Knowledge, Attitudes and Practices towards Prevention of Dental Caries among Youths aged 15-25 years in Soroti Regional Referral Hospital, Soroti District. A Cross-section Study.

Stanley Obuku[a,1], Vincent Charles Kalungi

[a] Kampala School of Health Sciences, P. O. Box 14263 Kampala – Uganda.

Abstract

Background:
The purpose of the study was to assess; the knowledge, attitude, and practices toward the prevention of dental caries among youths aged 15-25 years in Soroti Regional Referral Hospital, Soroti district.
The specific objectives of the study were to assess; the knowledge towards prevention of dental caries among youths aged15-25 years, attitudes towards prevention of dental caries among youths aged 15-25 years, and practices towards prevention of dental caries among youths aged 15-25 years.

Methodology:
A cross-section study design was employed with sampling technique as a sampling technique. Data was collected from a sample of 50 respondents using a semi-structured questionnaire written in the English language; later analyzed manually; using a scientific calculator, and systematically computed into frequency and percentages using Microsoft excel to generate tables and figures for easy presentations.

Results:
About practices towards prevention of dental caries among youths aged 15-25 years; results showed that (70%) of the respondents were using fluoridated toothpaste, (90%) commonly used toothpaste and toothbrush, (60%) used to take sugar-containing snacks, and (40%) were eating them daily, (60%) reported a brush and paste as oral cleaning habit that they normally used and (80%) reported cleaning their teeth once daily.

Conclusion:
The researcher generally concluded that; even though study participants exhibited fair knowledge about the prevention of dental caries but their attitude and practices were not worthy agreeable since almost all respondents had an average attitude towards the prevention of dental caries and also doing some practices that are not in line with the prevention of dental caries.

Recommendation:
The government together with the ministry of health should improve on the sensitization of people about oral health and put up restrictions that can reduce the accessibility of sugar-containing products like snacks hence preventing dental caries among youths of Soroti district.

Email: obukustanley66@gmail.com Date submitted: 06th /04/2022 Date accepted: 19th/05/2022

1 Background of the study

Dental caries is a biofilm-mediated, diet modulated, multifactorial, non-communicable, dynamic disease resulting in net mineral loss of dental hard tissues. (Pitts *et al,* 2017).

Worldwide, it is estimated that nearly 3.5 billion people are affected by the oral disease in the world. Approximately 2.4 billion or 36% of the world population have dental caries in their permanent teeth. More than 530 million children lose their primary due to dental caries. Due to a lack of health education and insufficient preventive measures; there is a high prevalence of morbidity that highly affects the health status of children. In the US, dental caries is the most common chronic childhood disease five times more than asthma and in England, over 60,000 children aged 0-19 years were admitted to the hospital to have teeth removed under general anesthesia. Globally, it has been estimated that 60% of school children have dental caries which means that six to nine children in every ten are affected by tooth decay. (Anguach *et al,* 2021).

Globally, in another study that was carried out by Frencken on the epidemiology of dental caries and severe periodontitis, results showed that; the age-standardized prevalence of dentine carious lesions in the primary dentition in the global population remained static over the two decades at about 9%. (Frencken *et al*, 2017).

According to the study by BJSTR, the total number of participants was 60. The majority (80%) of the subjects or participants of the study were males and the remaining were females. Total fifty-eight-point three percent (58.3%) respondents were caries-free in this study while caries positive were (41.7 %). Total decayed teeth were (61 %), Missed teeth were 04 and total Filled (restored) teeth were 07% in the sample. The average DMFT score examined was 1.2. (Rasul *et al,* 2019).

In Europe, according to a study that was conducted by the International journal of collaborative research on internal medicine and public health on knowledge and practices of caries prevention in mothers from Poland, results revealed; that the prevalence of decayed teeth (DT) was 62.6%. The majority (63.0%) of the students had more than one decayed tooth. Significantly more decayed teeth were recorded in female students compared to their male counterparts. However, there was no significant difference in the number of decayed teeth across gender among the students. The molar teeth were the most affected in both jaws while the incisors and canines were the least affected teeth. The second molars were significantly more affected compared to the first molars. The prevalence of caries was higher (51.4%) in the mandible than in the maxilla although the difference was not statistically significant. Based on multivariate analysis, decayed teeth were significantly associated with difficulty in chewing (95%), history of dental pain in the past 12 months (95), poor perception of tooth state (95%), and the female participants (95%). More than half (59.4%) of the students needed restorative treatment, whereas 13.3% and 9.1% needed pulp therapy and extractions, respectively. About 2.7% of the participants needed treatment for traumatic dental injuries. Most of the decayed teeth needed restorative treatment. Among the 10- to 13-year-olds, most (50/55) decayed teeth needed restorative treatment while the older age groups needed more extractions or endodontic treatment. (International journal of collaborative research *et al,* 2021).

Furthermore, in another study carried out in France by Vergnes (2020) on oral diseases, results showed that; the estimated global prevalence of untreated dental caries in permanent teeth was higher than 50%. (Vergens *et al,* 2020).

In Vietnam, according to the study that was carried out by Nguyen, results showed that; the global prevalence of dental caries in primary and permanent teeth was estimated at 46.2% and 53.8%, which was considered to be high. (Nguyen *et al,* 2021).

In Africa, according to a study that was carried out on the Magnitude of dental caries, missing and filled teeth in Malawi, results revealed that; a total of 5400 participants were enrolled in the survey. Of these: (61.3 %) were females, (38.7 %) were males; (6.9 %) were from urban and (93.1 %) from rural areas; (20.6 %), (17.3 %), (42.7 %) and (12.6 %) were aged 12, 15, 35–44, 65–74 years respectively. Among 12-year-old, 15-year-old, 35–44 and 65–74 year age groups, the prevalence of dental caries was 19.1, 21.9, 49.0, and 49.2 % respectively, overall 37.4 %. Prevalence of missing teeth was 2.7, 5.2, 47.7, and 79.9 %, overall 35.2 %. Prevalence of filled teeth was 0.2 %, 1.3 %, 8.7 %, 12.7 %, overall (6.5 %). Prevalence of bleeding gums was 13.0, 11.8, 30.8, and 36.1 %, overall 23.5 %. Toothache, dental caries and missing teeth were more common in

females than males; 46.5 % vs 37.9 %, 40.5 % vs 32.4 %, 37.7 % vs 30.1 % respectively. Prevalence of dental caries and missing teeth in urban areas were as high as in the rural areas; 33.3 % vs 37.4 % and 30.9 % vs 33.7 % respectively. The mean number of decayed, missing, and filled teeth (DMFT) in 12, 15, 35–44, 65–74 years old was 0.67, 0.71, 3.11, and 6.87 respectively. (Musyamboza *et al,* 2016).

In East Africa, according to a study that was conducted by Amare on the Prevalence of dental caries and associated factors in East Africa, results revealed; that the overall pooled prevalence of dental caries was found to be (45.7%). The pooled prevalence was high in Eritrea (65.2%, 95% CI = 49.2–81.1), followed by Sudan (57.8%, 95% CI = 36.0–79.7), and a low prevalence was found in Tanzania (30.7%, 95% CI = 21.5–39.9). Moreover, the subgroup analysis revealed a prevalence of (50%) in permanent dentition and 41.3% in mixed dentition. The overall mean decayed, missed, and filled permanent (DMFT) and primary (dmft) teeth were (95%) and (95%), respectively. High DMFT scores were reported in Sudan (95%) and Uganda, 95%. Being female (95%) and having poor tooth brushing habits, 95% were independent risk factors of dental caries. (Amare *et al,* 2020).

In Uganda, according to the study that was carried out by Kutesa on prevalence and factors associated with dental caries among children and adults in selected districts in Uganda, results showed that; there was generally a higher mean DMFT score in the rural (2.19) compared to urban areas (1.97). In all the districts, except Hoima there was a higher mean DMFT score of children in rural compared to urban. In adults, a similar trend was mainly registered in Masaka, Hoima, and Gulu districts. The prevalence of dental caries was higher in adults (66.7%) as compared to children (32.5%). The highest prevalence of dental caries in adults was recorded in the Hoima district while the lowest was in Gulu; 90.1% versus 48.8%. The corresponding values were seen in Masaka and Kabarore districts, 45.0%, and 21.3%, respectively. (Kutesa, *et al,* 2015).

2 Methodology

Study design

A cross-sectional study design was employed with both quantitative and qualitative approaches where data was gathered at only one point at a time. This design was preferred for this study because it considered issues for the instant economy, rapid data collection, and the ability to understand the population from part of it.

Study area

The study was carried out at Soroti Regional Referral Hospital which is located in Soroti district eastern part of Uganda with approximately 371,986 people that is to say 190,587 females and 181,399 males. Soroti district is 193 kilometers from Kampala district. It also has approximately 61700 youths who are aged 15-25 years.

Study population

The study population consisted of youths aged 15-25 years in the Soroti district who consented to participate in the study.

Sample size determination

The sample size was determined using Burton's formula (1965)

Sample size (n) = QR/O

Where,

Q- Total number of days taken for data collection

R- Maximum number of respondents who were interviewed per day

O- Maximum time has been taken on each respondent per day.

Values: Q= 10 days

R=5 respondents.

O=1 hour (Time duration was from 8 am- 1 pm each day)

Therefore, n= QR/O

N= (10x5)/1

=50 Respondents

Study variables

Prevention of dental caries was the dependent variable whereas knowledge, attitude, and practices were the independent variables

Inclusion criteria

The study comprised youths aged 15-25 years in Soroti Regional Referral Hospital who consented voluntarily during the time of data collection.

Sampling technique

Simple random sampling was used to select the sample from the source population. The technique was preferred because it ensured freedom from human bias and each member of the target population was to have an equal and independent chance of being included.

Data collection tool

Semi-structured questionnaires consisting of both closed and open-ended questions written

in English language and later translated into the local language (Itesot) were used to collect data. The researcher considered questionnaires as the most convenient way of collecting data from respondents because it was easy for the researcher to administer and obtain data within a short time from a large number of respondents.

Pretesting the questionnaire

The data collected was pretested by getting some individuals from different health centers within the Soroti district.

Data collection procedure

An introduction letter was obtained from Kampala School of Health Sciences and delivered to the head of the research department at Soroti Regional Referral Hospital, Soroti district seeking permission to carry out the study. When permission was granted, two research assistants with good knowledge of the local language that is Itesot were trained on research methodology and study objectives before data collection. All those who fulfilled the inclusion criteria were interviewed for about 30 minutes in a quiet and private place, preferably at the hospital premises. The procedure was repeated each day until the sample size of 50 respondents is obtained.

Quality control

The filled questionnaires were checked for completeness at the interview site before leaving the place. Partly filled questionnaires were handed back to the respective respondents for completion before being re-submitted to the supervisor.

3 Data analysis and presentation

Data were analyzed manually by use of tally sheets, a scientific calculator; systematically computed into frequency and percentages using Microsoft excel to generate tables and figures for easy presentations.

Ethical considerations

After approval of the proposal by the supervisor, permission to collect and obtain data was sought with help of an introductory letter from the Kampala School of Health Sciences to the hospital administration; once permission was granted, the researcher explained the study objectives to the participants and a consent form was signed by each respondent before collecting data. Information obtained from the respondents was kept confidential. This was done to ensure that the research ethics were observed throughout the study.

Study Findings

Demographic data

From the study findings, more of the respondents (40%) were within the age bracket of 15-18years years whereas the least (24%) were within the age bracket of 22-25years.

To study findings, more than half of the respondents (60%) were females by gender whereas the least (40%) were males.

Findings in regards to religion, most of the respondents (40%) were Muslims by religion whereas the least (10%) were from other religions.

The study further revealed that the majority of the respondents (40%) had never gone to school whereas the minority (10%) had reached the college/ University.

In addition to that, half of the respondents (50%) were self-employed whereas the least (20%) were employed.

The study findings also revealed that half of the respondents (50%) were single whereas the least (10%) were widows.

Results from the study showed that more than half of the respondents (60%) were Itesot by tribe whereas the least (6%) were Baganda by the tribe.

Knowledge towards prevention of dental caries among youths aged 15-25 years

From the figure above, the majority of the respondents (88%) had never heard about dental caries whereas the minority (12%) had never heard about dental caries.

From the figure above, more than half of the respondents (60%) did not know about some basic preventive measures for dental caries whereas the minority (40%) knew about some basic preventive measures for dental caries.

From the table above, almost half of the respondents (40%) obtained information about dental caries from dentists whereas the least (10%) reported other sources of information like media and exhibitions.

From the table above, more than half of the respondents (52%) reported being illiterate concerning their education background whereas the least (20%) reported other levels of education.

From the table above, more than half of the respondents (60%) didn't know that medication intake during pregnancy and childhood may affect teeth development whereas the least (40%) knew

Table 1. Shows the distribution of respondents according to demographic data **(N=50)**

Age	**Frequency(f)**	**Percentage (%)**
15-18 years	20	40
19-21 years	18	36
22-25years	12	24
Total	**50**	**100**
Gender		
Male	20	40
Female	30	60
Total	**50**	**100**
Religion		
Catholic	10	20
Muslim	20	40
Protestant	15	30
Others	5	10
Total	**50**	**100**
Level of education		
Never went to school	20	40
Primary	15	30
Secondary	10	20
College/University	5	10
Total	**50**	**100**
Occupation status		
Employed	15	30
Un employed	10	20
Self employed	25	50
Total	**50**	**100**
Marital status		
Single	25	50
Married/cohabiting	10	20
Widowed	5	10
Separated	10	20
Total	**50**	**100**
Tribe		
Itesot	30	60
Kumam	5	10
Karamajong	4	8
Muganda	3	6
Others	8	16
Total	**50**	**100**

Table 2. Shows the distribution of respondents according to where they obtained information about dental caries (N=50)

Response	**Frequency (f)**	**Percentage (%)**
Dentists	20	40
Magazines	15	30
Guide books	10	20
Others	5	10
Total	**50**	**100**

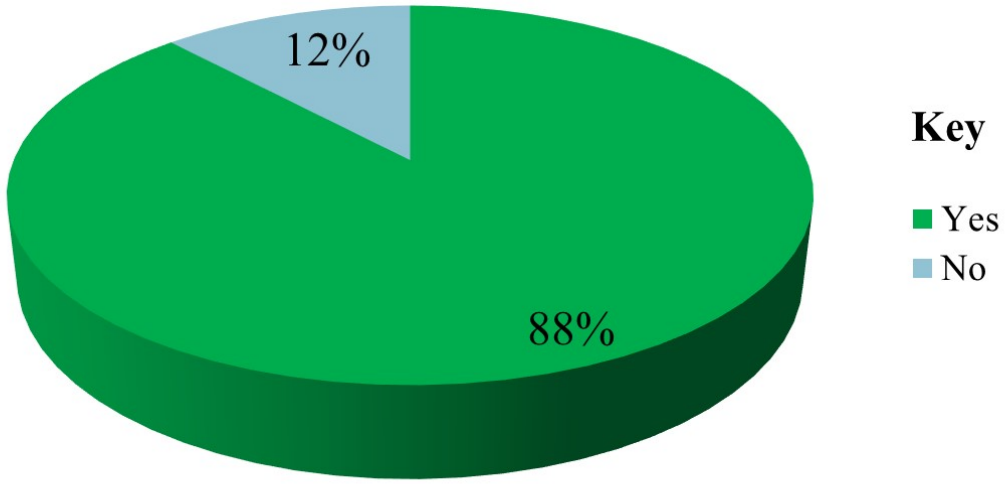

Figure 1. Shows the distribution of respondents according to whether they had ever heard about dental caries

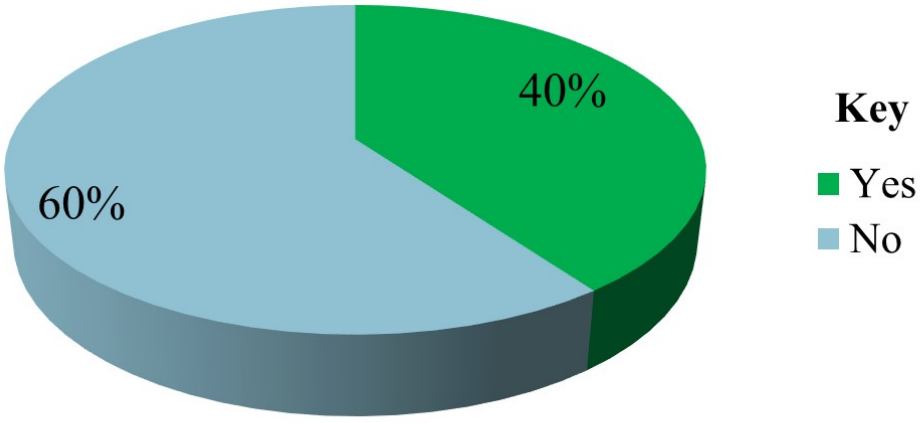

Figure 2. Shows the distribution of respondents according to whether they knew about the basic preventive measures of dental caries

Table 3. Shows the distribution of respondents according to their educational background (N=50)

Response	Frequency (f)	Percentage (%)
Iliterate	26	52
Primary school level	14	28
Others	10	20
Total	**50**	**100**

Table 4. Shows the distribution of respondents according to whether they knew that medication intake during pregnancy and childhood may effect development (N=50)

Response	Frequency (f)	Percentage (%)
Yes	20	40
No	30	60
Total	**50**	**100**

that medication intake during pregnancy and childhood may affect teeth development.

4 Attitude Towards Prevention of Dental Caries Among Youths Aged 15-25 Years

From the figure above, nearly all respondents (80%) did not believe that dental caries could be transmitted from parents to children whereas the least (20%) believed it.

From the table above, more than half of the respondents (60%) believed that oral health was important to their life whereas the least (40%) never believed that oral health was important to their life

From the figure above, nearly all respondents (80%) believed that the prevention of oral diseases relied on them whereas the least (20%) never believed that the prevention of oral diseases relied on them.

From the table above, the majority of the respondents (70%) had a poor perception of dental caries whereas the minority (10%) had a good perception of dental caries.

Practices Towards Prevention Of Dental Care Among Youths Aged 15-25 Years

From the table above, the majority of the respondents (70%) reported that they used brush their teeth using fluoridated toothpaste whereas the minority (30%) reported that they were using toothpaste that was non fluoridated.

From the table above, more than half of respondents (60%) reported taking sugar-containing snacks whereas the least (20%) reported not taking sugar-containing snacks.

From the figure above, more than half of the respondents (60%) reported the use of brush and paste as oral cleaning habits whereas the least (10%) practiced other oral cleaning habits.

From the table above, most of the respondents (40%) reported that they use sugar-containing snacks daily whereas the least (10%) reported that they use sugar-containing snacks monthly.

From the figure above, nearly all respondents (90%) reported that they used toothbrushes and toothpaste to brush their teeth whereas the least (10%) reported that they used chewing sticks to clean their teeth.

5 Discussion, Conclusion, and Recommendations

Discussion:

Knowledge towards prevention of dental caries among youths aged 15-25 years

Study results revealed that the majority of the respondents (88%) had ever heard about dental caries and therefore, this implies that most of the study participants were familiar with the study context. This is in line with a study that was carried out in Namibia, by Saul (2021), where it was revealed that (78%) of the respondents had ever heard about dental caries.

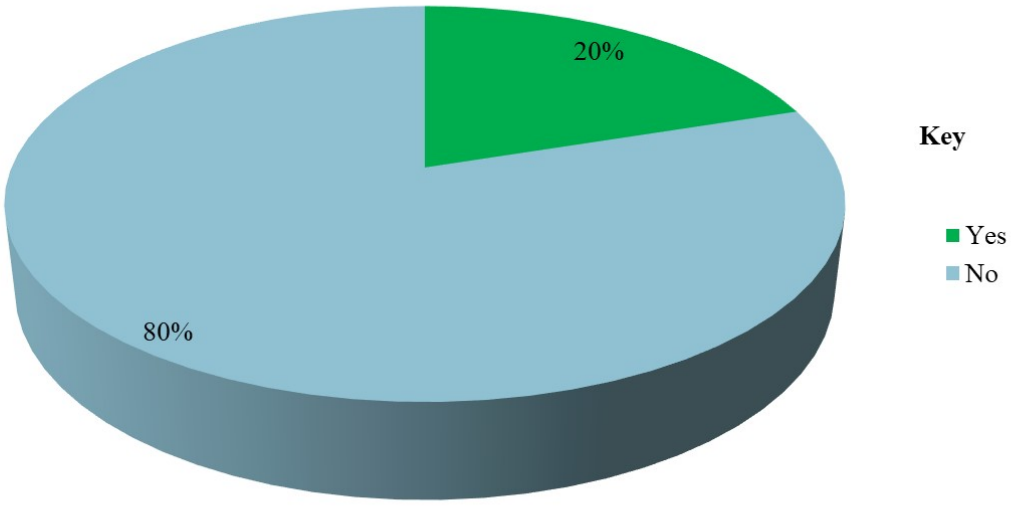

Chart 1. Shows the distribution of respondents according to whether they believed that dental caries could be transmitted from parents to children (N=50)

Table 5. Shows the distribution of respondents according to whether they believed that oral health was important to their life (N=50)

Response	Frequency (f)	Percentage (%)
Yes	30	60
No	20	40
Total	**50**	**100**

Table 6. Shows the distribution of respondents according to their perception of dental caries (N=50)

Response	Frequency (f)	Percentage (%)
Good	5	10
Average	10	20
Poor	35	70
Total	**50**	**100**

Table 7. Shows the distribution of respondents according to what they normally used fluoridated toothpaste while brushing their teeth (N=50)

Response	Frequency (f)	Percentage (%)
Yes	35	70
No	15	30
Total	**50**	**100**

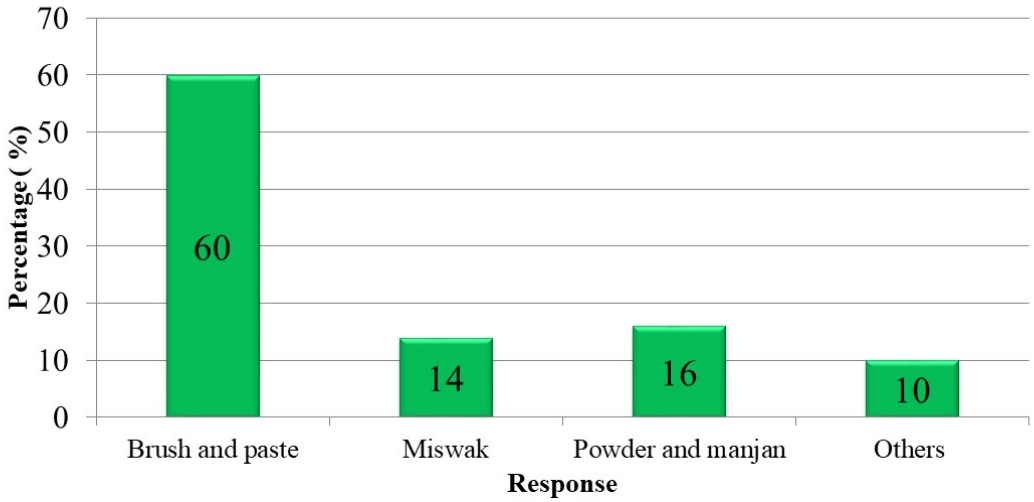

Figure 3. Shows the distribution of respondents according to what were some of the common oral cleaning habits they normally used to practice.

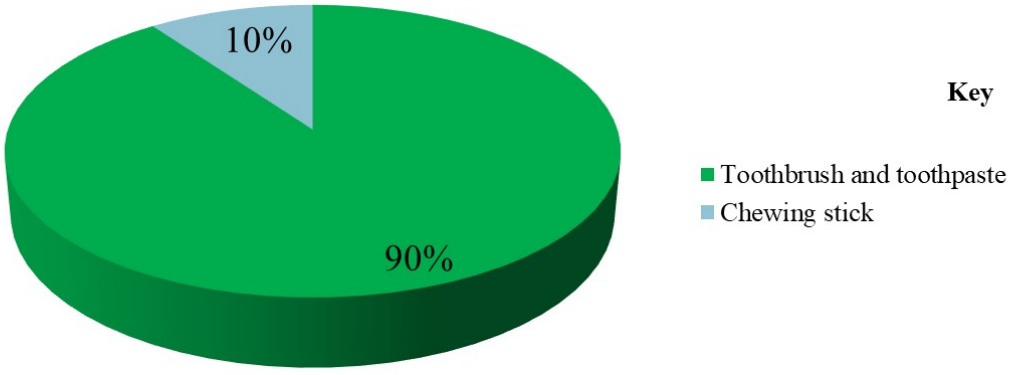

Figure 4. Shows the distribution of respondents according to what they normally used to brush their teeth (N=50)

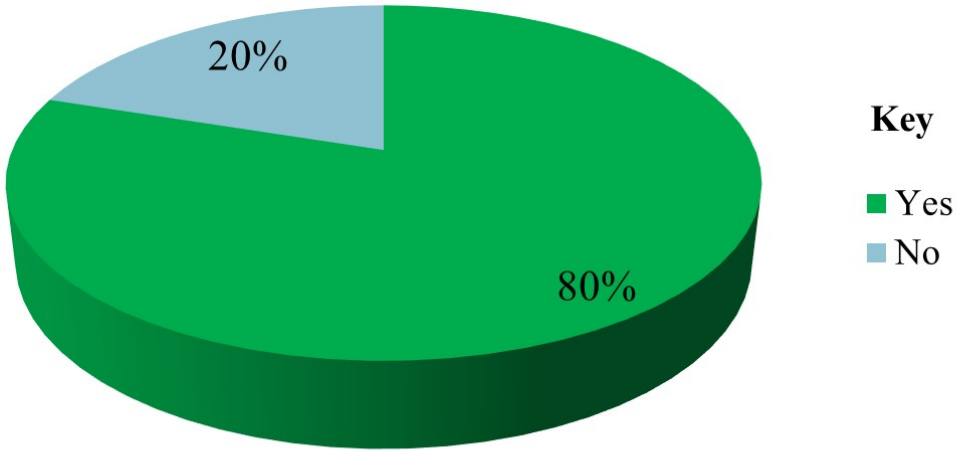

Chart 2. Shows the distribution of respondents according to whether they believed that prevention of oral diseases relied on them (N=50)

Table 8. Shows the distribution of respondents according to the whether they used to take sugar containing snacks (N=50)

Response	Frequency (f)	Percentage (%)
Yes	30	60
No	20	40
Total	**50**	**100**

Table 9. Shows the distribution of respondents according to how often they use sugar-containing snacks (N=50)

Response	Frequency (f)	Percentage (%)
Once weekly	10	20
Daily	20	40
Monthly	5	10
Others	15	30
Total	**50**	**100**

The study also revealed that most of the respondents (60%) did not know about some of the basic preventive measures for dental caries. This could be attributed to the inadequate knowledge of their parents about the prevention of dental caries. This is not in line with the study that was conducted in Sub Urban Nigeria by Monerike *et al* (2014), where (58.4%) of fathers, (61.6%) of mothers, and (21.3%) of children had good knowledge of caries preventive measures.

The study also revealed that most of the respondents (50%) obtained information on preventive measures for dental caries from dentists. This could be attributed to the fact that study participants could easily access the dentists compared to other sources of information. This is in line with a study that was conducted by the Department of conservative dentistry et al (2021), where results in regards to the source of information for preventive

measures of dental caries was dentists 1 (82.1%) for most of the respondents.

The study further revealed that most of the mothers of the respondents (52%) regarding their knowledge about the prevention of dental caries about their educational background were illiterate. This is attributed to the fact that most of the mothers of respondents never had access to the basic information about the prevention of dental caries. This is in disagreement with Challa S *et al* (2018), where results in regards to the knowledge of respondents about their education background reported being illiterate (27.8%).

Interestingly, the study also revealed that most of the respondents (60%) were aware that medication intake during pregnancy and childhood may affect teeth development. This is evidenced by the fact that respondents were not medics and therefore, the probability of not being aware of the effects of medication intake during pregnancy was expected to be high. The study results were not in line with Challa S (2018), where it was discovered that (86.3%) of the mothers were unaware that medication intake during pregnancy and childhood may affect teeth development. The study also showed that half of the respondents (50%) got the information from family members which was also in line with the study that was carried out by Challa S et al (2018) where results revealed that most of the respondents (90%) got information from family members.

Attitude towards prevention of dental caries among youths aged 15-25 years

Interestingly, nearly all respondents (80%) had a poor perception of the prevention of dental caries. This could be attributed to the fact that most of the respondents had different myths about the causes of dental caries. The current findings were not in line with Babra et al (2020), who showed that only (13.8%) of subjects had a poor perception of the prevention of dental caries.

In addition to that, most of the respondents (80%) believed that dental caries can be transmitted from parents to children. This implies that study participants had inadequate knowledge about the causes of dental caries. This is consistent with Suma *et al* (2016), where it was revealed that (55.5%) of the parents believed that dental caries can be transmitted from parents to children.

Surprisingly, most of the respondents (60%) believed that oral health was important to their lives. This could be attributed to the fact that they used to go through a painful experience after they get oral infections. The study results were in agreement with Jian *et al* (2018), were (93.18%) of the adolescents believed that oral health was important to their lives.

The study showed that the majority of the respondents (80%) agreed that the prevention of oral diseases relied on themselves. This implies that study participants were supportive of proper oral health care. This is in line with a study done by Jian *et al* (2018), where (92.41%) agreed that the prevention of oral diseases relied on themselves.

Practices towards prevention of dental caries among youths aged 15-25 years

Results from the study showed that the majority of the respondents (70%) were using fluoridated toothpaste for brushing. This strongly confirms the availability of fluoridated toothpaste on market. This is in line with Monerike et al (2014), where results showed that (92.9%) of fathers, mothers (81.8%), and children (83.3%) reported the use of fluoridated toothpaste.

The study discovered that more than half of respondents (60%) reported taking sugar-containing snacks. This is attributed to easy accessibility to the snacks and their sweetness which makes their demand, especially among youths and children high. The study further revealed that nearly half of the respondents (40%) used to take sugar-containing snacks daily. The results were inconsistent with Monerike et al (2014), where eating sugar-containing snacks less than once a day was least prevalent in children (30.2) when compared to their fathers (75.6%) and mothers (73.6%).

The majority of the respondents (90%) reported the use of toothbrushes and toothpaste to brush their teeth. This could be attributed to the fact that toothbrushes and toothpaste are locally available and are affordable to the majority of the study participants. The results of the study were in agreement with Jordan et al, (2016), where the majority of the respondents (77%) utilized toothpaste and toothbrush in cleaning their teeth.

Interestingly another revealed that most of the respondents (60%) also reported using brush and paste as some of the oral cleaning habits that they normally used. This indicates that respondents could easily access them in their daily life. This is in line with Rasul et al (2019), where results showed

that the majority (98.3%) of the participants used brush and paste.

The study also revealed that the majority of the respondents (80%) reported that they used to clean their teeth once daily. This is attributed to the inadequate knowledge of the benefits of several times of tooth brushing. This is in not in line with Rasul et al (2019), where most of the participants (48.3%) were brushing twice daily.

6 Conclusion

Based on the overall findings from the study, the following conclusions were made:

The study established that knowledge about the prevention of dental caries among youths aged 15-25 years was fair because (88%) of respondents had ever heard of dental caries, (50%) obtained information about dental caries from dentists, (and 60%) knew that medication intake during pregnancy and childhood may affect teeth development, and (50%) reported that they had got information from family members.

It was discovered that study participants exhibited an average attitude toward the prevention of dental caries since (80%) of respondents had a poor perception of the prevention of dental caries, (80%) believed that dental caries can be transmitted from parents to children, (60%) believed that oral health is important to their lives and (40%) believed that prevention of oral diseases relies on themselves.

Overall practices towards prevention of dental caries among youths aged 15-25 years were not agreeable because (60%) of the respondents used to take sugar-containing snacks, (40%) used to take sugar-containing snacks daily, (and 80%) used to clean their teeth only once daily.

The researcher generally concluded that; even though study participants exhibited fair knowledge about the prevention of dental caries but their attitude and practices were not worthy agreeable since almost all respondents had an average attitude toward the prevention of dental caries and also doing some practices that are not in line with the prevention of dental caries.

Recommendations

The researcher recommends the government add taxes on goods that are not good for oral health for example sugar-containing snacks to reduce their accessibility to people.

The researcher also recommends the ministry of health organizes medical camps about oral health national wide to improve the knowledge among people about oral health.

The researcher also recommends the administration of Soroti Regional Referral Hospital promotes oral health services to improve the awareness of people about different oral conditions through continuous sensitization.

7 Acknowledgement:

I thank the Almighty God for giving me the courage, protection, wisdom, time, and energy to complete my study.

I fully acknowledge the contribution of my supervisor Mr. Kalungi Vincent Charles for his professional guidance, advice, and positive criticisms which helped to complete my research study.

I would like also to extend my thanks to my principal tutor Mr. Mubangizi Prosper for his guidance and the entire staff of Kampala School of Health Sciences until my successful completion of the course.

I wish to recognize the gracious help and coordination of study participants and local authorities of Soroti Regional Referral Hospital for their support which helped me to learn lots of skills to shape my research.

I would like to extend my warmest appreciation to my parents Mr. Odongo Moses and Mrs. Ameke Clair for their whimsical humor, countless encouraging conversations prayers, and love along the way.

Lastly, I wish to thank my relatives; Agwang Lucy, my friends, Elimu Paul, Anyanzu Stephen, Cheronoh Vivian,Chiria Clinton,Ankunda Conlad, Ssekonge Chris, Mutebi Gideon, and Nakato Pauline. Their enthusiasm and company helped me from the beginning to the end of this course.

8 Limitations of the study and their possible solutions

The researcher encountered financial difficulties. However, the researcher solicited the required resources to complete the study within the required time frame, and a budget to direct the required expenditure was developed and followed effectively.

Tentative school programs interfered with the exercise and this was solved by budgeting the little available time and using it effectively.

The researcher faced difficulties in obtaining information from respondents**.** This was solved by making sure that the respondents were fully psycho-educated about the relevance of the study and assured them that the information obtained was to be kept confidential.

9 List of Abbreviations/ Acronyms

BMJSTR: Biomedical Journal of Scientific and Technical Research.

DT: Decayed tooth

DMFT: Decayed Missing and Filled Teeth

ECC: Early Childhood Caries

KAP: Knowledge, Attitude, and Practices

MoH: Ministry of Health

UAHEB: Uganda Allied Health Examinations Board

US: United States

WHO: World Health Organisation

OPERATIONAL DEFINITIONS

Attitude : It refers to how households perceive about

Cariogenicity : Refers to the potential for caries production.

ECC: Refers to the presence of one or more decayed (non cavitated lesions), missing (due to caries), or filled tooth surfaces in any primary tooth in the child under the age of six.

Flossing: Refers to the use of waxed or un-waxed synthetic thread to dislodge plaque, foods, and microbes from the lateral borders of teeth.

Knowledge: The facts, information, and skills acquired through experience or education.

Miswak: Refers to teeth cleaning twig made from a twig of salvadora persica tree.

Mixed dentition: Refers to the developmental period after the permanent first molars and incisors have erupted, and before the remaining deciduous teeth are lost.

Permanent teeth: Refers to the teeth in mammals that replace temporary milk teeth and last for most of the mammal's life.

Practices: What one does.

Prevalence: This is the total number of new and old cases of the disease in a given the period in a particular location.

A Publisher details:

Publisher: Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256775434261
Location: Wisdom Centre, P.O.BOX. 148, Uganda, East Africa.

Table 10. References

1) Anguach Shitie, Rahel Addis, AbebeTilahum, and Weassie Negash (2021). Prevalence of dental caries and its associated factors among primary school children in Ethiopia. Vol 2021.https://doi.org/10.1155/2021/6637196

2) Babra Ndagire, Catherine L Mwesigwa, Juliet M Ntuulo, Harriet Muyaya, Damalie Nakanjako and Charles Rwenyonyi (2020). Dental caries pattern and treatment needs among Ugandan adolescent students, International journal of dentistry. Vol 2020, 7pages.https://doi.org/10.1155/2020/8135865PMid:32256595 PMCid:PMC7085876

3) Frencken JE, Sharma P, Stenhouse L, Green D, Laverty D, Dietrich T (2017). Global epidemiology of dental caries and severe periodontitis: a comprehensive review J Clin Periodontaol 44 (suppl.18).https://doi.org/10.1111/jcpe.12677PMid:28266116

4) HP Suma Soji, Shivayogi M, Ifuga and Rachappa M Mallikayuna (2016) Knowledge, attitude and practices of oral health care in prevention of childhood caries among parents of children in Belagavi city, vol 5 no.2 286-290pp.https://doi.org/10.4103/2249-4863.192332PMid:27843829 PMCid:PMC5084549

5) International journal of collaborative research on internal medicine and public health.(2021). Knowledge and practices of caries prevention in mothers from Bialysstok, Poland.

6) Jian Li, Kaiqiang Zhang, Zhenfu Lu (2018). Prevalence and factors contributing to dental caries in 12-12 year old school adolescents in northeast China. Vol. 11, No.11.

7) Jordan C, Karen C (2016). Caries and dental erosion; Are Soroti children and adolescents at risk from increased soft drink availability in Uganda? Afri Health Sci; vol 16 no 4 943-946pp.https://doi.org/10.4314/ahs.v16i4.9PMid:28479885 PMCid:PMC5398439

8) Kuteesa A, Arabat Kasangada, and Charles Mugisha Rwenyonyi(2015). Prevalence and Afr factors associated with dental caries among children and adults in selected districts in Uganda; Health Sci vol 15. No 4 1302-1307pp.https://doi.org/10.4314/ahs.v15i4.33PMid:26958035 PMCid:PMC4765403

9) Morenike O Folayan, Kikelomo A Kolawole, Titus Onyedde, Nneka M Chukumah, Nneka Onyejaka, Hakeem Agbaje, Elizabdeth O Oziegbe, Olusegun V Osho. (2014). Association between knowledge of caries preventive practices, preventive oral health habits of parents and children and caries experience in children resident in sub urban Nigeria. Vol14 no 156.https://doi.org/10.1186/1472-6831-14-156PMid:25516332 PMCid:PMC4279893

10) Nguyen Van Chuyen, Vu Van Du, Ho ANH Son (2021). The prevalence of dental caries and associated factors among secondary school children in rural highlands Vietnam. Vol 21, No.349.https://doi.org/10.1186/s12903-021-01704-yPMid:34271899 PMCid:PMC8283836

11) Olatosi, E O Sote, O J Akinsola, PA Oredugba, AS Adenaike; Prevention of dental caries: Knowledge, practice and opinion of paediatricians in lagos, 2013 vol32 no 1 52-6pp Pitts 2015 , vol 54 no.1

12) Teshone A, Abebe Muche, Biruk Girma.(2021). Prevalence of dental caries and associated factors in East Africa; Systematic review and meta analysis. Front Public Health 9: 645091https://doi.org/10.3389/fpubh.2021.645091PMid:33996722 PMCid:PMC8116500

13) Vergnes JN, Marco Mazeuet (2020). Oral disease: a global public health challenge. Vol 395, No.10219, 186-187pphttps://doi.org/10.1016/S0140-6736(19)32997-6