

Research Article

Magnitude of Uvulectomy and Associated Factors Among Caregivers Having Under Five Children in Arbaminch Town Public Health Facility, Gamo Zone, Southern Ethiopia, 2022

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Abstract

Background: Traditional uvulectomy is a process by which traditional practitioners (non-medical personnel) remove all or part of the uvula. The practice is performed in many parts of the world. The uvula is considered the cause for many diseases by the community. This practice is unscientific and dangerous cultural malpractice usually accompanied by life threatening morbidities like infection, septicemia, anemia, aspiration and or pharyngeal injury.

Objective: To assess the magnitude of uvulectomy and associated factors among caregivers having children less than 5 years old in Arba Minch Town public health facility 2022.

Methods: Institutional based cross sectional study design was conducted on 402 under-five children using structured interviewer-administered questionnaires. Study participants were selected by using systematic random sampling methods. The outcome variables were traditional uvulectomy. The associated factor assessed includes Sociodemographic, knowledge and attitude related factors. Bivariate and multivariable logistic regression analyses were done. The strength of association was declared by using an Adjusted Odds Ratio (AOR) with a 95% confidence interval and, the statistical significance of P-value <0.05.

Results: The magnitude of uvulectomy among under-five children was 36.6% (95% CI: 31.9%-41.3%). Respondents who live in rural areas [AOR=2.14 (95% CI: 1.47-6.03)] and unfavorable attitude, [AOR=4.31 (95% CI: 2.71-19.7)] were factors significantly associated with uvulectomy practice.

Conclusion: It is better to intervene on those identified factors and the concerned health authorities and health professionals should target on these factors in their efforts to prevent uvulectomy among under-fives in the study area.

Keywords: Magnitude; Uvulectomy; Associated factors; Under five children; Arba minch town

Abbreviations

BLS: Baseline Survey; EDHS: Ethiopian Demographic Health Survey; HTPs: Harmful Traditional Practices; MTE: Milk Teeth Extraction; NCTPE: National Committee for Traditional Practices of Ethiopia; SNNPR: Southern Nation Nationalities and Peoples Region

Introduction

Uvula is a small bell-shaped tissue located on the roof of the mouth and it is part of the soft palate and aids in saliva secretion and swallowing [1]. The uvula has its own natural advantages of lubricating oropharyngeal mucosa, serving for language communication,

boosting immunological function and in conjunction with the soft palate it closes the nasopharynx, therefore, preventing choking, during swallowing by moving superiorly and close to the nasopharynx keep swallowed matter like food and liquid get into the nasal cavity [2,3].

Uvulectomy is the partial or complete removal of the uvula. And the procedure can be viewed in two ways [4]. As a scientific treatment option to address conditions [5]. The second view is as part of traditional and cultural medicine due to the attitude to prevent and treat various diseases as well as considered a ritual. The traditional view can cause serious side effects, which can lead to death in children [6].

Traditional uvulectomy is a process by which traditional practitioners (non-medical personnel) remove all or part of the uvula with the use of instruments such as sharp blades, thread attached to a loop or horse tail hair [7]. The traditional Uvulectomists who are usually called “intil korach” (uvula cutter). Although the age at which uvula cutting varies from country to country, it was most commonly seen in children under 5 years old and the peak age of the practice was in children 0-12 months [8,9]. In Ethiopia, 83.5% of uvulectomy was performed under 6 months of age [10].

Traditional uvulectomy is one of the commonly practiced folk medicine in Ethiopia throughout the country (Afar region the highest about 100%, Gambella the least 39%, SNNPR 54%). In

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Axum, Tigray region a prevalence of 87.8% was found in under-five children. In Debre-Birhan town Amhara region the practice of traditional uvulectomy is 23.6% in children below five years [11-16]. From a community-based cross-sectional study done, Amhara region of Ethiopia reported that educational status, occupation, and the previous good result were the factors associated with the practice of traditional uvulectomy [17].

This HTPs is risky procedure that results in sepsis, bleeding, exposure to RVI, tetanus and other disastrous complications like neck cellulitis, Para pharyngeal and per tonsillar abscess, aspiration and pneumothorax that led to subsequent upper airway obstruction and even death of the child or infant [2,12]. With these harmful complications, the practice is performed in many parts of the world with African countries especially sub-Saharan region being the commonest areas [12]. In most areas of Ethiopia with the Northern part being the most common [12,18]. The reasons for practicing this cultural treatment vary from country to country, and studies in different African countries at different times showed that uvula is considered the cause for many diseases by the community and traditional surgeons [4,19].

The procedure persists in developing countries probably due to low socioeconomic status, lack of knowledge, religion, lack of access to health facility, failed medical management, health personnel problems, social belief that uvula causes diseases, family experience and good outcomes of uvulectomy in their childhood [19]. To tackle traditional uvulectomy and the related complication, Ethiopia launched a national strategy and plan to eradicate (end) every harmful traditional practice including traditional uvulectomy by 2025 [18]. There are many intervention measures has been taken from government to tackle this HTP including national health policies developed to give special attention to women and children since they are vulnerable to many socioeconomic and cultural problems. The government has also launched educational and training policy, youth policy and legal frameworks like FDRE constitution articles 36, revised criminal code article 561,568 are part of the measure taken from government. Awareness raising and social mobilization, religion-based interventions are steps taken to halt these HTP. Despite all of these strategies, traditional uvulectomy is widely practiced throughout the country [18,20].

Despite the above efforts to reduce the problem over the years, findings from studies in different regions of Ethiopia show that the practice is still continuous and many of the study participants reported that the victims were vulnerable to various health conditions. If the current situation (the practice of uvulectomy) is continuous, it will be impossible to accomplish the national plan or expectation of ending (eradicating) every traditional harmful practice from Ethiopia by 2025.

To comprehend a traditional practice of uvulectomy and achieve national expectations, localized and contextualized understanding of the practices and associated factors is crucial. Therefore, this study is aimed at assessing the magnitude of uvulectomy among under-five children who visit Arba Minch town public health facilities, southern Ethiopia.

Materials and Methods

Study design, setting, and period

Institution based cross-sectional study was carried out at Arba Minch town public health facilities (Arba Minch general hospital,

Dilfana primary hospital, Woze health center and Shecha health center) from June 24, 2022 to July 14, 2022. Arba Minch town is located in the Gamo zone of the Southern Nation's Nationalities and People's Region (SNNPR) which is located 505 km south of Addis Ababa, the capital city of Ethiopia, and 252 km south west of Hawassa, which is the capital city of SNNPR.

Study participants

All caregivers who had less than 5 years old children who visit Arba Minch town public health facilities were the source population of this study. And, all caregivers who had less than five years old children who visited Arba Minch public health facilities during the study period were the study population.

Inclusion and exclusion criteria

All caregivers with children under five years of age who were available at the time of data collection were included in the study. Whereas, caregivers who were seriously ill at the time of data collection were excluded from the study.

Sample size determination and sampling method

Sample size was calculated by using single population proportion formula with the following assumptions: 95% level of confidence, 5% Margin of error, Proportion (P=52.5%) from a study done at south Gondar zone Amhara region, Ethiopia, 2020 [2]. Assuming a non-response rate of 10%, which gave us a total sample of 421? Study participants were selected by using systematic random sampling methods.

Study variables

Dependent variable: Traditional uvulectomy (yes/no)

Independent variables: Socio-demographic and economic factors (religion, ethnicity, culture, educational level, occupation, child age and family income level), and knowledge and attitude related factors.

Operational definitions

Uvulectomy practice: was measured from report of care givers and coded 1 if care-giver reported that they had performed uvulectomy on their child; otherwise, it was coded 0.

Knowledge: Those caregivers who scored the mean or above for knowledge assessment questions were grouped as good knowledge and those caregivers who scored below the mean for knowledge assessment questions were grouped as poor knowledge.

Attitude: Related issues of the respondent were assessed by five yes or no questions focusing on the perception about uvula, harmfulness of traditional uvulectomy, future intention, encouraging others to perform uvulectomy on their children, and the eradication of traditional uvulectomy. It was measured separately from the report of caregivers and coded 1 if the caregivers reported yes; otherwise, it was coded 0.

Care giver: individual who accompanies and brings the child to the hospital (mothers, fathers, grandparents, older siblings).

Data collection tool and procedures

Data were collected using a pretested interviewer-administered questionnaire, which was adapted from previous related studies [19,21,22]. The questionnaires contain three sections: socio-demographic characteristics of the caregivers, child characteristics, and practice of traditional uvulectomy, knowledge and attitude related

factors. Data were collected by trained nurses and under supervision.

Data quality management

The questionnaire was first prepared in English and then translated to the local language. Pretest was conducted on 5% of the sample size. Data collectors were trained for a day on the methods of data collection, and data recording. The quality of the data was checked every day for completeness and consistency of the collected data.

Data processing and analysis

Data were imported to SPSS version 25 for further management and analysis. A descriptive analysis was done to describe the characteristics of the study participants. After that, simple frequencies, percentages, and summary measures were computed. Both bivariate and multivariable analyses were used to assess the association between each independent variable and the outcome variable by using binary logistic regression. Variables with a 95% confidence interval and P-value <0.25 during the bivariate analysis were included in the multivariable logistic regression analysis in order to control all potential confounding variables the P value was 0.71 which confirmed model fitness. Finally, a statistically significant association was declared at a p-value of <0.05. The strength of association between dependent variable and the explanatory variables was declared using an adjusted odds ratio at a 95%-confidence interval.

Results

Socio-demographic characteristics of respondents

In this study, a total of 402 caregivers who had children less than five years were included with a response rate of 95.4%. The mean age of mothers (care givers) and children was 28.77 ± 3.852 years and 19 ± 11 months respectively. Religion of most care givers was protestant 219 (54.5) followed by orthodox 129 (32.1). Nearly all the caregivers, 372 (92.5) were married. Regarding occupational status about 196 (48.8) of respondents were housewife. About educational status, 111 (27.6) could not read and write. The majority of the respondent's family monthly income was between 2131-3560 ETB (Table 1).

Knowledge about traditional uvula cutting and related issues

Out of 402 respondents, 304 (75.6%) had information about traditional uvulectomy, but the overall participants who had good knowledge were 254 (63.1%). The major sources of information were health professional 156 (38.8%) followed by social media 150 (37.3%), (Table 2).

Attitude related issues about uvulectomy

The majority, 265 (65.9%) of the study participant had perceived as uvula causes illness and 365 (90.7%) of the study subject perceived as traditional uvula cutting is harmful. And also 94 (23.4%) of the study participant believed that traditional uvula cutting should not be eradicated (Table 3).

Prevalence of traditional uvulectomy

The result of the study showed that about 147 (36.6%) (95% CI 31.9%-41.3%) caregivers practiced traditional uvula cutting to their children for having less than five years old (Figure 1). The mean age of uvula cutting was 165 ± 231 days. The commonest instrument used for the procedure was blade, horse tail, pen barrel, and knife accounts 39.1%, 10.1%, 25.6% and 25% respectively. Around, 83 (56.5%) of the procedures were done by traditional uvula cutter; the rest were done by grandparents, mother and others 39 (26.5%), 14 (9.5%),

Table 1: Socio Demographic characteristics of caregivers having children less than five years old in among caregivers having children less than five years old in Arba Minch town public health facility, southern Ethiopia, 2022 (N =402).

Variables	Category	Frequency (%)
Caregivers age in years	20-24	93 (23.1)
	25-29	213 (53)
	30-34	52 (13)
	35 and above	44 (10.9)
Child age in month	45078	15 (3.7)
	45267	45 (11.2)
	13-18	140 (34.8)
	19-24	64 (15.9)
	25-30	53 (13.2)
	31-36	33 (8.2)
	37-4	24 (5.9)
	43-48	11 (0.25)
Religion	Orthodox	129 (32.1)
	Muslim	13 (3.2)
	Protestant	219 (54.5)
	Other	41 (10.2)
Residence	Urban	251 (62.4)
	Rural	151 (37.6)
Marital status	Married	372 (92.5)
	Divorced	30 (4.7)
Educational status	Cannot read and write	111 (27.6)
	Can read and write	21 (5.2)
	Elementary school	109 (27.1)
	High school and preparatory	77 (19.2)
	College diploma and above	84 (20.9)
Occupation	Farmer	27 (6.7)
	Housewife	196 (48.8)
	Civil servant	88 (21.9)
	Merchant	80 (19.9)
	Other	11 (2.7)
	Monthly income	700-2130
2131-3560		152 (37.8)
3561-4990		108 (26.9)
4991-6420		56 (13.9)
6421-7850		42 (10.5)
7851 ETB and above		30 (7.5)

Table 2: Knowledge of caregivers having less than five years old children about traditional uvulectomy in Arba Minch town public health facility, southern Ethiopia, 2022 (N =402).

Variable	Category	Frequency (%)
Information about traditional Uvulectomy	Yes	304 (75.6)
	No	98 (24.4)
Do you know uvula function	Yes	221 (55)
	No	181 (45)
Do you know about the health risk of uvula cutting	Yes	287 (71.4)
	No	115 (28.6)
Do you know about the available modern treatment options	Yes	202 (50.3)
	No	200 (49.8)
Source of information	Health professional	156 (38.8)
	Social media	150 (37.3)
	Book and at school	91 (22.6)
	Family member	126 (31.3)

and 11 (7.5%) respectively. The main reasons to subject their child for traditional uvula cutting 87 (59.2) performed the procedure to prevent swelling, pus and rupture of the uvula. Among those children subject to traditional uvula cutting difficulty of swallowing 60 (40.8%) were mostly observed complications after uvula cutting (Figure 1) (Table 4).

Factors associated with traditional uvulectomy

The factors associated traditional uvulectomy are displayed in Table 4. The unadjusted logistic model showed that Residence,

Table 3: Attitude related issues about uvulectomy among caregivers having children less than five years old in among caregivers having children less than five years old in Arba Minch town public health facility, southern Ethiopia, 2022 (N=402).

Variables	Category	Frequency (%)
Perceived as uvula causes illness	Yes	265 (65.9)
	No	137 (34.1)
Do you think uvulectomy is harmful	Yes	365 (90.7)
	No	37 (9.2)
Do you want to practice traditional uvulectomy in the future	Yes	213 (53)
	No	189 (47)
Do you encourage others to perform traditional uvulectomy	Yes	142 (35.3)
	No	260 (64.7)
Do you think that traditional uvulectomy should be eradicated	Yes	308 (76.6)
	No	94 (23.4)

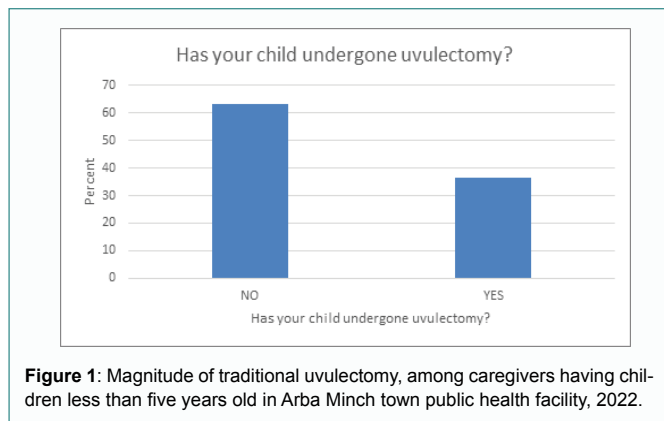


Figure 1: Magnitude of traditional uvulectomy, among caregivers having children less than five years old in Arba Minch town public health facility, 2022.

Table 4: Uvula cutting practice among caregivers having children less than five years old in Arba Minch town public health facility, 2022 (N=402).

Variable	Category	Frequency (%)
Traditional uvulectomy	Yes	147 (36.6)
	No	255 (63.4)
Age of child in days while the uvula cut	5-182	90 (61.2)
	183-452	54 (36.7)
	453-900	22 (14.9)
	901-1406	9 (6.1)
Who decided to practice Uvulectomy	Grand-parents	39 (26.5)
	Traditional uvula cutter	83 (56.5)
	Mother of the child	14 (9.5)
	Other	11 (7.5)
Reasons to subject their child for traditional uvula cutting	To prevent swelling, pus and rupture of the uvula	87 (59.2)
	Performed for culture	36 (24.5)
	To prevent cough	13 (8.8)
	Other	11 (7.5)
Complication following Uvulectomy	Yes	40 (27.1)
	No	107 (72.8)
Effect seen after uvulectomy	Bleeding	25 (17)
	Difficulty of swallowing	60 (40.8)
	Disability to breath	7 (4.8)
	Fever	49 (33.3)
	Other	4 (2.7)

Educational Status, Monthly income, Information about uvulectomy, knowledge, and attitude were significantly associated with traditional uvulectomy. However, with multiple logistic regression analysis only rural residence and having unfavorable attitude were found to be independent predictors of traditional uvulectomy. Those who live in rural area had 2.14 times higher odds of traditional uvulectomy as compared to those who have live in urban area. (AOR=2.14, 95% CI: (1.47-6.03)). The odds of traditional uvulectomy were 4.31 times higher among those who have unfavorable attitude as compared to those who have favorable attitude (AOR=4.31, 95% CI: (2.71-19.7) (Table 5).

Discussion

Reducing harmful traditional practice is one cornerstone of achieving the 2030 Agenda for Sustainable Development Goals (SDGs). The prevalence of uvula cutting among less than five years was 36.6% (95% CI 31.9%-41.3%). This is lower as compared to research conducted in Axum, Dembia, Nigeria [2,8,21]. This could be due to time difference in study, deployment of health extension workers, effect of one to five discussions and Media's effect. But it is higher as compared to research conducted in Debre-birehan, Merawi town, and Tanzania [11,17,23]. This difference could be due to in Tanzania the ministry of health strictly discourages this harmful traditional practice and those who those who were not recognized by the ministry of health practice the procedure.

The main reasons to perform uvula cutting were, to prevent swelling, pus and rupture of uvula (59.2%) and for culture (24.5%). This is relatively low has compared to study conducted in debre birhan and Axum (88.9% and 68.5%) to prevent swelling, pus and rupture of the uvula) this might be because of time difference in study [11,13]. In addition, the present finding is different as compared to the study conducted at Nigeria in which about 77.8% of practices were done for culture [8]. The main reason for this is cultural difference among the two populations.

The commonly used instrument used for the procedure was blade (39.1%), which is different with studies conducted in Jimma, Debre Birehan and Nigeria, in which the commonly used instrument was horse tail [8,11]. The commonly used cleansing material after the procedure was water (45.9%). This is in line with study conducted in Debre Birehan and Nigeria [8,11].

Almost all, 126 (85.3%) of the procedures were done by traditional uvula cutter, this is in line with the study conducted at Debre Birehan and Axum; but higher than research conducted in Nigeria (52.5%) [8,11,13]. This difference could be due to the fact that uvulectomy is done mostly as culture in Nigeria and performed by the traditional birth attendants (38.8%) during the neonatal period.

The practice of Uvula cutting was higher among children's who reside in rural areas was 2.14 times, more likely to practice uvula cutting than children's who live in urban. This could be due to most peoples in urban areas are more educated than rural residents in addition to this urban resident have un access to different medias which would disseminate information about harmful traditional practices. The practice of Uvula cutting was higher among those who have unfavorable attitude 4.31 times, more likely to practice uvula cutting than children's who have families with favorable attitude. This is true that attitude gives a choice that propose to carry out is a driving force to attempt it.

Conclusion and Recommendation

The prevalence of uvulectomy is still high in the study. Residence and attitude of care givers towards uvula cutting were significantly associated factors with uvula cutting. Therefore, special attention should be given to create further awareness regarding this harmful traditional practice particularly through health extension workers. Further, research should be done on large scale sampling triangulated with qualitative data in order to explore barriers.

Declaration

Ethics approval and consent to participate

Before the study was conducted, ethical clearance was obtained

Table 5: Bivariable and multivariable logistic regression analysis of factors associated with traditional Uvulectomy among caregivers having children less than 5 years old in Arba Minch Town public health facility, Ethiopia, 2022 (N=402).

Variables	Category	Uvulectomy		COR (95%CI)	AOR (95%CI)	P-value
		YES	NO			
Educational Status	Can't read & write	78	33	1.24 (2.44-8.19) *	1.56 (1.4-2.3)	0.226
	Can read & write	9	12	1.66 (0.59-1.82) *	1.12 (1.09-3.14)	0.83
	Primary & Secondary school	39	70	1.23 (0.33-1.40)	1.08 (1.33-3.50)	0.898
	Diploma & above	24	53	1	1	
Residence	Rural	112	139	1.22 (0.13-3.51) *	2.14 (1.47-6.03) **	0.041
	Urban	60	91	1	1	
Information about uvulectomy	No	66	32	4.66 (2.44-7.62)	3.82 (0.83-6.41)	0.15
	Yes	93	210	1	1	
Knowledge	Poor	83	74	3.87 (1.71-25.39) *	2.91 (0.26-6.71)	0.12
	Good	55	190	1	1	
Attitude	Favorable	80	198	1	1	
	Unfavorable	87	37	5.82 (3.04-16.6)	4.31 (2.71-19.7) **	0

*Significant at P-value ≤ 0.25 ; **Significant at P-Value < 0.05 ; COR: Crude Odds Ratio; AOR: Adjusted Odds Ratio

from the Institutional Research Ethical Review Committee of Arba Minch University, college of medicine and health science. Informed consent was obtained from each caregiver and assent was taken for under five children by first explaining them the objectives and procedure of the study. Clear information was given about the purpose and procedure of the study, the importance of their participation, the right to withdraw at any time if they want, and about privacy and confidentiality of the information given by each respondent kept properly. During the data collection procedure, COVID-19 pandemic prevention methods were applied to data collectors. All methods were performed following the relevant guidelines and regulations.

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References

- Moore KL, Dalley AF. Clinically oriented anatomy. India: Wolters kluwer india Pvt Ltd; 2018.
- Yirdaw BW, Gobeza MB, Gebreegziabher NT. Practice and associated factors of traditional uvulectomy among caregivers having children less than 5 years old in South Gondar Zone, Amhara Region, Ethiopia, 2020. *PloS One*. 2022;17(12):e0279362.
- Peate I, Evans S. Fundamentals of Anatomy and Physiology: For Nursing and Healthcare Students. 3rd ed. United States: John Wiley & Sons; 2020.
- Venes D. Cyclopedia medical dictionary. Philadelphia: FA Davis Company; 2005.
- Kawia HM, Kahabuka FK, Mbawalla HS. Parental deceptive information: A case of traditional uvulectomy. *Tanzania Dent J*. 2014;18(2):76-80.
- Agbor AM, Naidoo S. A review of the role of African traditional medicine in the management of oral diseases. *Afr J Tradit Complement Altern Med*. 2016;13(2):133-42.
- Ajiya A. Pattern of otitis media in young children and adolescents with traditional uvulectomy in Kano, Nigeria. *Ann Afr Med Res*. 2019;2(2).
- Ajibade BL, Okunlade JO, Kolade OA. Harmful cultural practices: parents perceived effects of traditional uvulectomy on the under-five-children in Jigawa State, Nigeria. *J Dent Med Sci*. 2013;9(5):8-13.
- Abdullahi M, Amutta SB. Traditional uvulectomy among the neonates: experience in a Nigerian tertiary health institution. *Borno Med J*. 2016;13(1):16-20.
- Mitke YB. Bloody traditional procedures performed during infancy in the oropharyngeal area among HIV+ children: implication from the perspective of mother-to-child transmission of HIV. *AIDS Behav*. 2010;14(6):1428-36.
- Kebede K, Mulate K, Chekole M, Zewdie A, Redahegn H, Demelash A, et al. Prevalence and Associated Factors to Uvula Cutting on Under Five Children in Amhara Region, Debre Birhan Town, 2016/2017. *Int J Pediatr Child Health*. 2017;5(1):1-9.
- Assefa D, Wassie E, Getahun M, Berhaneslassie M, Melaku A. Harmful traditional practices. *EPTHI*; 2005.
- Gebrekiros K, Fantahun A, Buruh G. Magnitude and reasons for harmful traditional practices among children less than 5 years of age in Axum Town, North Ethiopia, 2013. *Int J Pediatr*. 2014;2014:169795.
- Manni JJ. Uvulectomy, a traditional surgical procedure in Tanzania. *Ann Trop Med Parasitol*. 1984;78(1):49-53.
- Pruhal A, Gamatie Y, Djakounda M, Huguette D. Traditional uvulectomy in Niger: a public health problem? *Soc Sci Med*. 1994;39(8):1077-82.
- Farouk ZL, Slusher TM, Danzomo AA, Slusher IL. Factors influencing neonatal practice in a rural community in Kano (Northern), Nigeria. *J Trop Pediatr*. 2019;65(6):569-75.
- Wassie SM, Aragie LL, Taye BW, Mekonnen LB. Knowledge, attitude, and utilization of traditional medicine among the communities of Merawi town, Northwest Ethiopia: a cross-sectional study. *Evid Based Complement Alternat Med*. 2015;2015:138073.
- Aaba A. National strategy and action plan on harmful traditional practices (HTPs) against women and children in Ethiopia federal democratic republic of Ethiopia ministry of women (MoWCYA). *Children Youth Affairs*. 2013:1-61.
- Isa A, Omotara B, Sandabe M, Garandawa H. Parental reasons and perception of traditional uvulectomy in children. *Sahel Med J*. 2011;14(4):210-6.
- Boyden J, Pankhurst A, Tafere Y. Harmful traditional practices and child protection: Contested understandings and practices of female child marriage and circumcision in Ethiopia: *Young Lives*; 2013.
- Gebrekiros K, Abebe M, Fantahun A. A cross sectional study on factors associated with harmful traditional practices among children less than 5 years in Axum town, north Ethiopia, 2013. *Reprod Health*. 2014;11(1):46.
- Kunii O, Tanaka Y, Lewis A, Wakai S. Uvulectomy and Other Traditional Healing Practices: Traditional Healers' Perceptions and Practices In A Congolese Refugee Camp In Tanzania. *Trop Med Health*. 2006;34(4):159-66.
- Taylor F. The practice of uvulectomy and related complications among children aged below 6 years in Ilemela district, Mwanza, Tanzania. *Tanzania Dent J*. 2008;15(1).