

## Original Research

# Prevalence of use of holy water as complementary treatment among PLWHA at Debrebrihan Referral Hospital and Health Centre, North East, Ethiopia: Cross-sectional study

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## ABSTRACT

**Aim:** The study was intended to determine the level of use of holy water as antiretroviral (ARV) treatment among people living with human immune virus (HIV)/AIDS (PLWHA) at Debrebrihan Hospital and Health Centre, Northeast, Ethiopia. **Background:** Holy water use in the form of a drink and a shower is the main treatment used by the PLWHAs together with other spiritual practices. A growing number of PLWHA in Ethiopia today are relocating to holy water sites. **Materials and Methods:** A cross-sectional study design with systematic random sampling through a structured questionnaire by way of interview among 422 respondents in Debrebrihan Hospital and Health Centre from December 26 2011 to January 26, 2012 were conducted. Single proportion formula with P = 50% used to determine the sample size. Frequency and percentage were computed by the SPSS statically software. **Results:** A total of 422 respondents was included in the study with a median age of 35 years; most of them were females 262 (62.1%) and 168 (39.8%) were married. Among the respondents 282 (66.8%) had experience of using holy water. The result also shown that 73 (25.9%) of respondents reported that it is not convenient to take medication while using holy water with spiritual fear of using ARV drugs and holy water together 51 (69.9%). **Conclusion:** The study concludes that the use of holy water as treatment of HIV/AIDS by patients and more than half of the study participants visit the holy water site b/c of most of them believe which is a result of sanity and punishment from God. The findings have also important implication in the use of mixed treatment for drug adherence through appropriate advocacy, education and cultural appropriate nearby treatment site depends on the study finding.

**Keywords:** Adherence, alternative medicine, antiretroviral drugs, spiritual, traditional

## INTRODUCTION

AIDS remains the leading cause of mortality worldwide and the primary cause of death in sub-Saharan Africa. From estimating new infections in 2007 two-third occurred in sub-Saharan Africa. More than 68% adults and nearly 90% children infected with human immune virus (HIV) live in this region, and more than 76% AIDS death in 2007 occurred there, illustrating the unmet need for antiretroviral (ARV) treatment (ART) in Africa.<sup>1</sup>

The world at large, with various social and health problems, is demanding remedies that would help improve the lives of citizens. HIV/AIDS is one of the greatest challenges of this century compels nations to respond to the situation in whatever way is possible.<sup>2</sup>

A study done in Tanzania on religious beliefs influences on HIV shows religious beliefs strongly influence the way many Tanzanians think about HIV/AIDS and a significant percentage of people believe that people who are HIV infected have not followed the word of God, that, HIV is a punishment from God. Most participants (84.2%) said that they would disclose their HIV status to their pastor of the congregation if they became infected.<sup>3</sup> Another study was done on faith leaders also shows praying for the sick was a common practice, and over one-third of respondents said that prayer could cure HIV.<sup>4</sup>

Ethiopia is one of a developing country in which use of traditional medicine for primary health care is used by about 90% of the population.<sup>5</sup> Traditional, complementary, and alternative medicine is commonly practiced by people living

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with HIV/AIDS (PLWHA) and 95% of health care providers were not aware that their patients were taking traditional treatment.<sup>6</sup>

Spirituality and religion considered as central issues for patients dealing with chronic illness. Most patients with HIV/AIDS belong to an organized religion and use their religion to cope with their illness<sup>7</sup>.

Thousands of Ethiopian AIDS patients risk their life by refusing medication in favor of Holy Water.<sup>8</sup>

Holy water use in the form of a drink and a shower is the main treatment used by the PLWHAs together with other spiritual practices. People in most cases are in need of compromising the spiritual practices together with the medical knowledge through counseling or other models, which are not available, let alone to access and utilize. At the same time due to the widespread poverty, this section of the population is also affected very much. Fulfilling basic needs is difficult to most of them. In addition, the social isolation from their families' relatives and friends are very common to the majority of these communities.<sup>2</sup>

According to FHAPCO progress report for Ethiopian orthodox, holy water, is a traditional cure for disease and ailments. Followers' regularly gather at more than 160 sacred sites across the country where they can drink holy water and be baptized as a treatment for all types of afflictions. Since the start of the HIV pandemic, infected and affected Ethiopians have sought the healing power of holy water and flocked to these holy sites by the thousands if not hundreds of thousands in search of a cure, often while abandoning their ART.<sup>9</sup>

A growing number of people, living with HIV/AIDS in Ethiopia today are relocating to holy water sites in search of spiritual care. The use of holy water is considered by them to be an alternative and complementary treatment for HIV/AIDS.<sup>10</sup> There are people who believe that the only solution to HIV/AIDS is holy water, and they do not want to use the ART and a majority of holy water users believe that HIV/AIDS caused by an evil spirit or a demon by itself. Lack of awareness of serious health problem and encouraging of religious leaders to use holy water are considered to be a reason to stop taking medication.<sup>11</sup>

Desperate Ethiopians, flocking to an ancient mountain north of the capital, Addis Ababa, seeking a "holy water" cure for AIDS have been belatedly warned by the church to keep taking their ARV medication. Thousands of HIV-positive people from all corners of Ethiopia have visited Entoto Mountain, on the northern outskirts of the capital, after local priests promised they could cure the virus.<sup>5</sup>

According to Embassy of the United States Addis Ababa, Ethiopia, 2007 reports after discussion with Ethiopian patriarch at the issue of modern versus traditional methods in treating HIV/AIDS, there is a high number of patient uses holy water as choice of treatments, hence the meeting emphasized to advocate for the dual use of treatments.<sup>12</sup>

"A majority of holy water users believes that either HIV/AIDS is caused by an evil spirit or it is a demon by itself," said

Ato Zena Berhanu, a PhD student in Addis Ababa who has researched the issue. "There are people who believe that the only solution to HIV/AIDS is the holy water and they do not want to use the ARV drugs."<sup>5</sup>

A concerted effort was needed to ensure people remain on their drug regimens, even if they used the holy water. Entoto and other holy water sites in other parts of the country are attracting thousands of PLWHA. There should be some organized effort to address the problems of these citizens in a culturally sensitive manner; this includes encouraging people to combine holy water and ARV drugs, and designing and implementing a care program for the patients.<sup>5</sup>

Due to the high influx of PLWHA into the holy water site area, JHU-Tsehai has opened a chronic care clinic 2 km from the holy water site, and has begun providing anti-retroviral care and treatment services to a growing population of holy water recipients, enabling HIV-positive individuals who come there to get well enough to return home and continue treatment at one of over 100 PEPFAR-supported ART clinics throughout the country.<sup>12</sup>

Even though, studies done on HIV/AIDS treatment adherence and its correlates. Nevertheless, there is a little study and reports were done on the issue of the use of holy water as a treatment of choice with or without of ART drugs. Therefore, this study aimed at assessing the magnitude of the holy water user among PLWHA at Debrebrihan Referral Hospital and Health Centre, Debrebrihan, Ethiopia.

## MATERIALS AND METHODS

### Selection and Description of Participants

This cross-sectional institution based quantitative data collection technique was used for the study among participant who were taking HAART at Debrebrihan Hospital and Health Center, Debrebrihan, Ethiopia from December 26, 2011 to January 26, 2012 were conducted. All adult HIV/AIDS patients attending at two health facilities who were, at least 18 years of age, able to hear and mentally fit, not seriously sick and starting to talk ART included in the study. The study participant approached by trained health professional who were working in ART clinic in respective health facilities, who were on ART follow-up at Debrebrihan referral hospital and health center at the time of visit and who were present during the study after addressing patient confidentiality, benefits and risks to participating patients, justice, rights and respect who were willing to participate in the study and who signed an informed consent were recruited into this study.

### Technical Information

Sample size was calculated using single population proportion estimates with a margin of error 0.05 and proportion of event occurrence at 50% with 10% of non-response rate. Based on the above assumption the minimum sample size required for the study was 422. The study subjects were selected using systematic random sampling techniques from patient registration chart of ART service

provision health facilities for the specific day. A structured, pre- tested questionnaire was used for interviewing of study participants to collect the quantitative data from study subject and data collected by trained nurses whom works at ART clinic. Ethical clearance was granted from Amhara Regional State Health Bureau and the Zonal health bureau. Moreover, study participants were informed, and their confidentiality were kept entire the study. Lastly, the results were disseminated to the responsible bodies' which were an involvement in the health care activities of PLWHA. The study defines holy water use as the use of water blessed by a priest and used for the treatment of HIV/AIDS by clients.

### Statistics

Data were cleaned, checked, coded, and entered via Epi Info 7th and analyzed by SPSS version 16 software through frequency, mean, median and percentage as descriptive and socio-demographic variables. Use of holy water was taken as an outcome over other social, demographic and cultural characteristics.

## RESULTS

### Demographic Characteristics

A total of 422 patients were involved in the study, and the response rate was 100%. The respondents median age was 35 years; most of the respondents were females 262 (62.1%) and 168 (39.8%) were married. Regarding educational status 201 (47.7%) has completed primary education. The majority were Orthodox Christian 390 (92%). 354 (83.9%) were living in town and 368 (87.2%) were unemployed Table 1.

### Socio-cultural Characteristics

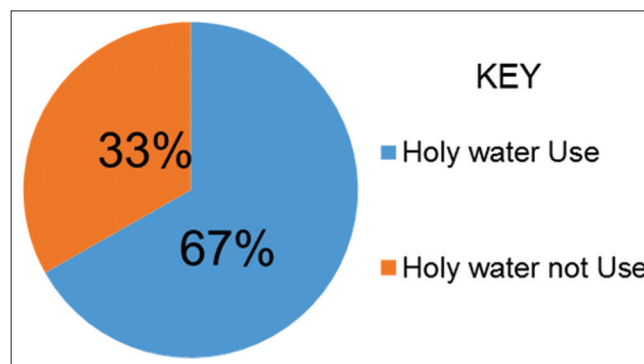
Fifty-two (12.7%) of the respondents faces a problem to take medication according to the schedule while they were attending spiritual places due to the fear of taking ARV drugs at religious place 25 (48.1%). 291 (69%) respondents used other (traditional, conventional) medication in addition to HAART to treat HIV and associated problems. The main reason of using those medicines was to treat OI 101 (34.7%), whereas others were for spiritual relief 100 (34.4%), and to treat side effect 47 (16.2%). 252 (59.7%) said that they have practiced fasting, among these 122 (48.4%) said that medication schedule didn't fit with their fasting period and 60 (49.2%) take without food, 54 (44.2%) shift the time while 8 (6.6%) [Table 2].

### Prevalence of Holy Water Use among PLWHA

Among the respondents 282 (66.8%) had experience of using holy water while they were taking ARV drugs and the rest 33.0% of respondent were not used holy water as a treatment choice while taking ART treatment. The result also shown that, 73 (25.9%) of respondents reported that it is not convenient to take medication while using holy water with spiritual fear of using ARV drugs and holy water together 51 (69.9%) according to Figure 1 and Table 2.

**Table 1: Socio demographic and economic characteristics of the study participants Debrebrihan referral Hospital and Health Center Northeast Ethiopia, December, 2011-Januray 2012 (n=422)**

Variables	Frequency (n)	Percentage
Sex		
Female	262	62.1
Male	160	37.9
Age		
18-29	118	28
30-39	175	41.5
>39	129	30.6
Religion		
Orthodox	390	92.4
Muslim	15	3.6
Others	17	4
Marital status		
Currently married	168	39.8
Never married	89	21.1
Separated/divorced	101	23.1
Widowed	64	15.2
Educational status		
Illiterate	98	23.2
Primary education	201	47.6
Secondary education and above	123	29.1
Residence		
Urban	354	83.9
Rural	68	16.1
Occupation		
Employed	54	12.8
Unemployed	368	87.2



**Figure 1:** Prevalence of holy water use among people living with human immune virus/AIDS who were on antiretroviral treatment at Debrebrihan Hospital and Health Centre, Northeast Ethiopia, December 2011-Jan 2012

## DISCUSSION

The use holy water use in the form of a drink and a shower is the main treatment used by the PLWHAs together with other spiritual practices.<sup>2</sup> Literature shows that, a growing number of PLWHA in Ethiopia today are relocating to holy water sites.<sup>10</sup> This study support previous studies, reports and analysis that there is a prevalence of 291 (68.9%) holy water use in the study area. Even if the exact magnitude not indicated, according to IRIN humanitarian news and

**Table 2: Socio cultural characteristics of respondents at Debrebrihan referral hospital and health centre, Northeast Ethiopia, December, 2011-January 2012 (n=422)**

Variables	Frequency (n)	Percentage
Disclose HIV status to others		
Yes	357	84.6
No	65	15.4
Emotional/practical support		
Yes	267	63.3
No	155	36.7
Used complementary treatment		
Yes	291	69
No	131	31
Type of complementary treatment		
Traditional	282	96.9
Convectional**	9	3.1
Attend religious place		
Yes	411	97.4
No	11	2.6
Conduct fasting		
Yes	252	59.7
No	170	40.3
Believe that cured with prayer		
Yes	206	48.8
No	216	51.2
Believe HIV is the sin of punishment from God		
Yes	160	37.9
No	262	62.1

Notes: \*\*Use of conventional medicine was excluded from traditional complementary treatment, since mostly provided by health. HIV: Human immunodeficiency virus

analysis in May 2007 shows that, there is thousands of HIV-positive people from all corners of Ethiopia have visited Entoto Mountain, on the northern outskirts of the capital, after local priests promised they could cure the virus.<sup>10</sup> It also added that a concerted effort was needed to ensure people remained on their drug regimens, even if they used the holy water. "Entoto and other holy water sites in other parts of the country are attracting thousands of PLWHA."<sup>10</sup> There should be some organized effort to address the problems of these citizens in a culturally sensitive manner; this includes encouraging people to combine holy water and ARV drugs, and designing and implementing a care program for the patients.<sup>10</sup> Other report also supported that there is large number of patients visits different area of spiritual sites, which have holy waters because of there is believe that HIV AIDS related to it is a punishment of God for sanity they come to this area, due to this after dual meeting held with Embassy of the US with Ethiopian Patriarch in 2007, the US embassy of Ethiopia reports there is high number of patient uses holly water as choice of treatments, hence the meeting were emphasis to advocate to the dual use of treatments.<sup>12</sup> Therefore, this study has similar implication through figuring out of previous reports in terms of numerical magnitude in evidence based scientific finding. This study also shows how much there is a need to create There should be some organized effort to address the problems of these citizens in a culturally sensitive manner; this includes encouraging people to combine holy water and ARV drugs, and designing

and implementing a care program for the patients. This report also agrees with JHU-Tsehai, i.e. opened a chronic care clinic 2 km from the holy water site, and has begun providing anti-retroviral care and treatment services to a growing population of holy water recipients, enabling HIV-positive individuals who come there to get well enough to return home and continue treatment at one of over 100 PEPFAR-supported ART clinics throughout the country.<sup>11</sup>

Spiritual options may be interpreted as a superior alternative and contribute to hampering adherence to ART. Consistently with another study,<sup>3</sup> this study found spiritual believes 206 (48.8%) respondents believe that prayer can cure HIV, 160 (37.9) agreed that HIV is a result of sin/punishment from God were observed.

Having the strength of addressing adherence and associated factors using quantitative approaches, i.e. this study had its own limitations. The cross-sectional nature of the study could not be able to address the temporal and cause-effect relationships between various factors and adherence. Moreover, adherence is a dynamic process, which could not be predicted at a single point in time, but the study measured snapshot pictures of adherence and factors affecting adherence. Even though this study tried to minimize, social desirability bias, self-reported adherence was thus likely to overstate true adherence than other methods of measuring adherence. This, in fact, necessitates the inclusion of other methods of measuring adherence to support consistency of reported rate.

## CONCLUSION

Among the participant nearly to two-third of them, use holy water as treatment of HIV and visit the holy water site b/c of that most of them believe HIV is a result of sanity and punishment from God. The findings have also an important implication in the use of mixed treatment for drug adherence through appropriate advocacy, education and cultural appropriate nearby treatment site depends on the study finding.

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## PEER REVIEW

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## CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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