

Publisher: African Networks on Ethnomedicines

Web page: /http://journals.sfu.ca/africanem/index.php/ajtcam/index

<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

WHY HIV POSITIVE PATIENTS ON ANTIRETROVIRAL TREATMENT AND/OR COTRIMOXAZOLE PROPHYLAXIS USE TRADITIONAL MEDICINE: PERCEPTIONS OF HEALTH WORKERS, TRADITIONAL HEALERS AND PATIENTS: A STUDY IN TWO PROVINCES OF SOUTH AFRICA

Puoane TR.¹, Hughes GD¹, Uwimana J¹, Johnson Q.¹, Folk W.R.²

¹School of Public Health, University of the Western Cape, Private Bag X17 Bellville. 7945. South Africa, ²University of Missouri, Columbia, USA

*E-mail: tpuoane@uwc.ac.za

Abstract

The study explored the perceptions, knowledge and attitudes of patients, health workers and traditional healers about the use of traditional medicine and Anti Retroviral Therapy (ART). The study explored the perceptions, knowledge and attitudes of patients, health workers and traditional healers about the use of traditional medicine and Anti Retroviral Therapy (ART), using an exploratory qualitative design in two provinces of South Africa: an urban township health facility in the Western Cape, and a rural district hospital in KwaZulu-Natal (KZN) with antenatal HIV rate of 32% and 28% respectively. In-depth interviews were conducted with 14 participants: six HIV patients on ART and using Traditional Medicine(TM), two doctors, two nurses and four traditional healers. Two focus group discussions - one at each site - were held with community health workers who work with HIV-positive patients (Western Cape [5] and in KZN [4]). Patient said to have used Traditional Healing Practices (THP) before they were diagnosed with HIV, and some who have been diagnosed with HIV continue using TM in conjunction with ART and/or Cotrimoxazole prophylaxis. Patients preferred not to disclose THP to health professionals because of lack of support and understanding. Patients utilize THP because of family expectations, privacy and confidentiality, especially when they have not disclosed their HIV status. Healthcare professionals had strong negative opinions about THP, especially for HIV-positive patients. Traditional healers supported the patient's rationale for THP use. This study revealed a need to better understand factors involved in patients' choosing to use THP concurrently with ART.

Key words: HIV, Perceptions, health workers, traditional healers, Antiretroviral Treatment, South Africa

List of Abbreviations:

AIDS- Acquired Immune Deficiency Syndrome

ART- ARV treatments

ARV- Antiretroviral

HIV- Human Immunodeficiency Virus

KZN- Kwa-Zulu Natal

PLWA- People living with AIDS

TM- Traditional medicine

WHO- World Health Organisation

Introduction

Medicinal plants have been used in most indigenous cultures and African countries for hundreds of years. The World Health Organization (WHO) estimates that presently 80% of the population of developing countries relies on traditional healing practices, primarily traditional medicine, using herbs, as a primary source of healthcare (WHO, 1993). In the last millennium, these traditional practices have been overshadowed by modern Western medicine. However some Western-trained doctors are now recognizing their value.

The WHO defines traditional medicine as the knowledge, skills, and practices that are indigenous to different cultures and that are used for the prevention or treatment of disease (WHO, 2002).

Publisher: African Networks on Ethnomedicines

Web page: <http://journals.sfu.ca/africanem/index.php/ajtcam/index>

<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

Practitioners of traditional medicine can be found across a wide range of settings, including herbalists, bone setters, village midwives, traditional mental health practitioners, herb sellers, and others (Brown and Brown 2000).

With the scale-up of ART across sub-Saharan Africa, there is growing interest in bringing together THP and modern medicine in order to provide comprehensive care among PLWHA (Bodeker et al, 2006). Despite the use of THP being widely accepted and used in African countries, there are some healthcare providers that are still suspicious of traditional remedies and practice because of its interaction with conventional Western medicine (Ernst et al, 1998 & Fugh-Berman 2000). The use of traditional medicine among individuals with HIV disease has been reported in previous studies (Langlois-Klassen et al, 2007; Peltzer et al 2010a, Peltzer et al 2010b & Babb et al 2007). Studies undertaken outside South Africa have reported that between 15% and 79% of people living with HIV utilise TM, and that more people who are infected with HIV use TM at a higher rates than people with other serious illnesses (Dhalla et al 2006; London et al, 2003 & Wivanitkit, 2003).

A study conducted in Uganda on the use of medicinal plants, revealed that 81% of the participants have ever used medicinal plants for various illness; 45% of participants admitted using traditional healers as source for information about health and only 3% of participants living with HIV/AIDs reported using them (Challand, 2005). Furthermore, a recent study conducted in Lusaka, Zambia, indicates that 68% of participants seeking services for HIV counseling and testing at the University Teaching Hospital reported using THP (Burnet et al, 1999). However, lack of approval by health workers leads to patients not being able to disclose the use of TM (Moshabela, 2008). For example, a study conducted among pregnant women highlighted that 64% of participants sought care from a traditional healer, but they would not share this information with their obstetric provider; 54% stated that admitting to seeing a traditional healer would have a negative impact on their antenatal care. Among HIV pregnant mothers on Nevirapine 50% non-adherers had used traditional medicine compared to only 25% of the adherers (Banda, 2007).

Although there is evidence in the literature that has proven the wide use of THP in combination with Western medicine, less is known of the perceptions of healthcare providers and HIV patients on prophylaxis and use of combination of THP and ART/other prophylaxis. There is a need to explore and understand the reason and the perceptions of the healthcare providers and the HIV patients to inform policy makers, and health providers to design comprehensive HIV care programs in Africa particularly in South Africa where indigenous believes, norms and cultures are predominant. Nevertheless, given health care personnel shortages and poor access to health facilities in most African countries particularly in rural settings, involvement of traditional practitioners in public health campaigns and educational initiatives is a strategy that should be considered.

Methods

The study was undertaken in two provinces of South Africa; an urban township in Cape Town in the Western Cape and rural district in KZN with antenatal HIV rate of 32% and 36% respectively. A qualitative study explored the perceptions, knowledge and attitudes of patients, health workers and traditional healers about the use of TM and ART. Participants were patients who had indicated that they were using both ARV and TM in the first phase of the study, professional nurses and doctors working at health facilities from the two research sites, traditional healers that were identified by Community Health Workers (CHWs), and CHWs working closely with HIV Positive patients. Patients were purposely selected from a study which examined the prevalence and the determinants of using traditional medicine in 100 participants. They were eligible to participate in the study if they were willing to share their views on the use of traditional medicine and ART and were at least 18 years of age. Data were collected through individual interviews and focus group discussions with CHWs (four in KZN Province and five in the Western Cape Province). Focus groups discussions were facilitated in the local language used in each province (Xhosa in the Western Cape, and isiZulu in KwaZulu-Natal). Interviews were conducted in both English (for professionals) and local language for patients and traditional healers. Focus-group discussions and interviews lasted 1 to 1.5 hours and all interviews and discussions were tape-recorded and notes were taken. The discussions were then transcribed verbatim and translated into English for analysis. Questions for interviews and focus group discussions are shown in Box 1.

Data analysis

Data were analyzed using a thematic content analysis approach. With this approach, various data from different respondents are compared with each other to classify those "themes" that recur or are common in the data (Green and Thorogood, 2004). Transcripts were read by two individuals independently to identify phrases and assign content-related categories. Codes were developed and used to label key themes in the data. The content of each script was analyzed using the codes to identify the most common or recurrent themes. The study protocol was approved by the Institutional review Board/Ethics Committees at the University of Stellenbosch, South Africa and University of Missouri-Columbia, USA. Permission to conduct the study was granted by the Department of Health for both ARV sites. Informed consent was obtained from all participants.

Box 1: Questions for interviews and focus-group discussions:

Professional nurses and doctors
1) What is your knowledge of traditional medicine? 2) What are your perceptions of traditional medicine use by patients that are HIV+ and using ARV's? 3) What do you think about traditional medicines being dispensed from the clinic or hospital? 4) Do you discuss the use of TM with your patients? 5) In your opinion why would a patient use both types of treatment - that is TM and ARV?
Traditional healers
When patients disclose their HIV status to you, what do they usually complain of? 2) What traditional medicines do you give them (Name and purpose)? 3) What is your opinion of HIV+ patients using both TM and ART? 4) Do you ask HIV+ patients if they are on ART? 5) What are the conditions that you treat, especially related to HIV/AIDS)
Patients
Please tell me about your illness. When did it start and how did you find out that you are HIV positive, 2) what symptoms did you have? 3) When did you start using TM? 4) Why did you start using TM? 5) Are you still using some TM? 6) If you combine ARVs with that TM which one do you think is helping you the most? 7) What symptoms does TM help you with?
Community Health Workers
Tell me about your experiences of traditional medicine, 1) if you personally have used it, 2) the reasons why HIV positive people who are on ARV choose to use traditional medicine, 3) Do you discuss the use of TM with patients on ARV and what is your opinion about traditional medicines being dispensed from your clinic or hospital

Results

Participants' demographic characteristics are displayed in Table (i). A large percent of participants were females (20). Only seven participants were younger than 35years old. An equal number on participants were residents of rural and urban sites, 11 and 12 respectively.

Table 1: Participant Characteristics (N=23)

Geographic Location:	Participant Characteristics			
	Patients (N=6)	Health Care Professionals (N=4)	Traditional Healers (N=4)	Community Health Workers (N=9)
-Rural KwaZulu Natal	3	Professional nurse	2	4
-Urban Western Cape	3	Medical doctor	2	5
Age group	<35 (n=7)		>35 (n=16)	
Gender				
Male	1	1	1	0
Female	5	3	3	9

Themes that emerged from the analysis are summarized in Table (ii): These include: experiences with traditional medicine, reasons for combining TM and ARV and disclosing HIV status

Table 2: Participants Illustrative Quotes

Patients	
Theme	Illustrative Quotes
Experiences with traditional medicine	<p><i>"I only drink traditional medicine when I feel bloated"</i></p> <p><i>"I only take it when I don't have appetite and it opens my appetite"</i></p> <p><i>"When I got sick I thought that I was bewitched and consulted a traditional healer who gave me a mixture to drink. But when I fell pregnant I was tested and told that I am HIV positive and started on ARV".</i></p> <p><i>"I started using traditional medicine before I started using ARVs, after I started taking ARVs I also continued with TM but not much because the nurses said we should not mix ARVs and traditional medicine"</i></p>
Reasons for combining TM and ARV	<p><i>"I use both ARV and traditional medicine because sometimes ARV hurts me in the stomach but when I take the traditional medicine it does not hurt me, but makes me feel better".</i></p> <p><i>"I also take TM but not much because the nurses said we should not mix ARVs and traditional medicine" "I take TM when I feel weak"</i></p>
Disclosing HIV status	<p><i>"We prefer to go to traditional healers as we are scared to be seen at the health facility since we have not told family members and friends."</i></p>
Traditional Healers	
Themes	Illustrative quotes
Reason for using TM by patients	<p><i>"Patients come to me when they first get sick and they believe that they had been bewitched. They usually complain of loss of energy and appetite, swollen feet and sores in the body (shingles)."</i></p> <p><i>"They tell me that they have not disclosed at home therefore have to take what is recommended by the family, who may regard the sickness as a traditional illness, and some believe that they are ill because of the ancestors wanting them to be sangomas"</i></p>
Health Care Professionals (doctors and nurses)	
Themes	Illustrative quotes
Perception of TM use	<p><i>"We tell them not to use traditional medicine as it is not weighted, meaning that it does not have a dose, and it is highly toxic and the toxins are processed by the liver".</i></p> <p><i>"Sometimes traditional medicine the patients used are too strong for their liver. Sometimes they develop nasty side effects. We had a patient on ARV in the ward. We had rehydrated him and he got better and for a week he seemed deteriorating until we discovered that his family was bringing traditional medicine for him to drink while in hospital"</i></p> <p><i>"I had one patient who last year when she was told that she is HIV positive started using traditional medicine and her CD4 count went up, but now she is presenting with symptoms that are more of Pneumo-cysticarinne Pneumonia (PCP) so I really need to be convinced that TM works."</i></p> <p><i>"Apparently there is a traditional healer who is believed to cure shingles, but personally I have not had experience where people use it successfully and they improve"</i></p> <p><i>Patients hide from us that they are using traditional medicine because we discourage them, and there is no way of seeing that they are using traditional medicine unless they tell us or they have liver failure"</i></p> <p><i>"They don't tell us but we just see them that they have changed, the condition is not the same as last month"</i></p>
	<p><i>"I think people chose to use traditional medicine because of the perceptions that once you start ARV you die, some know that with ARVs you just contain the disease and remain HIV positive for life, and they are enticed to believing that when they use traditional medicine they will be cured "</i></p> <p><i>"Some people use traditional medicine while on ART because of the adverts that they come across such as those pamphlets that are distributed affirming that people have been healed or because someone told them that they have been cured after using a certain medicine or sometimes a traditional medicine recommended by a family member."</i></p>

Publisher: African Networks on Ethnomedicines
 Web page: /http://journals.sfu.ca/africanem/index.php/ajtcam/index
<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

Dispensing TM in health facilities	<i>"If traditional medicine cannot treat some diseases, why dispense it in the health facilities? But we need studies to prove that it can treat and be used for that specific disease"</i> <i>"If they show evidence that it works, I have no problem because we are desperate for a cure"</i>
Community Health Workers	
Themes	<i>Illustrative quotes</i>
Perception of TM	<i>"I grew up with my grandfather and he was a traditional healer, if a female could not conceive, he gave her a bottle of traditional medicine and after some time a woman would come back to report that she was pregnant. Some people were given medicine to control their partners from having other partners"</i> <i>"They(traditional medicine) need to be sent to the laboratory first to be tested and be declared safe before we know that they are safe"</i> <i>"I feel that some traditional healers are playing with people telling them that they can heal that and that and take their money for nothing"</i> <i>"You cannot combine traditional medicine with ARVs because TM is a dirty medicine. They repel ARVs"</i>
Reasons for using TM	<i>"Some people prefer using traditional medicine because they are not willing to disclose their HIV status. When they go to traditional healers they sit in the room alone, when they come to the clinic there are many people, and everyone knows the HIV positive section of the health facility so everyone can see what you are sick from."</i> <i>"Using TM is a way of hiding your status from others and keeping it to yourself"</i> <i>"Some people come to the clinic and get tested, and are found HIV positive. When they get home they don't disclose their status to the relatives. When they get sick, they claim they are bewitched and the family takes them to the traditional healers."</i> <i>"One person in the household may be a firm believer in superstition, another in TM, that's why people use them"</i> <i>"Only people who are in denial about their status use TM. "</i>

Table 3: Summary of Key themes

Theme	Summary of Response
TM use prior to becoming HIV + and using ARV	-Most participants start using TM before they are diagnosed with HIV -Used TM for symptoms such as lack of energy and appetite, weight loss
Perception of TM use	-Negative perception by some community health workers and most healthcare professionals. -Participants perceived healthcare professionals as lacking support, and knowledge about TM
Reasons for TM use with ARV	-TM is used for selected chronic conditions including bloating, lack of energy and appetite and to relieve pain -lack of disclosure to family members, therefore have to continue with use of TM that was used before being diagnosed as HIV+
TM as cultural adherence	-Participants use TM as cultural/social response for health and to conform to expectations of family members who believe in traditional healers -TM is accepted and supported practice in the community, especially in the rural areas -TM is readily available, affordable and accessible; - Traditional healer visits are immediate and responsive - People seek traditional healers when illness is perceived to be related to bewitchment or as a warning from ancestors
Privacy and anonymity	-Being HIV + and attending a specialized clinic indicates HIV status to family and community. -Seeing traditional healer is private and confidential
TM disclosure	-Patients prefer not to disclose to healthcare workers because of the perception of lack of support by healthcare professionals and loss of services.

Publisher: African Networks on Ethnomedicines

Web page: /<http://journals.sfu.ca/africanem/index.php/ajtcam/index>

<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

Box 2: Patient's stories on how they contacted traditional healers

Patient 1: "When I started getting sick, I started getting dark spots on my skin, all over my legs, thighs and arms. I didn't know I had HIV and thought I had developed an allergy to something. I kept on going to the clinic for help. I then moved to Cape Town from the homelands in 2003. That is where it got really serious and I went to Matthew Goniwe clinic and they said it was eczema. They gave me many creams but they did not help the condition, it got worse. I started getting extremely stressed and that was when I developed shingles. I then went to a private doctor in Mitchell's plain who gave me pills and gave me a letter to get tested for HIV at my nearest clinic. I then got tested and found out that I was HIV +. I received medication for the shingles, as they had taken over my entire body, but it did not help me. My boyfriend that I lived with in Cape Town suggested we go visit a traditional healer nearby. He gave me a bottle with medication that cost me R80. I really needed the TH's bottle because I would get chills and then heat up in the same hour. I was instructed to drink half a cup 3 times a day; I did as instructed and started getting better".

Patient 2: "After my husband died I started living with another man in my house. We were living together for 26 years. All this time he never told me that he had this disease. I only noticed when he started getting very sick, whenever I asked him what the problem was he would just say that his legs were giving him a problem. I even went and asked his brothers what he was telling them because from what I could see it was not just his legs but either TB or some infection. He then whispered to me that he is HIV+ and I was surprised that he had not told me. So I looked after him at home until he died. After his death I decided to get tested because I had sexual intercourse with him. The only symptoms I experienced were a sore stomach. Maybe it was stress. I was helped in January in Harare health facility. They told me that I had ulcers and gave me medication for them. Before I knew my status, I went to a healer for my stomach problems and she referred me to a doctor. I went to see a doctor who said I almost died and that if I had not gone to see him, it was a matter of 5 minutes and I would be gone."

Patient 3 (also a traditional healer): "I had tested before but tested HIV negative and I knew about the window period but never went back. So I never went back again. I have always also had high blood, joint issues, ulcers and a heart condition since 1980. I grew up with the heart condition but it was controlled then. As traditional healers we joined TAC and went to workshops to learn about the disease in order to find ways of helping our community. I told myself that in life you can be healer always using all the things that have happened in my life to heal others."

Patient 4. "I was witnessing my family die of HIV and they are not as outspoken about it as me, many things have happened to me, rape too. I strengthen myself by remembering that I grew up tough and I have already been a victim on many things nothing can surprise me. It is through TAC workshops that I got the courage to test again after the negative window period and tested HIV+. When they told me, I just laughed about it and said its ok, this is life these are the things of this earth. I always knew that all the diseases my patients had, I could have too, because being a healer didn't mean I was immune to being sick. I told myself that a soldier dies in the battlefield. What really hurt me was that when I tell people they start avoiding me."

Discussion

The results of this study highlight a certain degree of use of TM in combination with ART by PLWHA in both study settings. The participants in the study reported using TM for other chronic conditions or to relieve HIV-related symptoms, such as bloating, loss of appetite, etc. The findings of this study confirm those of (Peltzer et al, 2008 & Langlois-Klassen, 2007), who reported that patients use herbal medicine for the treatment of HIV/AIDS. This of concern, as the use of herbal medicine by HIV patients has been reported to be associated with reduced ARV adherence (Peltzer et al, 2008).

Reasons for continuing TM after diagnosis with HIV were a lack of disclosure about HIV status to the family. Participants, therefore, had to fulfill the family expectations of continuing with the treatment of a traditional healer as part of their cultural belief and for the benefits associated with using TM. Professional healthcare workers had concerns about the combination of TM and ART as a result of toxicity of traditional medicine and its interaction with the ARV. On the other hand, some of the lay health workers (community health workers) raised the issue that some patients used TM because of lack of privacy at the health facilities as compared to using traditional healers where there is privacy.

Traditional healers appear to be more receptive to engagement with western medicine than professional healthcare workers. This may be because of a lack of knowledge and exposure to TM practice by some health workers. Community health workers were aware of the traditional medicine as some had family members who were using TM, but they were not supporting its use and thought that traditional healers were deceiving patients by telling them that they can cure HIV. The traditional healers concur with the patient's statements regarding the TM use that include limited access to ARTs and lack of privacy, family and cultural expectations.

Publisher: African Networks on Ethnomedicines

Web page: <http://journals.sfu.ca/africanem/index.php/ajtcam/index>

<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

Although, there is a moderate use of TM among PLWHAs, the disclosure on the use of TMs to their healthcare workers (HCWs) is limited. Similar findings were reported by Peltzer et al 2010b, who found that most participants indicated that their healthcare provider was not aware that they were taking herbal therapies and faith healing methods for HIV. This may be because of the attitude and or perceptions of HCWs who tend to discourage ART patients about the toxicity effects of TM. These findings confirm those reported in Zambia, where 64% of pregnant women seeking care from THPs would not want to share this information with their obstetric provider and 54% thought that admitting to seeing a traditional healer would negatively impact their antenatal care (Banda et al, 2007). Besides the fact that HCWs were concerned about the toxicity effects of using both ARTs and TM, most of the participants indicated that they didn't want to disclose their status or to be seen at the facility by everybody. Seeing a THP by PLWHAs was perceived more confidential than going to clinics where you will be seen by everybody. One could argue that such perceptions could induce lack of disclosure and stigma related to HIV/AIDS in the community.

Several studies in the literature (Fugh-Berman, 2000 & Peltzer et al, 2010b) have shown that most of the PLWHAs consult THPs and use TMs before and while they are on ARTs for reasons which include pain relief, shingles, bloating and lack of energy and appetite. The use of TM is supported by family members, community and cultural beliefs. The commonly used traditional medicine was the African Potato (AP). African Potato (*Hypoxis hemerocallidea*), is an African traditional medicine that is used for various nutritional/medicinal purposes and also by people infected with HIV and AIDS as an immune booster. The use of the AP has also been recommended by the former Minister of Health of South Africa for use by HIV-positive people (Mills et al, 2005).

The results from this study are limited by reason of being a pilot study and having few participants. The intent of the qualitative approach was used to elucidate a better understanding of TM and ARV use among HIV+ patients and to determine any differences related to geographic region, or among types of healthcare professionals—both formal and informal. The findings from this pilot study provide information about understanding of TM use in conjunction with ARV from several participants' perspectives. The next step is to continue this research further in a larger sample size. In addition, training of THPs can also assist them in identifying illnesses beyond their capacity to treat, hastening referral to a clinic when necessary. The latter is seen as a potential for creating a conducive environment for communication between THPs and Westernized health practitioners and holistic management of PLWHAs with inclusion of patients 'family and cultural beliefs'. Future research is needed to further explore intersection of traditional healing practices and westernized healthcare for better health needs of patients who are HIV+. The findings of this study suggest that collaboration between traditional healers and Western doctors has the potential to improve safety, increase adherence to ART and awareness of TM among healthcare workers. Since the use of TCAM is associated with non adherence to ART, patients' use of TCAM should be considered in ARV adherence management.

Acknowledgements

This project was supported by Grant U19AT003264 from the National Centre for Complementary & Alternative Medicine and the Fogarty International Centre. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Centre for Complementary & Alternative Medicine, the National Institutes of Health or the Fogarty International Centre. Thanks to Prof. David Sanders for his input during the conceptualization of the study and Jean Fourie for her role in editing the manuscript. Mr. Moïse Muzigaba is also acknowledged for his role in proof reading, rearranging and formatting the manuscript.

References

1. Babb DA, Pemba L, Seatlanyane P, Charalambous S, Churchyard G, Grant AD (2007). Use of traditional medicine by HIV-infected individuals in South Africa in the era of antiretroviral therapy. *Psychology, Health & Medicine*. 12(3): 314 – 320
2. Banda, Y., Chapman, V., Goldenberg, L.R., Stringer, S. A. J., *et al.* (2007). Use of Traditional Medicine Among Pregnant Women in Lusaka, Zambia. *The journal of alternative and complementary medicine*, 13(1): 123–127.
3. Bodeker, G., Carter, G., Burford, G., Dvorak-Little, M. (2006). HIV/AIDS: Traditional systems of health care in the management of a global epidemic. *J Altern Complement Med*, 12:563–576.
4. Brown, J.E., Brown, R.C. (2000). Traditional intravaginal practices and the heterosexual transmission of disease: A review. *Sex Transm Dis*, 27:183–187.
5. Burnett, A., Baggaley, R., Ndovi-MacMillan, M., *et al.* (1999). Caring for people with HIV in Zambia: Are traditional healers and formal health workers willing to work together? *AIDS Care*, 11:481–491.
6. Challand, S. (2005). A survey of the use of medicinal plants and other traditional medicine in Kasese District, Uganda. *Tropical Doctor*, 35: 222–224.
7. Dhalla S., Chan K. J., Montaner, J. S., Hogg, R. S. (2006) Complementary and alternative medicine use in British Columbia – a survey of HIV positive people on antiretroviral therapy. *Complement Ther Clin Pract*, 12(4):242-248.

Publisher: African Networks on Ethnomedicines

Web page: /http://journals.sfu.ca/africanem/index.php/ajtcam/index

<http://dx.doi.org/10.4314/ajtcam.v9i4.6>

8. Ernst, P. A. G. M., De Smet, D., Shaw, V., Murray. (1998). Traditional remedies and the "test of time" Eur J Clin Pharmacol, 54: 99-100.
9. Fugh-Berman, A. (2000). Herb-drug interactions. The LANCET, 355.
10. Green, J., Thorogood, N. (2004). Qualitative Methods for Health Research. 1st edition. London, Sage publications :262.
11. Langlois-Klassen, D., Kipp, W., Jhangri, G.S., Rubaale, T. (2007). Use of traditional herbal medicine by AIDS patients in Kabarole District, western Uganda. Am J Trop Med Hyg, 77(4):757-63.
12. Langlois-Klassen D, Kipp W, Rubaale T (2008). Who's talking? Communication between health providers and HIV-infected adults related to herbal medicine for AIDS treatment in western Uganda. Social Science & Medicine 67 (2008) 165e176
13. London, A. S., Foote-Ardah, C.E., Fleishman, J.A., Shapiro, M.F. (2003). Use of alternative therapists among people in care for HIV in the United States. Am J Public Health, 93(6):980-987.
14. Mills, E., Cooper, C., Seely, D., Kanfer, I. (2005). African herbal medicines in the treatment of HIV: Hypoxis and Sutherlandia. An overview of evidence and pharmacology. Nutrition Journal, 4:19. doi:10.1186/1475-2891-4-19
15. Moshabela, M. M. (2008). *Reasons given by caregivers for administering African herbal medicines to children at St Rita's Hospital in Sekhukhune District of Limpopo Province, South Africa*. Pretoria, University of Limpopo (MEDUNSA). M Med (Family Medicine). ul.netd.ac.za/jspui/bitstream/10386/256/1/Dr%20Moshabela%20final.pdf
16. Peltzer, K., Friend-du Preez, N., Ramlagan, S. & Anderson, J. (2010a). Antiretroviral treatment adherence among HIV patients in KwaZulu-Natal, South Africa. BMC Public Health, 10 (1):111.
17. Peltzer, K., Friend-du Preez, N., Ramlagan, S., Fomundam, H. (2008). Use of traditional complementary and alternative medicine for HIV patients in KwaZulu-Natal, South Africa. BMC Public Health, 8:255.
18. Peltzer, K., Friend-du Preez, N., Ramlagan, S., Fomundam, H. *et al.* (2010b) 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):125-137.
19. WHO.(2002). General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. Geneva: WHO Press.
20. Wiwanitkit, V. (2003). The use of CAM by HIV-positive patients in Thailand. Complement Ther Med, 11:39-41.
21. World Health Organization (WHO).(1993). Guidelines for the Evaluation of Herbal Medicines. Manila: WHO Regional Office.