevalence of dental caries and the majority supported that there is a need for treatment however most of the participants reported that there is no need for dental checkups.

Recommendation

There is a need to create more awareness about oral health. There is also a need to encourage regular brushing of teeth after every meal and also encourage dental checkups. In conclusion, there was a moderate level of knowledge towards dental caries among respondents but the practices towards oral care were poor.

***Keywords**: Dental Caries, Dental checkups**,** Soroti Regional Referral Hospitals, Periodontal disease, Oral hygiene*
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Background of the Study

Dental caries also known as tooth decay is a disease of the teeth that develops when bacteria in the mouth metabolize sugars to produce acid that dematerializes the hard tissues of the teeth.

Globally, 3.5 billion people suffer from Oral diseases that encompass a range of diseases and conditions that include dental caries. Dental caries is the most common condition according to the global burden of disease 2019 with an estimated 2 billion people suffering from caries in their permanent teeth and out of this, 514 million children are suffering from caries of primary teeth), periodontal disease (19%) of the global adult population representing more than 1 billion cases worldwide.

Worldwide, the Philippines has the highest prevalence of dental caries at 84%. Benzian et al., 2013 noted that caries contribute to 55% of odontogenic infections. Caries are associated with a combination of factors, including bacteria in your mouth; frequent snacking, sipping sugary drinks, not cleaning your teeth well, inadequate exposure to fluorides like toothpaste, poor access to oral health care services, and tobacco and alcohol consumption. Cavities and tooth decay are among the world's most common health problems.

Dental caries is common in children, teenagers, and older adults associated with poor oral hygiene and usually presents with pain, tooth abscess, damaged or broken teeth,

Chewing problems and positioning shifts of teeth after tooth loss. In severe cases, severe, the patient may have; Pain that interferes with daily living, Weight loss or nutrition problems from painful or difficult eating or chewing, or even

edentulism, which may affect your appearance, as well as your confidence and self-esteem. In Thailand, dental issues resulted in a loss of 1900 school hours per 1,000 children, indicating the economic and social implications of oral diseases (FDI white paper-oral health worldwide, 2020).

In study done in China by (Zhi Wen Gu et al., 2018), revealed that the prevalence of dental caries was 52.0%. Megan Josefczyk, 2015 noted that around 44% of the population in Africa, suffer from oral diseases, and yet many oral diseases can be prevented without medical assistance through a healthy lifestyle, a well-balanced diet, and good oral hygiene as stated by (WHO, 2023) and children in Africa are more affected by dental caries due to poor oral hygiene. In SSA, the prevalence of dental caries in children and adolescents is estimated to range from 10 to 60% while in adults it is about 57%, and in South Africa, the prevalence of dental caries is 68% according to a study done in Cape Town, (UsufChitke et al., 2020).

In East Africa, the prevalence of dental caries was found to be 45.7%. Eritrea had the highest prevalence at 65.2% followed by Sudan at 57.8%. Tanzania had the lowest prevalence at 30.7% (Amare, Abebe & Biruk, 2021). In Malawi, a study indicated that the prevalence of dental caries was more common in females than males; 46.5% Vs 37.9% and children were more commonly affected than adults; 49.1% Vs 20.3% (Olabisi et. al., 2015). In Rwanda, an analytical study revealed a high prevalence of dental caries ranging from 42.42% to 71.5%, (Kehinde et al., 2023)

In Uganda, a study done out of 239 participants indicated that the prevalence of dental caries is 71.6% and the need for treatment was 100% (Wilfred, Arubaku & Maling, 2022). A community-based oral health survey showed that the most common determinants of oral disease as reported by key informants were; Sugar consumption, failure to use fluoride toothpaste, lack of access to fluorinated water, tobacco use, lack of community oral health education, use of traditional practices, Low levels of community awareness and failure to have oral health checkups (National oral health policy-MOH,2018).

Another study done in Uganda out of 406 adolescents indicated that the overall prevalence of decayed teeth was 62.6% and the molar teeth, particularly the second molar (50.6%), were the most significantly affected. The prevalence of caries was higher in the mandible (51.4%) compared to the maxilla though the difference was not statistically significant. Decayed teeth were significantly ($p < 0.05$) associated with difficulty in chewing, history of dental pain in the past 12 months, poor perception of tooth state, and the female participants (Barbara Ndagire et. al., 2020). The highest prevalence of dental caries in adults was recorded in Hoima district while the lowest was in Gulu: 90.1% versus 48.8%. In children, it was more in Masaka than Kabarole districts; 45.0% Vs 21.3%, (Annet Kutesa et. al., 2015).

At SRRH, there is no evidence of a study done at the dental clinic to establish the factors contributing to dental caries despite the increased prevalence of the disease thus the need for this study.

Specific objectives

- To assess the level of knowledge about causes of dental caries of patients attending dental clinic at SRRH
- To assess dental carries prevention practices of patients attending dental clinic at SRRH

Methodology

Study Design and Rationale

A cross-sectional descriptive study design was used comprising quantitative data collection techniques. It helped the researcher to collect information at a single time for many participants.

Study Setting and Rationale

The study was conducted at Soroti Regional Referral Hospital from June to December 2023. The hospital is located in the central business district of Soroti city in the Eastern region of Uganda, about 102 kilometers Northwest of Mbale Regional Referral Hospital in Mbale city and about 294 kilometers Northeast of Mulago National Referral Hospital in Kampala (Uganda's capital city). The hospital is 123.5 kilometers Southeast of Lira Regional Referral Hospital in Lira City and about 35 kilometers south of Serere district; about 51 kilometers West of Katakwi district. The hospital has a bed capacity of 274 and it provides services such as accident and emergency care, neonatal and pediatric management of conditions, medical, surgical, and all laboratory-related care services, mental health services, physiotherapy, and maternal and child health(MCH) services and an active dental clinic. This study setting was chosen to be used because it was easily reachable to the researcher and also had many patients seeking services from a dental clinic.

Study Population

All patients who had attended a dental clinic at SRRH at the time of data collection

Sample size determination

Sample size was determined using the Kish and Leslie (1965) formula for cross sectional study;

Sample size, n = (z2pq)
n = number of respondents,
p = estimated prevalence of the problem from the previous study = 10%
z = standard deviation at 95% confidence interval =1.96
d = the precision or maximum acceptable error the investigator is willing to accommodate (5% in my study because of the limitation of finance including time for the study)

q = 1-p

Therefore; n = (1.96*1.96*0.1*(1-0.1))/(0.05*0.05)

n = 138. Therefore, for purposes of convenience, 130 participants were considered.

Sampling procedure

A cross-sectional method of sampling was used to determine the number of respondents. This was used because the population was small and the researcher enrolled all the available potential respondents and administered questionnaires to participants who accepted to take part in the study after a thorough explanation about the benefits and ethics of the study and consent.

Inclusion criteria

The study included all mentally healthy patients who attended the dental clinic at SRRH and voluntarily consented to participate in the study while observing the sample size.

Exclusion criteria

Those who did not consent to participate in the study
Patients who were not seeking dental care services
Patients who were attending other wards besides a dental clinic

Definition of Variables

The independent variable

This was knowledge and practices of patients towards prevention of dental caries attending a dental clinic at SRRH.

The dependent variables

This was the prevalence of dental caries among patients attending a dental clinic at SRRH.

Research instruments

Data was collected using approved semi-structured questionnaires consisting of closed-ended questions. Questionnaires were used because they enabled the respondents to answer questions efficiently and according to their understanding.

Data collection procedures

Before commencing data collection, letter of introduction was obtained from the school to be taken to the hospital administrator of SRRH and then the administrator introduced me as the principal investigator to the in charge of the dental clinic who provided proper information about the department. The principal investigator then got consent from the respondents and then administered the questionnaires for data collection. Participants' responses were directly filled into the questionnaires which allowed participants to give valid and firsthand information since the subject matter under study applies to their cohort.

Data management

Data collection tools were used and data was collected and crosschecked for any errors. Data was cleaned, edited coded, and then stored under key and lock to be accessed by the principal researcher.

Data analysis and presentation

Data was analyzed using Statistical Package for social sciences (SPSS); software version 20 after which the principal investigator presented the results in tables, pie charts, and bar graphs.

Ethical Considerations

Ethical approval was obtained with an introductory letter from St. Francis School of Health Sciences that sought permission from the hospital administrator of SRRH who allowed conducting the study. When permission was granted, the administrator introduced the researcher to the in charge of the dental clinic who then introduced the researcher to the respondents. Participants were assured of full confidentiality, privacy, and anonymity as only numbers were used per questionnaire instead of name. Respondents were requested to voluntarily consent before taking part in the study and were informed about the free entry and exit of the study if the need arises at any time. The study commenced after the objectives of the study were well explained to the participants and consented to participate in this study.

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Table 1: Shows Distribution of Respondents by Socio-demographic characteristics

Socio-demographics	Category	Frequency(n)	Percentage (%)
Gender	Male	38	29
	Female	92	71
	TOTAL	**130**	**100**
Age	<20yrs	44	33.8
	20-30yrs	42	32.3
	31-40yrs	20	15.4
	41-50yrs	16	12.3
	>50yrs	08	6.2
	TOTAL	**130**	**100**
Education level	Formal education	44	33.8
	Primary level	22	17
	Secondary level	56	43
	College/university	08	6.2
	TOTAL	**130**	**100**
Occupation	Student	48	37
	Peasant	42	32.3
	Civil servant	24	18.5
	Business	16	12.3
Total		**130**	**100**

Data Presentation, Analysis and Description of Findings

Respondents' Socio-demographic Data

From table 1, majority of the respondents were females i.e. 92(71%) and 38(29%) were males. As regards age brackets, many of the respondents 44(33.8%) were below the 20years, 42(32.3%) were in age range of 21-30, 20(15.4%) were age range of 31-40, 16(12.3%) in the range of 41-50 and only few of the respondents 8(6.2%) were above 50years. Concerning the level of education, many of the respondents 28(43%) had studied up to secondary level, 22(33.8%) had formal education, 11(17%) had reached primary level while only 4(6.2%) had attained college or University education. Many of the respondents were students 24(37%), 21(32.3%) were peasants, 12(18.5%) were civil servants and very few of the respondents 8(12.3%) were doing business.

Knowledge towards Dental Caries among Respondents Attending Dental clinic

As shown from figure 1, majority of the respondents 102(78.5%) had ever heard about dental caries while only 28 (21.5%) had never heard about dental caries. As shown in the figure 2, many of the respondents 40(39.2%) had got information from health workers, 30(29.4%) got from School, 22(21.6%) from mass media and a few of the respondents 10 (9.8%) got information from friends. From table 2, many of the respondents 52(40%) gave bacteria as a cause of dental caries, 52(40%) said not cleaning, 22(17%) gave sugary foods, while only 04(3%) of the respondents gave inadequate exposure to flourides as a cause of dental caries.

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Figure 1: Showing Distribution of Respondents Who Had Ever Heard about Dental Caries (n=130)

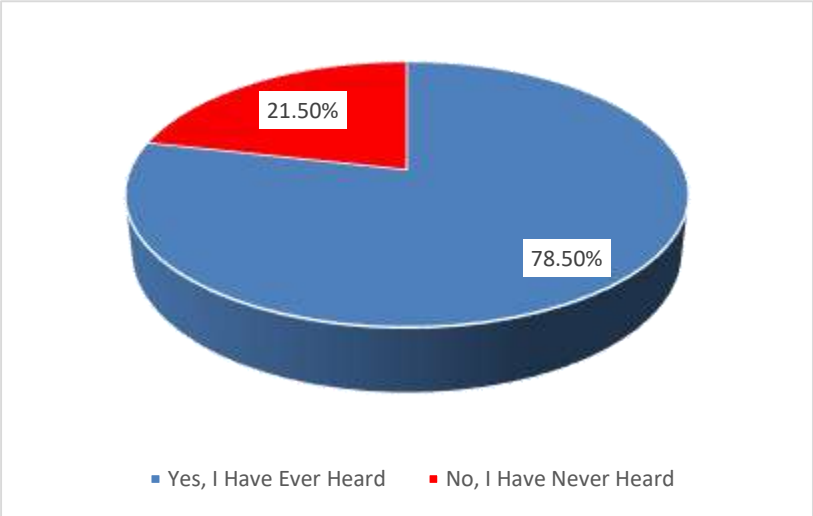

Figure 2: Showing Respondents Source of Information about Dental caries (n =102)

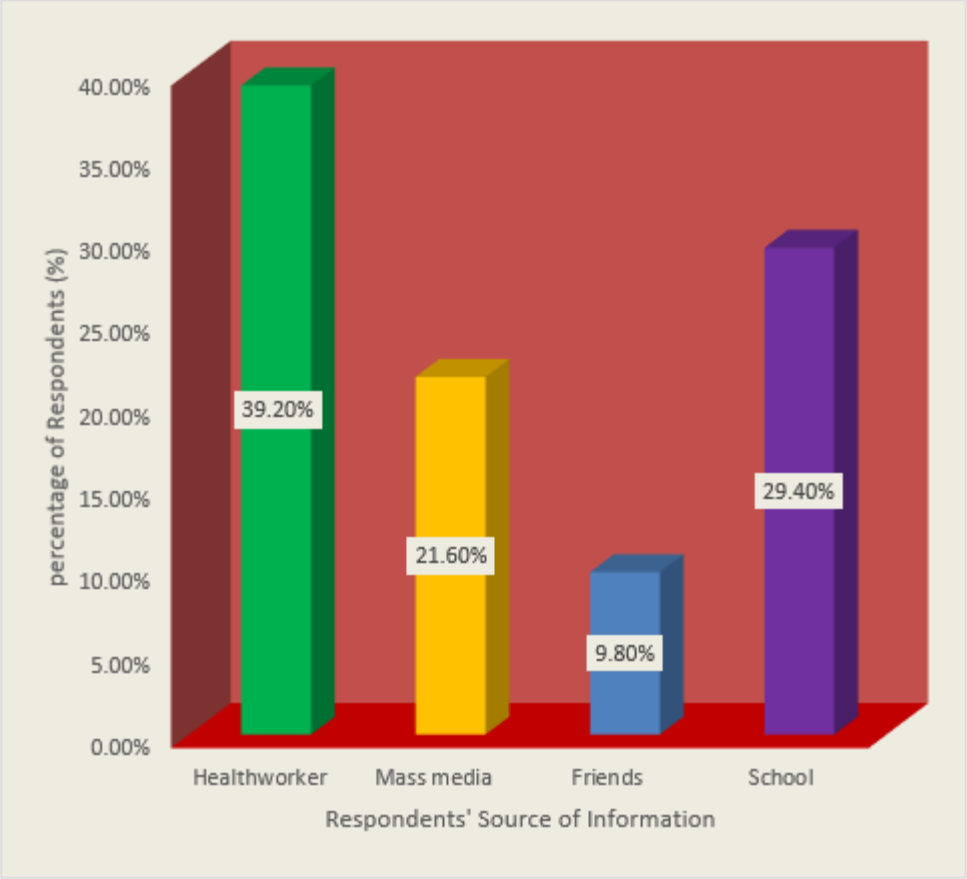

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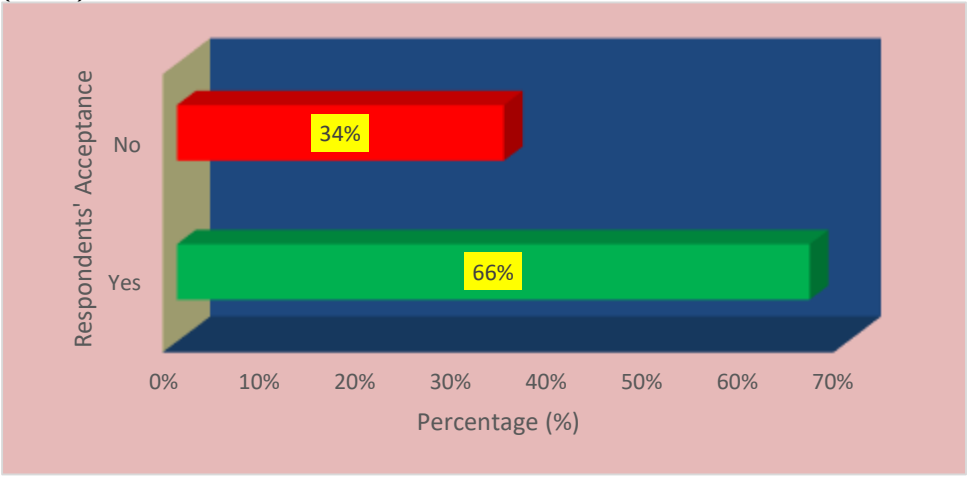
Table 2: Showing Respondents' Causes of Dental Caries (n=130)

Cause	Frequency	Percentage (%)
Bacteria	52	40
Sugary Foods	22	17
Not cleaning	52	40
Inadequate exposure to fluorides	04	03
Total	**130**	**100**

Figure 3: Showing Respondents' Acceptance that Dental Caries is a Common Dental Condition in their Community (n=130).



From the figure 3, 86(66%) of the respondents accepted that dental caries is a common dental condition in their community while 44(34%) said that dental caries is not a common dental condition in their community.

From the figure 4, more than half of the respondents 84(64.6%) accepted that dental caries is a serious condition that needs treatment while 46(35.4%) of the respondents said that it's a minor condition and does not need treatment.

From the table 3, more than half 45(53.5) of the respondents said that treatment for dental caries requires over the counter drugs, 21(25%) said visiting a dentist for proper treatment, 13(15.5%) said herbs while a few of the respondents 05(6.0%) said that all those options can be used in treatment of dental caries

From figure 5, it indicates that 46(35.3%) of the respondents said that brushing teeth is done anytime, 36(27.7%) said three times a day. 26(20%) said two times a day and only 22(17%) said once a day.

From figure 6, majority 104 (80%) of the respondents' said there was no need for a normal person to visit dental clinic for checkup, 16(12.3%) of the respondents said need to visit once, 07(5.4%) said twice while 03 (2.3%) said need to visit three times.

From figure 7, more than half 72 (55.4%) of the respondents knew about dental flossing but still many 58 (44.6%) didn't know about dental flossing.

Figure 4: Showing Respondents' Acceptance that Dental Caries Require Treatment (n=130)

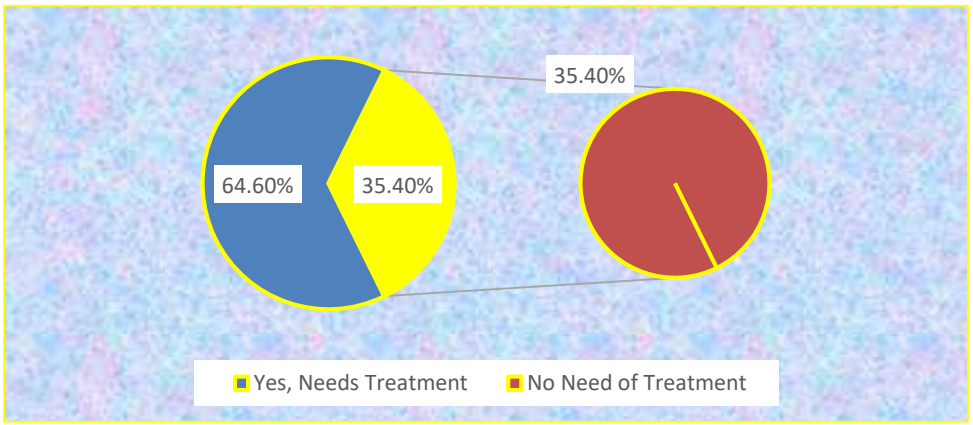


Table 3: Showing Respondents' Recommended Treatment for Dental Caries (n=84)

Respondents' Treatment	Frequency	Percentage (%)
Herbs	13	15.5
Over the counter drugs	45	53.5
Visit dentist	21	25.0
All the above	05	6.0
Total	**84**	**100**

Figure 5: Showing Respondents' Recommended Daily Frequency of Brushing Teeth (n=130)

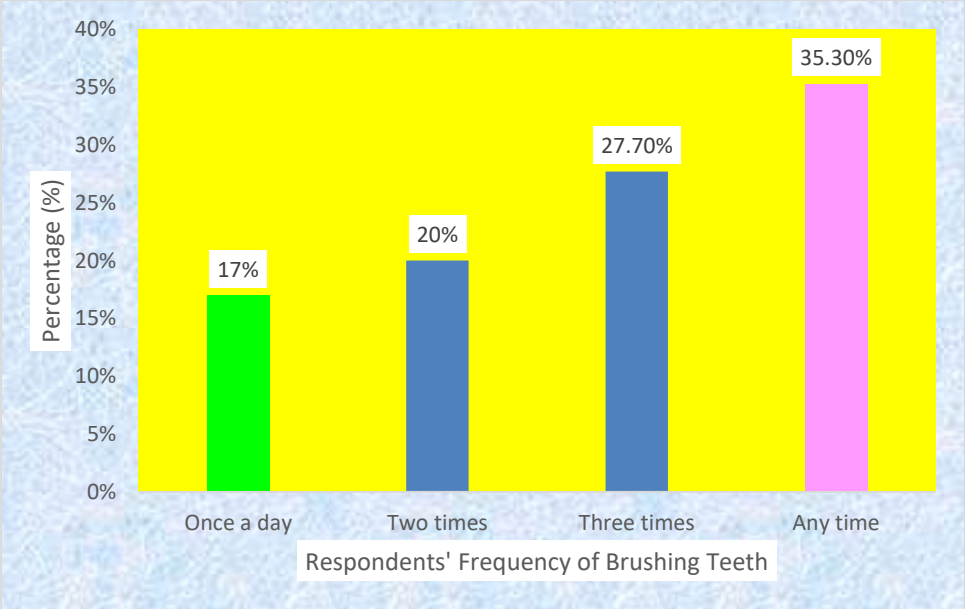


Figure 6: Showing Respondents' Number of Dental Checkup Visits in a Year for a Normal Person (n =130)

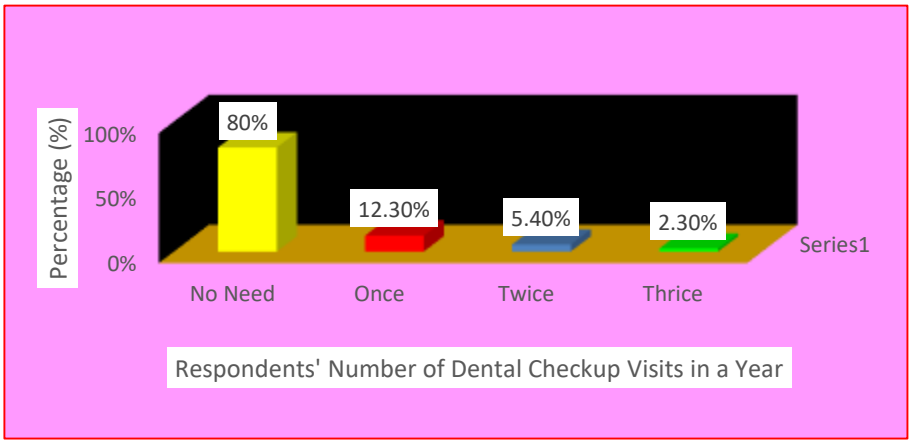


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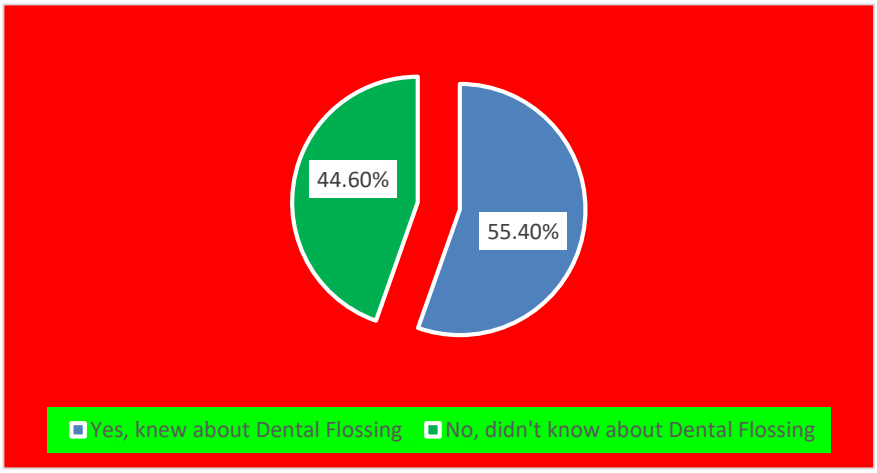
Figure 7: Showing Respondents Who Knew About Dental Flossing (n=130)



Practices of Patients Attending Dental Services

From figure 8, majority 59(82%) of the respondents had never flossed their teeth while only 13(18%) had ever heard but had never flossed their teeth.

According figure 9, half of the respondents 66(51%) use both up-down technique and left-right technique while brushing their teeth, 34(26%) use only left-right while 30(23%) use up-down technique only.

As figure 10, majority of the respondents 96(74%) do not brush their teeth regularly after every meal. Only 34(26%) brush their teeth regularly after every meal

As shown in figure 11, almost half 58 (45%) brush their teeth 3 times, 46(35%) brush2 times while only 26(20%) rush once a day.

From figure 12, 42(32%) of the respondents spend 1-3 minutes while brushing, 40 (31%) take more than 5 minutes, 28 (22%) take 3-5 minutes while 20 (15%) of the respondents take 1 minute.

From figure 13, many of the respondents 44(34%) replace their toothbrush every month, 32(24%) replace after every 3 months, 32(23%) twice a year while 24 (19%) replace once a year.

From figure 14, 40(31%) attended dental clinic twice, 38(29%), 32(24%) and 20(15%) did not attend dental clinic at all.

From above 5, cost of treatment was the outstanding barrier given by half of the respondents 66(51%), followed by fear 36(27%). Lack of time and not needing treatment but rather just extractions were equally mentioned by the respondents i.e. 14(11%).

Figure 8: Showing Respondents Who Have Ever Flossed their Teeth (n =72)

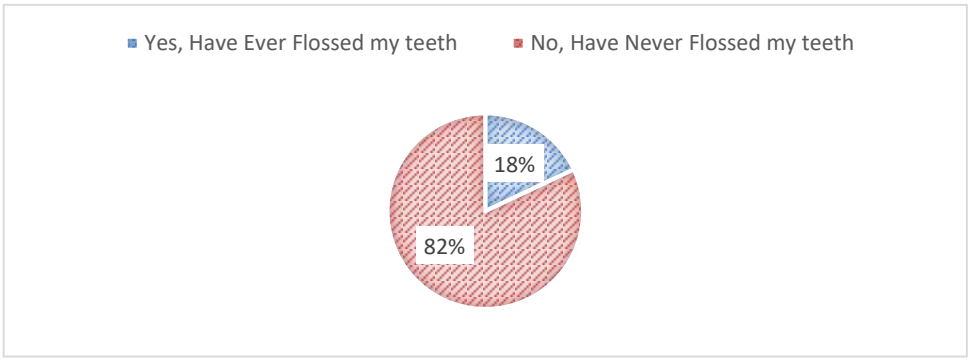


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Figure 9: Showing Respondents' Brushing Technique (n =130)

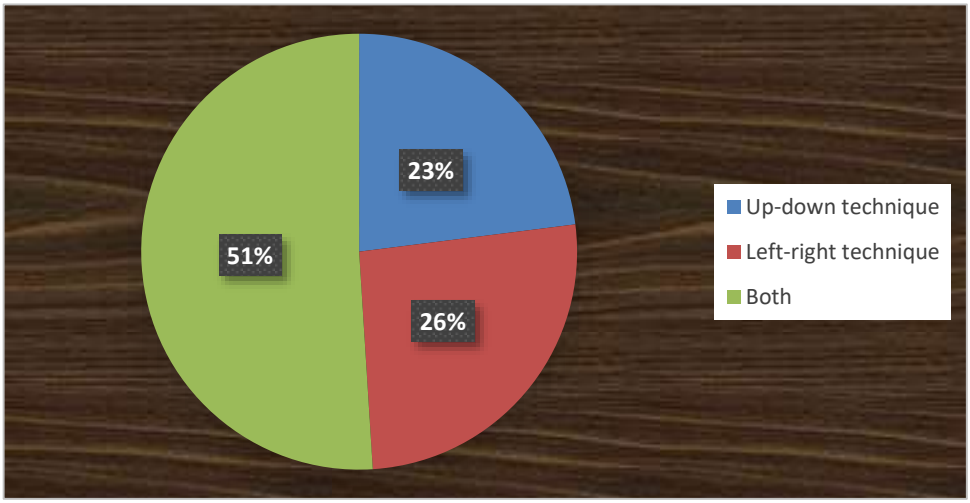

Figure 10: Showing Respondents Who Regularly Brush their Teeth after Every Meal (n=130)

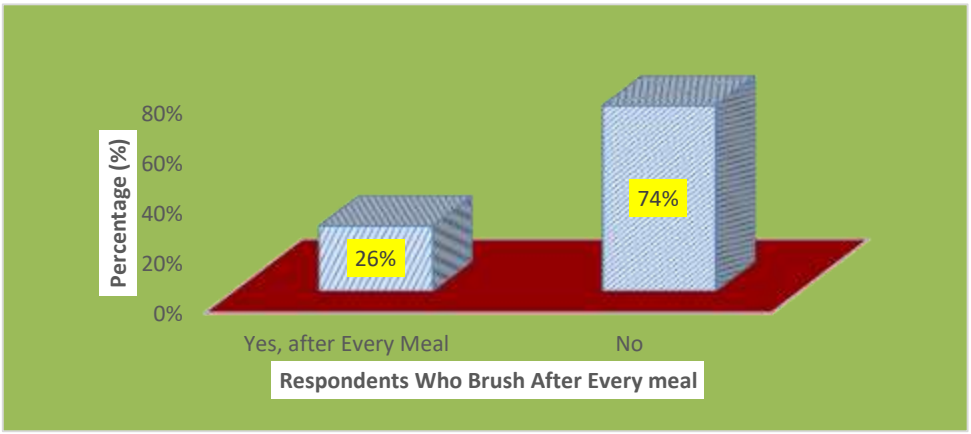

Figure 11: Showing Respondents' Daily Frequency of Brushing their Teeth (n=130)

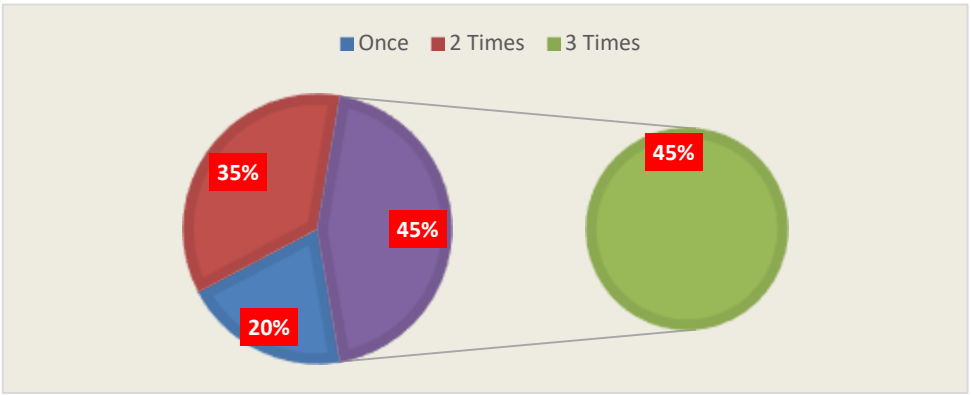

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Figure 12: Showing Respondents' Length of Time during Brushing (n =130)

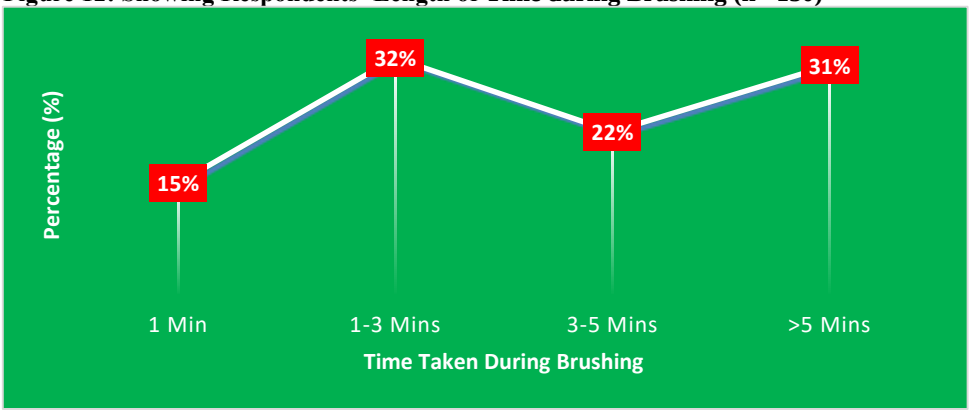

Figure 13: Showing respondents' Time Taken to Replace their Toothbrush (n=130)

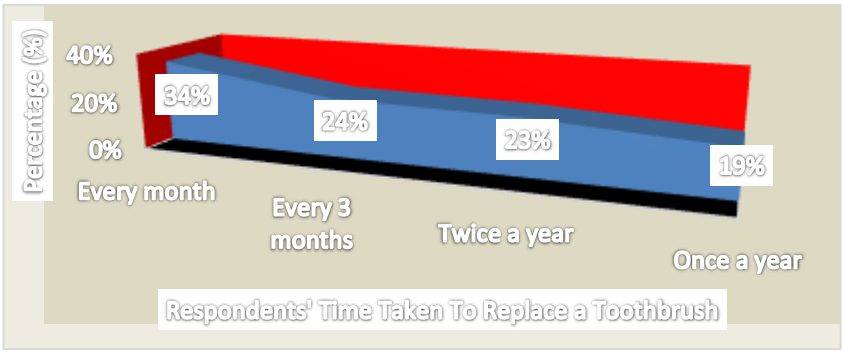

Figure 14: Showing Respondents' Attendance for Dental Checkups in Last 1 year (n=130)

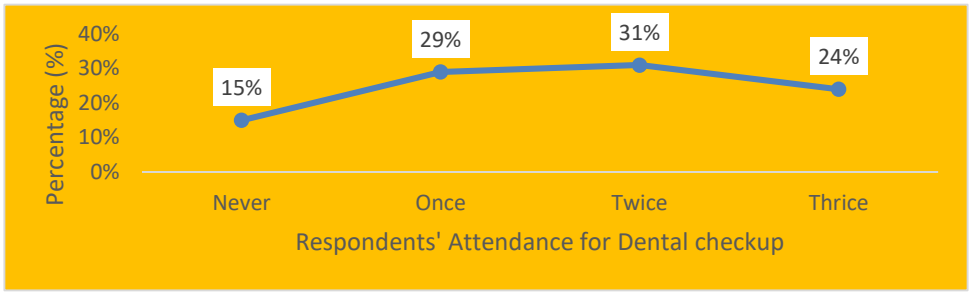

Table 4: Showing Respondents' Materials Used for Cleaning their Teeth (n=130)

Materials	Frequency	Percentage (%)
Toothbrush and plain water	36	28
Toothbrush and tooth paste	62	48
Toothbrush, Paste and flossing	28	21
Others, traditional methods	04	3
Total	**130**	**100**

Table 5: Showing Respondents' Barriers for Attending Dental Services (n =130)

Barrier	Frequency	Percentage (%)
Lack of time	14	11
Cost of treatment	66	51
Fear	36	27
No need to treat, just extract	14	11
Total	**130**	**100**

Figure 15: Showing Respondents' Acceptance that Community Sensitization Can Improve Oral hygiene practices and Prevent Dental Caries (n= 130)

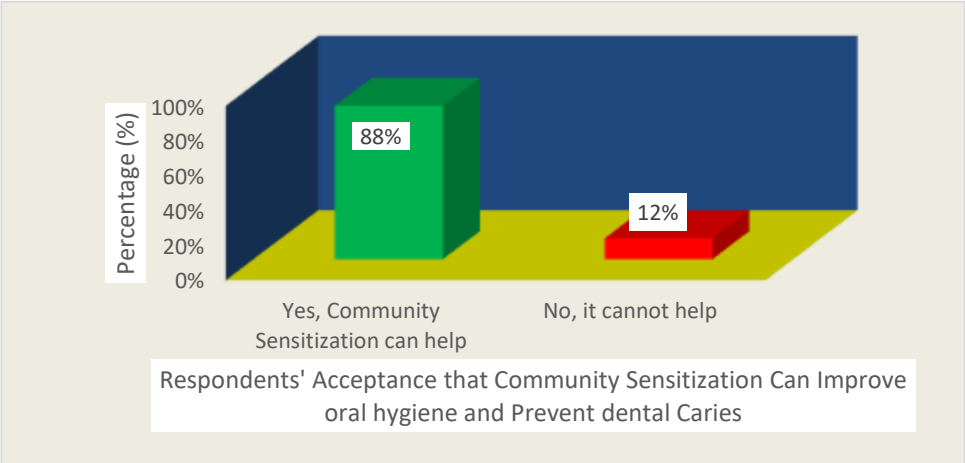

Table 6: Showing Respondents' Other Suggested Preventive Measures of Dental Caries (n=130)

Preventive measure	**Frequency**	**Percentage (%)**
Regular brushing with fluoride paste	91	70
Dental flossing	05	4
Dental check up	08	6
Avoid consumption of sugary foods like sweets	26	20
Total	**130**	**100**

From the above figure, majority of the respondents 114 (88%) accepted that community sensitization can help improve oral hygiene practices and prevent dental caries while very few of the respondents, 16 (12%) said it cannot help.

As shown in the table above, the majority of respondents 70% suggested regular brushing with fluoride toothpaste and 20% said avoiding consumption of sugary foods. 6% of respondents suggested dental checkups while only 4% said dental flossing.

Discussion

Socio-Demographic Characteristics

The majority of the respondents were females i.e. 92(71%) and only 29% were males. This is probably concurring with the ratio of women to men in the general population where the number of women is more than the number of men in Uganda. This can as well be attributed to the poor health-seeking behavior among men thus few had attended the dental clinic at the time of data collection. On the other hand, it can also be attributed to the fact that females are the ones commonly eating sugary items like sweets, biscuits, and chocolates which affect their oral health.

There was almost even distribution of respondents by age range; however, many 44(33.8%) were below 20 years, and

42(32.3%). This can probably be due to the fact many were students and also the fact that young adults tend to feed on sugary snacks. The few of the respondents 8(6.2%) above 50 years could be because above 50 years, many people would have lost some of their teeth during young adult age and so could hardly appear at the dental clinic.

Many of the respondents 28(43%) had studied up to the secondary level, and 22(33.8%) had formal education. This was important for the study as it would give a proper comparison of sources of information and also on practices because those who studied could probably have acquired knowledge from school while those with formal education would give us their different practices.

Many of the respondents were students 24(37%). This is probably attributed to the dominant age bracket of below 20 years which participated in the study because below this age, people are expected to be still in school.

Knowledge of dental Caries among Patients Attending Dental services

Results showed that the majority of the respondents 102 (78.5%%) had never heard about dental caries and out of this, 40(39.2%) had got information through health workers.

This concurs with a study done in Ibadan North (LGA) of Oyo State Nigeria by Caroline C. et al., (2023) which found a significantly high knowledge. Findings also showed that the majority of the respondents 104(80%) knew bacteria and not cleaning as causes of dental caries and only 04(3%) of the respondents knew that inadequate exposure to fluorides is a cause of dental caries. Those who knew these factors could probably have acquired knowledge from schools and maybe those who had ever visited dental clinics could have gotten information from health workers. This concurs with a community-based oral health survey done in Uganda that showed that the most common determinants of oral disease as reported by key informants were; Sugar consumption, failure to use fluoride toothpaste, lack of access to fluorinated water, tobacco use, lack of community oral health education, use of traditional practices, Low levels of community awareness and failure to have oral health checkups were the associating factors for dental caries.

Results revealed that the majority of the respondents 86(66%) accepted that dental caries is a common dental condition in their community. This concurs with a report on the global burden of disease in 2019 which indicated that dental caries was the most common condition.

Study findings also revealed that the majority of the respondents 84(64.6%) accepted that dental caries is a serious condition that needs treatment and over-the-counter drugs were the most recommended treatment by more than half of the respondents (53.5%). The respondents' acceptance of the need for treatment is lower than found in a study done by Wilfred, Arubaku & Maling, (2022) in Uganda which showed that out of 239 participants, the need for treatment was 100%. The respondents recommended over-the-counter drugs and this could probably be because dental caries present with toothaches so people prefer buying over-the-counter pain relievers like paracetamol.

Only a few of the respondents (20%) knew about the twice-a-day recommended brushing of the teeth. Many of the respondents (35%) said that brushing is done anytime. This is contrary to a study carried out among undergraduate non-medical students at the University of Port-Harcourt, Nigeria, which showed that approximately 40% of students did not know that they had to brush their teeth twice daily. Those who knew about the twice daily recommended brushing could probably have been students in secondary level or had even finished college and so had got information during their school life as demonstrated by a study done by Amuh, Okojie & Ehizele, (2014) which indicated that dental care during school years and a high level of education were related to tooth brushing twice a day.

The majority of the respondents (80%) said that there was no need to visit a dental clinic for a check and more than half of the respondents (55.4%) had ever heard of dental flossing. This is contrary to the study by Bashiru & Anthony, (2014) which found that only 18% knew what dental floss was

Practice of Patients Attending Dental Services

Results revealed that the majority of the respondents (82%) had ever heard of dental flossing but had never flossed their teeth while only 18% had ever heard and flossed their teeth. This is probably because of a lack of adequate knowledge about flossing, being that it is not a common practice done by the community. This concurs with a study done at Calabar University in Nigeria (Caroline C. et al., 2023) which revealed that the use of dental floss was found to be low (12%).

The study findings showed that more than half of the respondents (51%) use both up-down and left-right techniques while brushing. This is contrary to the study findings from the study done at Calabar University in Nigeria (Caroline C. et al., 2023) which showed that 17.4% brushed left-right and 19.8% used both methods.

The majority of the respondents (74%) said do not regularly brush their teeth after every meal. This is probably because many were students and so most times are busy at school and may not move with the toothbrush everywhere. Only 26% said

brush their teeth after every meal. This concurs with the results of the above study which showed that only 6.1% brushed after every meal.

Only a few of the respondents (24.6%) replace their toothbrushes within every three months. 34% of the respondents are replaced every month. Those who replace every month could probably students and civil servants who have stable funding while those who replace every three months could probably have interacted with health workers at anyone point.

Half of the respondents (50.8%) said the cost of treatment is an outstanding barrier for people not attending dental services. This is probably because many of the respondents were students and many were also peasants thus affording dental health services is limited to their socio-economic status. This is contrary to the study by Amuh, Okojie & Ehizele, (2014) that revealed that the major barrier to receiving dental treatment was a lack of perceived need for treatment (53.1%).

The majority of the respondents 88% accepted that community sensitization can help improve oral hygiene and prevent dental caries. This is probably because many of the respondents had formal education and so lacked information which prompted them to accept the for need community sensitization. This concurs with the survey by the Ministry of Health which indicated that low levels of awareness are associated with dental caries and also Priya et al., (2013) showed that dental caries was attributed to several factors mainly lack of oral awareness and overconsumption of refined carbohydrates

Among other measures, study findings revealed that the majority of respondents 70% said regular teeth brushing with fluoride can prevent dental caries. This could probably be attributed to the fact that toothbrushes and fluoride paste are the most widely known and used forms of oral care in all communities. This concurs with recommendations by the American Dental Association, (2023) i.e. maintaining good oral health requires regular teeth brushing with fluoride toothpaste, flossing, mouthwash use, and bi-annual dental visit

Conclusions

The study showed that most of the respondents 71% were females with age brackets of < 20 years and 20-30 years dominating. Many of the respondents 37% were students at secondary level (43%).

The majority of the respondents 102(78.5%) had never heard about dental caries and many of the respondents 41.5% had obtained their information from health workers.

The majority of the respondents (66%) accepted that dental caries was a common condition in their community and the majority of the respondents (64.6%) accepted that there was a need for treatment.

The majority of the respondents 80% said that there was no need for dental checkups among healthy individuals. The majority of the respondents 82% had never flossed their teeth, though more than half of respondents (55.4%) had ever heard about dental flossing.

The majority of the respondents 74% do not regularly brush their teeth after every meal.

More than half of the respondents 50.1% mentioned the cost of treatment as a barrier to attending dental services.

The majority of the respondents 88% accepted that community sensitization can help improve oral hygiene and prevent dental caries. Among other preventive measures, the majority of the respondents 70% mentioned regular teeth brushing with fluoride toothpaste.

Recommendations

Recommendations to the Government

The government through the Ministry of Health should provide and advertise the availability of dental health services on the media and encourage all health units to make these services friendly and available to everyone as close to the people as possible.

The government through the Ministry of Health should extend dental health services to even Health Center II facilities and also recruit more staff.

There is a need to improve the quality of services offered in public health facilities so that patients do not go to private facilities while looking for quality dental care services.

Recommendations to the District Health Committee

- The committee should ensure that dental health services are fully operational including weekends for all health facilities in the district.
- Through village Health Teams, the committee should create more awareness about good oral health practices in the community.

Recommendations to Hospital Administrators of SRRH

Hospital administrators should display the information concerning available dental services on the hospital notice board to create awareness in the community. This will increase the level of knowledge about oral health and thus prevent dental caries and hence improve practices.

Recommendations to Health Care Workers

- Health workers should always provide relevant information to the clients who come to the dental clinic regarding good oral health instead of just extracting teeth.

- Health workers should be passionate during their dental care provisions to avoid scaring people since fear is among the barriers mentioned.

Implications to Nursing Practice

- The study will help the policymakers in identifying the community practices that affect oral health and therefore shape nursing interventions.

- The community will gain more awareness about oral health thus reducing the number of dental patients in the hospital thus easing nurses' practice.

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List of Acronyms

HMIS: Health Management Information System
NCDs: Non-Communicable Diseases
NMEDS: National Monitoring and Evaluation for Dental Survey
SRRH: Soroti Regional Referral Hospital
SSA: Sub-Saharan Africa
WHO: World Health Organization

References

1. AmareTeshome, AbebeMuche, BirukGirma, (2021); Prevalence of Dental Caries and Associated Factors in East Africa; Systematic Review and Meta-Analysis.
2. American Dental Association: Toothbrushes. (2023). Accessed: April 1, 2021: https://www.ada.org/resources/research/science-and-research-institute/oral-health-topics/toothbrushes.
3. Amuh V, Okojie O, Ehizele A., (2023): Dental care knowledge and practice of a group of health workers in Benin city.https://pubmed.ncbi.nlm.nih.gov/25364607/
4. AnnetKutesa, ArabatKasangaki, Moses Nkamba, Louis Muwazi, Isaac Okullo, and Charles MugishaRwenyonyi, (2015); Prevalence and factors associated with dental caries among children and adults in selected districts in Uganda
5. Barbara Ndagire Catherine L Mwesigwa Juliet M Ntuulo Harriet Mayanja-Kizza , DamalieNakanjako Charles M Rwenyonyi, (2020); Dental Caries Pattern and Treatment Needs among Ugandan Adolescent Students.
6. Bashiru BO, Anthony IN, (2014): Oral self-care practices among university students in Port Harcourt, Rivers State.https://www.google.com/
7. BenzianHabib, Bella Monse, Roswitha Heinrich-Weltzien, Martin Hobdell, Jan Mulder & Wim van PalensteinHelderman, (2013); Untreated severe dental decay: a neglected determinant of low Body Mass Index in 12-year-old Filipino children.
8. Caroline C. Okoroafor ,Okelue E. Okobi , Moravia Owodeha-ashaka , EmekaOkobi , BabadamilolaOluseye , Oritsegbemi B. Ekpang , Lucky E. Aya , Oluwasayo J. Owolabi , Tiku-etahOru-betem , Jane N. Nwafor, (2023); Dental Health Knowledge Attitude and Practice Among University of Calabar Students.

9. FDI white paper-oral health world wide, a report by FDI white paper-oral health world wide . (2020). Accessed: June 7, 2021: https://www.fdiworlddental.org/sites/default/files/2020-11/2015_wohd-whitepaperoral_health_worldwide.pdf.
10. Kehinde K. Kanmodi, Peace Uwambaye, JimohAmzat, Afeez A. Salami, (2023). Dental caries in Rwanda: A scoping review. https://onlinelibrary.wiley.com/doi/full/10.1002/hsr2.1258
11. Megan Josefczyk, (2015); The State of Oral Health on the African Continent. https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1578&context=honors
12. MOH, (2018); National oral health policy.https://health.go.ug/sites/default/files/National%20Oral%20Health%20Policy_0.pdf
13. Priya M, Kanagharekha D, Deepti A, Venkatachalapathy A (2013): Oral health attitude, knowledge and practice among school school children in in chennai, India. J EducEhics Dentistry.
14. Usuf Chikte, CarlaCruvinel Pontes, Innocent Karan gwa, Faheema Kimmie-Dhansay, Rajiv Erasmus, Andre Pascal Kengne, Tandi E. Matsha, (2020); Dental caries in a South African adult population: findings from the Cape Town Vascular and Metabolic Health Study. https://www.sciencedirect.com/science/article/pii/S0020653920314052
15. WHO, (2023); Africa burdened with largest global increase of oral diseases.https://www.afro.who.int/news/africa-burdened-largest-global-increase-oral-diseases
16. Wilfred Arubaku, Godfrey Kwizera, DeusseditTusubira, Michael Kanyesigye, SteffanyChamut, Brittany Anne Seymour, Mark J. Siedner, VallenceNiyonzima, Josephine N. Najjuma & Samuel Maling, (2022); Prevalence, correlates and treatment needs of dental caries among people on antiretroviral therapy in Uganda: a cross sectional study.

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