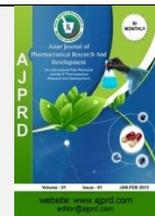


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Research Article

Traditional Medicine Use Among HIV Positive Patients in Markurdi, Benue State of Nigeria

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ABSTRACT

Background: Traditional medicine (TM) is a collection of skills, knowledge, and practices based on theories, beliefs, and experiences from various cultures that are used to maintain health as well as to prevent, diagnose, improve, or treat physical and mental disorders. There exist a number of non-conventional medicines practices in the world today. Limited documented data exist that addressed the use of traditional medicines among HIV patients in Nigeria.

Objectives: To assess the use and the pattern of use of traditional medicines among HIV positive patients.

Methods: This study was a cross sectional, descriptive study carried out at the Federal Medical Center Makurdi, Benue State, middle belt, Nigeria for a period of three months.

Results: In this study, nearly two-thirds (61.7%) of the participants reported that they had never used Traditional Medicine (TM) along with HIV/AIDS drugs and 16.1% reported that they began TM use after the initiation of ART. The leading forms of TM used by the patients were spiritual therapy (21.9%) and herbal therapy (16.6%). The study showed that most patients use TM without any motivating factor (62.3%) but some had motivating reasons such as religious practices (14.2%) and to deal with ART side effects (14.5%).

Conclusions: The use of TM among HIV/AIDS patients on antiretroviral therapy (ART) was unusual. Spiritual and herbal therapies were the most commonly employed TMs among the participants in the study. Although a small percentage of patients reported deteriorated disease condition as a result of using TM with ART, a handful of users reported improvement after treatment.

Keywords: Traditional medicine, HIV, Nigeria

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INTRODUCTION

Long before the arrival of orthodox medicine, the majority of the African population used traditional medicine to cure numerous diseases. Traditional

medicine continues to bear a portion of the healthcare burden for this group of people ⁽¹⁾. People from various ethnic backgrounds employ various forms of traditional medicine to treat their symptoms and rely on it for their primary healthcare requirements ⁽²⁾.

Traditional medicine is used by 80 percent of the population in various Asian and African nations for primary health care⁽³⁾. According to UNAIDS data, almost two-thirds of HIV/AIDS patients in a variety of developing countries utilize traditional medicines for symptom alleviation and to control opportunistic infections^(3,4).

HIV/AIDS has been known to cause extensive morbidity, mortality and suffering all over the world with limited documentation on the extent of use of traditional medicine by people living with HIV/AIDS (5) Sub-Saharan Africa remains the region most heavily wrecked by HIV/AIDS⁽²⁾.

Opportunistic infections are a common consequence of AIDS⁶, especially in more severe levels of immunosuppression. In poor countries, they constitute the single most important cause of mortality and morbidity in PLWHIV^{7,8}. Despite the fact that highly active antiretroviral therapy (HAART) or antiretroviral therapy (ART) is the most effective clinical intervention for reducing mortality in HIV infection⁹, it has been demonstrated that medicinal plant species are widely used to treat associated opportunistic infections, manage HIV infection, and boost immunity in patients who are already taking antiretroviral drugs¹⁰. After encountering negative effects with ART, some patients who had no intention of taking traditional treatments turned to them¹¹. Because of a lack of support and understanding, many patients who take traditional medicine prefer not to tell their doctors about it¹². Patients cited perceived low cost, conformity with sociocultural, religious, and spiritual values, and unhappiness with contemporary treatments as reasons for continuing to use traditional medicine¹³. Traditional medicine is widely seen to be more accessible, inexpensive, and acceptable to local populations, which is why many patients seek it out¹⁴. In a study conducted in Ghana, the ratio of traditional practitioners to patients was found to be roughly 1: 386 individuals, whereas the ratio of orthodox doctors to population was found to be 1:10,700¹⁵.

Traditional medical practices can include plant, animal, and mineral-based medicines, massage, spiritual therapies, and a variety of other techniques unique to different regions and cultures³ that can be used alone or in combination to maintain well-being as well as treat, diagnose, and prevent illness. Even in industrialized countries with the most modern and urbane orthodox medicine systems, the global trend indicates that more individuals are turning to Traditional medicine to meet their health care needs¹⁶.

Despite the paucity of data on the prevalence and patterns of use¹³, traditional medicine has remained a vital and permanent part of the people's own health care system¹⁷. This study determined the traditional medicine use among people living with HIV/AIDS (PLWHA) in Benue state, Nigeria.

MATERIALS AND METHODS

Study design

This study was a cross sectional, descriptive study carried out between July and September, 2019

Study setting

The study was carried out in Federal Medical Centre, Makurdi Benue State, Nigeria. Benue state is located in north central Nigeria. The state has a total population of 2,780,398 people, according to the 1991 census (18), which is expected to grow to 3,100,311 people by 1996, with a population density of 99 people per square kilometer. The state is one of the locations in Sub-Saharan Africa where HIV/AIDS is causing an increase in morbidity and death among adults¹⁹. It is located in Nigeria's North Central Geopolitical Zone and serves as the region's socio-political capital. Benue State had the highest state prevalence rates in both 1999 and 2001 in the national prenatal HIV sero-prevalence survey: 16.8% in 1999 and 13.5 percent in 2001(20). The HIV/AIDS pandemic is particularly prevalent in Makurdi. While it suffers from all of the factors that contribute to the disease's development, the city is situated in a setting that promotes disease-spreading cultural practices such as traditional circumcision and tattooing[18]. The General Hospital, North Bank, Benue State University Teaching Hospital, Makurdi, and the Federal Medical Center, Makurdi are the three health centers in Makurdi Metropolis. The Federal Medical Centre, which is located in the state capital, receives referrals from other hospitals, towns, and villages on a regular basis.

Eligibility criteria

Inclusion factors

HIV positive patients who attend HIV clinic at the Federal Medical Center, Makurdi, who are 18 years and above, that understands English Language and would visit HIV clinic between July and September, 2019 were included.

Exclusion factors

HIV patients below Eighteen years of age and HIV patients who are not registered in the HIV clinic at Federal Medical Center Markurdi, Benue state were excluded.

Sample size determination

Sample size determination was done using simplified yamane's formular (21) $N = N/1 + N.e^2$ (95%) confidence Intervals

The target population was 4500 people

Where N = Population size (4500)

N = Sample size

e^2 = Level of significance (5%)

$N=4500/1+4500 \times 0.05 \times 0.05$

N=367 patients

4% attrition (14.68) was added

N~382 patients

Sampling technique

Convenience sampling technique was employed in the study where patients were randomly selected and recruited for the study. To prevent a particular patient answering the questionnaire more than once, the study team worked together with the nurses to inconspicuously mark the folders of the patients that answered the questionnaire to avoid them doing so again in another hospital visit. This was because the study lasted for three months.

Data collection

Before the questionnaires were filled, written informed consent was obtained from each of the study participants. A well-structured, interviewer-administered questionnaire was developed and face validated before administering to the participants during their clinic visits. The questionnaire was adapted from other similar studies on the use of traditional medicines among HIV/AIDS positive patients, with minor modification to suit the Nigerian context (2, 11, 22). About 50 questionnaires were used for the pilot study in the same hospital to establish understanding and respondents' pattern of filling the questionnaires. Corrections and necessary adjustments were made. Beside the socio-demographics, the questionnaire had sections that assessed the traditional medicine use among HIV positive patients and the pattern of use of traditional, complementary and alternative medicine before or after the initiation of Antiretroviral Therapy. The consented participants filled the questionnaires in the HIV clinic. Confidentiality was maintained, as the names and phone numbers of the respondents were not requested for.

Data analysis

Data obtained were presented with descriptive statistics as frequencies and percentages using the Statistical Package for Social Sciences (SPSS) Version 23.0

Ethical committee approval

The survey was conducted after obtaining ethical approval from the Health Research ethics committee of the Federal Medical Center Makurdi, Benue State.

RESULT AND DISCUSSION

RESULTS

Socio-demographic profile of the respondents

A total of 382 questionnaires were administered and 379 were returned completely filled giving a response rate of 99.2%. About 309 (81.5%) of the study participants were females, with 129 (34.0%) falling between the ages of 38 and 47. On the other hand, virtually all of the study participants (97.6%) were Christians, and more than half of them (66.5%) were married. Only around 10.3 percent of those surveyed

were employed, and the majority (92.3%) couldn't say how much they made every month throughout the study period. Nearly two-thirds of the respondents (62.0%) came from metropolitan regions.(Table 1).

Clinical characteristics of the participants

The majority of the individuals (95.5%) knew their HIV status two years before to the data collection period. More than two-thirds of the patients (68.9%) were using Tenofovir (TDF) + Lamivudine (3TC) + Dolutegravir (DTG) combinations, and the majority of the patients had a viral load of 20 to 1000 copies/ml. The majority of patients (90.5%) showed high adherence to clinic visits.

More than half of the patients (54.1%) were in the second stage of the disease, while only 3.2 percent were in the fourth stage. (See Table 2)

Traditional medicine's use

In this study, nearly two-thirds of the participants (61.7 percent) said they had never used TCAM for HIV/AIDS management and 61 (16.1 percent) said they started using TCAM after starting ART (Table 3).

Spiritual treatment (21.9 percent) and herbal therapy (16.6 percent) were the most common forms of TCAM employed by the patients (Table 3).

According to the findings, some patients use TM for a variety of reasons, including religious practices (14.2 percent), to deal with ART side effects (14.5%), and recommendations from family members (6.3%). However, majority did not have any motivating factor for using TM (62.3%)

Majority (81.3%) of the study participants reported never to have used herbal therapy.

The few patients that used herbal remedy could not tell which type of herbal medication they used. (Table 4)

Outcome of TCAM use

About one-quarter (21.6%) of the patients who used TM reported that they did not improve while nearly one-tenth had worsened disease condition but only 30(7.9%) of patients had improved condition.(figure I)

Table 1: Social-demographics of the respondents

Variables	N (%)
Gender of the respondents	
Male	70(18.5%)
Female	309(81.5%)
Age of the respondents	
18-27	14(3.7%)
28-37	117(30.9%)
38-47	129(34.0%)
48-57	42(11.1%)
≥ 58	77(20.3%)
Marital status	
Single	34(9.0%)
Married	252(66.5%)
Widow(er)	92(24.3%)
Separated	1(0.3%)
Level of education	

No education	100(26.4%)
Primary	67(17.7%)
Secondary	132(34.8%)
Tertiary	80(21.1%)
Occupational status	
Employed	39(10.3%)
Unemployed	37(9.8%)
Housewife	77(20.3%)
Pensioner	8(2.1%)
Others	218(57.5%)
Religion	
Christianity	370(97.6%)
Muslim	8(2.1%)
Others	1(0.3%)
Residential area	
Urban	235(62.0%)
Rural	144(38.0%)
Monthly income(Naira)	
<10,000	3(0.8%)
41-100,000	11(2.9%)
>100,000	6(1.6%)
Not specific	350(92.3%)

Table 2: Clinical Characteristics

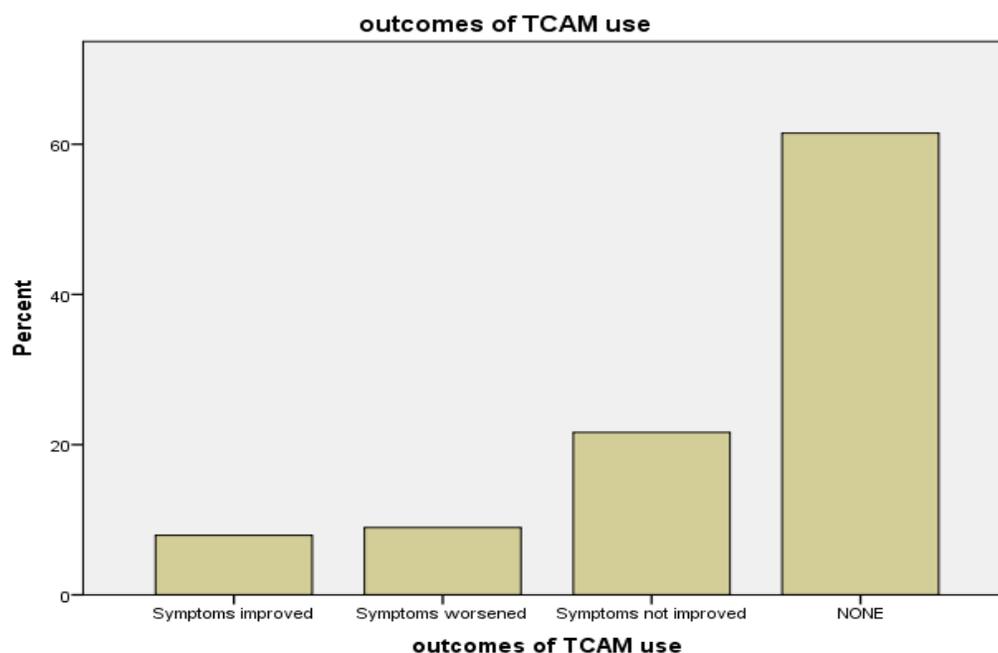
Variables	N (%)
Time of hiv diagnosis	
<1 Year	
1-2 Year	7(1.8%)
>2 years	362(95.5%)
HIV Stages	
Stage One	93(24.5%)
Stage Two	205(54.1%)
Stage Three	69(18.2%)
Stage Four	12(3.2%)
Viral load (copies/ml)	
< 20	7(1.8%)
20-1000	330(87.1%)
>1000	42(11.1%)
Adherence to clinic visit	
Good	343(90.5%)
Poor	36(9.5%)
Art regimen	
TDF/3TC/DTG	261(68.9)
TDF/3TC/EFV	44(11.6)
TDF/3TC/ATV/r	39(10.3)
ABC/3TC/ATV/r	3(0.8)
TDF/3TC/LPV/r	3(0.8)
AZT/3TC/ATV/r	6(1.6)
AZT/3TC/EFV	1(0.3)
AZT3TC/NVP	11(2.9)
TDF/3TC/NVP	4(1.1)
AZT/TDF/3TC/LPV/r	2(0.5)
TDF/FTC/NVP	2(0.5)
AZT/TDF/3TC/ATV/r	1(0.3)
AZT/3TC/LPV/r	1(0.3)
d4T/3TC/NVP	1(0.3)

Table 3: Utilization Pattern among HIV Patients on ART

Variables	Frequency(N)	Percentage (%)
Time Of Tcam Start		
Before ART initiation	84	22.2
After ART initiation	61	16.1
Never	234	61.7
Motivating Factor For Using TCAM		
Family	24	6.3
Healthcare provider	2	.5
Religion	54	14.2
To improve immunity	1	.3
To deal with side effects of ART	55	14.5
Other	7	1.8
None	236	62.3
Types of TCAM Use		
Herbal therapy	63	16.6
Spiritual therapy	83	21.9
Others	9	2.4
None	224	59.1

Table 4: Herbal Medicine Use among Respondents

Variables	Frequency	Percentage
Overall Herbal Medicine Use		
I use herbal medicine	71	18.7
I don't	308	81.3
Type of Herbal Medicine Taken By Patients		
Unspecified herbal products	20	5.3
Others	45	11.9
None	314	82.8

**Figure 1:** Outcomes of TM use.

DISCUSSION

Majority (81.5%) of the respondents were females and almost all the participants were Christians (97.6%) which was a deviation from a similar study that was conducted in Ethiopia

where only about half (57.7%) of the respondents were females and just about three-quarters were Christians by religion²¹. The contrast could have resulted as a reflection of the fact that Benue state is a state dominated by Christians where rarely other regions exist. Also females in makurdi

especially the married (as nearly three-quarters were married) ones had more time than their husbands (20.3% of the participants were housewife as their occupation) hence this may explain why they are more predisposed to coming for clinic visit regularly for themselves and on behalf of their husbands. Almost half had no education or had just primary level education that could have been the reason why majority (92.3%) could not specify their monthly income. Lack of education or at least to an advanced level would have resulted in indefinable occupational status culminating in unspecified monthly income. More than two thirds (68.9%) of the patients were taking combination of ART (Tenofovir (AZT) + Lamivudine (3TC) + Dolutegravir (DTG)) which was a different ART combination entirely from the same study in Ethiopia that had ART combination of AZT+3TC+NVP to have had the highest number of patients taking it. And also, majority of the patients had a viral load of between 20-1000 copies/ml and majority (90.5%) of patients had good adherence to clinic visit.

More than half (54.1%) of the patients were in clinical stage two of the disease while only 3.2% were in stage IV which was a similar outcome with the same study above which had 4.7% of the patients to have been in clinical stage IV but about two-thirds of the patients to have been on stage one.

The study revealed that more than half (61.7%) of the patients in the study reported never to have used traditional medicine besides ART regimens but only 16.1% used traditional medicine alongside with ART in the management of HIV/AIDS. This is almost the same with a similar work that was done in the University of Limpopo where only 8.9% used traditional medicine among the representative study population²³. A similar study in Thailand which involved 160 participants showed that 95% of patients with HIV used traditional medicines and 78% visited a traditional medicine provider²⁴.

Another study conducted in KwaZulu-Natal, South Africa, found that 51.3 percent of HIV/AIDS patients used traditional medicine in the six months before to the survey¹¹.

Spiritual therapy, on the other hand, was the most widely used traditional medicine in the current study, followed by herbal therapy. Despite the fact that the herbal mixtures used by these patients were not among the most frequent, herbal medications such as Agbo, ayakule mixtures, and so on were the most generally utilized among the participants. A study conducted in Ghana revealed a distinct pattern, with herbal therapy being the most commonly used by nearly three-quarters (70%) of traditional medicine users¹¹. Spiritual treatment, on the other hand, was reported as the most often utilized modality in a Thailand survey, with nearly four-fifths (84%) of users².

Taking traditional medicine as part of religious practice (14.2 percent), patients' belief and desire to deal with ART side effects (14.5 percent), and family members' recommendations were the motivating factors for traditional medicine use in HIV/AIDS patients, according to the findings of this study. Traditional medicine was used by HIV/AIDS patients mostly for appetite (90.9 percent), pain reduction (87.9%), stress release (63.6 percent), and general health, according to a study conducted in Ghana (75.8 percent). In the same survey,

7.9% of patients undergoing traditional medicine claimed that their medical condition had improved after starting treatment. A research in China found that all but one of seventy-six male HIV patients treated with traditional Chinese medicine had attained undetectable viral loads²⁵.

Furthermore, a considerable percentage of patients (9.0%) who used traditional medicine concurrently in our study experienced issues when using ART and traditional medication together. This could be the outcome of a dangerous herb-drug interaction. Furthermore, according to a study conducted in Zimbabwe, several traditional herbal medications may enhance the risk of certain types of adverse effects when used in conjunction with ART²⁶.

According to a study on Ethiopian traditional medicine, herbs and spices used as part of a typical diet are unlikely to induce unfavorable herb-drug interactions because they are consumed in tiny amounts. When these are utilized for medicinal purposes, however, the study found that they may raise the risk of unfavorable interactions with conventional medications²⁷. Generally, the findings from this study showed that the participants were not affected by the traditional medicine use because most of them had never used any of them since the inception of ART. Thus, they were unable to state whether there was symptomatic relief or otherwise in the course of concomitant use with ART.

CONCLUSION

The majority of those polled did not use conventional medicine, according to the findings. The most commonly used traditional medicine therapies among those who used traditional medicine were spiritual therapy and herbal therapy. Although a small percentage of traditional medicine users reported improvement after using it, a larger percentage of patients had no feedback on therapeutic outcomes as a result of faithfully following conventional therapy. More study on traditional medicine remedies that could be employed as adjunct treatments in HIV/AIDS patients is needed.

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