# THE ROLE OF TRADITIONAL HEALERS IN ORAL HEALTH CARE IN THE BUI DIVISION, NORTH WEST PROVINCE, CAMEROON

**by**

**Michael A Agbor**



**A thesis submitted in partial fulfilment of the requirements for the degree of MSc (Dent) in Dental Public Health, University of the Western Cape**

**September 2009**

**Supervisor: Prof Sudeshni Naidoo**

# TABLE OF CONTENTS

# APPENDICES

# LIST OF TABLES





# LIST OF FIGURES

# DECLARATION

I, Michael A Agbor, the undersigned, hereby declare that the work contained in this dissertation is my original work and that it has not been previously in its entirety or in part submitted at any university for a degree.



…… ……

Michael A Agbor Date

# DEDICATION

This work is dedicated to all my dental patients.

# ACKNOWLEDGEMENTS

Firstly I will like to thank the almighty God for his guidance, provision and favours and most especially sustaining me throughout my study. Without his guidance this work would not have been possible.

I would like to acknowledge my able and articulate supervisor, Professor Sudeshni Naidoo for her mentorship and constant encouragement and time irrespective of how busy she was.

I would also like to express my sincere gratitude and thanks to my sponsor Prof. Aubrey Sheiham for making my postgraduate dreams a reality after so many years of looking for funding.

To all my lecturers in UWC for their sound coaching and directions especially Prof Attie Louw, Prof Neil Myburgh and Dr Rob Barrie - I say thank you all for all your visible and invisible thoughts towards my success.

My sincere thanks to my best friend and wife Dr Alice Agbor for her comfort, tireless encouragement and prayers.

I would also like to say a special thank you to all the traditional healers who came out to listen to us and complete our questionnaires.

Finally to my statistician and all my students who helped me in analysing and collecting the data for this study.

# ABSTRACT

The majority of Cameroonians depend on traditional medicines for their health care needs and about seven per cent of the average household health budget is spent on traditional medicines irrespective of their incomes. The aim of this study was (i) to assess the role of traditional healers (THs) in providing oral care services in Cameroon; (ii) to determine their cost of treatment and to investigate reasons why people visit THs.

The present study was cross sectional and consisted of a sample of 21 THs and 52 clients with a history of dental problems. It utilized semi structured questionnaires and photographs to collect data. The mean age of THs was 46.0 years (range 20-77 years). Thirty per cent of THs were above 40 years and the majority males. Nearly a quarter of the THs practiced as herbalists and the remainder practiced both divination and herbalism.

More than two thirds of Cameroonians, who patronize THs for their oral health needs, fall within the 20-40 year age group. THs in this region are experienced and enjoy good relationships with hospitals and other THs. However, collaboration between the oral health work force and THs is very poor as only 6% of all patients seen by THs are referred to the dentist. Socio-cultural and economic factors affect the oral health care seeking behavior of patients in this area and only 6.5% of patients visit dental clinics. Reasons for not attending dental clinics included cost, poor accessibility, superstition and fear.

TH’s are not experienced in the treatment of pulpitis - the majority of patients with toothache had temporary or no relief, but more than two thirds reported being satisfied with their treatment. Most patients visited THs because of low cost - the average cost of treatment with THs (approximately $5) is very low, as compared to conventional treatment ($50).

THs are willing to co-operate with oral health workers in improving oral health. Since they have a vital role to play in health care seeking attitudes in this community, inequalities can be removed if some barriers affecting the oral health seeking behaviours are removed. This can be done by increasing mutual cooperation, collaboration and by integrating THs into the referral network around primary oral health care services.

# CHAPTER ONE

## Introduction

A traditional healer (TH) is a person who has no formal medical training, but is recognized by the community in which he/she lives as being competent to provide health care by using vegetable, animal and mineral substances and certain other methods based on social, cultural and religious background as well as the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social well-being and the causation of the disease and disability (WHO/ UNICEF, 1978).



According to the World Heath Organization (WHO), more than 80 percent of Africans rely on traditional medicine and indigenous knowledge to meet their health needs. This is due to the fact that traditional medicine is accessible, affordable, culturally and socially acceptable, and most people prefer it to the 'exorbitantly priced' conventional Western medicine (WHO, 2002). With the legalization of traditional medicine as a complimentary health care service particularly in primary health care in Cameroon, the role of the tradi-practitioner will be vital in the promotion of health especially in resource poor settings and rural areas where they may be the only source of health care (Kayombo, 2007). Since colonial times, Western medicine was the only formally accepted medicine in Cameroon. Traditional medicine practices were condemned as witchcraft or sorcery and banned. Despite this, the practice of traditional medicine has survived clandestinely in Cameroon (Hillenbrand, 2006). One of the main reasons Cameroonians still favor traditional medicines is financial - they resort to traditional medicine because they cannot afford pharmaceutical medicaments or conventional medical care.

The oral health care work force in Cameroon is consists of 220 dentists all of whom were trained abroad. Nearly all are located in the two big cities of Douala and Yaoundé serving just 20% of the country's population. On the other hand, it is estimated that there are more than 20 000 traditional healers (THs) in the country serving both the rural and urban population. Rural populations do not have access to the services of trained oral health personnel due to cost constraints and poor accessibility.

Today, seven per cent of the average household health budget is spent on traditional medicines. Nearly twice as many people from poor households rely on traditional medicine as do people from rich households (Ministere de la Sante Publique, 2002). The recognition and integration of traditional medicine into the health system of Cameroon was officially proposed in 1981(WHO, 1981). Since then, traditional medicine has been recognized, but not regulated by the Ministry of Health. In 1995, a presidential decree no. 95-040 (July 3, 1995) gave THs in Cameroon the authorization to create associations at both provincial and national levels to manage their activities.



In recognition of the fact that traditional medicine is "the most affordable and accessible system of health care for the majority of the African rural population," the Organization for African Unity (now the African Union) declared the years 2001-2010 to be the 'Decade for African Traditional Medicine'. The aim of this declaration was to bring together all the stakeholders in health care in an effort to make traditional medicine "safe, efficacious, affordable and available to the vast majority of African people." The main mission of WHO (Africa Region) is to assist countries in ensuring that the African population enjoys improved levels of oral health and function through a significant reduction of all oral diseases and conditions that are prevalent in the region, with equitable access to cost-effective quality oral health care and adoption of healthy lifestyles.

Despite much research in recent times for health (medical) sector collaboration with THs, there is a paucity of literature with regard to the role of THs in the provision of oral health care and in the diagnosis and management of common oral problems including the oral manifestations of HIV/AIDS. Given shrinking health budgets, economic constraints and the diminishing capacity for oral health personnel to handle the burden of oral diseases throughout much of Sub-Saharan Africa, it would seem logical to develop and enhance co-operation and collaboration between the formal oral health services and THs to bring available resources in the health sector to serve the population for better oral health and HIV/AIDS prevention.

Traditional healers are considered to be effective agents of change as they command authority in their communities, function as psychologists, marriage and family councilors, physicians and legal and political advisors (Rudolph et al 2007). They are also considered to be the legitimate interpreters of customary rules of conduct, morality and values. THs provide client-centered, personalized health care that is culturally appropriate and tailored to meet the needs and expectations of the client paying special respect to social and spiritual matters (King and Homsy, 1997)

# CHAPTER TWO

## Literature Review

Traditional healing has always been a component of health care in Cameroon but the actual contribution of THs to oral health care in the Bui Division of Cameroon is not known. Lewis et al. (2004) reported on the oral health care knowledge and practices of African THs from two communities: Zonkizizwe and Dube in the Gauteng Province, South Africa. A questionnaire together with clinical photographs were used to elicit knowledge of common oral conditions. According to their findings, more than 90% of THs from both areas correctly identified photographs of gingival inflammation, dental caries and oral candidiasis. Over 50% of healers from both areas had patients who presented with mouth problems such as toothache, swollen gums and oral candidiasis. Eighty four percent of healers from Zonkizizwe gave oral health advice to their patients, including specific advice on how to brush their teeth and eighty two percent referred their patients with oral problems compared to 44% of healers from Dube. The high referral rate suggested a belief on the part of the healers that there was value in their patients attending a clinic for oral problems. It also acknowledged their limitations in treating patients for oral diseases.



Considering that oral candidiasis has been reported as the most prevalent oral manifestation of HIV/AIDS and the fact that almost all THs can recognize oral candidiasis (Lewis et al, 2004; Rudolph et al, 2007) suggests that THs could play an essential role in the efforts to address oral HIV/AIDS lesions.

A study carried out in Nigeria by Ongunbodede (1991) found that THs were providing dental care, but their work was not integrated with that of a dentist. Ongunbodede (1991) also reported that the THs were open to the prospect of collaborating with the dental profession, whereas the reverse was not true. If one considers the fact that THs are more numerous than dental and medical practitioners and the fact that they are widely accepted by a large proportion of the population, it is logical that their work be integrated with that of the dental and medical practitioners. Indigenous knowledge systems in Africa and some parts of Asia chewing sticks are used for plaque removal (Akpata et al. 1977; Enwonwu et al. 1985). Most plants used as chewing sticks contain fluoride and/ or have antimicrobial, anti-cariogenic or anti-inflammatory properties (Enwonwu et al. 1985; Sote, 1987).

Ngilisho et al. (1993) reported on the role of THs in the treatment of toothache in Tanga region, Tanzania found that sixty per cent of the villagers that suffered from toothache sought treatment from THs. They were all treated with local herbs and forty per cent of the villagers who sought this service obtained relief of pain for more than six months. The authors concluded that the presence of modern health facilities did not influence the villagers' use of THs. Hence, it could be expected that THs be considered as an alternative to modern health systems by the population, especially for the relief of acute pain, in underserved rural areas.



However, one needs to be aware that some traditional practices may be harmful e.g. the practice of extracting tooth buds and of rubbing herbs on to the gingivae of children in order to treat fevers and diarrhea, has been documented in countries such as Tanzania and Uganda (Kikwilu and Hiza, 1997). By extracting tooth buds based on this belief, children become victims of the practice because it denies or delays the appropriate prescription of scientifically proven treatments for diarrhea and fevers.

The fact that belief in the efficacy of some traditional treatments, despite their damaging consequences still exists, shows that there is a need for health education programmes (Kukilwa and Hiza, 1997). Discouraging the adoption of deeply rooted traditional practices that are potentially hazardous to health and oral health needs to be made a public health priority. This could be achieved by educating not only the general public, but also the THs and community leaders that convey the knowledge to their people. In Sudan, Baba and Kay (1989) recommended an educational campaign aimed at encouraging the population to consult competent authorities when they encounter health problems.

Therapeutic methods used by African THs include psychosocial counseling, simple surgical procedures, rituals and symbolism. The types of medications used by THs can be classified as follows:

*Preventive and prophylactic medications*

Among the Zulu ethnic grouping in South Africa, medications for self-fortification are called amakubalo. It is sprinkled around and about their home to ward off lightening or to cause the evil doer discomfort in his impious endeavors.

*Treatment for ailments*

According to Bryant (1970) and Gumede (1991) treatments are prepared in different forms such as cold and hot infusions, decoctions, powders, poultices and lotions, and a variety of earthy ointments that comprise animal fat, clay and sometimes ashes. These formulations are made into different medicinal mixtures, known as umuthi, from secret recipes that are a part of the knowledge that the TH passes onto his/her apprentice. The mixtures can be drunk, smoked, inhaled used for washing or steaming or smeared on the body. Pouring the required amount of cold water on chopped herbs, bark or root makes cold infusions. If hot infusions are simmered or boiled for some time they are made into decoctions that can be used orally, as rectal enemas or for inhaling.

*Medications used to "destroy the power in others"*

These target specific individuals like witches. A concoction is placed in the enemy's path so that when the enemy crosses the path, he/she will contract a fatal disease.

The need to identify and recognize the beneficial effects of traditionally used plants and medicaments has been recognised (Hamza et al. 2005; Tapsoba and Deschamps, 2005; El-Hilaly, Hmammouchi and Lyoussi, 2003; Kambizi and Afolayan, 2001; Gessler et al, 1995(a)). An investigation into the treatment of oral diseases with medicinal plants in the Kadiogo Province, Burkina Faso reported that although the region is mainly urban, it appears that THs who live there, and the general population, continue to rely on plant products when dealing with a broad range of oral health concerns (Tapsoba and Deschamps, 2005).



Hamza et al. (2005) investigated the antifungal activity of traditionally used Tanzanian plants and found good correlation between traditional therapeutic use and the in vitro antifungal activity and corroborated the importance of ethno botanical surveys for screening plants as a potential source for bioactive components that may have preventive, prophylactic or treatment properties for oral and other diseases.

Some of the most common surgical procedures performed by African THs are scarification, bloodletting and cupping. A number of rituals such as the induction of vomiting, enemas, bloodletting, whistling or animal sacrifices are performed if the illness is perceived to be bewitchment. The aim of these rituals is to restore balance and harmony, reduce patient's anxiety and serves to relieve feelings of guilt.

Sarita and Tuominen (1993) investigated the pattern of utilization of medical and dental health care services in rural Tanzania. They reported that indigenous home remedies were the only treatments used for managing dental problems, while for medical problems a TH was the most commonly used. Sarita and Tuominen (1993) concluded that the pattern of utilization of health care services differed for medical and dental problems and that this should be taken into account when planning comprehensive health care services for rural African societies.

There have been many instances where THs have collaborated with the health sector. Wilkinson et al. (1999) carried out a study in Hlabisa, South Africa to determine precedent and potential for THs to act as tuberculosis (TB) treatment supervisors. Although only four per cent of the study population believed that THs could cure TB, 84% stated that they would consider choosing a healer as a treatment supervisor. Eighty eight per cent of healers reported having referred patients with possible TB to hospitals for treatment and all the healers were keen to negotiate collaboration with health services. Nearly all were also willing to act as treatment supervisors. Wilkinson et al. (1999) concluded that the potential for collaboration was high in Hlabisa and that further evaluation was necessary as this approach was scaled up.



In an earlier report by Edwards (1986), the relationship between traditional and modern medicine was described, with reference to an experimental research study conducted in South Africa that focused on interviews with traditional Zulu healers and modern clinical psychologists with the same group of psychiatric patients. Results indicated that while traditional and modern practitioners worked from different theoretical orientations, they were in significant agreement as to both diagnosis and treatment of patients when faced with the same limited choice of options. Furthermore, patients perceived both the traditional and modern practitioners as being more or less equally helpful.

In Uganda, THETA (Traditional and modern health practitioners together against AIDS and other diseases), is promoting collaboration between traditional and biomedical health workers in the prevention and care of sexually transmitted infections (STIs) including HIV/AIDS. Projects involve collaboration in clinical trials to study the effectiveness of herbal treatments for opportunistic infections and to empower traditional medicine practitioners to offer counseling and education on STIs/AIDS.

After receiving training THs became involved in community education, others in counseling and HIV-support groups. This resulted in an overall increase in the community education, counseling and understanding about HIV. It also resulted in behavior change in the public, including an increase in condom use. Hence, by respecting the knowledge, experience and beliefs of the TH, THETA was able to expand the project to cover some 250 healers in seven districts of Uganda.



A study by Homsy and King (1997) concluded that THs could be trained as counselors and educators to disseminate HIV/AIDS information and prevention practices between their peers and communities. Case studies indicate that THs are capable of performing at least as well as their biomedical counterparts as AIDS educators and counselors. Of concern to Homsy and King (1997) however, was the failure of many projects to provide systematic follow-up to healers after their initial training. Such follow-up is essential to support healers in dealing with unfamiliar issues such as condom use and death and dying. Masauso Nzima et al. (1996) carried out a similar study in four Copperbelt towns in Zambia. A program was established whereby THs received AIDS training and how to counsel clients on safe sex behaviors. Follow-up meetings are held monthly between health professionals and THs. The project has been highly successful and THs now sell condoms to their clients through a social marketing program.

A qualitative investigation by Abdool Karim (1998) exploring potential preventative health roles that THs could play with regard to the AIDS epidemic found that the Isangoma's knowledge of the transmission mechanism, risk groups and prevention strategies for AIDS was accurate. He recommended that THs be incorporated into AIDS prevention programmes where they can play a role in community-based AIDS education.

According to Green (1999) there is increasing recognition on the role of THs in preventing and controlling HIV/AIDS and other sexually transmitted infections (STIs). A number of these HIV prevention programmes have involved THs and has helped them to improve their skills in diagnosing, treating and counseling clients with HIV/AIDS and STIs.



Green (1999) made some important recommendations for one to consider when planning collaborative work with THs:

- Be fair and democratic in selecting healers for training
- Try to identify and train motivated healers who are respected in their communities
- Do not make membership of a TH's association a requirement for participation in HIV/AIDS training
- Encourage healers to promote sexual abstinence among youth, and fidelity within marriage among adults.

The World Health Organization (WHO) and other official groups acknowledge the potential effectiveness of THs as primary caregivers and the potential efficacy of their treatments in the fight against HIV and AIDS, sexually transmitted disease, and other infectious diseases (Hewson, 1998).

The WHO also supports the integration of Western medicine and traditional healing and encourages referrals between the two.

In South Africa, THs have their own organization (Board of THs) that is recognized by the Department of Health and by the Ministry of Health respectively. Among the Zulu population, THs serve many functions in the community, such as the role of a minister of religion, legal advisor, healer, custodian of history and tradition and community organizer (Gumede, 1991; Mkhize, 1981; Ngubane, 1977 and Chonco, 1972). By virtue of their stature, THs can bring about change in the behaviour of individuals, families, neighborhoods and communities. The aim of the present study was to assess the knowledge and practices of THs and determine the extent to which THs can diagnose oral conditions and how they can be incorporated into oral health care and prevention of oral diseases. It was anticipated that the outcome of this research will assist policy makers on the knowledge and attitude of THs towards oral health care and the socio-economic and cultural impact of oral health care delivery in Cameroon in general.

# CHAPTER THREE

# AIM AND OBJECTIVES

## 3.1 Aim

The aim of this study was to assess the role of THs in providing oral care services in Cameroon.

## 3.2 Objectives

- To determine knowledge and practices of THs regarding oral care in Bui Division.
- To determine the cost treatment of THs care as compared to conventional dental treatment provided in local dental clinics.
- To determine factors affecting the utilization of oral health services (provided by both THs and clinics) by the Cameroonian population.
- To determine the type of treatments administered by THs to treat oral problems and its (perceived) effectiveness.

# CHAPTER FOUR

# RESEARCH DESIGN AND METHODOLOGY

## Introduction

In Cameroon, THs play a crucial role in providing primary health care especially in remote areas where western medicine is unaffordable and people still have deep socio-cultural beliefs and attachments. Primary health care services in Cameroon are well developed and there is a certain degree of cooperation between TH and western trained doctors, but the introduction of oral health into the primary health care system has never been a priority of the government.

The fact that patients use conventional and traditional health-care practitioners simultaneously, calls for an improved dialogue between practitioners of both medicines without excluding oral health care. An inspection of the traditional practitioners' views reveals that they are aware of the many weaknesses of their practice and are eager to collaborate with the conventional medicine sector for their eventual inclusion into the national public health strategy in Cameroon.



In order to carry out this research, preliminary meetings were held with the heads of Bui THs associations and the aim, objectives and the future benefits of the research were discussed. Two sites were arranged for future meetings with THs for photographic identification and distribution of questionnaires. Apart from the fact that they were not willing to reveal in detail what they use in treating their patients, THs were very cooperative and most of them were willing to learn. Also an assessment was made to evaluate the impression the citizens of the Bui division about the treatment offered by TH's. This chapter describes the study design, sample, survey method, how the questionnaires were piloted, data entry and method of analysis.

**Study Design**

A cross-sectional study design was used.

**Study Population**

Rural and urban populations of BUI division, in the North West Province of Cameroon.

**Study Sample**

Random sample of the inhabitants of BUI Division.

**Measurements**

Administered questionnaires were used as the survey method. The purpose of the questionnaire was to collect factual and/or attitudinal data for measurement. It was designed to obtain accurate and valid responses.



**Design rules**

The same rules of design apply to all types of questionnaire:

- It must suit the aim of the study
- It must suit the nature of the respondent
- It should be clear, simple, unambiguous
- The design should minimize potential errors from respondents and coders
- The subject of the questionnaire should interest the respondent, encourage their co-operation and elicit truthful answers
- Well worded questions are essential, and pitfalls must be avoided, for example, ‘double-barreled questions’ that is, when two questions are included in one- the questions will have to be separated so that the respondent and the researcher can distinguish between the two.

- The wording of the questions should not lead the respondent to feel obliged to answer in a particular way, which may not be truthful
- Questions must not alienate either the respondent or the researcher
- Efficient and meaningful analysis of the acquired data should be possible.

**Instrument used**

Questionnaires and data capture sheets (Appendix 1, 2) with open and closed ended questions were the instruments used to collect the data. They were designed to ensure that it suited the aim and objectives of the study and were simple, clearly understood and unambiguous.

**The development of the study questionnaire**

Planning of the questionnaire began in March 2008. It was developed following group discussions with THs and other professionals working in the field. After a thorough review of the literature, the questions were formulated. The data from the questionnaires was grouped into the following categories:



*Demographics*

The demographic information was subdivided into groups that included the age and gender of the TH, literacy level; length of training period; duration of practice as a TH and the distance of their practice from the nearest health care facility. Demographic information of the population of Bui division included gender, age, monthly income and profession.

*Oral health knowledge, understanding and practices*

The THs were asked to identify common oral conditions and were questioned regarding its cause and possible treatment.

*Education and counseling*

THs were questioned about their oral health knowledge and their willingness to screen and educate their clients about oral health care.

*Perceived benefits*

Patients were interviewed regarding oral health care and their satisfaction with the services provided by TH for oral health problems.

**Piloting the questionnaire**

In June 2008, the completed questionnaires were tested on six THs and 10 patients. The pilot study was carried out to:

- Test the suitability of the method of collecting the data
- Check the adequacy of the questionnaire
- Check that all questions were clear and unambiguous
- Remove any items that did not yield usable data.



**Preparation and conduct of the interview**

**Meeting with THs**

In March 2008 the completed questionnaire and photographs were tested on five traditional healers and 10 people from Bui division chosen at random in market places and their various places of work. The pilot study was done to:

- Test the suitability of the method of collecting the data
- Check the adequacy of the questionnaire
- Check that all questions were clear and unambiguous
- Remove any items that did not yield usable data.

**Preparation for the final draft**

After the pilot study, irrelevant and ambiguous questions for the interviews were identified and either reformulated or deleted. This resulted in a general improvement of the questionnaire and an increase in the efficiency of the enquiry. The final draft of the questionnaire (Appendix 1 and 2) with 23 questions for THs and 13 for patients(clients) were then printed and copied for the larger study. The design and construction of the instrument took 6 months to be completed.

**Establishing contacts**

All researchers are dependant upon the goodwill and availability of their subjects. During an initial, information sharing meeting, co-operation of local leaders and the relevant health authorities was sought and obtained. Preliminary visits were made to the two traditional healer rulers (Fons) who are the heads of the traditional councils in the two communities where pilot studies were carried out. Details of the research, its aim, objectives and benefits were explained to the traditional healer rulers. After some traditional rites were performed, the Fons informed the traditional healers about the study and a meeting was scheduled to take place in 3 months time during which time a training workshop was to be held and data was to be collected. Oral health care workers (OHCW) resident in these communities were recruited as translators and facilitators to gain acceptability from the traditional healers and their patients.



**Interview approach**

21 traditional healers (10 from Oku and 11 from Kumbo) were invited to the initial meeting at the Fons palaces where the first set of questionnaires were administered together with the photographs of oral lesions that were used for testing the knowledge of THs.

At each of the stations, all meetings were presided by the chief priest at the Fon's palace. Group discussions were held regarding oral health conditions and their diagnosis. A questionnaire with open and closed ended questions and clinical photographs of easily recognizable common oral conditions plus oral lesions associated with HIV infection were used to obtain information.

**Data collection**

***(a)*** **For traditional healers**

Four OHCW were used as facilitators/translators. Due to differences in languages, distance and the cost of getting all THs in one setting, it was decided to carry out the study in 2 sites (Oku and Kumbo) on the day that their quarterly meetings were scheduled. In both instances we were invited to the local THs Association meeting where the purpose of the study was explained to them before the workshop took place. The meeting took place in the Fon's palaces at Oku and Kumbo.



The first half of the morning session consisted of ceremonial activities where libations were poured with palm wine and the venue was blessed before the ceremony started( a normal routine when ever the TH are having their meetings). After an introduction from the facilitators, the chief priest was invited to announce the opening of the workshop. Consent forms were given and questionnaires were given out, whereafter lectures were delivered after providing a brief background about the research project, the purpose of the workshop, roles and expectations of the facilitators and the format for the remainder of the workshop.

Self-administered questionnaires and pens were then handed out to each participant and they were asked to answer all questions. The researcher then interviewed each participant in a separate room away from the rest of the group. Following the semi-structured interview, the traditional healers

were shown six photographs of some common oral diseases and oral HIV lesions and were asked to identify as many as they could. Their answers were recorded and participants then adjourned for lunch.

After the lunch break, the researcher, provided a description of each of the oral lesions in the photographs in detail and informed the participants of the names of the lesions, their cause and how to identify them. The participants were encouraged to ask questions if they were unsure about any of the lesions described.

Following this learning session, a second workshop was planned with the TH to take place in 3 months. At the next meeting, the participants were again shown the same photographs that were used in the first meeting and were asked to identify the oral lesions.



***(*b) Dental clients**

Fifty seven administered questionnaires were carried out at random to individuals who were had oral problems and who had been treated for oral diseases. The questionnaires were administered in market places, bus stops and busy areas in the two localities where THs were interviewed). 5 questionnaires were discarded because of incomplete data and 52 were analyzed.

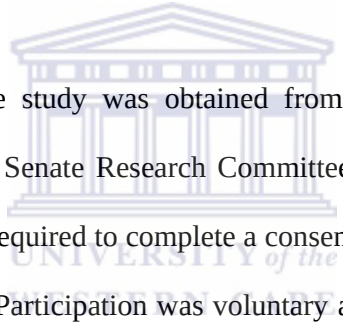
**Data analysis**

Epi-info (version Epi 16) and Microsoft excel softwares were used for analysis and presentation of the data.

**Validity and reliability**

The principal investigator (fluent in English, French, and Pidgin) was the only investigator involved in conducting interviews, keeping records, gathering and interpretation of data, thereby assuring confidentiality and the standardized recording of information. Furthermore to ensure validity, the triangulation method was used, whereby another person (the facilitator) reviewed ten per cent of the data to check for bias.

**Ethical considerations**




Ethical clearance to carry out the study was obtained from the Provincial Delegation of the Ministry of Public Health and the Senate Research Committee, University of the Western Cape. The participants in the study were required to complete a consent form (Appendix 3, 4) if they were willing to participate in the study. Participation was voluntary and each individual had the right to refuse to be included in the study or to withdraw from the study at any time. Furthermore, it was re-iterated that their decision to participate or not, will not affect their management or care in any way whatsoever. The participants were assured of confidentiality regarding the information they provide should they decide to take part.

# CHAPTER FIVE

# RESULTS

The data analyses of the questionnaires and data capture sheets used to collect data from the traditional healers and patients form the basis of this chapter. The in-depth interviews with THs provided more detailed information about their knowledge, attitudes and beliefs towards the importance of oral health.

**Demography of the sample**



A total of 21 THs and 52 patients took part in the study. The average age of THs was 46.0 years with the age ranging from 20 to 77 years and a standard deviation of 14.29. Sixty two percent of the TH were over 40 years. The majority were males (90%). 23.8% of the THs were herbalists and the remainder practiced both divination and herbal medicine. Of the 52 patients, 53% were males and 46% females (age range 9-70 yrs, SD=0.503).The age distribution can be seen in Table 1.

**Table 1: Age distribution of THs and their clients**

| | **THs** | **Clients** |
|---|---|---|
| **Age range (years)** | **Frequency (%)** | **Frequency (%)** |
| <20 yrs | 1 (4.6) | 8 (15.4) |
| 21-30yrs | 1 (4.6) | 22 (42.3) |
| 31-40yrs | 6 (28.6) | 13 (25.0) |
| >40years | 13 (61.9) | 9 (17.3) |

## A. TRADITIONAL HEALER QUESTIONNAIRE

More than two thirds (71.4%) had a primary and high school education and could read and write as shown in Table 2.

**Table 2: Level of Education of TH**

| Level of education | Frequency | Percentage |
|---|---|---|
| Primary and post primary | 12 | 57.1 |
| High school | 3 | 14.3 |
| Never in school | 6 | 28.6 |

Nearly two thirds of the THs did not have any formal training for their profession. Those who were formally trained were trained by their relatives and other Senior THs (Table 3). Those who were not formally trained claimed they got their knowledge "naturally". More than two thirds (76.2 %) were registered with the TH's association.



**Table 3: Trainer of TH**

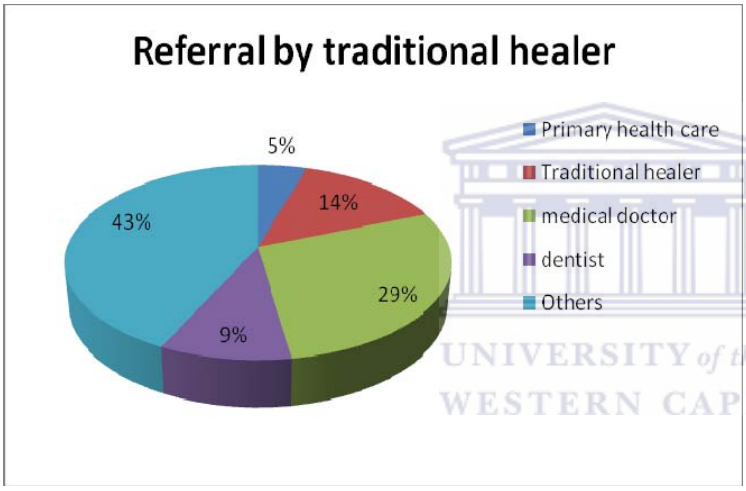
| Trainer | Frequency | Percentage |
|---|---|---|
| Father | 4 | 19 |
| Uncle | 2 | 9.5 |
| Senior TH | 4 | 19 |
| "Naturally" (all diviners) | 11 | 52.4 |

The average duration of training of TH was 7.5 years with values ranging from 4 to 10 years and a standard deviation of 3.03. The average duration of practice of TH was 21 years with values ranging from 2 to 41 years and SD 13.03

**Referral from THs**

All THs reported that if necessary they refer patients to other facilities (Figure 1).

**Figure 1: Referral by TH**






**Oral health knowledge, understanding and practices**

Sixty seven percent of THs reported that they knew the cause of HIV/AIDS and 67% stated that they could treat patients with oral HIV lesions. Some of the causes of AIDS/HIV reported by THs included unprotected sex, contaminated needles, contact with blood, and failure to keep some traditional laws (disloyalty). A third did not have any idea about the causes of AIDS (Table 4).

**Table 4: Causes of AIDS as reported by TH**

| Causes of AIDS | Frequency | Percentage |
|---|---|---|
| Unprotected sex | 10 | 47.6 |
| Contaminated Blades | 2 | 9.5 |
| Contact with blood | 1 | 4.8 |
| Traditional disloyalty | 1 | 4.8 |
| No idea | 7 | 33.3 |

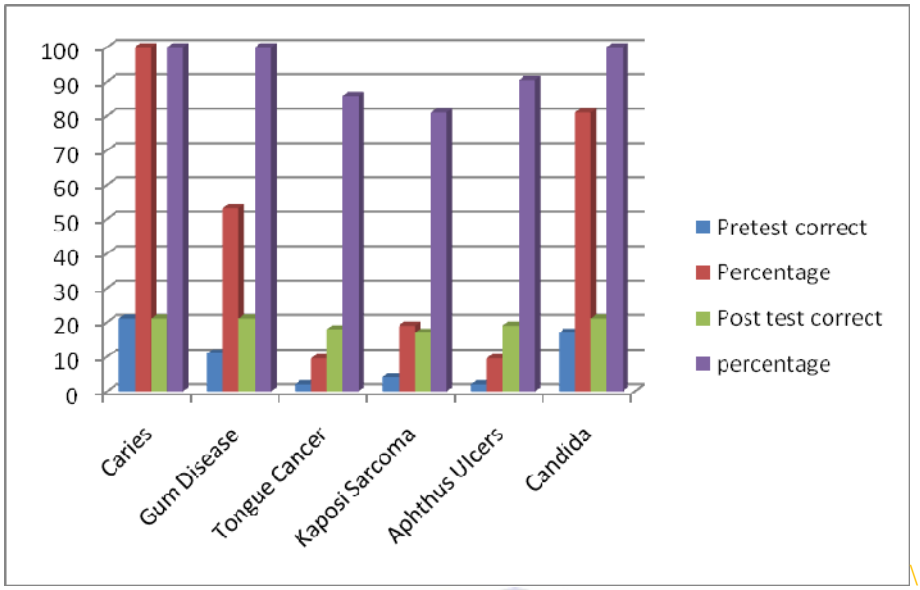
All THs were able to accurately detect candidiasis, dental caries and gum diseases after a brief training. There was a significant increase in knowledge following the training workshop in the diagnosis of aphthous ulcers, tongue cancer, and Kaposi sarcoma (Table 5) There was a statistical significant increase (p=0.004) in knowledge from pre-test to post-test for all the six diseases (Figure 2).



**Table 5: Identification of common oral conditions from photographs**

| | Lesion/Disease | Pretest correct | Post test | Percentage | p value |
|---|---|---|---|---|---|
| A | Caries | 21 (100) | 21 (100) | 0.00 | 1 |
| B | Gum Disease | 11 (53.33) | 21 (100) | 46.67 | <0.001 |
| C | Tongue Cancer | 2 (9.52) | 18 (85.68) | 76.16 | 0.015 |
| D | Kaposi Sarcoma | 4 (19) | 17 (80.92) | 61.92 | 0.003 |
| E | Aphthous Ulcers | 2 (9.52) | 19 (90.44) | 80.92 | 0.004 |
| F | Candida | 17 (80.92) | 21 (100) | 19.08 | 0.036 |
| | AVERAGE | 10(45.38) | 20(92.84) | 79.87 | 0.004 |

**Figure 2: Pre- and post- test of common oral conditions from photographs**




THs also described some lesions (in their own language) as the common signs of HIV/AIDS. For example, swollen red gums (gingivitis), wounds on the cheek and palate (aphthous ulcers), white dots on the tongue (candidiasis) and rashes in the mouth (stomatitis) (Table 6).



**Table 6: Description of oral HIV lesions by TH**

| Description | Frequency | Percentage |
|---|---|---|
| Swollen, red gum(gingivitis) | 8 | 53.3 |
| Wounds on the cheek, palate(Aphthous ulcers) | 4 | 26.7 |
| Mouth rashes (Stomatitis) | 2 | 13.3 |
| White dots on the tongue(Candida) | 1 | 6.7 |

All THs reported that they would be willing to screen and educate their clients about oral health care.

**Treatment provided for mouth problems**

Tables 7 and 8 show the materials used and types of oral treatments they are used for. They include the bark of trees, herbs and roots to make mouth washes, and powders used to carry out their treatment. Their perceived benefits included pain relief and softening teeth before extraction.

**Table 7: Materials used in treatment**

| Treatment material | Frequency | Percentage |
|---|---|---|
| Bark of trees | 10 | 55.6 |
| Leaves/herbs | 6 | 33.2 |
| Roots of trees | 1 | 5.6 |
| Palm oil | 1 | 5.6 |

**Table 8: Type of treatment given by TH**

| Type of treatment provided | Percentage |
|---|---|
| Mouth wash from bark of tree extracts | 67.0 |
| Pain relieving herbs | 11.0 |
| Fume inhalations(from burnt spices in palm oil) that remove worms from infected tooth | 11.0 |
| Softens tooth before extractions | 5.5 |
| Application of powder from bark of tree to stop pain | 5.5 |

## B. PATIENT QUESTIONNAIRE RESPONSE

Fifty two participants who reported having oral problems and had dental treatment were interviewed. The age of participants ranged from 9 to 70 years (SD=0.503). The age distribution can be seen in Table 1. More than 50 % of these patients have an income of less than $100 per month. The reasons why people preferred to visit a TH is shown in Table 9. The average cost of treatment with THs (approximately $5) is very low as compared to conventional treatment ($50) and most patients visit THs because of the low cost.

**Table 9: Reasons why patients visit THs**

| Reason for visits | Frequency | Percentage |
|---|---|---|
| Low cost | 35 | 68.6 |
| TH understand my problems better | 6 | 11.8 |
| Hospital/Clinic too far | 3 | 5.9 |
| TH can tell origin of my illness | 3 | 5.9 |
| Fear from death from tooth extractions | 4 | 7.8 |



For more than 76% of patients it takes about 30 minutes to get to a TH and for more than half of the participants it takes an average of 4 hours to get to the nearest oral health care facility (Table 10). The distance of the nearest health facility to a TH is shown in Table 10. The nearest health facility is half an hour away from three quarters of the THs.

**Table 10: Proximity of patients to TH and health facilities; and TH to health facilities.**

| Time | Distance of patient from TH N (%) | Distance from oral health facility N (%) | Distance of TH to the nearest health facility N (%) |
|---|---|---|---|
| < 30 min | 38(76) | 2(3.9) | 16(75.2) |
| 30 min -1hr | 7(14) | 17(33.4) | 2(9.5) |
| 1hr -4 hrs | 4(8) | 5(9.8) | 0(0.0) |
| >4hrs | 1(2) | 27(52.9) | 3(15.3) |

More than two thirds (67.3%) were satisfied with the treatment the TH provided. Those who were not satisfied reported that it was due to the fact that there was no significant change in their presenting complaint and that the pain persisted even after treatment.



**Summary**

More than half of THs were literate, and their knowledge on the causes and transmission of HIV/AIDS was good. They showed a significant increase in knowledge following training. TH refer patients with oral problems if deemed necessary – they are referred to the hospitals, other THs and a few to dentists for their oral health needs. Despite the temporary relief from symptoms received from THs, more than two thirds of the patients were satisfied with their treatment. Most patients in this area were low income earners and they patronize TH's for socio-economic reasons like low cost of treatment and closer proximity to where they lived. It takes 30 minutes for the majority of patients to get to a TH, but and an average of 4 hours to get to the nearest oral health care facility.

# CHAPTER SIX

# DISCUSSION & CONCLUSIONS

Traditional healers form a vital work-force in the management of several diseases in Cameroon. In the Bui division, and health and oral care delivery is carried out by 9 medical doctors and 1 dentist serving a population of 80 000 people. There are more than 500 THs registered in the Bui Division with the TH's association with many of them involved in activities ranging from treating common illnesses like diarrhea and malaria to complex illnesses with 'supernatural' causes, bone setting and serving as traditional birth attendants. Though they treat some oral problems, the role and impact of TH in oral health care in Cameroon is unknown.



The aim of this study was to determine the oral care knowledge and practices of THs on oral health delivery in Bui division of the Republic of Cameroon. Limitations of this research included the fact that sample size was small and that no questions were asked as to whether THs counsel or educate patients on oral health care.

The average age of THs in the present study was 46 years. The fact that more than two thirds of THs in the present study were older than 40 years implies that if speedy interventions to incorporate them into oral health education and promotion efforts are not made the legacy of the use of traditional medicines in the treatment of oral lesions may be lost (Kisangau et al, 2007). The most senior THs were illiterate, but form the majority of the trainers and are respected community leaders. Therefore, for knowledge transfer from the elderly to younger groups is required, they form key target groups that may be useful for initiating these efforts.

There was a high preponderance of males in the THs sample and this is because traditional medicine is a male-dominated profession (Gessler et al, 1995(b)). The majority practiced both divination and herbalism. Herbalists are involved in treatment only with natural products like herbal medicine, minerals and animal extracts, while diviners are involved in the spiritual diagnosis of infirmities by performing socio-cultural rituals and divination whose therapeutics extends beyond illness to problems of daily living (Gessler et al, 1995(b); Abdool Karim et al, 1994).

Most of the THs in this region carry out both diagnoses and treatments since all diviners also perform the role of the herbalist (treatment).This finding is similar to studies carried out in the Tanzania and Zambia (Kayombo et al, 2007; Burnett et al, 1999). However, the majority of the diviners were male, contrary to reports from South Africa (Abdool Karim et al, 1994; Pelzer et al, 2006) where the majority were female.



More male patients patronize THs and two thirds of the patients were between the age of 21-40 years. Maclean and Bannerman (1982) found that a higher number of older people visited THs than the younger age groups.

Less than half of the THs had formal training in their profession. Furthermore, the training was not standardized, as most were trained by fathers, uncles and other senior THs. The average duration of training for a herbalist was 7.5 years with training ranging from 4 to 10 years depending on the ability of the apprentice. It can be concluded that because of their duration of their training, the herbalists would have had good knowledge and skills in treating patients before becoming independent, unlike diviners who do not undergo any form of apprenticeship. This can explain why there are many charlatans found among the diviners.

Of the 21 THs in this study, only 76% of them are registered with the Traditional Healer's Association of Cameroon. The numbered of registered practitioners must be increased, so that their practices can easily be regulated and bad practices controlled.

More than two thirds of THs are close to basic primary health facilities, but most of their referral for oral diseases are made to medical doctors and other THs who are not in close proximity. Some encourage the use of self medication including herbs and common analgesics because of the perception that referral to a dental clinic will be very expensive. Only few patients (6%) were referred to the dental clinic. Most patients visit THs first, before a medical or dental practitioner (Burnett et al, 1999; Morris, 2001; Puckree et al, 2002) and more often than not, only when their symptoms have not subsided.



Other reasons not taking up oral health services, may include the lack of knowledge of the role of the dental team as efficient oral health care providers, the acute shortage of oral health care workers (only one dentist, 2 dental therapists and 4 other dental auxiliaries serve this population of about 800 000 people), traditional beliefs that tooth extraction can lead to death or pregnancy miscarriage, poor access to oral care facilities and private dental services are unaffordable. People are afraid of the dental clinic and prefer cheap palliative treatments instead (Nations and Nuto, 2002). The primary health care system in Cameroon is well developed and there is some degree of co-operation between TH and western trained doctors as reported earlier by Kayombo and colleagues (2007) but the involvement of oral health into the primary health care system is still minimal.

The average cost of treatment from THs (approximately $5) is very low as compared to conventional treatment ($50). In the present study, most patients reported visiting THs because of low cost and because they perceived the THs had a better understanding of their problems.

Pelzer et al (2006) suggested that persons visit THs for treatment because they provide client-centred and personalized health care that is tailored to meet the needs and expectations of their patients, paying special respect to social and spiritual matters. Nevertheless 32% were not satisfied by the treatment provided by the TH, mainly because the pain persisted despite the traditional remedies provided. Treatment given for pulpitis was short-lived.

More than a third reported visiting the hospital, usually when their situation got worse (e.g. development of dento-alveolar abscesses, Ludwig's angina) after visiting the TH. One of the reasons why patients are referred late (or as a last resort) is because THs are afraid to "lose their reputation" in the community (Hillenbrand, 2006). Fortunately, some THs do refer patients because they know their limits - they can not treat diseases caused by "germs" (Saub and Jaafar, 2001). Diviners believe diseases are of spiritual origin and that their treatment requires spiritual intervention (Kayombo et al, 2007; Gessler et al; 1995(b)).



In the present study, the majority of the sample reported that it took half an hour to get to a TH, but an average of 4 hours for half of them to get to the nearest oral health care facility. This reaffirms the fact that proximity of the health care professional is a key determinant in oral care delivery. In the Bui Division, primary oral health care is underdeveloped with poor access to basic oral health care. Poor access to oral health facilities limits patient's choices and hence patients prefer to patronize a THs rather than having to travel for more than 4 hours to see an oral health care worker.

Seventy one percent of THs reported that they were aware of the causes of HIV/AIDS including unprotected sex, use of contaminated blades, especially for scarifications (a common traditional practice in this region) and contact with blood. More than a third did not have any idea as to the origin of AIDS. These results are comparable to the findings of Pelzer and colleagues (2006).

THs need to be educated on other practices that can cause the transmission of the virus and should also be trained in HIV counseling, condom distribution, community HIV/AIDS and STI education.

Pre-testing the THs for knowledge of oral lesions revealed that they could diagnose candidiasis, dental caries and gum diseases from photographs of six oral lesions. Following the training workshop, there was a statistically significant increase in the correct diagnosis of aphthous ulcers, tongue cancer and Kaposi sarcoma. Similar findings had been found by Lewis et al. (2004) and Rudolph et al. (2007) in South Africa.

Pre-testing the THs for knowledge of oral HIV lesions revealed that they could describe some of the lesions (in their own language) as common signs of HIV/AIDS like swollen red gums (gingivitis), "sores" on the cheek and palate (aphthous ulcers), white dots on the tongue (candidiasis) and rashes in the mouth (stomatitis). Eighty six per cent of THs reported that they treat patients for mouth problems. With regard to HIV infections, many THs report that their treatments help patients to regain their appetite, cure the opportunistic lesions and increase the "red blood cell count". Their perceived impression is, that if you can increase the red blood cells, the patient feels better (Kayombo et al. 2007; Kisangau et al. 2007; Hillenbrand, 2006; Pelzer et al. 2006; Burnett et al.1999).



All the THs reported that they would be willing to learn more about common mouth problems in adult and children and are also willing to learn to screen patients for the oral manifestations of HIV. Furthermore, they were also interested in educating their clients about oral health care if given adequate training. A study carried out in Yaoundé, Cameroon has long-established that although the education level varies widely, traditional practitioners have a deep thirst for knowledge and

yearn for greater inclusion into the public health sector (Hillenbrand, 2006). This is supported by other studies from Africa (Burnett et al. 1999; Pelzer et al. 2006; Kayombo et al. 2007; Kisangau et al. 2007).

In the present study, treatment for oral disease by THs included the use of mouth washes, pain relieving herbs, fumes from burnt food spices used to remove "worms" from infected teeth and the application of powder from bark of trees to stop pain. The use of natural products for the treatment of other oral disease like herpes zoster, TB, candidiasis and toothache have also been reported by Kisangau (2007) and Tapsoba and Deschamps(2005). However, it has been observed by Kayombo and colleagues (2007) that one of the problems associated with the use of herbal treatment is that they have never been rigorously evaluated or standardized (in terms of a standard pharmacopeia). Furthermore, they are poorly packed and preserved, limiting their usefulness, accessibility and shelf life. Hillenbrand (2006) reported that all healers interviewed acknowledged that plants that they use can be toxic, but none of them doubted their own prescriptions. Most said they learnt to concoct their medications by observation and practice from elders.



It is important to note that some of the ingredients in these medicines have profound effects on the mouth, stomach, and the entire gastro- intestinal tract with severe consequences like "iatrogenic gastritis and colitis". A common complaint about traditional medicine is that healers claim they can treat everything and anything whether they have a sound knowledge of the aetiology or patho-physiology of the disease or not. This calls for caution about the efficacy of their treatment modalities.

**Concluding remarks**

The majority of Cameroonians depend on traditional medicines for their health needs with about 7% of the average household health budget going towards traditional medicines irrespective of the earning of its inhabitants. All TH operate full-time and greatly out-number the oral health care providers. Irrespective of a well developed primary health care system in Cameroon and better accessibility to conventional health care, most people still rely on TH because treatment is affordable and TH share their patient's culture, beliefs and values and understand their expectations of health care. Hence they are generally more accessible and acceptable as health care providers. Their methods of treatment are effective and less invasive in certain cases, as they make use of local herbs and medicinal plants, though there are sometimes hazards associated with their treatments. This is because they have not been rigorously evaluated or standardized as treatment does not follow a standard pharmacopeia.



In view of the fact that factors affecting the oral health seeking behavior of patients in this area are barriers that cannot be easily removed in a short term, a multisectorial-population based primary health care approach will be the best option to break down some of these barriers. This should be based on an empowerment model which will integrate basic oral health care to all aspects of health care at PHC level equip THs with tools that that can help them with easy diagnosis and recording of oral disease, with appropriate referrals of patients and finally with the involvement of host communities.

From the findings of the present study, we can conclude that THs have a vital role to play in the health seeking behaviors of patients in the community. Improving their knowledge and cooperation with oral health workers will serve to reduce inequalities and improve the standard of oral health care. THs can form a bridge linking the community to oral health care providers; can serve as a valuable tool for population-based health prevention and promotion approaches in achieving health for all. Oral health workers in this region have to increase cooperation and collaboration with THs.

# CHAPTER SEVEN

# RECOMMENDATIONS

It is desirable to use the principles of primary health care in providing oral health for all communities in this region using simple and acceptable ways of improving the oral health status of people and reducing inequalities. This may be achieved by:

- Both the provincial and local governments' efforts to increase the training and presence of oral health work force into the 4 major towns in Bui division.
- Basic oral health care education should be included in the curriculum of primary health care training centres, nursing schools and teachers training colleges. With this, oral health education can be incorporated into general hygiene lessons in schools, out patients department, antenatal clinics etc.
- Training of dental auxiliaries, community workers and educated THs to take up some basic roles of oral health workers like counseling and oral health education to create awareness in the community is inevitable. Apart from increase in knowledge, this will also increase understanding between THs, the community and the oral health work force and encourage community involvement in basic oral health care - the limits of THs here should be emphasized.
- Involving THs and their leaders in oral health planning.

# References

Abdool Karim, S.S, Ziqubu-Page, T and Arendse R. Bridging the gap: Potential for a health care partnership between African THs and biomedical personnel in South Africa. Medical Research Council, South Africa, 1993.

Abdool Karim, S.S. THs and AIDS Prevention. Center for epidemiological research in Southern Africa, South African Medical Research Council, Durban, 1998.

Akpata, E.S., Akinrimsi, E.O. Antibacterial activity of extracts from some African chewing sticks. Oral surgery, Oral medicine, Oral pathology, 1977; 44: 717-722.

Arendorf T, Bredenkamp B, Wood R, Ofefe E. Oral manifestations of HIV infection in 600 South African patients. Journal of Oral Pathology and Medicine.1998; 27:176-9.

Baba, S.P. and Kay, E.J. The mythology of killer deciduous canine tooth in southern Sudan. Journal of Paediatrics, 1989; 14: 48-49.

Bannerman RH, Burton J, Wen-Chieh C. Traditional Medicine and Health Care Coverage- A Reader for Health Administrators and Practitioners. Geneva: World Health Organisation, 1983.

Begg MD, Lamster IB, Panageas KS, Mitchell-Lewis D, Phelan JA, Grbic JT. A prospective study of oral lesions and their predictive value for progression of HIV disease. Oral Dis 1997; 3: 176-83.

Burnett A, Baggaley R, Ndovi-MacMillan M, Sulwe J, Hang'omba B, Bennett J. Caring for people with HIV in Zambia: are THs and formal health workers willing to work together? AIDS Care. 1999 Aug; 11(4):481-91.

Chipfakacha V. The role of culture in primary health care. South African Medical Journal.1994; 84: 860-862.

Chonco WZ. The African Bantu traditional practice of medicine: some preliminary observations. Soc Sci Med 1972; 6: 283-322.

Dunlop D. Alternative to 'modern' health delivery systems in Africa: public policy issues of traditional health systems. Soc Sci Med 1975; 9: 581-586.

El-Hilaly J, Hmammouchi M, Lyoussi B. Ethnobotanical studies and economic evaluation of medicinal plants in Taounate province (Northern Morocco). J Ethnopharmacol. 2003; 86(2-3):149-58.

Enwonwu, C.O. & Anyanwu, R.C. The chewing stick in oral health care. World Health Forum, 1985; 6: 232-234.

Farrand D. An analysis of indigenous healing in suburban Johannesburg. Unpublished Masters thesis, University of Witwatersrand, Johannesburg, 1980.

Feigal DW, Katz MH, Greenspan D. The prevalence of oral lesions in HIV infected homosexual and bisexual men: three San Francisco cohorts. AIDS 1991; 5: 519-25.

Freeman M, Motsei M. Planning health care in South Africa-is there a role for THs? Social Science and Medicine.1992; 11: 83-90.

Green EC. Involving healers. AIDS Action.1999; (46): 3.

Friedman I. Achieving partnerships with Isangomas. Health Systems Trust Update.1998; 37: 8.

Gessler MC, Msuya DE, Nkunya MH, Mwasumbi LB, Schar A, Heinrich M, anner M. THs in Tanzania: the treatment of malaria with plant remedies. J Ethnopharmacol. 1995; 48(3):131-44.

Gessler MC, Msuya DE, Nkunya MH, Mwasumbi LB, Schar A, Heinrich M, anner M. THs in Tanzania:sociocultural profile and three short portraits. J Ethnopharmacol. 1995; 48:145-160.

Green EC, Makhubu L. THs in Swaziland: towards improved cooperation between the traditional and modern health sectors. Soc Sci Med 1984; 18: 1071-1079 .

Gumede MV. THs. Johannesburg: Skotaville Publishers, 1991.

Hammand-Tooke, WD. 1989. Rituals and Medicine. Cape Town: Creda Press (Pty) Ltd. P104-105

Hamza OJM, Van den Beukel CPJ, Matee MIN, Moshi MJ, Mikx FHM et al. Antifungal Activity of traditionally used Tanzanian plant. First African and Middle East IADR Federation Conference. Abstract #50. Kuwait, 2005.

Hewson, H.G. THs in Southern Africa, Annals of Internal Medicine, 1998; 128: 1029-1034.

Hillenbrand E. Improving Traditional-Conventional Medicine Collaboration: Perspectives from Cameroonian Traditional Practitioners, Nordic Journal of African Studies 15(1): 1–15 (2006)

Hiza JF, Kikwilu EN. Missing primary teeth due to tooth bud extraction in a remote village in Tanzania. International Journal of Paediatric Dentistry.1992; 2(1): 31-4.

Homsy J, King R. The role of THs in HIV/AIDS counseling in Kampalla, Uganda. Key issues and debates: THs. Soc Afr SIDA.1996; 13:2-3.

Iriso R, Accorsi S, Akena S, Amone J, Fabiani M, Ferrarese N, Lukwiya M, Rosolen T, Declich S. "Killer" canines: the morbidity and mortality of ebino in Northern Uganda. Tropical Medicine and International Health.2000; 5(10): 706-710.



Kahn JO, Walker BD. Acute human immunodeficiency virus type I infection. N Engl J Med 1998; 339: 33-39

Kale, R. THs in South Africa: A parallel health care system, British Medical Journal, 1995; 310: 1182-1185.

Kambizi L, Afolayan AJ. An ethnobotanical study of plants used for the treatment of sexually transmitted diseases (njovhera) in Guruve District, Zimbabwe. J Ethnopharmacol. 2001;77(1):5-9.

Katz MH, Greenspan D, Westenhouse J. Progression to AIDS in HIV-infected homosexual and bisexual men with hairy leukoplakia and oral candidiasis. AIDS 1992; 6: 95-100.

Kayombo EJ et al. Experience of initiating collaboration of THs in managing HIV and Aids in Tanzania. Journal of Ethno biology and Ethnomedicine, 3-6;200

Kikwilu, E.N. and Hiza, J.F.R. Tooth bud extraction and rubbing of herbs by THs in Tanzania: Prevalence, and sociological and environmental factors influencing the practices. International Journal of Paediatric Dentistry 1997; 7: 19-24.

King R. Collaboration with THs in HIV/AIDS prevention and care in sub-Saharan Africa. A literature review. UNAIDS/2000.29E. Best Practice Collection Geneva, Switzerland.

King R. and Homsy J. Involving traditional healers in AIDS education and counseling in sub-Saharan Africa: A review. AIDS 1997.11(suppl A),S217-225.

Kinloch-de Loes S, Hirschel BJ, Hoen B. A controlled trial of zidovudine in primary human immunodeficiency virus infection. N Engl J Med 1995; 333: 408-13.

Kisangau D.P, Lyaruu H.V.M, Hosea KM, and Joseph CC. Use of traditional medicines in the management of HIV/AIDS infections in Tanzania :a case in Bukoba rural district. Journal of ethnobiology and ethnomedicine 2007.3(29):3-29.

Legal status of traditional medicine in Cameroon, WHO/Cameroon (21st January 2008). http://www.who.int/medicinedocs/index.fcgi?sid=7Cj5oqQa9ee80ca60000000047461a16&a=d&c=medicinedocs&d=Jh2943e.4.6#Jh2943e.4.6

Lewis HA, Rudolph MJ, Mistry M, Monyatsi V, Marambana T, Ramela P. Oral health knowledge and original practices of African THs in Zonkizizwe and Dube, South Africa. South African Dental Journal.2004; 59(6): 243, 245-246.

Maclean U, Bannerman RH. Utilization of indigenous healers in national health delivery systems. Soc Sci Med 1982:16:1815-1816.

Makinde MA. African philosophy, Culture and Traditional Medicine. Monographs in International Studies, Ohio University, 1988.

Masauso Nzima M, Romano K, Anyangwe S, Wiseman J, Macwan'gi M, Kendall C, Green EC. A targeted intervention research on TH perspectives of sexually transmitted illnesses in urban Zambia. Current Research. Soc Afr SIDA.1996; (13): 7.

Ministere de la Sante Publique. 2002. Stratégie Sectorielle de Santé: Analyse Situationnelle du Secteur Sante au Cameroun, paper prepared by Ministry of Public Health, Yaounde, Cameroon

Mkhize HB. Indigenous healing systems and western psychotherapies. Unpublished Masters thesis, University of Natal, Durban, 1981.

Morris K .Treating HIV in South Africa: a tale of two systems.The Lancet, 2001. (357):1190.

Nakyanzi T. Promoting collaboration. AIDS Action.1999 (46):4.

Nations M.K, Nuto S.A.S."Tooth worms", poverty tattoo and dental care conflicts in Northeast Brasil. Social and medicines 2002. 54:229-244.

Ngilisho, L.A.F. Mosha, H.J., Poulsen, S. The role of THs in the treatment of toothache in Tanga Region, Tanzania. Community Dental Health, 1994; 11:240-242.

Ngubane H. Body and Mind in Zulu Medicine. New York: Academic Press, 1977

Ongunbodede, E. Dental care: the role of THs. World Health Forum, 1991; 12: 444-445.

Patton LL, McKaig RG, Eron JJ, Lawrence HP, Strauss RP. Oral hairy leukoplakia and oral candidiasis as predictors of HIV viral load. AIDS 1999; 13: 2174-6.

Pretorius E. Traditional and modern medicine working in tandem. Curationis. 1991; 14(4): 10-3.

Puckree T, Mkhize M, Mgobhozi Z, and Lin J. African THs: what health care professionals need to know. Int J Rehabil Res.2002; 25(4): 247-51.



Rudolph MJ,Ogunbodede EO,Mistry M. Management of the oral manifestations of HIV/AIDS by traditional healers and care givers. Curationis 2007.30(1):56-6.

Saub R, Jaafar N.A dental anthropological study of health and illness behaviour among orang Asli of the Semai tribe: the perspective of THs.Med J malasia.2001Dec; (56(4):401-7.

Sarita PT, Tuominen R. Use of health care services in two rural communities in Tanzania. Community Dentistry Oral Epidemiology.1993; 21(3): 133-135.

Sokhela NW, Edwards SD, Makunga NV. Natural and supernatural healing by Zulu indigenous practitioners. In: Edwards SD, ed. Series B No. 49. KwaDlangezwa: University of Zululand, 1985.

Sote E.O. The relative effectiveness of chewing sticks and toothbrush on plaque removal. African Dental Journal, 1987; 2: 48-53.

Staugaard F. Role of traditional health workers in prevention and control of AIDS in Africa. Tropical Doctor.1991; 21(1): 22-4.

Tapsoba H, Deschamps JP. Use of medicinal plants for the treatment of oral diseases in Burkina Faso. J Ethnopharmacol. 2005; 34: 234-7

Tomkins A. THs. Tropical Doctor. 1992; 22(3) : 97-98



Wilkinson D, Gcabashe L, Lurie M. THs as tuberculosis treatment supervisors: precedent and potential. Int J Tuberc Lung Dis.2001; 5: 1072-1074 .

WHO/Afro (1981). http://www.afro.who.int/trm/index.html. (Last accessed 12/02/2008)

WHO/UNICEF. Traditional Medicine Strategy 2002-2005, World Health Organization, WHO/EDM/TRM/2002.1, Geneva, p.7.

World Health Organization. Legal status of traditional medicine and complementary/alternative medicine: A Worldwide Review. 2001; 43-45.

# Appendices

## Appendix 1: TRADITIONAL HEALERS QUESTIONNAIRE

Name:……..

Age:…….

Gender: Male Female

Location: …….



Are you registered with the traditional healers association?

Yes No

What type of practice are you specialized in?

(a) Divination

(b) Herbalist

(c) Both

(d) Other (please explain)

Did you have formal training?

Yes No

If yes, who trained you? …….

How long was your training? ……

How long have you been in practice? ……

How close is the nearest health facility from your practice?

a. Less than 30 minutes
b. Between 30 minute to one hour
c. Between 1 hour to 4 hours
d. 4 hours and more

Do you treat patients with mouth problems?

Yes No



If yes, can you describe some of the mouth problems you see?

……..

……..

Is it easy for you to differentiate the different types of the mouth problems?

…….

How do you treat these problems?

…….

…….

What do you use to treat mouth problem?

.....

Would you like to know about common mouth problems that children and adults have?

Yes No

Do you treat patients with HIV/AIDS?

Yes No

Do you know what causes AIDS?

Yes No

If yes, what is it? ----------

Do you know that people with HIV/AIDS have problems with their mouth?

Yes No



If yes, can you recognize mouth disease in people with HIV?

Yes No

If yes, please explain ……..

Would you like to know about oral problems associated with AIDS?

Yes No

Will you be willing to screen patients for common mouth diseases (tooth decay, gum diseases, mouth cancer, oral manifestations of HIV/AIDS?

Yes No

Do you refer patients with mouth problems?

Yes No

If yes then where do you refer them too?

a. Traditional healers
b. Medical doctors
c. Primary health care centers
d. Dentist
e. Other:

## Appendix 2: PATIENT QUESTIONNAIRE

Name: ……

Age: ……

Gender: Male Female

Where do you live? …….

What do you do?:……

What is your monthly income?

a. Less than $50
b. $50-$100
c. $100-$200
d. Above $200



Have you ever had problems with your mouth and teeth?

Yes No

If yes, please explain what the problem was? …….

Did you go to anyone when you had the problem?

Yes No

If yes, where did you go?

a. Hospital
b. A traditional healer
c. Dental clinic
d. Both (a) and (b)
e. Both (b) and (c)
f. Other (please explain):

If you have been to any one of the above, what type of treatment did you get?

a. I had my tooth extracted
b. I was given medicine that reduced my pain
c. I was given medicine that stopped my pain.
d. Other (please explain)



Were you satisfied with the treatment you received?

a. Yes
b. No

If no, please explain. …….

How much did you pay for the treatment you received? …….

How long does take you to get to the nearest traditional healer?

a. Less than 30 minutes
b. Between 30 minute to one hour
c. Between 1 hour to 4 hours
d. 4 hours and more

How long does it take you to get to the nearest oral health service?

a Less than 30 minutes

b Between 30 minute to one hour

c Between 1 hour to 4 hours

d  More than 4hours

## Appendix 3: Informed consent form (Patient)

Dear ……..,

I am a Masters Student in the Department of Community Oral Health at University of the Western Cape. We are interested in finding out about your experiences with mouth problems and who you went to for treatment and assistance with the problems. We are doing this to see if there are ways in which we can prevent any further problems or help with any problems you may have. The interview will take about 10 minutes. There are no risks in participating and all information you give us will be treated as strictly confidential. No one will have access to this information except the researcher. Neither your name nor anything that identifies you will be used in any reports of this study. All information collected will be maintained and stored in such a way as to keep it as confidential as possible.

Your participation in the study is voluntary and you may withdraw from the study at any time without any penalties or alterations to your future management. If you would like to take part in the study, please sign the bottom of this letter. Please contact Dr M Agbor on telephone number at work +237 77170167 or at home on +237 97122782 if you would like any more information about the study.

Yours sincerely

Dr M Agbor

---

I understand what will be required of me to take part in the study. I agree to participate in the research being undertaken by Dr M Agbor. I understand that at any time I may withdraw from this study without giving a reason and without it affecting my normal care and management.

Name: .....…….. .....…….

(print in block letters) (Signature)

Date: .....…… Witness: ……

## Appendix 4: Informed consent form (Traditional Healer)

Dear ……..,

I am a Masters Student in the Department of Community Oral Health at University of the Western Cape. We are interested in finding out about your knowledge regarding oral problems and your experiences of managing and treating patients with mouth problems. We are doing this to see if there are ways in which we can assist you in the diagnosis, management and possible referral of patients. The interview will take about 10 minutes. There are no risks in participating and all information you give us will be treated as strictly confidential. No one will have access to this information except the researcher. Neither your name nor anything that identifies you will be used in any reports of this study. All information collected will be maintained and stored in such a way as to keep it as confidential as possible. Your participation in the study is voluntary and you may withdraw from the study at any time without incurring any penalties.

If you would like to take part in the study, please sign the bottom of this letter. Please contact Dr M Agbor on telephone number at work +237 77170167 or at home on +237 97122782 if you would like any more information about the study.



Yours sincerely

Dr M Agbor

---

I understand what will be required of me to take part in the study. I agree to participate in the research being undertaken by Dr M Agbor. I understand that at any time I may withdraw from this study without giving a reason.

Name: .....…….. .....…….

(print in block letters) (Signature)

Date: .....…… Witness: ……