



The Concern of UHEW toward Oral Health Promotion within Primary Health Care approaches in the assigned Communities, Addis Ababa, Ethiopia, 2017



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Abstract

Introduction: WHO defined Oral health a state of being free from any pain originated from mouth and face, oral and throat cancer, oral infection and sores, periodontal disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing. Ethiopia ratio of dentists: population is 1:1,268,000. WHO recommend that, it needs to shift the oral health management away from the old paradigm of dentistry treatment and surgery-based approach? Emphasize prevention and health promotion in impoverished regions

Methodology: Institutional based descriptive cross-sectional study. The sample size was calculated by using single population formula. The sampling method was simple random sampling from the sampling frame of health extension workers. The collected data entered, coded, cleaned and analyzed by SPSS. Ethical issue was secured from concerned institution, officials and study participants.

Result: On this study majority (84.1%) of the participants were provided regular house to house visit in their catchment areas and 76.2% were given general health education. Of this health education activities 84.5% was specific to oral health topics. About 137 (90.7%) had tooth cleaning practice. Of this about 86 (57%) clean their tooth twice a day while the rest (65 (43%)) was once a day. To the complain of the community dental problems the HEW were managed 62.9% in giving oral hygiene advises, 30.5% referred to health center and 6.6% advised to extract.

Conclusion and Recommendation: The finding indicate as there is a gap on the knowledge, attitude and practice of oral health among the health extension workers. The concerned body should give a refreshment training specific to oral health and oral health should be thought to the community in corporate with personal hygiene and lifestyle course during regular community visits.

Keywords: Oral health; Health extension; Health promotion; Ethiopia; Primary health care; Dental health

Abbreviations: ECC: Early Childhood Caries; UHEW: Urban Health Extension Worker; KAP: Knowledge, Attitude, Practice; MOH: Ministry of Health; OHE: Oral Health Education; SNNP: South Nations Nationality Peoples; SPSS: Statistical Package for Social Sciences; UNAIDS: United Nations program on HIV/AIDS; WHO: World Health Organization

Introduction

Oral health is acknowledged as an important part of general health. It is defined by the World Health Organization (WHO), as "a state of being free from any pain originated from mouth and face, oral and throat cancer, oral infection and sores, periodontal disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling,

speaking, and psychosocial wellbeing" [1]. In fact, oral health is a component of human right, an important aspect of general health and essential for holistic wellbeing [2]. The importance of oral health goals was first emphasized in 1981 by WHO as part of the programme known as Alma Ata declaration; "Health for All by the year 2000" [3,4]. A healthy mouth enables people to eat and

digest foods without discomfort, prevent caries and tooth loss, avoid bad breath thereby build self-confidence [5]. The oral cavity plays a central role for intake of basic nutrition and protection against microbial infections. Living without teeth severely affects quality of life and can lead to unhealthy diets, malnutrition, and social isolation [6]. The major devastating issue was Polymicrobial gangrenous infection of the oral cavity. *Fusobacterium necrophorum* and *Prevotella intermedia* are thought to be key players in the process and interact with one or more other bacterial organisms (such as *Borrelia vincentii*, *Porphyromonas gingivalis*, *Tannerella forsythia*, *Treponema denticola*, *Staphylococcus aureus*, and non-hemolytic *Streptococcus* spp) [7].

Globally dental caries affects 40-60% of children. Oral health is the 4th most expensive disease to treat worldwide. Periodontal disease is a major cause of tooth loss in adults worldwide. Oral cancer is the 8th most common cancer worldwide. Inequalities of access to oral health care exist. Croatia ratio of dentists: population is 1:560. Ethiopia ratio of dentists: population is 1:1,268,000 [8]. Oral health problem was the disease of poverty: In the US, 80% of all dental disease in children occurs in low-income Medicaid eligible children. Worldwide, dentists migrate and practice in wealthy, urban areas. More than one billion people live on \$1 per day or less, making dental care unaffordable. In populations of poverty, dental IQ and oral health prevention is extremely low and needs to be improved [8]. Rapidly increasing levels of oral disease have been observed in several low- and middle-income countries comparably with changes in living conditions and the increasing exercise of unhealthy lifestyles [8]. Oral health is preventable non-communicable disease most of the cause was linked with lifestyle, oral hygiene, fluoride water, lack of access to safe water, lack of awareness and poor perception, lack of access to the service so this all issue was solved like other public health problems by community based primary health care approach that was undertaken the last 20 years by health extension workers so the main aim of this study is to assess the existing oral health knowledge, attitude and practice of health extension worker and the status health promotion level of the oral health in assigned sub-city.

Study conducted on the Wondogenet southern Ethiopia described 14.3% of health extension workers that provided oral health education had good oral health knowledge but 10.7% of the knowledgeable didn't provide oral health education to the community. Half of those not knowledgeable respondents didn't provide oral health education to the community whereas 7.1% of them provided. Among the respondents 14.3% of the respondents that provided oral health education had good oral health attitude, but 28.6% of them didn't provide oral health education to the community. About 50% of the respondents didn't had good attitude to oral health and not provided oral health education to the community whereas 7.1% of them provided. Among the respondents 14.3% of the respondents that provided health education had adequate oral health practice but 10.7% of them

didn't provide oral health education to the community. 64.3% had inadequate oral health practices which were not provided oral health education to the community whereas 7.1% of them provided. The community-based approach is the mechanism through which households and communities strengthen their role in health and health related development by increasing their knowledge, skills and participation indirectly by creating the demand for the services it may create easy the approach of the service at large community level [9].

Oral health problems are becoming increasingly prevalent in many of the low-income developing countries. They create a double burden on top of the infectious diseases by which these countries continue to be suffered. [10] In Africa the burden of oral health related problem was occur in 39 out of 46 countries. The incidence was 20:100,000. Mostly it was affecting children 2-6 years old and about 70-90% mortality rate [8]. The prevalence of dental caries was reported to range from 47.4% to 74% in two separate studies done in Addis Ababa [11].

Rapidly increasing levels of oral disease have been observed in several low- and middle-income countries comparably with changes in living conditions and the increasing exercise of unhealthy lifestyles [11]. The main risk factor was associated with: Malnutrition or dehydration, Poor oral hygiene, Poor sanitation, Unsafe drinking water, Proximity to unkempt livestock, Recent illness, Malignancy, an immunodeficiency disorder, including AIDS. More than 20 million cases in Africa. 50-60% of HIV+ patients will have: Oral fungal, bacterial and viral infection, Oral Hairy Leukoplakia, HIV gingivitis and periodontitis, Kaposi Sarcoma, Non-Hodgkin Lymphoma and Xerostomia. Insufficient number of dental schools and graduating dentists. Ratio of Dentist: Population in Ethiopia 1:1,268,000. Majority of dentists graduating in African country will immigrate to new continent [8].

WHO Examine the common determinants of dental disease on economic, environmental, social and behavioral level and finally it would recommend that as it needs to develop oral health systems to distribute resources equitably in addition it may need to develop oral health policies and need to halt or decrease burden of disease and disability in disadvantaged, developing countries [12]. WHO explain boldly as Oral health worse in areas that do not have clean drinking water, so it needs to address fluoridation, it needs to address tobacco and alcohol use and it needs to address poor dietary habits and sugar consumption? It needs to Shift the oral health management away from the old paradigm in dentistry that is treatment and surgery based. Emphasize prevention and health promotion in impoverished regions [8]. To manage strongly the oral health problem WHO recommend target issues that need comprehensive approaches that is: Diet/nutrition and oral health, Fluorides in preventing dental caries, Tobacco use and impact on oral health, HIV/AIDS and oral health, High burden of disease in children, Ageing population [11]. Global Oral Health reports boldly discussed and recommend five items to improve oral health: Meet the increasing need and demand for oral healthcare, Expand

the role of oral healthcare professionals, shape a responsive educational model, Mitigate the impacts of socio-economic dynamics, Foster fundamental and translational research and technology [11].

Study conduct on the Wondogenet southern Ethiopia described that as those HEW who were knowledgeable on oral health, were 6.605 times more likely to practice oral health education to the community compared to those who were not knowledgeable (AOR: 6.605, 95% CI: 1.438-30.338). Those HEW who had adequate practice of oral health by own self were 4.507 times more likely to practice oral health education to the community compared to those who had inadequate practice (AOR: 4.507, 95% CI: 1.213-16.749). Results from this study revealed all of the respondents were health extension workers and all of them provided health education to the community during their house to house visit. But a small proportion of the respondents practiced oral health education to the community. This could be a result of either oral health knowledge, practice and their level of education. Generally Oral disease is epidemic around the world. Leads to high rates of morbidity and mortality. Resources needed to improve oral health but often shifted to other pressing medical problems with higher mortality rates. Improvements in oral health systems, access to care and dental education are crucial [8].

So, if it need to reduce this oral health related problem and to extend the service like other public health prioritized issue the community health approach that was given by health extension worker has a lot of impact, so this study mainly wants to deal the role and the level of their contribution in accessing, availing, creating a demand for the service and providing health promotion to the large community. Data on awareness, attitude, practice and level of health promotion of urban health extension worker about oral health would assist public health administrators in planning effective health information communication and education strategy to improve the health extension worker knowledge on a way that provide and maintain oral health care for their large community, as awareness level of the health extension is directly associated with their level of health promotion practices to assigned community. it is impossible to effectively assess the impact of policies, programmes or any interventions in the health sector, hence it is recommended that regular conduct of oral health promotion surveys is mandatory for assessment of apparent trends in oral health promotion status particularly the role player health extension workers [7,10].

To reduce risk factors and the burden of oral disease, and to improve oral health systems and the effectiveness of community oral health implementations, Oral Health Programme anywhere in the world; should have to focus on stimulating oral health research. Building and strengthening research capacity in public health are highly recommended by WHO for effective control of disease and the socioeconomic development of any given country [11]. World Oral Health Report recommends that every countries should establish a complete oral health information system for

monitoring and continued evaluation of national oral health programmes; the data generated by this study will supplement the existing efforts at local level, and as such information is instrumental for planning or adjustment of interventions by health authorities [7]. Therefore, this study will be conducted to generate information regarding knowledge; attitude and practice, the role and level of health promotion status the health extension program in lafto sub city Ababa, Ethiopia. The findings of this study will inform the policy makers and the other stakeholders to come up with better mechanisms on improving the community strategy. This will propel the country to move faster towards achieving high quality health care as desired by the community and achieve the goals.

Methodology

Study Area

The study was conducted in Nifas silk Lafto sub city health office (in all health center to access the urban health extension workers), Addis Ababa Ethiopia.

Study Period

The study was conducted from August 2017 to September 2017.

Study Design

The study design was institutional based cross-sectional quantitative method. The quantitative variables were assessed by using self-administrative close ended question. The aim of this was it may help to get broad insight about the health extension awareness and practice level, trend and approach used to promote the oral health while in the community health services conceptually.

Population

Target Population

- i. The target populations were all HEWs who were found in Nifas silk Lafto sub city.
- ii. The total number of the health extension worker in the study site is 198.

Study Population

- a) The Study populations was all HEWs found in specific health centers found in Nifas silk Lafto sub city.
- b) The total number of the health extension worker in the study site was 198.

The size of study population: For the study 181 Urban Health Extension workers were selected.

Sample Size Determination: The sample size for the study was calculated by using single population proportion formula, 95% confidence interval and 5% degree of precision. Prevalence is estimated to be 86.3% (oral health knowledge of health extension workers in Koraro millennium village cluster in Ethiopia [13].

Sample size (n) was estimated based on single population proportion formula. n = 181.

Sampling method and producers: Probability Simple Random Sampling (lottery) Method was conducted from the sampling frame of the health extension workers to select 181 participants [14-20].

Study Variables

Dependent Variables: The role of health extension worker on oral health of assigned community while in the community health interventions.

Independent Variables

- i. Age.
- ii. Demographic variable.
- iii. Oral health related refreshment training.
- iv. Knowledge.
- v. Perception.
- vi. Attitude.
- vii. Trainee curriculum.
- viii. Trend of on job training of oral health.
- ix. The value of primary health care approach to oral health service.
- x. The presence of oral health on the work plan of community health promotion.
- xi. Influencing factors to promote oral health.
- xii. The enabling and motivating factors to expand the oral health promotion.

Data Collection

Instrument and Process: A standardized questionnaire was adopted from different published and unpublished research; after moderate modification is being made in accordance with my research objectives. The questionnaire was in the English version and translated into Amharic language and then re-translated back to English to check the consistency. Finally, the Amharic version was utilized as interview guide and distributed to study participants during data collection time. Prior to the actual data collection, the questionnaires were pre-tested; to assess the consistency and clarity of questions among target groups, by distributing to 5% of sample size, which were 9 individuals from other sub city health extension workers. The feedback from the pretest was incorporated to the actual tool before data collection is effectuated. During data collection, the data collector was provided appropriate introductory information to the study participants for emotional support and to avoid misconception if any, and to secure verbal consent from each participant [21-30].

Data quality control: The data was collected by using pre-tested, structured, self-administered close ended questioner, throughout data collection period, the necessary assistance was offered to the participants, while filling the self-administered questioner, and the filled questioner was checked on the spot for completeness, consistence and clarity issue.

Data Analysis: Data was entered, coded, cleaned and checked for completeness and consistency and analyzed by using Statistical package for social studies (SPSS) version 21.

Inclusion and Exclusion Criteria of the Participants

Inclusion Criteria

- i. All HEWs who were present at the time of the study.
- ii. All HEWs that work at least for 6month and above.

Exclusion Criteria

- a) All HEWs who were not present at the time of the study.
- b) All HEWs that work for at less than 6 months.

Ethical Clearance: The research proposal was submitted to the research and publication department of Atlas College, ethical review committee for further ethical approval. The health office of study area and health centers were informed about the study through official letter sent from the collage. Participants filling out a questionnaire survey and being interviewed were informed about the objectives of the study; the time needed to complete the questioner, which was about 15 to 10 minutes. The risk and benefit, Anonymity, confidentiality, privacy, justice issue was informed orally and secured practically in the consent part to make the respondent confident and responsible for their response's confidentiality was ensured by excluding participant's name and address from the questioner. They were informed that the data was used for statistical purposes only [30-43].

Result

Socio-Demographic Background of Participants

Majority (25.8 %) of the health extension workers had an experience of above five years and 5.3 % had less than six months. 70.2% of the HEW were found within the age of 20-30 years and the rest 29.8 % were above 30 years old. 58.3% had married while 39.7% single, 1.3% divorced and 0.7% live separated. Among the study population 3.3 % had no child while the rest had one child (32.5%), two (15.9%), three (6 %) and four (6 %). The dominant religion in the study population was orthodox (59.6 %) followed by protestant (29.1 %), Muslim (10 %) and catholic (1.3 %). Among the study population 77.5 % had college diploma in nursing and 17.2 % had degree in nursing while 5.2 % had certificate and other related professions. It was found that majority of the study population had taken oral health education in the collage (78.15 %) and as refreshment training (58.3 %) (Table 1).

Table 1: Socio-demographic characteristics of Urban health extension worker, Nifasilk lafto Sub city, Addis Ababa, Ethiopia, 2017.

No	Demographic questions	Variables	Frequency	Percentages
1	For how long do you worked as health extension worker?	≤6 month	8	5.3
		≥Six months	18	11.9
		For a year	32	21.2
		For two years	21	13.9
		For three years	21	13.9
		For 4 years	12	7.9
		For above five years	39	25.8
		Total	151	100
2	How old are you? (age in years)	20-30	106	70.2
		Above 30	45	29.8
		Total	151	100
3	What is your marital status?	Married	88	58.3
		Single	60	39.7
		Divorced	2	1.3
		Separated	1	0.7
		Total	151	100
4	Do you have children?	One	49	32.5
		Two	24	15.9
		Three	9	6
		Four	9	6
		None	5	3.3
		Total	151	100
5	What is your religion?	Orthodox	90	59.6
		Muslim	15	10
		Protestant	44	29.1
		Catholic	2	1.3
		Total	151	100
6	What is your educational level?	10+1(health extension certificate)	4	2.6
		College Diploma in nurse	117	77.5
		Degree Nurse	26	17.2
		Other(specify)	4	2.6
		Total	151	100
7	Have you received oral health education at the college level?	Yes	118	78.15
		No	23	15.23
		I don't remember	10	6.6
		Total	151	100
8	Have you received oral health on job as refreshment training?	Yes	88	58.3
		No	63	41.7
		Total	151	100
9	For your response for the Q#8 is yes how many times would you take the refreshment training related to oral health issues	Once	67	44.4
		Two times	31	20.53
		Three times	25	16.56
		Four times	11	7.3
		Five times and above	19	12.58
		Total	151	100

Knowledge of Oral Health

To assess the knowledge of the study population about oral health fifteen basic questions were presented and the result was found in detail in the following table. Only 23 (15.2 %) had the knowledge that someone need to brush his / her teeth three times a day whereas the majority (72 (47.7 %)) replied that someone should brush his / her teeth twice a day and 52 (34 %) once a day. Among the study population Only 1 (0.7 %) had spent 2 minutes and more for brushing their teeth, many of them (87 (57.6 %)) spent one minute for brushing their teeth. When we evaluate their knowledge about the importance of toothpaste, majority 134 (88.7%) knew that brushing with toothpaste is very important and 4 (2.6 %) did not knew the importance of toothpaste. 76 (50.3 %) of the study population knew that the goal of teeth brush is to remove germs (bacteria) and foods from all tooth surface but 12 (7.9 %) did not know the goal of teeth brush. Out of the

study population, 12 (7.9 %) did not know the effect of fluoride in toothpaste. The majority 80 (50.3 %) had a knowledge that fluoride prevents dental carries, 28 (18.5 %) knew that fluoride make the teeth whiter, 31 (20.5 %) it makes mouth fresh. Only 13 (8.6 %) knew the correct way of teeth brushing is 45 degrees oblique while the rest replied as follow 40 (26.5 %) horizontal, 73 (48.3%) vertical & 25 (16.6 %) circular motion. About 94 (62.3 %) had a knowledge that gingivitis is the inflammation of the gums that involve swelling and bleeding. Only 20 (13.2 %) had a knowledge that most commonly periodontal (gum) disease could be linked with low birth weight babies, diabetes and heart disease and stroke. Majority 91 (62.3 %) had a knowledge that only diabetes has a link with periodontal (gum) disease. Among the study population 80 (53 %) had a knowledge of the effect of smoking on periodontal disease and cause cancer of the mouth. It was found that HEW had a gap in the knowledge about oral health (Table 2).

Table 2: Knowledge of Urban health extension worker toward Oral Health, Nifasilk lafto Sub city, Addis Ababa, Ethiopia, 2017.

Number	Oral health knowledge assessment questions		Frequency(f)	Percentage (%)
1	How many times should someone need to brush his/her teeth?	Less than once a day	4	2.65
		Once a day	52	34.4
		Twice a day	72	47.7
		Three times a day	23	15.2
		Total	151	100
2	The minimum duration (time spent) for teeth brushing should be?	Half a minute or less	15	9.9
		1 minute	87	57.6
		1-2 minutes	44	29.1
		2 minutes or more	1	0.7
		Total	151	100
3	Is tooth brushing with toothpaste important?	Yes, very important	134	88.7
		Not important	4	2.6
		Total	151	100
4	What is the goal when we brush our teeth?	To remove germs (bacteria) from all tooth surfaces	40	26.5
		To remove food from tooth surfaces	23	15.2
		neither a nor b (some other reason than to remove germs or food)	12	7.9
		both a and b (to remove germs, to remove food)	76	50.3
		Total	151	100
5	What is plaque?	the protective coat that naturally occurs on teeth	27	17.9
		a harmless substance that can be removed completely with brushing	44	29.1
		a germ-containing substance that collects on the surface of teeth	72	47.7
		a whitening substance that makes your teeth shine	8	5.3
		Total	151	100

6	What is the effect of fluoride in toothpastes?	Make teeth whiter	28	18.5
		Prevent dental caries	80	53
		Make mouth fresh	31	20.5
		Do not know	12	7.9
		Total	151	100
7	What is the truth about flossing?	flossing is bad for your teeth	44	29.1
		it is OK to floss, but you should stop immediately if your gums start bleeding	44	29.1
		flossing is fine if it makes your mouth feel fresher, but it doesn't improve the health of your mouth	44	29.1
		regular flossing is an important part of dental health routine and you shouldn't worry if your gums bleed a bit at first	19	12.6
		Total	151	100
8	The correct way of teeth brushing is? How would you brush your or your child teeth?	Horizontal motion	40	26.5
		Vertical motion	73	48.3
		Circular motion	25	16.6
		45-degree oblique	13	8.6
		Total	151	100
9	Which of the following actions are important for oral health? (circle as many items as you think are important)	Cleaning tongue surface regularly	35	23.2
		Using interdental brush or dental floss on regular basis	16	10.6
		Rinsing mouth with water after meal/after brushing	80	52.98
		Tooth brushing by using toothpaste	17	11.3
		Avoidance of sweat meals	3	2
		Total	151	100
10	Oral disease can manifest as: (circle as many answers as you think are correct)	Dental caries/cavities	65	43
		Bad breathing	37	24.5
		Gum bleeding	26	17.2
		Malaligned teeth	7	4.6
		Mouth ulcers	6	4
		Other(spesify)	10	6.6
		Total	151	100
11	What is gingivitis?	poor support of the bone that supports the teeth	17	11.3
		a condition where the teeth stain	17	11.3
		inflammation of the gums that involves swelling and bleeding	94	62.3
		the name given to germs that inhabit the mouth	22	14.6
		a name made up by advertising agencies to scare consumers into buying their products	1	0.7
		Total	151	100
12	If you do want to enjoy a sugary treat, when is the most "tooth-friendly" time to eat it?	first thing in the morning or last thing at night	82	54.3
		along with a meal	47	31.1
		as a snack on its own	12	7.9
		it doesn't make any difference	10	6.6
		Total	151	100

13	Most commonly periodontal (gum) disease could linked with kind of disease?	Low Birth Weight Babies (premature babies)	8	5.3
		Diabetes	91	62.3
		Heart Disease and Stroke	18	11.9
		none of the above	13	8.6
		a, b, and c	20	13.2
		Total	151	100
14	What are the two most important dental health habits?	Brushing twice daily and rinsing with mouthwash after each brushing	81	53.6
		Brushing after every meal and using a water-pick device daily	43	28.5
		Brushing twice daily and flossing once a day	22	14.6
		Flossing every day and rinsing with mouthwash after each flossing	5	3.3
		Total	151	100
15	Which of the following statements is/are true about smoking cigarettes?	Half of all cases of periodontal disease are due to cigarette smoking.	9	6
		Three-fourths of all cancers of the mouth are due to tobacco smoking.	37	24.5
		Smoking can cause lung cancer but doesn't harm the mouth.	25	16.6
		both a and b: ½ of periodontal disease cases; ¾ of all cancers of the mouth	80	52.98
		Total	151	100

Practice of Oral Health Care

To assess the practice of oral health care eighteen basic questions were presented to the participants and the detail result were found in the following table. The result shows that the study population had a good practice of oral health care. Among the study population, 137 (90.7 %) had tooth cleaning practice whereas 14 (9.3 %) did not have. When we see the frequency of their teeth cleaning, 86 (57 %) had the habit of cleaning their teeth twice a day while the rest (65 (43 %)) clean their teeth once a day. The time they cleaned their teeth was found as, 112 (74.2 %) clean their teeth before or after breakfast, 16 (10.6 %) after launch & 23 (15.2 %) before going to bed at night. Among the study population

81.5 % clean the teeth of their child and their own whereas 28 (18.5 %) do not. when we see the time, they brush their teeth 52 (34.4 %) in the morning only, 69 (45.7 %) in the morning and before going to bed, 24 (15.9 %) in morning, before going to bed, and after meal and 6 (4 %) brush their teeth occasionally. It was found that 98 (65 %) of the study population used toothbrush, 20 (13.2 %) wooden toothpick, 10 (6.6 %) plastic toothpick 1 (0.7 %) thread (dental floss, 6 (4 %) charcoal and 1 (0.7 %) 0 other materials for tooth cleaning. Majority (106 (70.2 %)) of the study population used fluoridated tooth paste whereas 45 (29.8 %) do not use fluoridated toothpaste. The study also showed that majority (82 (54.3 %)) do not visit the dentist to for checkup, only 69 (45.7 %) had the habit of visiting dentist for checkup (Table 3).

Table 3: Practice of Urban health extension worker toward Oral Health, Nifasilk lafto Sub city, Addis Ababa, Ethiopia, 2017.

Number	Oral health practice assessment questions		Frequency(f)	Percentage (%)
1	Do you clean your teeth?	Yes	137	90.7
		No	14	9.3
		Total	151	100
2	How often do you clean your teeth?	once a day	65	43
		twice or more times a day	86	56.9
		Total	151	100
3	When do you clean your teeth?	before or after breakfast	112	74.2
		after lunch	16	10.6
		before going to bed at night	23	15.2
		Total	151	100

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4	Do you clean your or your child's teeth, or teach him/her to clean teeth?	Yes	123	81.5
		No	28	18.5
		Total	151	100
5	Have you ever given oral health related promotion service to your assigned community during community intervention?	Yes	119	78.8
		No	32	21.2
		Total	151	100
6	If your answer is "yes" for question 4, how many times in a day do you brush your teeth?	Once	40	26.5
		Twice	81	53.6
		Three times or more	24	15.9
		Occasionally (not daily)	6	4
		Total	151	100
7	When do you brush your teeth?	In the morning only	52	34.4
		In morning & before going to bed	69	45.7
		In morning, before going to bed and after meals	24	15.9
		Occasionally (I have no regular schedule)	6	4
		Total	151	100
8	What material do you recommend using for brushing for you and other community?	Toothbrush	98	64.9
		Wooden toothpicks	20	13.2
		Plastic toothpicks	10	6.6
		Thread (dental floss)	1	0.7
		Charcoal	6	4
		Chew stick mefakia	15	9.9
		Other Please specify	1	0.7
		Total	151	100
9	Have you ever used fluoridated toothpaste?	Yes	106	70.2
		No	45	29.8
		Total	151	100
10	Do you use any of these oral hygiene aids, to clean your mouth/teeth?	Dental floss	35	23.2
		Mouthwash	84	55.6
		Toothpick	12	7.9
		I don't use any of them	20	13.2
		Total	151	100
11	Do you visit dentist for checkup?	Yes	69	45.7
		No	82	54.3
		Total	151	100
12	How often did you take your child/ children to the dentist during the past 12 months?	Twice a year	14	9.3
		Once a year	26	17.2
		When he/she has a pain	12	7.9
		Never visited	99	65.6
		Total	151	100
13	How often did you recommend in visiting the dentist during the past 12 months?	twice a year	11	7.3
		Once a year	39	25.8
		When he/she has a pain	12	7.9
		Never visited	89	58.9
		Total	151	100

14	If you visit a dentist, what was the reason for your last visit?	Pain or trouble with teeth, gums or mouth	62	41
		Treatment/follow-up treatment	41	27.2
		Routine check-up of teeth/treatment	7	4.6
		I don't know/don't remember	41	27.2
		Total	151	100
15	If you never visited a dentist, what is the reason?	Because my child didn't have dental pain	84	55.6
		Fear of cost	34	22.5
		Lack of time	12	7.9
		Others (specify)	21	13.9
		Total	151	100
16	How often does your child take sweet food staffs like Cake, candy, tea with sugar, milk with sugar, Cookies, Biscuits, chocolate and Others?	Daily	18	11.9
		Once a week	18	11.9
		2-3 days in a week	14	9.3
		Sometimes	82	54.3
		Not at all	19	12.6
		Total	151	100
17	How often does the children need to take sweet food staffs like Cake, candy, tea with sugar, milk with sugar, Cookies, Biscuits, chocolate and Others? What was your recommendation if you asked by one of your community members?	Daily	11	7.3
		Once a week	19	12.6
		2-3 days in a week	19	12.6
		Sometimes	75	49.7
		Not at all	27	17.9
		Total	151	100
18	How would you describe the health of your teeth and gums?	Excellent	30	19.9
		Very good	51	33.8
		Good	43	28.5
		Average	18	11.9
		Poor	8	5.3
		I Don't know	1	0.7
		Total	151	100

Attitude Towards Oral Health

To evaluate the attitude of the study population towards oral health twenty-seven closed ended questions were presented and the result was found in the following table. As the below table shows that the study population had a positive attitude toward oral health, but it was also found that there is a gap. Among the study population majority 60 (39.7 %) agree and 25 (16.6 %) strongly disagree that “only the dentist can prevent cavities “and 32 (21.2 %) disagree & 21 (13.9 %) strongly disagree to this idea.

80 (53.0 %) agree that everyone should have regular visit to the dentist for dental health care. 73 (48.3 %) of the study population agree that regular use of toothpaste is important to youth and adults. 78 (51.7 %) agree and 34 (22.5 %) strongly agree that they know how to brush their teeth, 16 (10.6 %) were neutral, 12 (7.9 %) disagree and 11 (7.3 %) strongly disagree for this question. For the question “there is no advantage to use anti carries tooth paste for milk teeth, because they are replaceable “, 58 (38.4 %) disagree & 19 (12.6 %) strongly disagree (Table 4).

Table 4: Attitude of Urban health extension worker toward Oral Health, Nifasilk lafto Sub city, Addis Ababa, Ethiopia, 2017.

Number	Oral health attitude assessment questions	Frequency(f)	Percentage (%)	
1	Do you believe that only the dentist can prevent cavities?	strongly agree	25	16.6
		agree	60	39.7
		neutral	13	8.6
		disagree	32	21.2
		strongly disagree	21	13.9
		Total	151	100

2	Do you believe that if my parents have bad teeth, brushing and flossing will not help my teeth?	strongly agree	21	13.9
		agree	32	21.2
		neutral	14	9.3
		disagree	58	38.4
		strongly disagree	26	17.2
		Total	151	100
3	Do you think that Everyone should have Regular visit to dentist for Dental health care?	strongly agree	25	16.6
		agree	80	53
		neutral	10	6.6
		disagree	20	13.2
		strongly disagree	16	10.6
		Total	151	100
4	Do you think that Regular use of toothpastes is important to children?	strongly agree	34	22.5
		agree	70	46.4
		neutral	10	6.6
		disagree	16	10.6
		strongly disagree	21	13.9
		Total	151	100
5	Do you think that Regular use of toothpastes is important to youth or adult?	strongly agree	47	31.1
		agree	73	48.3
		neutral	14	9.3
		disagree	4	2.6
		strongly disagree	13	8.6
		Total	151	100
6	Do you believe that by brushing and flossing my teeth I am less susceptible to tooth decay?	strongly agree	29	19.2
		agree	72	47.7
		neutral	7	4.6
		disagree	28	18.5
		strongly disagree	15	9.9
		Total	151	100
7	Do you believe that tooth loss is a normal part of growing old?	strongly agree	15	9.9
		agree	38	25.2
		neutral	24	15.9
		disagree	57	37.7
		strongly disagree	17	11.3
		Total	151	100
8	Do you believe that tooth loss is a normal part of growing old?	strongly agree	13	8.6
		agree	58	38.4
		neutral	28	18.5
		disagree	42	27.8
		strongly disagree	10	6.6
		Total	151	100

9	Do you think that most likely you do have gingivitis or gum disease in the next year or two?	strongly agree	14	9.3
		agree	35	23.2
		neutral	24	15.9
		disagree	57	37.8
		strongly disagree	21	13.9
		Total	151	100
10	Do you believe that as you are responsible for preventing the loss of my teeth?	strongly agree	31	20.5
		agree	51	37.8
		neutral	14	9.3
		disagree	40	26.5
		strongly disagree	15	9.9
		Total	151	100
11	Do you believe dentures are less trouble than taking care of my natural teeth?	strongly agree	22	14.6
		agree	45	29.8
		neutral	19	12.6
		disagree	38	25.2
		strongly disagree	27	17.9
		Total	151	100
12	If your gums bleed when I floss this usually means that you were hurting your gums and them it need to stop flossing my teeth? strongly agree	34	22.5	
		agree	62	41.1
		neutral	20	13.2
		disagree	18	11.9
		strongly disagree	17	11.3
		Total	151	100
13	do you believe as you know how to brush your teeth correctly?	strongly agree	34	22.5
		agree	78	51.7
		neutral	16	10.6
		disagree	12	7.9
		strongly disagree	11	7.3
		Total	151	100
14	If I knew the facts out dental health, I could help prevent the loss of my teeth:	strongly agree	22	14.6
		agree	64	42.4
		neutral	20	13.2
		disagree	36	23.8
		strongly disagree	9	6
		Total	151	100
15	If my gums bleed when I brush this usually means that I am brushing too hard and I should stop brushing my teeth	strongly agree	19	12.6
		agree	34	22.5
		neutral	24	15.9
		disagree	58	38.4
		strongly disagree	16	10.6
		Total	151	100

16	Do you think that There is no advantage to use anti-caries toothpastes for milk teeth, because they are replaceable?	strongly agree	15	9.9
		agree	33	21.9
		neutral	26	17.2
		disagree	58	38.4
		strongly disagree	19	12.6
		Total	151	100
17	Do you think that Children Dental problems can get cured by themselves?	strongly agree	21	13.9
		agree	44	29.1
		neutral	19	12.6
		disagree	50	33.1
		strongly disagree	17	11.3
		Total	151	100
18	Do you think that the Dental problems can get cured by themselves?	strongly agree	28	18.5
		agree	48	31.8
		neutral	24	15.9
		disagree	32	21.2
		strongly disagree	19	12.6
		Total	151	100
19	Do you think that Daily teeth brushing with use of toothpastes can cause bad breath and gum bleeding?	strongly agree	22	14.6
		agree	33	21.9
		neutral	17	11.3
		disagree	51	33.8
		strongly disagree	28	18.5
		Total	151	100
20	Do you have formal oral health promotion program?	Yes, with another program	44	29.1
		Routinely	34	22.5
		Not regular	22	14.6
		Unregularly	3	2
		Rarely	24	15.9
		Not at all	24	15.9
		Total	151	100
21	On what issue would you promote the community?	On demand creation of the community	40	26.5
		On the risk factor that affect oral health	38	25.2
		On the importance of tooth brushing by tooth pest	18	11.9
		On the health effect of tooth brushing by miswak	14	9.3
		On the complication of oral health problem	16	10.6
		On the importance of dental visit to check or oral health issue	5	3.3
		On referral linkage to oral health service at health center or hospital	20	13.2
		Total	151	100

22	How would you explain your community oral health status?	No problem	19	12.6
		Somewhat observed problem	36	23.8
		Moderate	79	52.3
		Sever	3	2
		I Don't know	14	9.3
		Total	151	100
23	How would you explain the demand your community to get oral health service?	Very high	25	16.6
		High	49	32.5
		Medium	44	29.1
		Low	15	9.9
		Very Low	18	11.9
		Total	151	100
24	How would you observe the integration of community service toward oral health?	Very high	12	7.9
		High	37	24.5
		Medium	51	33.8
		Low	33	21.9
		Very Low	18	11.9
		Total	151	100
25	How would you explain the cost of oral health service to the majority of the community?	Very cheep	13	8.6
		Cheep	11	7.3
		Affordable	51	33.8
		Expensive	25	16.6
		Very expensive	51	33.8
		Total	151	100
26	How would you explain the rate of health service to oral health issue? It is possible multiple answer	It was easy to avail in nearby health center	12	7.9
		Not accessed in the health center level	33	21.9
		It was easy to get in privet dental clinic	33	21.9
		If u able afford you will get in many privet dental clinics	25	16.6
		It was easily available in any hospital	11	7.3
		It was difficult to access the service in accessible level	32	21.2
		I don't have the idea	5	3.3
		Total	151	100
27	How do you explain the concern of your health office in terms of budget or priority public health issue?	High priority issue	29	19.2
		Its priority issue	19	12.6
		Equal with other public health issues	50	33.1
		Low value	31	20.5
		Has no strong concern	14	9.3
		No concern	8	5.3
		Total	151	100

Community Health Related Trend of Urban Health Extension

To assess the activity of the HEW in the community related to oral health education eleven multiple choice questions were presented and the result was found in the below table. Most of the

community complain was Acute febrile illness and there was also complain of dental problems in the community. Tooth pain 67.5%, bad oral odor 14.6 %, and gum bleeding 15.9 % and other type of pain 2 %. Majority of the study population (84.1 %) provide regular house to house visit to the catchment area and 76.2 % provide general health education. Among the study population

84.5 % provides health education specifically to oral health. To the complain of the community to dental problems 62.9 % of the HEW advise oral hygiene, 30.5 % refer to health center and 6.6 % advise to extract (Table 5).

Table 5: Community Health promotion trends of Urban health extension worker toward Oral Health, Nifasiilk lafto Sub city, Addis Ababa, Ethiopia, 2017.

Number	Oral health in the community health promotion assessment questions		Frequency(f)	Percentage (%)
1	Are you providing regular house to house visit in your catchment area?	Yes	127	84.1
		No	24	15.9
		Total	151	100
2	What health problems the community complained?	Dental problem,	40	26.5
		Acute Febrile Illness.	69	45.7
		Respiratory tract infection	42	27.8
		Total	151	100
3	Did you provide health education to the community during house to house visit or at HP?	Yes	115	76.2
		No	36	23.8
		Total	151	100
4	Do you provide specifically oral health education to the community during house to house visit?	Yes	127	84.1
		No	24	15.9
		Total	151	100
5	what issues do you discussed about oral health education?	Oral Hygiene	132	87.4
		Dental Caries	14	9.3
		Others specify	5	3.3
		Total	151	100
6	what are the reasons oral health education is not included in the schedule?	Oral health is not part of General health	18	11.9
		I don't know about oral health	27	17.9
		Oral health is not priority area of the community	96	63.6
		No oral health problem in the community	10	6.6
		Total	151	100
7	Do you have health education schedules in weekly base?	Yes	112	74.2
		No	39	25.8
		Total	151	100
8	Observe whether oral health education is included in the schedule or not?	Yes, included observed	111	73.5
		Not Included	40	26.5
		Total	151	100
9	Did you hear from somebody who have/had oral/dental problem during house to house visit in the last one month?	Yes, I heard	105	69.5
		Not heard about oral health problem	46	30.5
		Total	151	100
10	What they complained?	Tooth pain/ache	79	67.5
		Bad oral odor	22	14.6
		Gum bleeding,	24	15.9
		other please specify	3	2
		Total	151	100
11	What action did you take?	Advise on oral hygiene,	77	62.9
		Referred to Health center	46	30.5
		Advice to extract at local traditional healer	10	6.6
		Total	151	100

Discussion

Oral health is the 4th most expensive disease to treat worldwide. Periodontal disease is the major cause of tooth loss in adults worldwide [7]. On this study most of the community complain was acute febrile illness and there was also complain of dental problems in the community. A study conducted in Saudi Arabia on the title of "Dental and oral problem patterns and treatment seeking behavior of geriatric population" indicate the most common oral problem was missing tooth (80.9%) followed by gum problem (74.2). On this study the major oral problems were tooth pain (67.5%), bad oral odor (14.6 %) and gum bleeding (15.9 %) and other type of pain (2 %). Study conducted on Wondogenet, southern Ethiopia among health extension worker described 14.3% of the respondent that provide oral health education had good oral health knowledge but 10.7% of knowledgeable respondent did not provide oral health education to the community. On this study majority (84.1 %) of the study population (Health Extension Workers) provide regular house to house visit to the catchment area and 76.2 % provide general health education. Among the study population 84.5 % provides health education specifically to oral health. Furthermore, Study done at Wondogenet revealed that as those HEW who were knowledgeable on oral health were 6.605 times more likely to practice oral health education to the community compared to those who were not knowledgeable (AOR: 6.605, 95% CI: 1.438-30.338). Those HEW who had adequate practice of oral health by own self were 4.507 times more likely to practice oral health education to the community compared to those who had inadequate practice (AOR: 4.507, 95% CI: 1.213-16.749).

Study conducted on Wondogenet shows that among the respondent only 14.3 % of the respondent that provide health education had adequate oral health practice and 64.3 % had in adequate oral health practice. On this study among the study population, 137 (90.7 %) had tooth cleaning practice whereas 14 (9.3 %) did not have. When we see the frequency of their teeth cleaning, 86 (57 %) had the habit of cleaning their teeth twice a day while the rest (65 (43 %)) clean their teeth once a day. A study conducted by the north Vallejo, California School based oral health project indicated that many (44 %) reported students have regular visit to the dentist (about once per year), one-half (51 %) reported having only visited a dentist one to three time ever. Of the respondents who had ever visited the dentist, approximately three quarters (71 %) reported a "checkup" as a primary reason. Whereas this study showed that majority (82 (54.3 %)) do not visit the dentist for checkup, only 69 (45.7 %) had the habit of visiting dentist for checkup.

Limitation of the Study

The study assessed the knowledge, attitude and practice of the health extension workers towards oral health. The major limitation of this study was the absence health extension workers 30 (16.6 %) on their job during the study period due to various reasons.

Conclusion

The result of the study showed that there is a gap in the knowledge, attitude and practice of oral health among the health extension workers. The concerned body should give a refreshment training specific to oral health and oral health should be thought to the community in corporate with personal hygiene and lifestyle course during regular community visit by the health extension workers.

Recommendation

Based on the finding of the study the following is recommended;

- Refreshment training to the health extension workers about oral health should be given.
- Oral health education should be incorporated in the curriculum during health extension training.
- The health extension workers should teach the community to increase the society's knowledge of risk factors for dental disease.

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