

**UNIVERSITY OF STELLENBOSCH, SOUTH
AFRICA**

RESEARCH ASSIGNMENT

**TRADITIONAL AND MODERN MEDICINE IN
PRIMARY CARE – PREVALENCE, PATTERNS
AND PREDICTIVE FACTORS OF UTILISATION
IN MAKWARELA TOWNSHIP, VHEMBE
DISTRICT, LIMPOPO**

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A. TITLE

Traditional and Modern Medicine in Primary Care – Prevalence, Patterns and Predictive Factors of Utilisation in Makwarela Township, Vhembe district, Limpopo.

B. ABBREVIATIONS

CAM- complementary and alternate medicine

CI- confidence intervals

HH- households

NS: Not Significant

NA: Not Applicable: Table too sparse

OM - orthodox medicine

STI - sexually transmitted infections

TM - traditional medicine

WHO - world health organisation

TH - traditional healer

HIV- human immunodeficiency virus

C. ABSTRACT

Introduction: Medical pluralism is a worldwide phenomenon. The reality in South Africa is that healthcare is provided by both orthodox and traditional healthcare providers. There is a great reliance on traditional medicine (TM) especially in rural communities. The complex interplay between patient centeredness and empowerment, health economics, failure of the biomedical approach and many other factors has resulted in an increasing prevalence of medical pluralism.

Aim: The aim of the study was to explore the existence and extent of medical pluralism in my practice population, to quantify the prevalence of use and to qualify the determinants of choice.

Methods: A cross sectional community household survey was conducted in the Makwarela Township of the Thulamela municipality (which forms part of the Vhembe district in the Limpopo Province in South Africa) using systematic sampling based on interval numbers. Interviewer administered questionnaires were used to obtain information from 65 households. Information was collected regarding the dependent variables (illness episodes, consultation behaviour, choice of primary health care provider) and the independent variables

(socio-demographics, characteristics of illness, characteristics of health services). These were then analysed to assess prevalence of use and to elucidate significant associations.

Results: Only 48 households representing 73,8% of the sample agreed to be interviewed. The total household members numbered 242. There were 364 illness episodes experienced by the household members in the 6 months prior to the survey. The ever use of TM in the sample was 70,8% (57,9% – 83,7%, 95% CI), whereas the ever use of orthodox medicine was 100%. The percentage of respondents who feel that they would probably use TM in future was 50%. The only significant correlates of TM use were highest education, household size, health belief model, waiting times at OM practitioner and past utilisation of TM.

Conclusion: The study confirms the hypothesis of the existence of a pluralistic primary healthcare system and high prevalence of use of TM in the sample. The pattern of use of TM is that of an adjunct rather than as exclusive therapy. The study also confirms the complex interplay of a myriad of factors in healthcare choice. Despite the limitations of the study it can serve as a preliminary investigation prompting further studies to elucidate healthcare utilisation in the province and nationally. There are many ensuing implications for healthcare providers, funders and health system planners.

D. INTRODUCTION, BACKGROUND, MOTIVATION AND RATIONALE

The main impetus of primary care is to provide accessible, affordable, and holistic healthcare. There has been this constant dichotomy between biomedical and bio psychosocial approaches to curing and healing. Globally and especially in developing countries, health care resources are dwindling and there are problems related to affordability and accessibility to orthodox primary health care. Furthermore the AIDS pandemic and the increasing prevalence of chronic diseases have further strained the existing orthodox primary health care resources.

Moreover, despite the marvellous strides in modern medicine and in evidence based medicine, patients are still dissatisfied and constantly seeking alternate therapy in developed and developing countries; some estimates¹ suggest that > 80% of the developing world population and > 40% of the industrialised population¹ use alternate

forms of therapy. The appeal for TM (traditional medicine) and (complimentary and alternate medicine) CAM is ever increasing, probably due to their holistic approach with due consideration of spiritual, cultural, social and emotional factors in contrast to the 'cold' depersonalised biomedical approach of orthodox medical care. Contrary to popular modern belief, a lot of traditional medicine practices are based on popular empiricism derived from years of 'trial and error' scrutiny which may be seen as a predecessor to evidence based science. It is evident that a pluralistic (modern and traditional) health system has always been around and is probably here to stay in a post modernism era; albeit at an 'invisible level'.

Since the Alma Ata declaration of primary care in 1978³ there has been a growing impetus towards the use of TM and CAM in primary care, either in parallel or in an inclusive manner with modern medicine (WHO in 1978, the promotion and development of TM). In SA there has been a formal recognition of TM by the promulgation of the traditional health practitioners Act. (Act no. 35 of 2004). The archetypal maldistribution of primary health care providers and resources in SA especially in rural areas and the availability of a vast manpower resource in the traditional medical sector (300 000 traditional healers compared with the 32 000 doctors as per the 2003 HPCSA register) makes compelling argument for the utilisation and incorporation of this sector for primary health care purposes.

The use of traditional healers both as adjuncts to modern medicine and as exclusive form of therapy is prevalent in my semi-urban practice population; this is ascertained by the occasional direct questioning and the evidence from traditional medicine practices like circumcision, scarification, cupping etc.

Consultation with traditional healers is thought to be prevalent in Sub Saharan Africa. A lot of the data, with a few exceptions are anecdotal. Hence there is a motivation to understand the extent and pattern of utilisation of traditional medicine and orthodox medicine to steer health sector reforms in a direction more congruent with perceived local needs and practices

My personal motivation

The evidence from my practice regarding the use of TM , obvious restraints on primary health care resources, poor accessibility of rural communities to primary health care, the AIDS pandemic and burden of chronic illnesses have fostered a need to quantify the prevalence of TM use as well as patterns of utilisation and to elucidate predictive factors of choice.

Primary care physicians are also exposed to traditional medicine malpractice, delayed care seeking for serious illnesses, the heterogeneity of results from traditional male circumcisions and patient perceptions about circumcisions⁴ all serve as personal motives for the study. By elucidating the what, where and why of patients using traditional medical care primary care physician can adapt their style to be more congruent to patient needs and sensitivities

Although I have not conducted any research projects previously, I have been in general practice/primary health care for many years and also often get referrals from traditional healers and also have many traditional practitioners as patients, which puts me in an ideal position to conduct this study.

Literature Overview

The WHO fact sheet¹ and the ABC of complimentary medicine have been helpful in forming a definition of traditional medicine(TM) and CAM. The literature confirmed the high prevalence of the use of TM and CAM globally and the existence of pluralistic health systems – studies in USA⁶, Israel¹⁵, India¹⁰, Pakistan and Laotian refugees in USA⁹. Nearer to home studies in Chatsworth Indian population¹³, TM in Zambia⁸ and Zimbabwe⁷ also confirmed a pattern of use of pluralistic health systems.

Some studies relate to specific illnesses and TM like chronic illnesses, AIDS, STI's and malaria but my study will relate to general primary health care services. There is also a uniform trend to predictive

characteristics regarding the use of TM and CAM as emerging in the literature.

The literature suggestion on TM and CAM expenditure and the global market for herbal medicine which stands at 60 million dollars per annum⁴ is a compelling indication for such a study.

There are also limitations to TM and CAM usage because of safety and efficacy issues and also the paucity of evidence-based research in TM and CAM.

E. LITERATURE REVIEW

I have endeavoured to review my literature search by first referring to articles relating to definition of TM, then to articles which most closely match my research question and are closest to the settings of my study; then moving outwards to research in other countries and to studies in related concepts like CAM. These reviews include only primary studies as no systematic reviews or ethno meta-analysis on the study subject could be located.

Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose or maintain well being. In industrialised countries, traditional medicine is termed complimentary or alternate medicine¹. The WHO observes that it is difficult to assign a definition to a broad term like TM. TM is by definition a heterogeneous entity.

The WHO centre for health development defines African TM as follows⁵:

“The sum total of all knowledge and practices, whether explicit or not, used in diagnoses, prevention, and elimination of physical, mental or societal imbalance and relying exclusively on practical experience and observations handed down from generation to generation whether verbally or in writing”. I have identified 2 broad types of traditional medicine.

- a. Culture based TM, e.g. Chinese TM, African TM, Sidha, Native American TM and so on.
- b. Non culture based TM which would be synonymous with CAM.

African TM is a heterogeneous group of practices and practitioners ranging from;

- a. the Nyanga (Inyanga) or traditional doctor, mainly male, these are also referred to as tribal doctors or herbalist
- b. Sangoma or spiritualist who is traditionally, female and operates within a traditional religious supernatural context with ancestral basis
- c. Faith healer is an umthandazi who works in synthesis with traditional beliefs and western orientated missionary faith.
- d. Traditional birth attendant ^{6,7}

The Zimbabwe study only identifies 2 types of traditional healers, the nyangas which incorporates a and b above, and the vapostori or faith healers.

The literature survey had used different methodologies to determine prevalence of TM and CAM utilisation and patterns of utilisations. The methodology used varied from cross sectional studies involving communities ^{4,6,7,8,9} to longitudinal cohort studies.

The cross sectional studies made use of either self administered questionnaires (SAQ) or interviewer administered questionnaires (IAQ). The other cross sectional studies used practice based populations ^{2,10}; in these samples there was probably under reporting of TM/CAM utilisation as practice patients may try to give socially acceptable responses.

The study in Tamil Nadu¹⁰ overcame this confounder as they had a 'traditional Sidda' wing and an allopathic wing in the same primary centre and respondents were chosen from both wings. Cross sectional studies involved a 2–12 month recall of illness experience which could involve recall bias. There was one cohort longitudinal study but was not included in this review. Most studies involved questionnaires for respondents. Study⁸ had questionnaires for the Traditional healers and primary health care workers as well, so as to gain insight into their practices. The only study which differed significantly in methodology was¹¹ where a single sample of psychiatric patients was interviewed by Zulu traditional healers and

orthodox psychologist to ascertain models and outcomes. There were other specific studies relating to HIV, STI, and TB in SA, Zimbabwe and Botswana but these were not reviewed because they dealt with specific illnesses and not general primary care.

Although the studies are for specific areas, specific cultures and for different health needs and socio-demographic backgrounds and practice different types of TM and CAM, these studies will, however, give a pattern of use and prevalence that is quite universal in suggesting shortcomings and dissatisfaction with orthodox medicine. The studies have all collected data on different independent variables against dependent variables to try and predict choice of health care utilisation

Fig1 has been adapted from 'Kroeger' model¹²

According to the study by Winston and Patel⁷, *the use of traditional and orthodox health services in Zimbabwe, Harare*, they found;

- ✓ In this study the overall illness rate of 37% was similar to findings in African studies which found illness rates of 33% – 43,8%
- ✓ The rate for non consulters (NC) was 17%; the most important reason for non-consultative behaviour was lack of resources(49%) and perceived triviality of the condition (42%).
- ✓ Children with illnesses were taken for consultation more often than adults.
- ✓ This study found no sociodemographic relationship to choice of practitioner
- ✓ There were more respondents with level of education greater than 'O' level education who did not consult TH, but this subset represented only 15,75% of the respondents, and was not statistically significant.
- ✓ The ratio of orthodox to traditional consults was 89% : 11%, This is similar to the ratio alluded to in Kroeger¹²
- ✓ Physical problems were taken almost exclusively to medical care. Psychological and traditional problems were taken more often to the traditional healer

However the largest percentages of traditional consults were for pain. In general, reported outcomes were better amongst adults attending medical care, good outcome 57,6%, compared to 37,1% for good outcome with traditional consultations. This study did not account for accessibility or religion as predictive factors.

Stekelenberg J et al's study⁸, *Health care seeking behaviour and utilisation of TH in Kalabo, Zambia*, has a small random sample of n=100. 89% of the respondents will visit a traditional healer (TH) with future illnesses; this is consistent with WHO fact sheet that up to 80% of people in sub Saharan Africa consult with TH¹. There were accessibility differentials to hospital and TH in this study. The ratio of orthodox usage to TM usage was 9,6:5,3, very much different to the 88:11 ratios in the Zimbabwe study by Winston and Patel⁷, however, this is a later study, probably more impacted by HIV and is based in a rural area compared to the Zimbabwe study.

There was a gender difference in choice of healer, unlike the in the study ⁶. There was a female preponderance in visits to TH 62% vs. 44% but the frequency of visits by men was higher. However, there was no gender difference in health seeking behaviour. Education levels did not predict choice of healthcare provider but played a part in health seeking behaviour. Increasing age was associated with increasing visit to the TH, but the rate of hospital visits was not affected. However the group of aged 51–60 was represented by 5 people only and the study had not accounted for the 'overall health status' of respondents.

Waiting time seems to be an important factor (qualitative) influencing choice of health provider. Infertility, women's diseases 'imbaci', 'kanano' and demon possession were responsible for the highest proportion of TH visits. 89% were satisfied with hospital vs. 74% for TH treatment. Higher rates of satisfaction for both systems compared to the previous study.

Traditional and modern medicine in SA, a research study¹¹. This study was confined to psychological illness, which showed that patient perceptions were that both modern and traditional medicines were

equally helpful. This study says much about the universal concepts of psychotherapy practiced by traditional Zulu healers.

A Chatsworth study of usage of CAM¹³ : This SA study focused on the usage of CAM in an urban Indian population. It examined mostly CAM practices as opposed to traditional African health practices. CAM usage prevalence was 38,5%, which is similar to 40% utilisation rates in the USA⁶ , but different to the 20% prevalence rate in a practice in San Diego⁸ . No socio-demographic factors to be significant predictors to CAM usage in Chatsworth unlike in the USA studies^{6,14}, which showed that college education and wealth were associated with higher utilisation of CAM. Socio-demographic factors and the illness condition do determine the type of CAM therapy utilised. 50% of CAM users used orthodox medicine concurrently in Chatsworth. Most CAM utilisation was for chronic and non-life threatening illnesses. 72% of CAM users in the USA study², and more than 50% in the Chatsworth study did not inform their physicians of the concurrent use of CAM.

In an Israeli study¹⁵ of CAM usage, it was found that an academic education correlated with higher CAM utilisation rates. Age was found to be a predictor of CAM usage in¹⁵. Younger (aged 0–19 yrs) and the elderly used CAM at lower rates , but there were no associations with gender or origin. The prevalence of CAM utilisation in the Israeli study was 20%. The lower rate is possibly because self administered forms of CAM were not accounted for.

In '*Use of traditional health practices in Native Americans in primary care*'², there was a 70% prevalence rate for TM utilisation. 50% of TM users were satisfied with the effects of TM. Most consults were for chronic pain or pain of indeterminate origin like in the study by Eisenberg et al⁶, this study also found that patients suffering from alcohol abuse and trauma were more likely to engage in traditional health practices.

A study of TM and modern medicine in primary health centres in Tamil Nadu¹⁰, the branch of TM called 'sidha' is officially recognised and incorporated in the primary health care centre. No competing interest

causes bias in this instant because of the co-existence of both 'sidha' and orthodox medicine. There was no reference to home based therapy and to non consulting behaviour as this was a practice based study. There was a 1:3 to 1:9 fold difference in attendance at the 'sidha' clinics vs. the orthodox clinics. However, the smaller staffing at the smaller staffing at the 'sidha' wing may have been a confounder. There was a small preponderance of female patients in the 'sidha' clinics 58% vs. 55%. The less than 10 year group visited allopathic clinics mostly with this age group representing 7% of the allopathic attendees vs. 1% of the 'sidha' clinics attendees. 96% of patients in the allopathic clinic were satisfied with their care compared to 90% in the 'sidha' wing. The prevalence rate for 'sidha' use was 44% and 57% of patients used both treatments concurrently. Illness predictors of TM use were specific ailments like joint pains, chronic illnesses, skin diseases, cough and eye ailments.

Use of TM and Modern health services by Laotian refugees in USA⁹: Here the choice of provider was predominantly determined by the Mein population's perception of illness causation. I.e.the explanatory model. Here biases were introduced as orthodox medicine was covered by national insurance and TM had to be funded out of pocket. The Mein distinguished between physical and spiritual causation of illness. Religion did play a role in influencing Mein population health belief and health practices.

Community perception of traditional circumcisions⁴ showed that 63% of respondents preferred traditional circumcisions and 13% preferred medical practitioners, despite the risks. 69% of Xhosa respondents were unaware of the risks of traditional surgery.

The heterogeneity of TM practices and the heterogeneity of cultures and the findings above make the study of my practice population imperative. Moreover, funding - medical insurance and self-funding was not alluded to in many of the studies in the reviews.

F. PROJECT AIMS AND OBJECTIVES OF THE STUDY

Aim:

The aim of the study was to evaluate/investigate the prevalence of utilisation, patterns of utilisation and factors predicting the choice of utilisation (determinants) of traditional medicine vs. modern vs. self care in primary care in a community served by my practice. Also to assess patient perceptions about the different health care choices.

Objectives:

1. To study the prevalence and pattern of the use of traditional medicine
2. To assess socio demographic factors associated with health seeking behaviours
3. To study health belief models associated with health seeking behaviours
4. To study patient perceptions / satisfaction with traditional and modern primary health care services
5. To make recommendations at district level, primary care practice level, traditional healer level and community level to optimise utilisation of services and to reduce the dangers associated with services.
6. To make recommendations on prevalence of utilisation and to make recommendations for standardising the curricula and the practice of traditional medicine.
7. To study population perceptions about traditional circumcisions.
8. To make recommendations to funders as to the need to reimburse traditional practitioners for certain practices in certain settings.
9. To compare the use of traditional medicine in rural Africa with trends of use of traditional and CAM in other developed and developing countries.
10. To arrive at a predictive model for the choice of health care provider.

These represent the broad objectives of the study. Those that directly pertain to the title of the study have been addressed with the potential for the other objectives to be addressed in this or follow up studies.

G. STUDY DESIGN AND METHODOLOGY

Research design: The aims and objectives of the study were to evaluate the prevalence and the determinants of health care choices and the study can therefore be best described as an observational descriptive study. Because of logistics of time and resource constraints I have utilized a cross sectional community household survey to achieve the study aims and objectives. The study utilized community participants rather than a practice population to avoid response bias. The survey explored illness episodes and corresponding health behaviour resort during the previous six months. A longer recall of retrospective episodes would have a greater yield but will introduce greater recall bias and interfere with conclusions. Literature evidence shows that recall bias is minimal at two weeks and more significant after six months.

The overall study design is predominantly of a semi quantitative nature with few qualitative elements regarding perceptions and outcome of care. The quantitative elements deal with socio-demographic factors and illness episodes. An interviewer administered questionnaire using identified key household informants was undertaken.

Setting: The study was conducted in Makwarela township in the Thulamela municipality. This area is in the same municipal ward as my practice. Thulamela municipality is in the Vhembe district of the Limpopo province. This selection is probably not a fully representative sample as ideally all wards should be proportionally represented. However this selection made the fieldwork and household surveys more convenient and practical. Employment in this area is mostly in the civil service and local business community. There is small scale subsistence farming and small scale industrial activity. Information

about the health services in the area were obtained from the district health offices and traditional health council. Maps and details of households were also obtained from the Thulamela municipal offices.

Sampling: A total of 65 households were selected. The case data for the study were all individual members of each selected household. For study purposes a household was considered as all those individuals who share meals under the same roof on a continuous basis. Assuming a prevalence rate of 50% of TM use (WHO REPORT OF 80% in developing countries and 50% prevalence of use in a study by Stelenburg et. Al in neighbouring Zambia)^{1,8}, I would require a sample size of 385 people to have a 95% certainty that the true prevalence of TM use will lie between 45% and 55% (i.e. margin of sampling error of 5%). – Derived from table in manual of epidemiology for district health workers¹⁶ and from sample sizes proportion XLS(spreadsheet) supplied by CSC (center for statistical consultation).

The first household was selected randomly for the survey. Subsequent households were selected by systematic technique of sampling based on a sample interval calculated from the total households in that area divided by 65. To avoid sampling bias I endeavoured to achieve a non response rate of less than 20% by doing subsequent visits to the households not available in the first instance. There was no substitution of non respondent households. An adult member of each selected household was identified as the key informant. All household members were included in the survey irrespective of age; there were no inclusion or exclusion criteria applied as the aim was to get an overall prevalence rate of health choice and utilization.

Data collection: 2 trained interviewers were used to collect data from the key informants in the selected households using questionnaires as the instrument of measurement. The questionnaires were based on similar ones used in studies in the literature review, then adapted for language and local purposes. The questionnaires were piloted by me and the interviewers in my practice and any changes necessary were effected.

Interviewers were non – medical personnel to obviate response bias in favour of orthodox or western medicine. Training of the interviewers so as to reduce interviewer bias and for interviewers to be neutral in their response to respondent’s answers was undertaken. The interviewers were both conversant in English and Tshivenda. Interviews were conducted by prior appointments so that a key informant could be selected and was available at the time of the survey. Informed consent was obtained from the key respondent and anonymity was maintained. The key informant provided the interviewer with information about all members of the household. The format of the questionnaire ranged from structured questions to semi-structured questions. The questionnaires consisted of 4 parts; each dealing with a respective independent variable.

The first aspect dealt with socio-demographic factors about members of the household. The second aspect required the key informant to list the illness episodes of all members in the previous 6 months as well as the pattern of resort for each illness episode.

The third section enquired from the key informant about health services utilised. And finally the fourth section enquired about outcomes of each illness episode;

Open questions were also used for enquiring about reasons for consulting and the nature of illnesses episodes (diagnosis, symptoms etc.).

There were no interventions in the study as this was an observational study. Observations made were all included in the questionnaire and the observations were recorded by a single interviewer, once off.

H. SAMPLING AND DATA ANALYSIS

Variables:

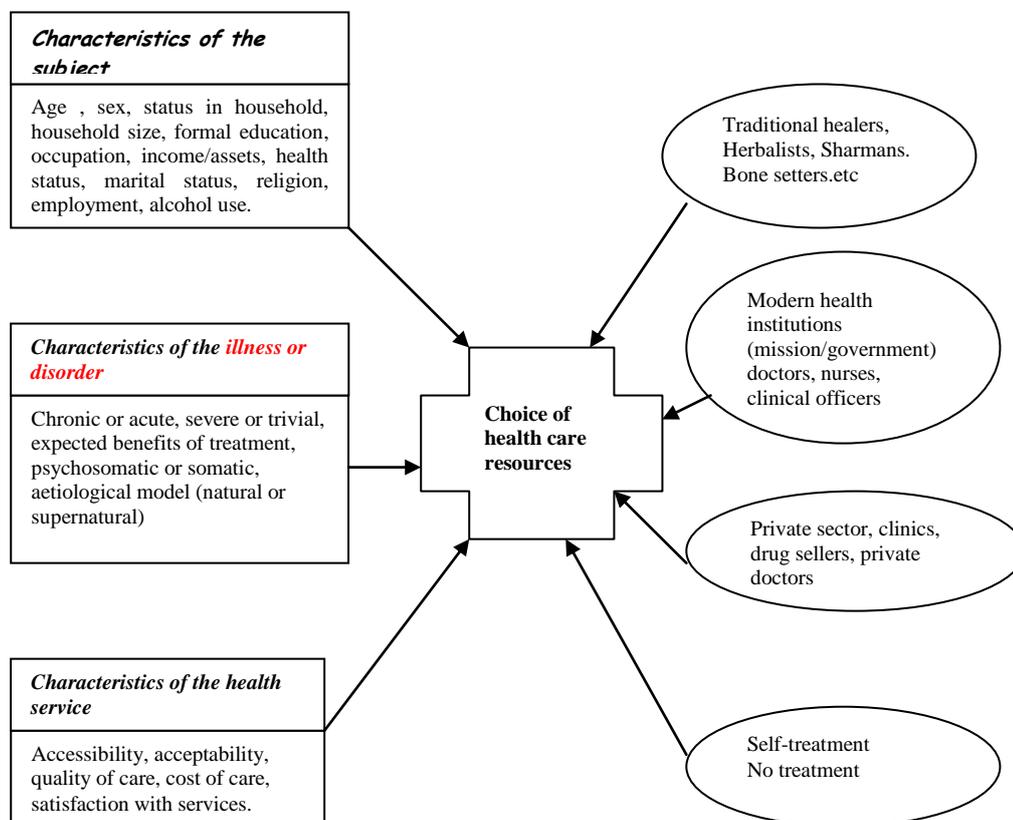
In studies analysing factors responsible for medical pluralism and health resource choice and utilisation, a framework is necessary. This framework will help establish some order in the myriad possibilities of variables interactions; a ‘determinant model’ has been adapted from

Kroeger et al Fig 1. This focuses on a set of explanatory variables or determinants which are associated with the choice of different forms of health services. A comprehensive list of variables is alluded to in Kroeger's model. The literature suggests that the list of explanatory variables on health seeking behaviour and choice of provider are quite limited and hence further focused group discussions to arrive at new variables was not deemed necessary;

Fig1 – Kroeger’s model

INDEPENDENT VARIABLES

DEPENDENT VARIABLES



The questionnaire explored 3 dependents variables;

1. illness experience or illness episodes
2. Health seeking or consultation behaviour – consult or non consultative
3. Choice of primary health care provider

The four independent variables that were explored in the questionnaire were;

- a. Socio–demographic characteristics of members of the household
- b. Characteristics of the perceived illness
- c. Characteristics of the health service
- d. Outcome measure or perception

The descriptive aim of the study consists of three arms–

- prevalence of use
- utilization patterns

-predictive factors of utilization

To achieve these analytical aims, bivariate cross tabulation of independent variables against each dependant variable were constructed. Data was analysed using Statistical Package for Social Sciences (SPSS version 16.1) to arrive at associations between dependent and independent variables.

The continuous and categorical variable (independent variable) were compared to the categorical variable (dependent variable) using the Krushkal - Wallis test and Chi-squared tests respectively.

Finally a multivariate logistic regression procedure was attempted, to arrive at a predictive model of utilization, but could not be achieved due to the limited number of responses.

I. ETHICAL CONSIDERATIONS

The general ethical principles pertaining to the study were not complex as this was not an experimental or interventional study but rather a descriptive study. The maximal intervention that households were subjected to was that of a survey questionnaire. Even this minimal intervention could be regarded as an intrusion on respondent privacy in terms of information, time and space. The interviews and questionnaires were conducted and formulated so as to minimise the impact on the household's privacy. Questionnaires were piloted and interviews were briefed to be culturally sensitive and neutral.

Respect for persons:

Autonomy – participation was voluntary without any inducement or incentives. This applied to the whole process of the interview.

Informed consent – was obtained from the key informant in the preferred language and respondent information leaflets were provided in the respondents' language of choice. Proxy family consent was obtained by prior arrangement and also community consent was implied by informing appropriate community structures.

Confidentiality was maintained and anonymity was guaranteed by numbering the questionnaires and subsequently detaching the numbers from the response sheets on completion of the survey.

Possible beneficence:

There is possible beneficence for community health systems and primary health care provision. There are no immediate benefits for individual households and this was alluded to in the survey. The study also adds value to the existing body of knowledge with regards to medical pluralism in the Thulamela municipality.

Vested interests:

There were no conflicts of interest as this was a self funded study. The fact that I practice orthodox medicine may have subliminal bias on my opinion of findings but should not conflict with output. There were no other external interests or motivations to influence the results and outcomes.

Ethical approval to conduct the study was obtained from the committee for human research at the University of Stellenbosch. A copy of the approval letter is attached as annexure 1.

J. RESULTS

The results were uploaded using a template onto an excel spreadsheet. These were then imported and analysed using the Statistical Package for Social Sciences (SPSS version 16.1).

65 households were invited to participate in the survey. Only 48 households agreed to have a key informant interviewed representing a 73,8% response rate.

Descriptive Statistics:

Socio-demographic findings

Key informants: 48 key informants were interviewed. Their ages ranged from 18 to 78 years with a mean age of key informant (KI) of 45.73 years and standard deviation (SD) of 17.39. 47.9% of the KI were males and 52.1% female.

All household members: the total number of household members in the interviewed households was 242. The smallest household had 1 member and the largest had 11 members, with a mean household size of 5.04 (SD 2.306).

Households: All households had formal brick and mortar type dwellings with all households having piped water and electricity. 42 households (87.56.%) had cistern sanitation, 2 households (4.2%) having pit toilets and 4 households(8.3%) having both pit and cistern toilets.

Household incomes are also shown in table 1, with the largest proportion 31.2% of households having an income of 2001– 5000 rand per month. 50% of the households were receiving some form of social grant.

With regards to ethnicity 81.41% of the households were Venda, followed by a minority of Tsonga, Tshona, Sotho and Somali. The predominant language used amongst the main informants was Venda 91.6% . 3 of the 48 main informants (6%) adopted the African traditional faith the balance 94% were Christian.

Of the main informants, 41.7% were unemployed; 8,3% were in casual employment; 14.6% in part-time employment and 35.4% in full time employment. Only 2.1% of the Key Informants had no schooling. 39.6% had a tertiary education, 39.6% had a secondary education and 18.8% had primary schooling.

Most Key Informants (70.8%) did not have Medical Aid and used out of pocket funding for health care. +/-30% Of the respondents had medical aid. 50% of the household interviewed followed both a western and a traditional culture, 18.8% adopted predominantly a traditional culture and 23.1% adopted a mostly a western cultural way of life.

Table 1. Demographics

	<i>N</i>	%
Sex: Male	23	47.9
Female	25	52.1
Employment: Full time	17	35.4
Part time	7	14.6
Casual	4	8.3
Unemployed	20	41.7
Religion: African	3	6.0
Christian	45	94.0
Home Language English	1	1.5
Sesotho	1	1.5
Shona	2	3.1
Tshivenda	44	67.7
Type of Acculturation: Mostly African	9	18.8
Mostly Western	24	50.0
Both	15	31.2
Highest Educational Level:		
No Schooling	1	2.1
Primary School	9	18.8
Secondary Education	19	39.6
Tertiary Education	19	39.6
Monthly Household Income:		
R0 – R500	3	6.4
R501 – R1000	1	2.1
R1001 – R2000	8	17.0
R2001 – R5000	15	31.9
R5001 – R10 000	12	25.5
More than R10 000	8	17.0
Marital Status Single	18	37.5
Married	22	45.8
Divorced	1	2.1
Widowed	7	14.6

Pension	7	14.6
Disability	1	2.1
Child Care	7	14.6
Pension and Child Care	6	12.5
Disability and Child Care	1	2.1
Pension, Disability and Child Care	2	4.2
No Social Grants	24	50.0

Health Status

10% of the main informants reported that they were in fair health, 85.4% were in good to excellent health and only 4.2% of the interviewees reported poor health. With regards to mental well being 4.2% reported fair mental health with 95.8% reporting good to excellent mental well being. None of the main informants reported poor mental health.

Table 2– Present Health Status

(a) Key Informants

	Physical (%)	Mental (%)
Excellent	33.3	47.9
Very Good	25.0	27.1
Good	27.1	20.8
Fair	10.4	4.2
Poor	4.2	0%

(b) Other Household Members

	Physical (%)	Mental (%)
Excellent	45.0	60.0
Very Good	25.0	23.0
Good	16.0	13.0
Fair	10.0	3.0
Poor	4.0	1.0

Of the total household members, 45% claimed excellent physical health. 16% were in good physical health, 10% were in fair physical health and 4% were in poor physical health.

Of the total household members responding (n=242), 60% were in excellent mental health, 13% were in good mental health, 23% were in very good mental health, 3% were in fair psychological health and only 1% was in poor mental health.

Illness episodes

There were 364 illness episodes suffered by household members in the last 6 months. The average number of illnesses per household was 7.58 (SD 14.556) in the 6 months of review. The number of households experiencing illness episodes in the last 6 months was 47 out of 48.

Table 3: Illness Episodes in Households

Illness	Number of HH with illness (%)	HH members with illness in 6months	Average ratio of HH members with illness(SD)
Mental & Nervous Complaints	29 (35.4%)	126	0.60 (1.162)
Arthritis/musculoskeletal problems	8 (16.7%)	8	0.17 (3.77)
Hypertension	13 (27.1%)	23	0.48 (1.255)
Diabetes	9 (8.8%)	11	0.23 (0.555)
Tuberculosis	2 (4.2%)	2	0.40 (0.202)
Respiratory problems other than TB	39 (81.2%)	126	2.62 (2.321)
Infectious Diseases	3 (6.2%)	3	0.6 (0.245)
Digestive Illnesses	18 (37.5%)	37	0.77 (1.653)
Skin Illnesses	11 (23.0%)	19	0.40 (1.216)
STI	5 (10.41%)	16	0.33 (1.277)
Family Planning/Infertility	10 (20.8%)	22	0.46 (1.304)

The predominant illness episodes were other respiratory illnesses (n=126) followed by digestive problems (37 members), mental/nervous complaints (29 members), then H/T, fertility problems, STI and musculoskeletal problems. With infectious diseases and TB having the lowest incidences at 3 and 2 members respectively. Details of various illness episodes are presented in Table 3.

USE OF TRADITIONAL MEDICINE AND TRADITIONAL REMEDIES

Prevalence of use of traditional medicine (TM)–ever use

The prevalence rate of use of traditional medicine (percent of all households that have ever used) in the sample was 70,8% (95% CI: 57.9% – 83.7%). The prevalence of orthodox medicine utilization in the study sample was 100%. Details of demographic characteristics according to Use of TM are presented in Appendix 1.

Usage in the last 6 months

The incidence of utilization of TM in the last 6 months of the survey was 14.6%. (95% CI: 4.6% – 24.6%) The incidence of use of OM in the last 6 months of the survey was 81.2%.

Consulting behaviour/ patterns of use in the last 6 months

Mental/nervous complaints–27.3% of members with these complaints consulted a traditional practitioner and 100% of members with these conditions consulted an orthodox practitioner. Of those consulting, 33.3% consulted both OM and TM practitioner with 66.6% consulting OM practitioners exclusively. No exclusive use of TM existed in the last 6 months. Of the 17 HH with mental complaints 11 HH consulted and 6 HH used self medication. 50% of these used both orthodox and traditional self remedies and 50% used orthodox self remedies exclusively. No HH used traditional self remedies exclusively.

Arthritis/musculoskeletal ailments– of the 8 HH with these problems, 6 HH consulted a practitioner. 50% consulted OM and TM practitioners and 50% consulted OM practitioners exclusively. There was no exclusive use of TM practitioner. 4 of the afflicted HH used self remedies. 25% used OM self remedies exclusively and 75% used both OM and TM self remedies.

Hypertension– out of the 13 HH with H/T problems all 13 consulted a practitioner. 100% consulted OM practitioners exclusively for H/T. 3 HH out of these 13 HH used self remedies. 33% of these used OM and TM self remedies and 66% used OM self remedies exclusively.

Diabetes– out of the 9 HH with diabetes all HH consulted a practitioner. 33.3% consulted both OM and TM practitioner and 66.7%

consulted OM practitioners exclusively. All 100% consulted an OM practitioner. Only 1 out of the 9 HH used self remedies of the orthodox type.

Tuberculosis– of the 2 HH with TB all 100% consulted OM practitioners exclusively. All TB cases resulted in consultation with a practitioner. There was no use of TM practitioner or of any self remedies.

Other respiratory illnesses– of the 39 HH with other respiratory problems 24 HH consulted a practitioner. 95.8% consulted only OM practitioners exclusively. 4.25% consulted both OM and TM practitioners. 17 of the HH used self remedies for these respiratory problems. 17.6% of these used TM self remedies exclusively, 17.6% used OM self remedies exclusively and 64.7% used both OM and TM self remedies.

Infectious diseases– out of the 3 HH with infectious ailments 2 HH resulted in consultation with a practitioner. Both HH consulted an OM practitioner exclusively. There was use of self remedies in both cases.

Digestive problems–out of the 18 HH experiencing digestive problems, 10 of these HH consulted a practitioner. 87.5% of these consulted an OM practitioner exclusively and 12.5% consulted both an OM and a TM practitioner. 8 of the HH used self remedies with 75% using both OM and TM self remedies and 25% using OM self remedies exclusively.

Skin diseases–out of the 11 HH with skin ailments only 9 HH consulted a practitioner. 14.3% consulted both an OM and TM practitioner and 85.7% consulted an OM practitioner exclusively. There were no exclusive TM consults. 8 of the HH used self remedies with 66.7% using both TM and OM self remedies, 33.3% using TM self remedies exclusively and none using OM self remedies exclusively.

STI– of the 5 HH with STI 4 HH consulted a practitioner. 75% consulted both a TM and an OM Practitioner and 25% consulted an OM practitioner exclusively. 3 HH used self remedies of which 33.3% used both OM and TM self remedies and 66.7% used TM self remedies exclusively. None used OM self remedies exclusively.

Family planning/ fertility problems–of the 10 HH with problems in this area, 5 HH consulted a practitioner. Of these 60% consulted both an OM and TM practitioner and only 40% consulted an OM practitioner exclusively. 4 HH used self remedies of which 50% used TM and OM self remedies and 50%used OM self remedies exclusively.

Future use

50 % of the HH respondents would possibly use a TM practitioner in the future, with 2% giving no response. A 95% confidence interval for possible future use of TM is 35.9% to 64.1%. All (100%) of the respondents would possibly use the services of an OM practitioner in the future for illnesses in the family.

Correlates of use

Cross tabulations were used to assess the associations/relationships between ever use of TM against the independent variables to establish correlates of use of TM.

Socio-demographics:

Sex, age (mean age), showed no statistically significant association with ever use of TM.

Employment- fulltime employment showed no statistically significant association with TM ever use. However the number of members using TM was higher in the part time, casual and unemployed HH, but the absolute number of members in the group who never used TM was too small to assess statistical significance. The highest percentage using TM was in the two unemployed households.

Religion-those adopting an African traditional religion used TM more commonly (100% ever use) vs. those following the Christian religion, but again the numbers of HH adopting an African traditional religion was too small to be statistically significant.

Level of acculturation- was significantly associated with ever use of TM. Those HH following mostly a western culture use TM less often than those following both cultures. The highest ever use of TM was amongst those following a mostly African cultural way of life. When compared with use of TM in the last 6 months the negative association with a mostly Western culture becomes even more pronounced.

The odds of a mostly African Acculturated HH using Traditional Medicine is 8.0. The odds of mostly Western acculturated household using TM is 1.14 and the odds for a household that is both African and Western is 2.25. This implies that a Mostly African acculturated household is 7 times more likely to use TM compared to a Western oriented household, and 3.56 times more likely compared to a household that has both African and Western orientation.

Highest education– this was significantly associated with ever use of TM.

	Ever Consulted a Traditional Healer?		
	Yes	No	Statistics
Highest Educational Level:			
Primary School or None	10 (100.0%)	0 (0.0%)	$\chi^2 = 5.711$ $p = 0.058$
Secondary Education	11 (57.9%)	8 (42.1%)	
Tertiary Education	13 (68.4%)	6 (31.6%)	

Household Heads with only primary or no formal education have all consulted a Traditional Healer. The rate of use is 57.9% for household heads with secondary education and 68.4% for household heads with tertiary education. The difference in the prevalence rates is not statistically significant (chi-square = 7.711, with a p-value of 0.058). Similar rates were found in TM use in the last 6 months with the highest usage in those HH with tertiary education and lowest utilization in those HH with secondary education.

There were statistically significant differences in the mean household size for households that have ever used TM and those that had not. The mean size of households that have used TM is 5.47 (SD=2.18) and of households that had never used TM is 4.00 (SD=2.35). ($t = 2.078$, p -value = 0.043). In households that have used TM the mean number of females in the household is 3.09 (SD=1.78) and for households that had not used TM, the mean number of females is 2.07 (SD=0.92). The difference in the mean number of females in the household is statistically significant ($t=2.506$, p -value = 0.013)

Household income– the higher income HH with income over R5000 pm used TM less often than the other income groups. The association was not statistically significant.

Primary reliance

No association between primary reliance and ever use of TM was established.

Health belief models

There is a statistical association between ever use of TM and those HH that believe in a dual causation of illness (natural and spiritual) against those that adopt a purely natural/physical causation health belief model (chi-square = 3.98, p=0.046).

Health status

No statistically significant association between Health Status and use of TM was established. The data shows that those with poorer physical health were more likely to have used TM.

Lower subjective mental health status was also positively associated with higher TM use but not statistically significant. This may not have any correlation as poorer health will translate into more consultations in the broader sense.

Outcomes

Outcomes	Ever Consulted a Traditional Healer?		
	Yes n=34	No n=14	
Level of Satisfaction with Traditional Healer			
Very Satisfied	7 (30.4%)		
Satisfied	4 (17.4%)		
Fairly Satisfied	10 (43.4%)		
Not Satisfied	2 (8.7%)		
Level of Satisfaction with Medical Doctor			NA. Table too sparse for chi-square analysis
Very Satisfied	12 (35.3%)	6 (42.9%)	
Satisfied	21 (61.8%)	7 (50.0%)	
Fairly Satisfied	1 (2.9%)	1 (7.1%)	
Not Satisfied	0 (0.0%)	0 (0.0%)	
Prefer one type of treatment over the other	30 (90.9%)	14 (100.0%)	NS by Fisher's Test

Illness episodes / type of illness

There was no association between the average illness episodes in the last 6 months vs. ever use of TM. There was no statistically significant association between illness type and ever use of TM. There was however an association between illness type and the type of practitioner consulted.

Use of self remedies

A higher percentage of those using self remedies used TM ever, compared with those not using self remedies.

Future use of TM

There was a statistically positive correlation ($p=0.02$) between those that would use a TM practitioner in the future vs. the ever use of TM.

Health systems factors

The only significant health systems factors associated with ever use of TM was waiting times at OM practitioner ($p=0.018$) negatively correlated.

Level of satisfaction

Level of satisfaction with OM practitioner not correlated with TM ever use.

HIV Perceptions

76.55% of TM ever consulters and 92.9% of TM non consulters felt that HIV was caused by an infection. 79.4% and 92.9% respectively felt that HIV was not curable.

The majority of TM consulters and non consulters felt that either OM or both OM and TM were best suited to treat HIV. Paradoxically 2.9% of non TM consulters thought that the TM practitioner was best suited to treat HIV.

Reasons for choice of practitioner

The specific commonest reasons for choosing TM were accessibility and evidence that TM works (44.1%), followed by feeling more in control of my illness (38.2%), then natural form of treatment followed by cost effectiveness (23.5%).

The specific commonest reasons for choosing OM practitioner were accessibility, unhappy with other provider, cost effectiveness and health belief reason. There were no statistical difference in specific reasons for choice between TM consulters and non consulters.

The broad reasons for choice of practitioner were mostly procedure/illness related for both types of practitioner, followed by physician factors and least by pragmatic factors. There was no difference in broad reasons for choice between TM consulters and non consulters.

Main sources of recommendation

With OM 54% were on self recommendation, followed by relative and then clinic referral.

With TM relative or family were the main source of recommendation.

Table 1: Demographics according to Use /Non Use of Traditional Medicine

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34 (70.8%)	14 (29.2%)	
Socio-Demographic			
Sex:			
Male	16 (69.6%)	7 (30.4%)	NS
Female	18 (72.0%)	7 (28.0%)	
Age in years: Mean (SD)	47.76 (17.76)	40.79(15.99)	NS
Employment:			NA
Full time	10 (58.8%)	7 (41.2%)	
Part time	5 (71.4%)	2 (28.6%)	
Casual	3 (75.0%)	1 (25.0%)	
Unemployed	16 (80.0%)	4 (20.0%)	
Religion:			NA
African	3 (100.0%)	0 (0.0%)	
Christian	31 (68.9%)	14 (31.1%)	
Level of Acculturation:			NA
Mostly African	8 (88.9%)	1 (11.1%)	
Mostly Western	8 (53.3%)	7 (46.7%)	
Both	18 (75.0%)	6 (25.0%)	
Highest Educational Level:			$\chi^2 =$ 5.711 $p =$ 0.058
Primary School or None	10 (100.0%)	0 (0.0%)	
Secondary Education	11 (57.9%)	8 (42.1%)	
Tertiary Education	13 (68.4%)	6 (31.6%)	

Household Size			NS
Males	2.38(1.16)	1.93 (1.86)	$t=2.596,$
Females	3.09(1.78)	2.07 (0.92)	$p=0.013$
Total	5.47(2.18)	4.00 (2.35)	$t=2.078,$ $p=0.043$
Monthly Household Income:			
R0 to R1000	3 (75.0%)	1 (25.0%)	NA
R1001 to R5000	21 (91.3%)	2 (8.7%)	
More than R5000	10 (50.0%)	10 (50.0%)	
Causes of Illness:			
Supernatural/Spiritual only	0	0	$\chi^2 = 3.980$ $p = 0.046$
Natural/Physical only	22 (64.7%)	13 (92.9%)	
Both Natural/Physical & Supernatural/Spiritual	12 (35.3%)	1 (7.1%)	
Primary Reliance			
TM	1 (2.9%)	0	
OM	32 (94.2%)	14 (100.0%)	
Both	1 (2.9%)	0	

Table 2 Consulting behaviour for specified illnesses: for households that reported the illness

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Incidence Rate for Consulting Behaviour in past 6 months (TM)	13 out of 34 (38.2%)		
Incidence Rate for Consulting Behaviour in past 6 months (OM)	29 out of 34 (85.3%)	10 out of 14 (71.4%)	39 out of 48 (81.2%) (NS)
Mental/Nervous Complaints (Number of HH)	9	2	
Consulted both TM and OM	3 (33.3%)	0 (0.0%)	
Consulted OM only	6 (66.7%)	2 (100.0%)	
Arthritis/Musculo-Skeletal: (Number of HH)	6	0	
Consulted both TM and OM	3(50%)	0(0.0%)	
Consulted OM only	3(50%)	0(0.0%)	
Hypertension: (Number of HH)	10	3	
Consulted OM only	10(100%)	3(100%)	
Diabetes (Number of HH)	6	3	

Consulted both TM and OM	2(33.3%)	0(0.0%)	
Consulted OM only	4(67.7%)	3(100%)	
TB (Number of HH)	1	1	
Consulted OM only	1(100%)	1(100%)	
Other Respiratory Problem: (Number of HH)	24	8	
Consulted both TM and OM	1(4.2%)	0(0.0%)	
Consulted OM only	23(95.8%)	8(100.0%)	
Infectious Diseases (Number of HH)	2	0	
Consulted OM only	2(100%)	0(0.0%)	
Digestive Problems: (Number of HH)	8	2	
Consulted both TM and OM	1(12.5%)	0(0.0%)	
Consulted OM only	7(87.5%)	2(100%)	
Skin Diseases: (Number of HH)	7	2	
Consulted both TM and OM	1(14.3%)	0(0.0%)	
Consulted OM only	6(85.7%)	2(100%)	
STI: (Number of HH)	4	0	
Consulted both TM and OM	3(75.0%)	0(0.0%)	
Consulted OM only	1(25.0%)	0(0.0%)	
Family planning and Fertility:(number of HH)	5	1	
Consulted both TM and OM	3(60.0)	0(0.0%)	
Consulted OM only	2(40.0%)	1(100%)	

Table 3- Health Status against Ever Use of TM

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Health Status of Household Head			NA
Physical Health:			
Excellent	8 (50.0%)	8 (50.0%)	
Very Good	8 (66.7%)	4 (33.3%)	
Good	12 (92.3%)	1 (7.7%)	
Fair	4 (80.0%)	1 (20.0%)	
Poor	2 (100.0%)	0 (0.0%)	
Mental Health:			NA
Excellent	14 (60.9%)	9 (39.1%)	
Very Good	9 (69.2%)	4 (30.8%)	
Good	9 (90.0%)	1 (10.0%)	

Fair	2 (100.0%)	0 (.0%)	
Poor	0 (0.0%)	0 (0.0%)	
Aches and Pains in Last 6 months			NA
None	9 (50.0%)	9 (50.0%)	
Sometimes	17 (81.0%)	4 (19.0%)	
Most of the time	6 (85.7%)	1 (14.3%)	
All the time	2 (100.0%)	0 (.0%)	
Illness Episodes:			
Total number of persons with illness episodes in household in last 6 months	233	63	
Average per household	6.85	4.50	
Illness Episodes in the past 6 months:			Fisher's Test for 2 x 2 Tables
Mental/Nervous Complaints: Yes	9 (26.5%)	2 (14.3%)	NS
Arthritis/Musculo-Skeletal: Yes	6 (17.6%)	0 (0.0%)	NS
Hypertension: Yes	10 (29.4%)	3 (21.4%)	NS
Diabetes Yes	6 (17.6%)	3 (21.4%)	NS
TB Yes	1 (2.9%)	1 (7.1%)	NS
Other Respiratory Problem: Yes	24 (70.6%)	8 (57.1%)	NS
Infectious Diseases Yes	2 (5.9%)	0 (0.0%)	NS
Digestive Problems: Yes	8 (23.5%)	2 (14.3%)	NS
Skin Diseases Yes	17 (20.6%)	2 (14.3%)	NS
STI Yes	4 (11.8%)	0 (0.0%)	NS
Family Planning and Fertility : Yes	5 (14.7%)	1 (7.1%)	NS

Table 4 –Use of Self-Remedies against Ever Use TM

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Use of Self-Remedies for specified illnesses: for households that reported the illness.			
Overall Incidence Rate for Past 6 months	20 out of 28 (71.4%)	6 out of 11 (54.5%)	26 out of 39 (66.7%)

Mental/Nervous Complaints (Number of HH)	4	2	
Used both TM and OM	2 (50.0%)	1 (50.0%)	
Used OM only	2 (50.0%)	1 (50.0%)	
Arthritis/Musculo-Skeletal: (Number of HH)	4	0	
Used both TM and OM	3 (75.0%)		
Used OM only	1 (25.0%)		
Hypertension: (Number of HH)	3	0	
Used both TM and OM	1 (33.3%)		
Used OM only	2 (66.7%)		
Diabetes (Number of HH)	1	1	
Used OM only	1 (100.0%)	1 (100.0%)	
TB (Number of HH)	0	0	
Used OM only			
Other Respiratory Problem: (Number of HH)	17	8	
Used TM Only	3 (17.6%)	2 (25.0%)	
Used both TM and OM	11 (64.7%)	1 (12.5%)	
Used OM only	3 (17.6%)	5 (62.5%)	
Infectious Diseases (Number of HH)			
Used OM only	0	0	
Digestive Problems: (Number of HH)	5	3	
Used both TM and OM	4 (80.0%)	2 (66.7%)	
Used OM only	1 (20.0%)	1 (33.3%)	
Skin Diseases: (Number of HH)	3	1	
Used TM Only	1 (33.3%)	0	
Used both TM and OM	2 (66.7%)	0	
Used OM only	0	1 (100.0%)	
STI: (Number of HH)	3	1	
Used TM Only	2 (66.7%)	0	
Used both TM and OM	1 (33.3%)	0	
Used OM only	0	1 (100.0%)	
Family Planning and Fertility : (Number of HH)	4	0	
Used both TM and OM	2 (50.0%)		
Used OM only	2 (50.0%)		

Table 5 – Use of TM

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Illnesses for which Traditional Healer was consulted in last six months (Number of HH). # of HH that consulted TM in Last 6 months Illnesses	13 out of 48		(27.1%) overall incidence rate for consulting TM in the past 6 months)
Mental/Nervous Complaints	1 (7.8%)		
Arthritis/Musculo-Skeletal	1 (7.8%)		
Hypertension	1 (7.8%)		
Diabetes	1 (7.8%)		
TB	0 (0.0%)		
Other Respiratory Problem	0 (0.0%)		
Infectious Diseases	0 (0.0%)		
Digestive Problems	0 (0.0%)		
Skin Diseases	1 (7.8%)		
STI	2 (15.4%)		
Family Planning and Fertility	3 (23.1%)		
Future Use TM: Proportion of respondents that would consider using TM in the future	66.7%	15.4%	$\chi^2 = 9.829$ $p = 0.02$
# that informed medical doctor about TM use	1		

Table 6 – Use of OM

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	

Illnesses for which medical doctor was consulted in last 6 months (number of HH)			
# of HH that ever consulted OM	34(100%)	14(100%)	
# of HH that ever consulted OM in last 6 months	29(85.3%)	10(71.4%)	
Illnesses they consulted OM for in last 6 months			
Mental/Nervous Complaints	4 (13.8%)	2 (20.0%)	39 (81.3%) - overall incidence rate for consulting OM in the last 6 months)
Arthritis/Musculo-Skeletal	3 (10.3%)	0 (0.0%)	
Hypertension	10 (34.5%)	3 (30.0%)	
Diabetes	4 (13.8%)	3 (30.0%)	
TB	1 (3.4%)	1 (10.0%)	
Other Respiratory Problem	22 (75.9%)	6 (60.0%)	
Infectious Diseases	1 (3.4%)	1 (10.0%)	
Digestive Problems	6 (20.7%)	1 (10.0%)	
Skin Diseases	4 (13.8%)	3 (30.0%)	
STI	5 (17.2%)	2 (20.0%)	
Family Planning and Fertility	6 (20.7%)	0 (0.0%)	
Future Use OM:			
Proportion of respondents that would consider using TM in the future	(34) 100%	(14) 100%	

Table 7

	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Medical Doctors are accessible and easy to reach Yes	34 (100%)	14 (100%)	
Traditional Healers are accessible and easy to reach Yes	28 (82.4%) 4 non-responses	3 (21.4%) 10 non-responses	
Average Travel time to see medical doctor (std dev) in min.	13.53 (6.46)	12.86 (5.08)	NS

Average Travel time to see Trad. Helaer (std dev) in min.	42.75 (35.0)		
Approx waiting times to see Medical doctor (st dev) in min.	89.71(73.19)	53.93 (27.54)	t= 2.459, p=0.018
Approx waiting times to see Trad. Healer (std dev) in min.	32.06 15.21)		
Approx costs of visiting Medical doctor (std dev) in Rands.	158.67 (54.72)	165.83(109.91)	NS
Approx costs of visiting Traditional Healer (std dev) in Rands.	75.77 (30.88)		
Source of Recommendation for choice of Medical Doctor (multiple responses possible):			
Self	25 (78.1%)	9 (64.3%)	
Relative/Friend	11 (34.4%)	7 (50.0%)	
Media	1 (3.1%)	1 (7.1%)	
Clinic	2 (6.2%)	0 (0.0%)	
Source of Recommendation for choice of Traditional Healer (multiple responses possible):			
Self	5 (14.7%)		
Relative/Friend	15 (44.1%)	N/A	
No Response	15 (44.1%)		
Level of Satisfaction with Traditional Healer			
Very Satisfied	7 (30.4%)		
Satisfied	4 (17.4%)		
Fairly Satisfied	10 (43.4%)		
Not Satisfied	2 (8.7%)		
Level of Satisfaction with Medical Doctor			
Very Satisfied	12 (35.3%)	6 (42.9%)	
Satisfied	21 (61.8%)	7 (50.0%)	
Fairly Satisfied	1 (2.9%)	1 (7.1%)	
Not Satisfied	0 (0.0%)	0 (0.0%)	
Prefer one type of treatment over the other	30 (90.9%)	14 (100.0%)	

Use different health providers for different problems ?	24 (72.7%)	7 (50.0%)	
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Table 8

Broad Reasons for Choosing Treatment Option	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
Reasons for Choosing Medical Doctor (multiple response possible):			
Pragmatic	13 (38.2%)	0 (0.0%)	
Physician	17 (50.0%)	5 (35.7%)	
Procedure/Illness	30 (88.2%)	14 (100.0%)	
Reasons for Choosing Traditional Healer (multiple response possible):			
Pragmatic	7 (20.6%)		
Physician	11 (32.4%)		
Procedure/Illness	18 (52.9%)		
Specific reasons for choosing Medical Doctor			
Health belief reasons	25 (73.5%)	10 (71.4%)	NS
I feel better with the treatment	25 (73.5%)	10 (71.4%)	NS
Less side effects	15 (44.1%)	6 (42.9%)	NS
I feel more in control of my illness	17 (50.0%)	8 (57.1%)	NS
Recommendation	25 (73.5%)	12 (85.7%)	NS
Dissatisfied with the other therapy	9 (26.5%)	3 (21.4%)	NA
Long term illness	12 (35.3%)	3 (21.4%)	NA
Cost - cost effective	5 (14.7%)	5 (35.7%)	NS
Accessibility	21 (61.8%)	10 (71.4%)	NS
Evidence that it works	25 (73.5%)	10 (71.4%)	NS
Natural form of treatment	5 (14.7%)	3 (21.4%)	NA
Unhappy with attitude of other provider	4 (11.8%)	3 (21.4%)	NA
Serious illness	17 (50.0%)	7 (50.0%)	NS
Provides holistic care	26 (76.5%)	13 (92.9%)	NS
Specific reasons for choosing Traditional Healer:			
Health belief reasons	20 (58.8%)		
I feel better with the treatment	10(29.4%)		

Less side effects	3 (8.8%)		
I feel more in control of my illness	5 (14.7%)		
Recommendation	13 (38.2%)		
Dissatisfied with the other therapy	7 (20.6%)		
Long term illness	8 (23.5%)		
Cost - cost effective	6 (17.6%)		
Accessibility	8 (23.5%)		
Evidence that it works	15 (44.1%)		
Natural form of treatment	15 (44.1%)		
Unhappy with attitude of other provider	9 (26.5%)		
Serious illness	7 (20.6%)		
Provides holistic care	3 (8.8%)		

Table 9 –Views on HIV/AIDS	Ever Consulted a Traditional Healer		
	Yes	No	Statistics
Number Respondents	34	14	
What do you think is the cause of HIV / AIDS?			
Infection	26 (76.5%)	13 (92.9%)	NA
Witchcraft	0 (0.0%)	0 (0.0%)	
Other	4 (11.8%)	1 (7.1%)	
Infection and Other	3 (8.8%)	0 (0.0%)	
Do you think that HIV/ AIDS is curable			
No Response	1 (2.9%)	0 (0.0%)	NA
Don't Know	2 (5.9%)	0 (0.0%)	
Yes	4 (11.8%)	1 (7.1%)	
No	27 (79.4%)	13 (92.9%)	
Who do you think is best suited to treat HIV/AIDS?			
No Response	2 (5.9%)	0 (0.0%)	NA
Traditional Healer	1 (2.9%)	1 (7.1%)	
Medical Doctor	19 (55.9%)	12 (85.7%)	
Both	12 (35.3%)	1 (7.1%)	

NS: Not Significant

NA: Not Applicable: Table too sparse

K. DISCUSSION

The study was a household survey using a household sample based on interval numbers to study the prevalence of TM and OM usage and to investigate the socio-demographics, health status, illness episodes and health beliefs as they influence choice of provider and utilization rates.

The overall prevalence or ever use of TM was 78% for the sample, which represents a high prevalence rate of use. In other words more than three quarters of the households in this study resorted to the use of a TM practitioner at some time. However the utilization rates for TM in the last 6 months for this sample was only 14.6%. The difference is quite large but is probably related to the short recall period of 6 months. But if one compares the 100% prevalence rate for OM ever use vs. the 81.2% utilization rates in the last 6 months then this could translate into a decreasing trend in TM utilization or alternatively implies that respondents were more prone to disclose ever use against recent use. Although I cannot offer any rational motivation for this response.

The overall prevalence rate of 78% of TM use in this survey is similar to the study amongst Native Americans in primary care² which yielded a 70% prevalence rate for TM utilization, but much higher than the 38.5% CAM usage prevalence in the Chatsworth study¹³.

Despite the low utilization rates in the last 6 months, it is interesting to note that 50% of the respondents would possibly resort to the services of a traditional healer in the future. This is lower than the WHO factsheet¹ which estimates that at least 80% of the Sub Saharan population consult a traditional healer. The ever use 78% of TM is however consistent with WHO estimates.

Compared to the Zimbabwe study⁷ where the ratio of orthodox to traditional consults was 8.09:1, this survey resulted in a ratio of 1.28:1 which signals a much higher ratio of TM consults in this study. The Zambian study⁸ has yielded a ratio of 1.81:1 which is more in keeping with the findings of this survey.

No logistic regression could be made as there were no major predictors of use of TM and the size of those HH never having used TM was too small to achieve a statistical spread for significance. Ever use however was predictable by five factors in this survey. The five factors that seemed to be significant statistical determinants of use of TM, were:

- Highest education
- Household size with reference to female preponderance in HH
- Health belief model
- The only health systems factor which was statistically associated with ever use of TM was waiting times at OM practitioners.
- Past utilization was a significant predictor of future use of TM. This knowledge could be used in future targeted education by possibly identifying those most likely to resort to TM use and helping them to make informed choices.

The Zimbabwe study⁷ revealed no socio-demographic correlates. There was a gender difference in the Zambian study⁸ but no such association was found in this survey. Waiting times was a significant correlate in the Zambian study⁸ as well as this survey.

The Chatsworth study¹³ did not find any significant correlates of use of CAM but confirms a high concurrent use of CAM and OM. The Tamil Nadu experience¹⁰ revealed specific illnesses as predictors of TM use, unlike this survey. The Loatian study⁹ found that the Mein population health belief and explanatory model of illness did correlate with use of TM as was our experience. Finally the survey confirms a complex interplay of multidimensional factors and variables in determining choice of health care provider and usage that needs further delineation.

Despite the high prevalence of TM ever use in this study the primary reliance of households in this study was on OM (95.8%) and only 2.1% on TM and 2.1% relied primarily on both OM and TM. Hence TM is used

more as an adjunct to conventional medicine, if one takes cognisance of the primary reliance responses.

Most HH used TM in tandem with OM or used OM exclusively. There was no exclusive use of TM in this survey except for a small percentage using TM self remedies exclusively for ailments.

For some illnesses there was mostly or exclusive use of OM like with TB, H/T, diabetes and infectious diseases.

In the last 6 months OM exclusive use was 5 times more common than concomitant use of OM and TM in this survey. Interestingly, there was no exclusive use of TM practitioners. With HT, TB and infectious diseases there was only exclusive use of OM, with STI having the lowest % of exclusive OM usage and diabetes having the lowest % of dual TM and OM use. Family planning, STI, mental complaints and musculoskeletal problems having higher proportions of joint OM and TM usage. A significant no of HH use OM and TM in tandem. However these specific illnesses were not statistically significant predictors of TM utilization.

There are many limitations to this survey. A cursory comparison to my practice population profile would suggest that the survey HH are probably economically and in terms of infrastructure better off than my average patients. There may therefore be limitations in terms of extrapolating the findings on district, provincial or national levels. There are also many loco-regional cultural differences in the district which impacts on the representativeness of our survey sample.

The methodology and survey modalities used also presents limitations in comparing outcomes with other studies using different parameters of practice populations, multiple survey areas, random telephonic surveys, different time frames, illness coding and so on.

With this study, using a key informant introduces limitations with regards to availability at survey times (employment) and also in terms of seeking vast personal information and illness information about different members from a single source. Perhaps a survey using a family conference type interview will address this shortcoming.

The small number of HH that never used TM practitioners ever was a small spread of data making the use of multiple logistic regression to formulate a predictive model of use, was not possible.

Recall bias would be a significant limitation although 6 months is regarded as the optimal interval in the literature, but the use of one key informant introduces more potential limitations.

Despite these limitations this survey has many implications. The study confirms a high prevalence of TM use as an adjunct to OM, in lieu of the reliance responses. Interestingly there is consensus to rational consulting behaviour with regards to tuberculoses, diabetes, infectious diseases and hypertension with almost only exclusive use of OM for these physical problems. Rational, if one subscribes to the body of evidence and the available knowledge of etiopathogenesis and therapy that exists for these illnesses The high use of dual TM and OM for other illnesses has implications for health systems planners, providers and funders. Also the lower usage of exclusive OM consults for STI and the exclusive use of TM self remedies needs to be addressed by health educators and health systems managers. Especially so, with the epidemiological association between STI and HIV. The discordant patient behaviour with regards to STIs, which are potentially curable by OM practitioners, needs to be reviewed. Obviously the strategies of syndromic management, multidisciplinary approach, dedicated clinics and so on is not translating into appropriate patient responses for STI management in this survey. The possible decreasing trend in TM utilization in the last 6 months also needs further evaluation.

The survey findings of possible 50% future use of TM by the surveyed HH makes compelling planning directives for health funders, health education and health systems planning to take cognisance of TM and how to incorporate this into mainstream health care.

There are also implications for OM practitioners to be aware of dual TM and OM usage and to actively enquire about the use of TM with its possible positive and negative interactions with OM use and medications. OM practitioners need to be more informed and knowledgeable about alternate health care so that they could address patient perceptions and needs. This study showed that most patients do not inform their OM practitioner about the use of TM and the Chatsworth study showed that only 35% of patients inform their doctors about their CAM usage. There are also implications for OM practitioners when one analyses the broad and specific reasons for TM and OM usage so that practices could be more congruent to patient

needs. This can be done by making patients feel more in control of their illnesses, by addressing waiting times at rooms and by actively enquiring about patient's reasons for healer shopping and addressing these issues. The significant positive association between ever use and future use of TM needs to be taken cognisance of by the physician.

The largely primary reliance of the survey households on OM is probably discordant with the high ever use and high potential future use of TM, perhaps implicating limitations of the doctor-patient relationship. This relationship is of paramount priority to address patient problems and perceptions.

The HIV survey also provides reassuring consensus as to the infectious aetiology of HIV and perhaps indicates the success of the HIV campaigns and education.

L. CONCLUSION

This study, despite its limitations and failure to provide a predictive model of use has highlighted a significant prevalence of TM utilization in primary care in this sample. It confirms the existence of a pluralistic health system where TM is used mostly as an adjunct to OM.

One can also conclude that choice and utilization of OM and TM is complex resulting in more questions than answers.

The survey also confirms a high potential use of TM in future by the survey population and this survey can therefore be construed as a preliminary study prompting further research and surveys on TM usage on a national scale to further elucidate and harness the extent and nature of this pluralistic health phenomenon. There is a need for more rigorous national surveys and research so that an attempt can be made to complement TM use in mainstream health care.

Our health care system is already stressed with regards to resources (financial, human, accessibility) and this makes it the more imperative to further research this health care phenomenon so that a balanced and integrative health care system can be formulated to achieve a decent primary health care for all the people of SA.

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O: Appendix 1



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24 July 2008

Dr MA Chhaya
Division of Family Medicine and Primary Care
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**RESEARCH PROJECT: "TRADITIONAL AND MODERN MEDICINE IN PRIMARY CARE
– PREVALENCE, PATTERNS AND PREDICTIVE FACTORS OF
UTILIZATION"**

PROJECT NUMBER : N08/04/113

At a meeting of the Committee for Human Research that was held on 7 May 2008 the above project was approved on condition that further information that was required, be submitted.

This information was supplied and the project was finally approved on 23 July 2008 **for a period of one year from this date**. This project is therefore now registered and you can proceed with the work.

Please quote the above-mentioned project number in ALL future correspondence.

Please note that a progress report (obtainable on the website of our Division: www.sun.ac.za/knowledgepartner/committees_CHR.htm) should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Committee for Human Research complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Kind regards


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Expiry Date: 23 July 2009

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