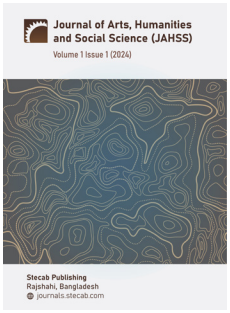

Journal of Arts, Humanities and Social Science (JAHSS)

ISSN: 3006-9491 (Online)

Volume 1 Issue 1, (2024)

https://doi.org/10.69739/jahss.v1i1.2

https://journals.stecab.com/index.php/jahss

Published by
Stecab Publishing

Research Article

Characteristic of Holy Water (Mai Tselot) Users in Tigray Region, Northern Ethiopia, Cross-Sectional Study, 2019

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About Article

Article History

Submission: November 20, 2023
Acceptance : December 22, 2023
Publication : December 26, 2023

Keywords

Characteristic, Holy Water Users, Northern Ethiopia

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ABSTRACT

Holy water is a traditional medicine used in Tigray region of Ethiopia. Holy water in the form of a drink and a shower is the main treatment used by people who face health problems, together with other spiritual practices. The study aimed to assess the characteristics of people using holy water (Mai Tselot) in Tigray. Descriptive cross-sectional quantitative study design was conducted in Mekelle City, Tigray region, Ethiopia, and eight holy water institutions located in Mekelle City 5 were selected using the lottery method. Second, 200 holy water users were selected purposely and proportionally. Descriptive analysis was performed using the SPSS software version 23. Chronic non-communicable diseases in patients 124 (67.81%) were the most dominant holy water users. Out of these 90 (49.18%) had mental-health problems. A total of 144 (78.68%) patients visited the health facilities for treatment before opting for a holy water institution. Two third 25 (64.1%) of the holy water users did not believe in modern medicine, and 167 (83.5%) of the holy water users did not believe that they would get disease from other individuals in the holy water place. The leading health problem of holy water users was chronic not-communicable diseases, and most of them visited health facilities before opting for holy water. This finding suggests that health education and counseling should be strengthened in health care facilities. Improve health facility quality service delivery status, strengthen health insurance and conduct extensive research concerning holy water users and institutions.

Citation Style:

Gebremedhin, K. D., Abrha, M. W., Tesfamariam, T., Gebretnsae, H., & Wubayoh, T. (2023). Characteristic of Holy Water (Mai Tselot) Users in Tigray Region, Northern Ethiopia, Cross-Sectional Study, 2019. *Journal of Arts, Humanities and Social Science, 1*(1), 1–7. https://doi.org/10.69739/jahss.v1i1.2

1. INTRODUCTION

Holy Water is water that has been sanctified by a priest or a person of religious authority through baptism, in the spirit of God. It is used in the form of a drink and shower as the main treatment by people who face health problems, together with other spiritual practices. Holy Water also be used for blessing people, places, objects, and other belongings, as well as a way to actively repel evil in one's life (WHO, 2002). Patients receive holy water treatment both at home and in designated monasteries/ churches with springs believed to have supernatural powers, including healing (Anderson *et al.*, 2010), and approximately 90% of the population of Ethiopia uses traditional healing methods such as holy water for primary health care (Endorses, 2007).

A study conducted in Ethiopia indicated that annually, almost a quarter of a million people access holy water in one of the more than 10,000 estimated sites within the country (Reniers & Tesfai, 2009). Further studies have shown that in Ethiopia due to poor health-care systems, deeply ingrained religious inherited beliefs, accessibility, and affordability, holy water is used as a complementary or alternative treatment for many diseases such as HIV/AIDS, mental health, hypertension, and TB (James *et al.*, 2018; Valencia *et al.*, 1993; Arias Valencia *et al.*, 2012; Reniers & Tesfai, 2009; Ketema & Weret, 2015). This implies that diseased individuals opt for holy water before and after visiting health facility in search of spiritual care (Shafie *et al.*, 2018; Theiler, 2003; Mesfin *et al.*, 2005). However, there is insufficient information regarding the characteristics of individuals opting for holy water in the Tigray Region Despite its importance in carrying out interventions. Therefore, this study aimed to assess the characteristics of people using holy water (Mai Tselot) in Tigray, Ethiopia.

2. LITRATURE REVIEW

The World Health Organization (WHO) estimates that >80% of the population in Africa attend traditional healers for healthcare, needs due to low costs, high efficacy, and accessibility (WHO, 2002 ; Berhe *et al.*, 2023).

According to the World health Organization (WHO), about 40-60% of the populace attending Traditional medicine and healing have mental health illnesses (WHO, 2002; Berhe *et al.*, 2023). Four –fifths of the Ethiopian populations are still dependent on traditional medicine (Abebe & Hagos, 1991).

Studies have shown that the majority of Ethiopians prefer traditional and alternative healing methods such as holy water, to biomedical services for their major illnesses, and particularly for mental compared with physical illnesses (Shibre *et al.*, 2008; Abebe & Ayehu, 1993; Osma *et al.*, 2020).

The Ethiopian traditional health care system mainly depends on the use of medicinal plant (Livestock Ailments in Raya Kobo District of Amhara Regional State, Ethiopia

Teshome-Behire, 2000; Hannig, 2013; WHO, 2002; Baheretibeb *et al.*, 2021). Holy water Treatment is also a major part of the Ethiopian traditional health care system (Teshome-Bahire 2000; Hanning, 2013).

Holy water is naturally available in many forms, such as water fall, small stream, small reservoir, and narrow pits. Treatment rituals are carried out in the holy water sites by getting hit by the holy waterfall on the head and shoulder, bathing or wetting oneself with the holy water, getting splashed on the face by the holy water by priest, immersing oneself in the reservoir or pit of holy Water , drinking the holy water and combination on the rituals. Holy water is believed to embody the spirit of Christ in its healing power and is often used to aid in exorcising demands and evil spirits (Teshome-Bahire, 2000; Hanning, (2013).).

Various study indicated as is true for the developing world, four- fifths of Ethiopian population is still dependent on traditional medicine (Abebe & Hagos, 1991). However it is there is lack of evidences on characteristic of Holy water users in Ethiopia.

3. METHODOLOGY

3.1. Study design, setting and participants

This descriptive cross-sectional study was conducted between May and July/2019, among Orthodox holy water users. The study was conducted in the Mekelle administrative zone, which is the capital city, and in one of the nine administrative zones of the Tigray Region in, Northern Ethiopia.

3.2. Sampling technic and procedure

Eight holy water institutions located in Mekelle city 5 were selected using the lottery method. Then after, 200 holy water users were selected and proportionally allocated.

3.3. Data collection instrument and management

Data was collected through face-to face interviews using a standard questionnaire, checklists, and interview guidelines. And data collectors were trained for one day and one-week prior to the actual data collection period pre-test was conducted. During the data collection, close supervision, honest communication, and on-spot decisions were made.

3.4. Study variable

The dependent variable for this study was the characteristics of holy water users, and the independent variables were socio-demographic variables (age, sex, religion, residence, marital status, educational status, partner's educational status), economic status, health-care system (status, accessibility, and affordability), deeply ingrained religious inherited believes and decision-making for health-care spending.

3.5. Data Collection Procedure

The data were collected using an interviewer-administered structured questionnaire adapted from different studies and stakeholder agreements. It included information on socio-demographic characteristics, and economic and health-care system status. The questionnaire was initially prepared in English, translated into the local language Tigrigna, back-translated into English, and checked for consistency.

3.6. Data quality management

A standardized data collection instrument was used, and training was provided to data collectors and supervisors on the objective of the study, interview techniques, informed consent, and confidentiality. The questionnaire was pretested

on 5% of holy water users in non-selected holy water sites, and a necessary amendment was made based on the findings of the pretest. During the data collection period, supervisors checked for completeness and consistency daily. Owing e to the sensitive nature of the questions, the interviewers were of the same religion and could speak the local language of Tigrigna.

3.7. Data processing analysis

All quantitative data were cleaned, edited, and entered into SPSS software version 23 for analysis by the principal investigator. The data were cleaned to remove missing ideas and responses to questions about relevant information. Graphs and narratives of the frequency distribution are used to present the findings.

3.8. Ethical consideration

Ethical approval was obtained from the Tigray Health Research Institution. Official letters from religious leaders were also granted. The participants were informed of the purpose of the study. Written informed consent was obtained from all the participants.

4. RESULT AND DISCUSSION

4.1. Socio-demography characteristic of the participian

A total of 200 participants were included in this study. The median age of respondents was 37 years. The majority of respondents were female 125 (62.5%), and 151 (75.5%) had completed primary school or above. Four out of ten 79 (39.5%) and 69 (34.5%) participants were married and daily laborers, respectively. Seventy-six percent (n=152) lived in town (Table 1).

Table 1. Socio - demographic characteristics of holy water users' respondents, Mekelle city, Tigray Region Ethiopia

Socio-Demography characteristic	Frequency	Percentage
Sex		
Male	75	37.5
Female	125	62.5
Total	200	100
Educational status		
Informal education	49	24.5
Elementary school(1- 8 grade)	37	18.5
Secondary school (9- 12 grade)	50	25
Certificate	7	7
Diploma	23	11.5
Degree and above	34	17
Residence		
Rural	48	24
Urban	152	76
Marital		
Married	79	39.5
Single	77	38.5
Separated	5	2.5
Divorced	23	11.5
Widows	16	8
Age		
0-14	0	0
15-29	73	36.5
30-44	78	39
45-59	31	15.5
60-74	15	7.5
75-90	3	1.5
Occupation		
House wife	28	14
Daily laborer	69	34.5
Government	27	13.5
Non-government worker	9	4.5
Merchant	6	3
Farmer	5	2.5
Students	20	10
Unemployed	25	12.5
Pension	11	5.5

Source: Field Data

4.2. Media access and income of the holy water users

Almost two-thirds of 139 (69.5%) holy water users had a low income (less than 3000 birr), and 175 (87.5%) had one or more types of media in their home (Table 2).

Table 2. Income of holy water users and having

Variable	Frequency	Percentage
Monthly income		
Have no income	75	37.5
100- 1000 birr	25	12.5
1001- 3000 birr	39	19.5
3001- 5000 birr	34	17
5001- 7000 birr	16	8
70001- 9000 birr	7	3.5
9001- 15000 birr	4	2
Having functional media		
Have nothing	25	12.5
Having one or multi media	175	87.5

Source: Field Data

4.3. Reason for visiting holy water

Most of the respondents 183(91.5%) had health problems which were the reason to visited holy water institutions, and 15 (7.5%) and 2 (1%) had no health problems but they visited holy water institutions to wash with holy water or were care takers, respectively (Table 3).

Table 3. Reason for visiting holy water

Variable	Frequency	Percentage
Reason for visiting holy water		
Healthy problem	183	91.5
Having no health problem (only to wash holy water)	15	7.5
Care taker of the patient	2	1

Source: Field Data

4.4. Health problem type of holy water users

Two thirds 124 (67.81%) of the respondents had chronic non-communicable diseases, including 90 (49.18%), 20 (10.92%), 9 (4.92%) and 5 (2.73%) mental and joints pain arthritis, confirmed chronic diseases (diabetes, asthma, hypertension, heart cases, hepatitis, UTI infection…) and different types of cancer (breast, cervical… etc.) (Table 4).

Table 4. Holy water users Health problem types

Variable	Frequency	Percentage
Holy water users Health problem types		
Mental health problems	90	49.18
Abdominal health problems and gastritis	27	14.7
Joints pain, arthritis	20	10.92
Diarrhea diseases, TB and HIV/AIDS	9	4.92
Skin health problems	9	4.92
Confirmed chronic diseases (diabetics, asthma, hypertension, heart cases, hepatitis, UTI…)	9	4.92
Different types of cancers (breast, cervical…)	5	2.73
Eye health problems	3	1.64
To get child	3	1.63
Disagreements behaviors with families	3	1.63
Extravagant money	3	1.63
Ear health problems	2	1.1

Source: Field Data

4.5. Visiting health facility before holy water

Of the respondents, 144 (78.68%) had visited health facilities for treatment before visiting the holy water (Table 5).

Table 5. Visiting health facilities before holy water

Variable	Frequency	Percentage
Visiting health facilities before holy water		
yes	144	78.68
no	39	21.32

Source: Field Data

4.6. Reason for not visiting health facilities before

From the holy water users who had not visited health facility, reasons for not visiting health facility were; two thirds of them 25(64.1%) did not believe that modern medicine could relieve their health problem, 8(20.5%) lack of money and 6(15.4%) family advice and pressure (Table 6).

Table 6. Reason for not visiting health facilities before

Variable	Frequency	Percentage
Reason for not visiting health facilities before		
Unbelieving modern medicine can cure their disease and believing holy water tremendous curable	25	64.1
Lack of money	8	20.5
Family advises and pressure	6	15.4

Source: Field Data

4.7. Duration of stay at holy water

The majority of respondents stayed in the holy water place for more than three weeks (Table 7).

Table 7. Duration of stay at holy water institutions (days)

Variable	Frequency	Percentage
Duration of stay at holy water institutions(days)		
1- 7	65	32.5
8- 21	51	25.5
22- 30	13	6.5
31- 60	21	10.5
61- 120	14	7
121- 365	15	7.5
366- 730	16	8
730- 1095	4	2
3650	1	0.5

Source: Field Data

4.8. Holy water distance from home in km

Around five out of ten holy water users, 90 (45%) had a 1-5 km distance from their home to holy water (Table 8).

Table 8. Holy water distance from home in KM

Variable	Frequency	Percentage
Holy water distance from home in KM		
Less than 1	1	0.5
1- 5	90	45
6- 10	34	17
11- 15	3	1.5
16- 20	8	4
21- 25	5	2.5
26- 30	8	4
31- 40	9	4.5
41- 50	15	7.5
50 Above	27	13.5

Source: Field Data

4.9. Health facility distance from home of holy water users in km

Forty-six percent (n=93) of the holy water users had a distance of less than 1KM between their homes and health facilities (Table 9).

Table 9. Health facilities Distance from home in KM

Variable	Frequency	Percentage
Health facilities Distance from home in KM		
Less than 1	93	46.5
1- 5	75	37.5
6- 10	14	7
11- 15	3	1.5
16- 20	0	0
21- 25	0	0
26- 30	2	1
31- 40	2	1
41- 50	3	1.5
50 Above	8	4

Source: Field Data

Table 10. Believing status of holy water users' possibility of getting diseases from other holy water users

Variable	Frequency	Percentage
Believing status of holy water users' possibility of getting diseases from other holy water users		
Believer	33	16.5
Unbeliever	167	83.5

Source: Field Data

4.10. Believing status of holy watet users possibility of getting diseases from other holy water users

Eight out of ten 167(83.5%) holy water users did not believe that they were getting disease from other individuals using holy water (Table 10).

4.11. Discussion

This study assessed the characteristics of holy water users of orthodox religions. The majority of holy water users had health problems, with chronic non-communicable diseases being the most dominant health problem for those who opted for holy water. Specifically, 50 percent (n= 90) of the chronic non-communicable diseases were mental health problems. This could be because of the belief that mental illness is not related to pathological causes, but because of God, they might opt for holy water.

The other result was that most respondents had visited health facilities for treatment before opting holy water. This might be because some of holy water users use holy water while taking their medication, while others do not. Another reason could be that there is no belief that health care facilities are effective at managing diseases.

Other finding was that holy water users did not believe they were getting additional diseases from others in the holy water area. This could be because holy water can prevent diseases and cross-contamination.

Seventy-five percent of the respondents had one or more types of media in their homes. However, peoples still prefer holy water to modern medication, indicating that there is generally no confidence in modern medication in health facilities. This result is supported by the finding from this study that the majority of respondents, residences were less than 5 km away from nearby health facilities and half of the respondents were less than 1 km away from nearby holy water institutions. This result shows that distance was not a forcing factor for respondents to visit holy water institutions in Mekelle.

The majority of respondents stayed in the holy water place for more than three weeks, and two- thirds of holy water users had a low income. This might indicate that patients who cannot afford modern health facilities a visiting holy water.

4.12. Limitation and strength of the study

The data were exclusively dependent on the self-reporting of holy water users, and there may be social and religious biases that might have a transparency limit. Furthermore, because this study used a cross-sectional design, it was difficult to establish a causal relationship. However, this study provides evidence from real holy water users which could help program managers, service providers, and other partners implement the best interventions.

5. CONCLUSSION

Regarding the study objectives, the findings indicated that, the leading health problems of holy water users were and chronic not communicable. Most respondents visited health facilities before visiting the holy water. Among the holy water users who had not visited the health facility, the reasons for not

visiting the health facility were; that they did not believe that modern medicine could relieve their health problems, a lack of money and family advice, and pressure. There was a long duration of stay at holy water institutions, and most of them had low income. This finding suggests that improving health facilities, quality service delivery status, strengthening health insurances, and performing extensive research concerning holy water users and institutions could be possible solutions.

Ethical approval and consent to participate

Ethical approval obtained from Tigray Health Research Institute [RMN 0061-4/2018]. Official letters from religious leaders the responsible communicate with responsible bodies. Verbal and written consent was obtained to ensure voluntariness. The participants were informed of the purpose of the study. All data accessed were kept confidential, to ensure confidentiality, the respondents, names were not identified.

Availability of data and material

The authors have ensured the availability of data and materials for this research and are ready to be provided when requested.

Competing interest

The authors declare no competing interest

REFERENCES

Abebe, D., & Hagos, E. (1991). Plants as a primary source of drugs in the traditional health practices of Ethiopia. *Plant genetic resources of Ethiopia*, 101-113.

Abebe, D.S., & Ayehu, A. (1993). Medicinal plants and enigmatic health practices of northern Ethiopia.

Arango Tamayo and MSocSc, (2013). Drinking sea water: Users' perspectives in La Ceja, Colombia

Arias Valencia, M. M., Soler Terranova, W., & Arango, G. (2012). The phenomenon of sea water use1: User' point of view. La Ceja, Colombia. *Medicina Social Social Medicine, 7*(2), 55–65. Retrieved from https://www.socialmedicine.info/index.php/medicinasocial/article/view/612

Baheretibeb, Y., Wondimagegn, D., & Law, S. (2021). Holy water and biomedicine: A descriptive study of active collaboration between religious traditional healers and biomedical psychiatry in Ethiopia. *BJPsych Open, 7*(3), E92. doi:10.1192/bjo.2021.56

Bekele, Y. Y., Flisher, A. J., Alem, A., & Baheretebeb, Y. (2009). Pathways to psychiatric care in Ethiopia. *Psychological medicine, 39*(3), 475-483.

Berhanu, K. Z. (2013). Students Perception Towards the use of Traditional Medicine for the Treatment of Mental Disorders: The Case of Arba Minch University. *American Scientific Research Journal for Engineering, Technology, and Sciences, 6*(1), 32-52.

Berhe, G. G., Sbhatu, D. B., & Gebremariam, A. (2023). Study of holy water consumed to treat gastrointestinal ailments in gold deposit areas of May-Hibey, Northwestern Tigray, Ethiopia. *H2Open Journal, 6*(3), 403-413. https://doi.org/10.2166/h2oj.2023.165

Bodeker, G., Kronenberg, F., & Burford, G. (2007). Policy and public health perspectives on traditional, complementary and alternative medicine: an overview. *Traditional, complementary and alternative medicine: policy and public health perspectives*, 9-40.

CSA, I. (2012). Ethiopia demographic and health survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA. *Central Statistical Agency and ICF International, 430*.

Deribew, A., & Tamirat, Y. S. (2005). How are mental health problems perceivedby a community in Agaro town?. *Ethiopian Journal of Health Development, 19*(2), 153-159.

Derseh, D., Moges, F., & Tessema, B. (2017). Smear positive pulmonary tuberculosis and associated risk factors among tuberculosis suspects attending spiritual holy water sites in Northwest Ethiopia. *BMC infectious diseases, 17*, 1-8.

Endorses, C. (2007). Plus News Ethiopia: *'holy water' and antiretroviral as people flock to miracle mountain.* Available from: http://www.plusnews.org/report.aspx?Reportld=72375.

Erku, D. A., & Mekuria A. B., (2016). Prevalence and correlates of complementary and alternative medicine use among hypertensive patients in Gondar town, Ethiopia. *Evidence-Based Complementary and Alternative Medicine, 2016.* http://dx.doi.org/10.1155/2016/6987636

Fekadu, W., Haregwoin, M., & Kibrom, H. (2014). Magnitude of mental illness and associated factors among Holy water users at Entoto ST Mary church, Addis Ababa, Ethiopia, 2014. *J Psychiatry, 18*, 285.

Garfield, M. (2014). Proposing a knowledge management system (KMS) architecture to promote knowledge sharing among employees. In *Twenty Second European Conference on Information Systems (ECIS) Proceedings, Tel Aviv 2014* (pp. 1-13).

James, P. B., Wardle, J., Steel, A., & Adams, J. (2018). Traditional, complementary and alternative medicine use in Sub-Saharan Africa: a systematic review. *BMJ global health, 3*(5), e000895. https://doi.org/10.1136/bmjgh-2018-000895

Kebede, A., & Shewangizaw, Z. (2015). Prevalence of use of holy water as complementary treatment among PLWHA at Debrebrihan Referral Hospital and Health Centre, North East, Ethiopia: Cross-sectional study. *International Journal of Medical Science Research and Practice, 2*(2), 85-89.

Ketema, A. K., & Weret, Z. S. (2015). Assessment towards use of holy water as complementary treatment among PLWHA,

Northeast, Ethiopia. *American Journal of Internal Medicine, 3*(3), 127-131. doi: 10.11648/j.ajim.20150303.16

Mesfin, M. M., Newell, J. N., Walley, J.D., Gessessew, A., & Madeley, R. J. (2009). Delayed consultation among pulmonary tuberculosis patients: a cross sectional study of 10 DOTS districts of Ethiopia. *BMC Public Health, 9*, 53 doi: 10.1186/1471-2458-9-53

Mesfin, M. M., Tasew, T. W., Tareke, I. G., Kifle, Y. T., Karen, W. H., & Richard, M. J. (2005). Delays and care seeking behavior among tuberculosis patients in Tigray of northern Ethiopia. *Ethiopian Journal of Health Development, 19*(I), 7. https://doi.org/10.4314/ejhd.v19i4.9992

National Center for Complementary and Alternative Medicine (NCCAM), (2010). "What is complementary and alternative medicine?" https://nccih.nih.gov/.

Ohemu, T. L., Shalkur, D., Ohemu, B. O., & Daniel, P. (2021). Knowledge, attitude and practice of traditional medicine among people of Jos South Local Government Area of Plateau State, Nigeria. *Journal of Pharmacy & Bioresources, 18*(2), 147-154.

Osman, A., Sbhatu, D. B., & Giday, M. (2020). Medicinal plants used to manage human and livestock ailments in Raya Kobo District of Amhara Regional State, Ethiopia. *Evidence-Based Complementary and Alternative Medicine, 2020.* https://doi.org/10.1155/2020/1329170

Peltzer, K., Friend-du Preez, N., Ramlagan, S., Fomundam, H., & Anderson, J. (2010). Traditional complementary and alternative medicine and antiretroviral treatment adherence among HIV patients in Kwazulu-Natal, South Africa. *African Journal of Traditional, Complementary and Alternative Medicines, 7*(2).

Reniers, G., & Tesfai, R. (2009). Health services utilization during terminal illness in Addis Ababa, Ethiopia. *Health policy and planning, 24*(4), 312-319.

Selamu M, Asher L, Hanlon C, Medhin G, Hailemariam M, and Patel V, et al, (2015). Beyond the biomedical: community resources for mental health care in rural Ethiopia. *PloS One, 10*(5)

Shafie, M., Eyasu, M., Muzeyin, K., Worku, Y., & Martín-Aragón, S. (2018). Prevalence and determinants of self-medication practice among selected households in Addis Ababa community. *PloS one, 13*(3). https://doi.org/10.1371/journal.pone.0194122

Shibre, T., Spångéus, A., Henriksson, L., Negash, A., & Jacobsson, L. (2008). Traditional treatment of mental disorders in rural Ethiopia. *Ethiopian medical journal, 46*(1), 87-91.

Teshome-Bahire, W. (2000). Initiation of healers in Ethiopia: a case study. *Collegium antropologicum, 24*(2), 555-563.

Theiler, R. H. (2016). *Holy Water: and Its Significance for Catholics.* Sophia Institute Press. pp, 13–15

Valencia, M. M. A., Araya, M., Aboud, F. E. (1993). Mental illness. In The Ecology of Health and Diseases in Ethiopia (ed. H. Kloos and Z. A. Zein), pp. 493–506.Westview Press: Boulder, CO.

WHO. (2002). *Traditional Medicine Strategy 2002–2005.* World Health Organization, Geneva, Switzerland

Woldeamanuel, Y. W., Girma, B., & Teklu, A. M. (2013). Cancer in Ethiopia. *The Lancet Oncology, 14*(4), 289-290.