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UTILIZATION AND PRACTICE OF TRADITIONAL/COMPLEMENTARY/ALTERNATIVE MEDICINE (TM/CAM) IN SOUTH AFRICA

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Abstract

The aim of this study was to conduct a systematic review of published and unpublished research investigating the prevalence of traditional, complementary and alternative medicine (TMCAM) use in the general population. Results found that use of a traditional and/or faith healer seemed to have decreased over the past 13 years (from a range of 3.6- 12.7% to 0.1%). The prevalence of traditional male circumcision was found to be 24.8% generally and 31.9% among the African Black racial group. The range of use of alternative and complementary medicine was from 0% to 2.2%. Local utilization surveys of TMCAM for the last illness episode or in the past year showed a variation in use of 6.1% to 38.5%. The prevalence of conditions treated at different TMCAM out-patients settings ranged from chronic conditions, complex of supernatural or psychosocial problems, mental illness, chronic conditions, acute conditions, generalized pain, HIV and other sexually transmitted infections. TM and probably CAM is used by substantial proportions of the general population, but differences in study design and methodological limitations make it difficult to compare prevalence estimates.

Key words: Utilization, prevalence, traditional medicine, complementary medicine, alternative medicine, South Africa

Introduction

WHO defines “traditional medicine (TM) as including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness”. “Traditional medicine” (TM) is a comprehensive term used to refer both to TM systems such as traditional Chinese medicine, Indian ayurveda and Arabic unani medicine, and to various forms of indigenous medicine. TM therapies include medication therapies —if they involve use of herbal medicines, animal parts and/or minerals — and non-medication therapies — if they are carried out primarily without the use of medication, as in the case of acupuncture, manual therapies and spiritual therapies. In countries where the dominant health care system is based on allopathic medicine, or where TM has not been incorporated into the national health care system, TM is often termed “complementary”, “alternative” or “non-conventional” medicine.” (WHO, 2000)

The term “Complementary and Alternative Medicine (CAM) often refers to a broad set of health-care practices that are not part of a country’s own tradition and are not integrated into the dominant health-care system. “ Other terms sometimes used to describe these health-care practices include ‘natural medicine’, ‘non-conventional medicine’ and ‘holistic medicine’ (WHO, 2000)

The U.S. National Institutes of Health has grouped them into five somewhat overlapping domains (http://nccam.nih.gov/health/whatiscam) as follows:

• "*Biologically based practices.* These include use of a vast array of vitamins and mineral supplements, natural products such as chondroitin sulfate, which is derived from bovine or shark cartilage; herbals, such as ginkgo biloba and echinacea; and unconventional diets, such as the low-carbohydrate approach to weight loss espoused by the late Robert Atkins.

• *Manipulative and body-based approaches.* These kinds of approaches, which include massage, have been used throughout history. In the 19th century, additional formal manipulative disciplines emerged in the United States: chiropractic medicine and osteopathic medicine. Both originated in an attempt to relieve structural forces on vertebrae and spinal nerve roots that practitioners perceived as evoking a panoply of illnesses beyond mere musculoskeletal pain.

• *Mind-body medicine.* Many ancient cultures assumed that the mind exerts powerful influences on bodily functions and vice versa. Attempts to reassert proper harmony between these bodily systems led to the development of mind-body medicine, an array of approaches that incorporate spiritual, meditative, and relaxation techniques.

• *Alternative medical systems.* Whereas the ancient Greeks postulated that health requires a balance of vital humors, Asian cultures considered that health depends on the balance and flow of vital energies through the body. This latter theory underlies the practice of acupuncture, for example, which asserts that vital energy flow can be restored by placing needles at critical body points.

• *Energy medicine.* This approach uses therapies that involve the use of energy—either biofield- or bioelectromagnetic based interventions. An example of the former is Reiki therapy, which aims to realign and strengthen healthful energies through the intervention of energies radiating from the hands of a master healer."

Traditional medicine (TM) remains widespread in developing countries, while use of complementary and alternative medicine (CAM) is increasing rapidly in developed countries (Ernst, 2000; Harris and Rees 2000; WHO, 2002). TM is widely used and of rapidly growing health system and economic importance. In Africa up to 80% of the population uses TM to help meet their health care needs. In Asia and Latin America, populations continue to use TM as a result of historical circumstances and cultural beliefs. In China, TM accounts for around 40% of all health care delivered. In Ghana, Mali, Nigeria and Zambia, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicines at home. WHO estimates that in several African countries traditional birth attendants assist in the majority of births. Meanwhile, in many developed countries, CAM is becoming more and more popular. In Europe, North America and other industrialized regions, over 50% of the population have used complementary or alternative medicine at least once. In San Francisco and London, 75% of people living with HIV/AIDS use TM/CAM. In the United States, 158 million of the adult population use complementary medicines and according to the USA Commission for Alternative and Complementary medicines (WHO, 2002).

WHO (2004) developed process indicators, as summarized by the WHO Africa regional office and that was obtained from some experts on traditional medicine in the region (WHO, 2004), among others, as follows: (1) Estimated prevalence of national TMCAM use, (2) Estimated prevalence of national herbal medicine use, and (3) Medical determinants for TMCAM use.

Although many populations in developing countries are reported as depending heavily on TM to help meet their health care needs, precise data are lacking. Quantitative research to ascertain levels of existing access (both financial and geographic), and qualitative research to clarify constraints to extending such access, are called for. There is a need to undertake specific, multidisciplinary surveys in order to obtain data on process indicators adequately (WHO, 2004).

Towards the end of the 1990s, the total number of traditional healers in South Africa was estimated to be around 350,000 (Bodeker, 2000) and an estimated 70 to 80% of South Africans consult traditional healers (Department of Health, 2005; Kasilo, 2000). The Traditional Health Practitioners Act classifies traditional healers in South Africa as: Diviners (Izangoma/Amagqirha), Herbalists (Izinyanga/amaxhwele), Prophets/faith healers (abaprofeti/abathandazeli), Traditional surgeons (iingcibi), and Traditional birth attendants (ababelethisi/abazalisi) (Gqaleni et al., 2007). In 2007 the number of registered allied health professionals, interns and students (n=3622) in South Africa included 399 for Ayurveda, Chinese Medicine and Unani-Tibb (PBACMU), 541 for Chiropractic and Osteopathy (PBCO), 669 for Homoeopathy, Naturopathy and Phytotherapy, and 2013 for Therapeutic Aromatherapy, Therapeutic Massage Therapy and Therapeutic Reflexology (PBARM) (Gqaleni et al., 2007).

The aim of this study was to conduct a systematic review of published and unpublished research investigating the prevalence of traditional, complementary and alternative medicine (TMCAM) use in the general population in South Africa.

Method

The SEARCH STRATEGY included search online for published and unpublished studies in MEDLINE, EMBASE, CENTRAL, GOOGLE Scholar, CINAHL, AJOL (African Journals Online), South African e-journals and Sociofile. Key words for the search included: traditional medicine, complementary medicine, alternative medicine, faith healer, spiritual healer, herbalist, diviner, traditional birth attendend, traditional male circumcision, survey, utilization, health-care seeking, South Africa. To qualify for inclusion, a survey had to address the prevalence of TMCAM, i.e. the percentage of people using it. Surveys on sub-populations, such as patients with a condition, e.g. HIV/AIDS, and traditional health practitioners listing their common conditions they treat were also included. In addition, secondary analyses were conducted with several national data sets (SABSSM I & II, South African national HIV prevalence, Behaviour and Communication Survey) (Shisana and Simbayi, 2002; Shisana et al., 2005), WHS (World Health Survey South Africa).

Results

Estimated prevalence of national TMCAM use

All surveys considered in this section here were nationally representative population-based surveys

Table 1: Prevalence of TMCAM use in national population-based surveys

Survey	Sample	Health facility use as result of an illness or injury	Traditional healer	Faith healer	Alternative/complementary medicine
OHS 1995	N=130787[a]	Visited in past month	3.6		--
DHS 1998	N=13795[a]	Visited in past month	12.7	1.5	--
OHS 1999	N=106650[a]	Visited in past month	1.6		--
GHS 2002	N=4276[b]	Visited in past month	0.8	--	0.1
SABSSM I 2002	N=9963[a]	Visited in past 12 months	12.4 (alternative/traditional healer)		
GHS 2003	N=4354[b]	Visited in the past month	0.6	--	0.1
DHS 2003	N=8115[a]	Visited in the past month	2.6	3.0	--
WHS 2003	N=2638[a]	Last out-patient health care provider visited	0.0	--	2.3
GHS 2004	N=4446 [b]	Visited in past month	0.4	0.0	0.0
SASH 2004	N=3651 [a]	Visted in past 12 months (with mental disorder)	2.4 (3.6)	6.9 (10.8)	2.2 (3.2)
GHS 2005	N=3787[b]	Visited in past month	0.1	0	0
SABSSM II 2005	N=23236[a]	Usually attend	0.1	--	--
GHS 2006	N=4938[b]	Visited in past month	0.01	0	0
GHS 2007	N=4191[b]	Visited in past month	0.1	0.01	0.0

Sources: OHS=October Household Survey, (Statistics South Africa, Grobler and Stuart, 2007)
GHS=General Household Survey (Statistics South Africa, 2003, 2004, 2005, 2006, 2007, 2008)
DHS=Demographic and Health Survey (Department of Health, 1998, 2007)
SASH=South African Stress and Health study as part of the World Mental Health Survey (Williams, Sorsdahl, Stein, under review)
SABSSM (South African national HIV prevalence, Behaviour and Communication Survey) (Shisana and Simbayi, 2002; Shisana et al. 2005)
WHS=World Health Survey (www.who.int/healthinfo/survey/en/index.html)
[a]Total survey sample; [b]Sub-sample who visited a health professional

conducted from 1995 to 2007. Generally, the past month use of a traditional and/or spiritual or faith healer seemed to have decreased over the past 13 years, surveys from 1995 and 1998 found a 3.6 to 12.7% use of a traditional healer, while surveys from 2005 to 2007 showed 0.1% or less use of a traditional healer. The range of use of alternative and complementary medicine was from 0% to 2.2%. The use of TMCAM was higher for persons suffering from a mental disorder compared to the general population (Table 1).

Traditional contraceptive use and traditional birth attendance

Comparing traditional contraceptive use between the 1998 and 2003 from the national demographic and health surveys (Department of Health, 1998, 2007), there has been a decrease in traditional contraceptive use from 9.8-13.4% in 1998 to 0.1% in 2003 (Table 2).

Table 2: Traditional contraceptive use from two national representative population-based surveys

	Any traditional method	Lactational amenorrhea (LAM)	Periodic abstinence
Traditional current contraceptive use of all women (15-49 years) surveyed (n=7041) in percent			
2003	0.1	0.1	0.0
Percentage of all women and of currently married women who have ever used a traditional method of contraception			
	Any traditional method	Withdrawal	Periodic abstinence
1998 (all women)	9.8	7.3	4.2
1998 (currently married women)	13.4	10.7	5.9

Source: Demographic and Health Surveys (Department of Health, 1998, 2007)

Traditional birth attendance has also decreased for the women 20 years and above from 1.4-2.2% in 1998 to 0.4-1.3% in 2003, but it increased for women below 20 years from 0.7% in 1998 to 1.4% in 2003 (Table 3). Various local studies found higher rates of traditional birth attendance, in particular in rural areas, e.g. among 870 mothers in the rural Eastern Cape, 44.1% delivered their last child at home, 16.8% with the assistance of traditional birth attendant (Peltzer et al., 2006), and among 181 postnatal care clients in the Eastern Cape 36% had consulted a traditional healer with their last pregnancy and 34% for postnatal care (Peltzer et al., 2009).

Table 3: Percent distribution of births in the five years preceding the survey by place of delivery

		Home delivery	Assisted during delivery by…		
	Mother's age at birth		Traditional birth attendant	Relative/ friend	Other/No one
2003 (Number of birth=2120)	<20 20-34 35+	4.3 5.5 13.8	1.4 0.4 1.3	1.8 2.9 6.3	0.7 1.2 4.4
1998 (Number of birth =4992)	<20 20-34 35+	9.0 15.0 16.8	0.7 1.4 2.2	7.8 11.2 10.6	1.2 2.1 3.1

Source: Demographic and Health Surveys (Department of Health, 1998, 2007)

Traditional male circumcision

In a nationally representative population-based survey (SABSSM I) in 2002, the prevalence of traditional male circumcision was found to be 24.8% (more than medical male circumcision=13.2%). Traditional male circumcision was mainly practiced among the African Black (31.9%) racial group. Yet, there were stark differences among different African ethnic groups in traditional male circumcision rates, ranging from 71.1% among Venda, 60.5% Northern Sotho, 57.3% Xhosa, 57.0% Ndebele to 2.4% among Swati and 10.7% among Zulu. The age of traditional male circumcision is across ethnic groups mainly 18 years and above (58.2%), followed by 12 to 17 years (33.1%) and 0 to 11 years (8.8%), while there are differences by ethnic groups; for example for the Xhosa, Southern Sotho, and Tswana the age of traditional male circumcision is mainly 18 years and above, and for the Swati, Northern Sotho and Tsonga it is mainly 12 to 17 years, and for the Venda it appears the age of traditional male circumcision is below 12 years (Table 4).

Table 4: Traditional and medical male circumcision by race, home language and age group

Demographics	N	Traditional male circumcision				Medical male circumcision			
Age		all	0-11	12-17	18+	all	0-11	12-17	18+
All	3025	24.8	8.8	33.1	58.2	13.2	48.3	17.1	34.6
African Black	1771	31.9	8.7	33.3	58.0	9.3	22.7	25.9	51.8
-Ndebele	28	57.0	2.4	2.9	94.7	2.3	52.7	47.3	0
-Swati	63	2.4	0	70.9	29.8	10.8	56.2	2.9	40.8
-Xhosa	457	57.3	2.1	12.3	85.5	4.7	9.2	15.9	74.9
-Zulu	423	10.7	2.4	41.0	56.6	6.1	24.4	2.3	73.3
-Southern Sotho	187	24.6	3.7	32.0	64.3	12.6	4.5	16.5	79.0
-Northern Sotho	198	60.5	14.0	58.1	27.9	13.0	21.6	49.5	28.9
-Tswana	231	13.6	0	32.8	67.2	12.3	30.9	16.0	53.1
-Venda	21	71.1	53.0	34.8	12.2	25.6	8.3	91.7	0
-Tsonga	84	44.2	29.0	66.7	4.0	18.2	27.6	50.8	21.6
Coloured	562	2.9	3.6	16.1	80.3	16.6	66.3	8.7	25.0
White	307	0.3	100	0	0	32.9	88.2	4.3	7.5
Indian or Asian	385	0.7	74.8	0	25.2	19.8	80.4	10.7	8.9

Source: SABSSM I

Local utilization surveys of TMCAM for the last illness episode or in the past year showed a TM/CAM use of 6.1% to 38.5% and in case of prior to death 50% (Table 5).

The prevalence of TMCAM use of patients in biomedical health facilities seems high for different types of conditions, such as snake bites, mental illness, HIV patients prior to antiretroviral treatment (ART) prior to biomedical and concurrenly with biomedical treatment (Table 6).

The prevalence of conditions treated at different TM/CAM out-patients settings ranges from chronic conditions, complex of supernatural or psychosocial problems, chronic conditions, acute conditions, generalized pain, HIV and other STIs (Table 7).

This reflects what traditional health practitioners report as the most common conditions they treat, as shown in Table 8.

Table 5: Prevalence of TMCAM use in local population-based surveys

Author(s)	Sample	Variable	Traditional healer	Faith healer	Alternative/complementary medicine
Pretorius et al. (1991)	N=207 (urban) Manguang, Bloemfontein	Consultation in past 12 months	Herbalist=9.7% Diviner=11.6%	21.3%	
Peltzer (2000)	N=104 (urban) Mankweng, Limpopo Province	Last illness episode requiring professional health care	27%	4%	
Peltzer (2003)	N=398 (rural) Vhembe district, Limpopo province	Sexually transmitted infection in the past 12 months	36%		
Singh et al. (2004)	N=200 (urban) Indian community in Chatsworth	Consultation for the three most troublesome conditions in the past 12 months	38.5% Spiritual healing and herbal/natural medicines, including vitamins were the most common types of CAM used		
Nattrass (2005)	N=570 (urban) Khayelitsha, Cape Town	Consultation the last time when 'very sick'	6.1%		
Case et al. (2005)	N=1282 (rural) KwaZulu-Natal	Consultation prior to death gathered after deaths from their primary care-givers	50%		
Peltzer et al. (2008b)	N=405 (rural & urban) Limpopo and Western Cape Province	Illness episode of household member in past month	2.2%		10.7% (Home remedy)

Table 6: Prevalence of TMCAM use in local biomedical health facility-based surveys

Author(s)	Sample	Variable	Traditional healer	Faith healer	Alternative/complementary medicine
Farrand (1984)	N=65 African Black psychiatric patients, Soweto	Consulted in past 12 months	28%		
Kgoatla (1997)	N=640 Teenage mothers (15-21 years) in 3 clinics in Soshanguve	Consultation and self-treatment during pregnancy	-Use of concoctions: 52.4% -Blood letting: 48.5% -Enema: 42.8%	Appeasing gods: 62.2%	-Care of fontanelle: 68.2% -Care of umbilical: 38.4%
Wilkinson and Wilkinson (1998)	N=360 Sexually transmitted infection primary care patients, KwaZulu-Natal	Previous episode of STD in past 3 months	14.6%		
Ensink and Robertson (1999)	N=62 Psychiatric patients, Cape Town	Consultation in past 12 months	24% herbalist 13% diviner	34% faith healer	
Pronyk et al. (2001)	N=298 Tuberculosis patients, Hlabisa, KwaZulu-Natal	First consultation with tuberculosis	15.4%		
Babb et al. (2007)	N=44 HIV patients, Workplace clinic providing ART, Gauteng	Currently	32%		
Malangu (2007)	N=180 HIV-infected patients on ART, hospital, Pretoria	Currently	4.4%		3.3%
Sloan et al. (2007)	N=50 Hospital admissions after snakebite, Hlabisa, KwaZulu-Natal	Treatment prior to hospital admission	85% oral traditional medicine		37.5% self-medication
Phaswana-Mafuya et al. (2008)	N=18607 Primary care patients, Eastern Cape	Consulted traditional healer in past 12 months	19.4%		
Peltzer et al. (2008a)	N=618 HIV patients prior to ART, KwaZulu-Natal	TMCAM use in past 6 months	29.6%	35.1%	7.5% (excluding micronutrients)

Table 7: Prevalence of conditions treated at different TMCAM out-patient settings

Author	Sample	Treated conditions, in order of frequency
West (1972)	N=361 clients Healing church, Soweto	Stomach ache, Body pain, Headache, Sore feet, Troubles with spouse, Back pains, Fainting, Bad luck, Heart ache/failure, Work troubles, Trouble with children, Troubled by holy spirit, Sorcery, Dizziness, Menstrual problems
Peltzer and Mngqundaniso (2008)	N=222 patients Traditional healer practices, urban KwaZulu-Natal	Bad luck, reverse bad luck; Acute conditions (diarrhea, fever, flu, headaches, cough, other); Generalized pain (stomach, muscle or other nonspecific pain); Chronic pain in your joints/arthritis (joints, back, neck); Psychosocial problem (marital, mental, ancestors problems; spirit illness); Magic poisoning; Problems with your breathing Communicable disease: HIV; Infertility; Children's problems; Weakness of the body, dizziness; Communicable disease: STI (other than HIV); High blood pressure / hypertension; Diabetes or related complications; Epilepsy; Cancer; Depression or anxiety; Stroke/sudden paralysis of one side of body; Problems with your mouth, teeth or swallowing; Sexual dysfunction
Cocks and Møller (2002)	N=120 customers, *Amayeza* stores ('African chemists'), Eastern Cape	Physical ailments such as stomach and chest complaints, urinary infections and complexion problems; Enhance well-being (protection, luck); for resale by traditional healers and for cultural needs (4%) such as diviner accessories and for circumcision rituals

Table 8: Traditional health practitioner studies

Author	Sample	Treated conditions
Shai-Mahoko (1996)	35 traditional healers, rural North-West Province	Infertility, septic sores, impotence, sexually transmitted diseases, deliveries, makgome or boswagade, asthma, mental illness, high blood pressure, palpitations, tuberculosis, alcoholism, diabetes, cancer, *tlhogwana, ditantanyane*, measles, kwashiorkor, and whooping cough
Peltzer (1998)	70 traditional healers, rural Limpopo Province	Major conditions or problems: mental disorders, sexually transmitted diseases, fertility problems, epilepsy and childhood disorders, and conditions resulting from witchcraft/sorcery
Peltzer (1999)	80 faith healers, rural Limpopo province	Witchcraft/sorcery related disorders, substance abuse and chronic diseases, children's diseases, mental disorders, physical disorders such as sexually transmitted diseases and infertility
Peltzer (2001)	18 traditional and faith healers, urban Limpopo province	Traditional healers: Physical disorders, children's diseases, sexually transmitted infections, witchcraft/sorcery, and social problems. Faith healers: Physical disorders, social problems, witchcraft/sorcery, substance abuse/chronic condition, mental disorders
Peltzer et al. (2006)	233 traditional healers, rural KwaZulu-Natal	Sexually transmitted infections, arthritis, stroke, headache, sores/shingles, children's problems, ancestral problems, sharp pains, spirit illness, stomach problems, reverse bad luck, chest problems, magic poisoning by stepping over something, mental problems, being poisoned by food purposely, bad luck, high blood pressure/heart problems, HIV/AIDS, infertility, epilepsy, diabetes mellitus, cancer

Discussion and conclusion

The data presented about the prevalence of TMCAM use in South Africa show a general decline in TM use, a fairly wide variation in TM use and lack of data about CAM use among the general population. Generally, population-based and health facility-based surveys seem to indicate that TM use still plays an important role in health care delivery in South Africa, covering a wide range of conditions from chronic conditions, complex of supernatural or psychosocial problems, chronic conditions, acute conditions, generalized pain, HIV and other sexually transmitted infections. Other studies in South Africa have also indicated the importance of traditional health practitioners in the treatment of these conditions, mental disorders (Havennar et al., 2008), cancer (Steyn and Muller, 2000), diabetes (Ziqubu-Page et al., 1999; Peltzer et al., 2001b), hypertension and stroke (Peltzer et al., 2001a; The SASPI project team, 2004), childhood health problems (Friend-du Preez, et al., 2008), and hearing impairment (Andrade and Ross, 2005).

The investigations included in the review differed markedly in their methodologies, origins and results. Some surveys were aimed at determining lifetime prevalence of TMCAM use, while other investigators used one-year, six months, one month or last illness episode prevalence data. The utilization of the different types of TMCAM were also not elicited, most studies only assessed the use of traditional healers and not that of faith healers and CAM practitioners. Therefore, future surveys should deal with all named therapies (including the major categories of herbalist, diviner, faith healer, traditional birth attendant, traditional surgeon and CAM therapies) rather than with TMCAM in general, be based on samples representative of general populations, assess point and one-year prevalence, and be based on adequate response rates (Ernst, 2000). Further research should also investigate more systematically the concurrent use of TMCAM and biomedical health care.

References

1. Andrade, V.D. and Ross, E. (2005). Beliefs and practices of Black South African traditional healers regarding hearing impairment. Intern J Audiol., **44**: 489-499.
2. Babb, D.A., Pemba, L., Seatlanyane, P., Charalambous, S., Churchyard, G.J. and Grant A.D. (2007). Use of traditional medicine by HIV-infected individuals in South Africa in the era of antiretroviral therapy. Psychol Health Med, **12(3)**: 314-20.
3. Bodecker, G. (2000). Planning for cost-effective traditional health services. In WHO. Traditional medicine, better science, policy and services for health development (pp. 31-70). Awaji Island, Japan: Hyogo Prefecture.
4. Case, A., Menendez, A.L. and C. Ardington (2005). Health seeking behaviour in Northern KwaZulu-Natal, CSSR Working Paper no.116, Centre for Social Science Research, University of Cape Town. Retrieved from http://www.princeton.edu/~rpds/downloads/case_etal_hsb.pdf, 20 Novermber 2008.
5. Cocks, M. and Møller, V. (2002). Use of indigenous and indigenised medicines to enhance personal well-being: a South African case study. Soc Sci Med., **54(3)**: 387-397.
6. Department of Health (1998). South African Demographic and Health Survey 1998. Pretoria: Department of Health.
7. Department of Health (2005). South Africa delegation supports call for development of Policy Framework for Traditional Medicine. Retrieved at http://www.doh.gov.za/search/index.html, 24 January 2008.
8. Department of Health (2007). South African Demographic and Health Survey 2003. Pretoria: Department of Health.
9. Ensink, K. and Robertson, B. (1999). Patient and family experiences of psychiatric services and African indigenous healers. Transc Psychiatry, **36:** 23–43.
10. Ernst, E. (2000). Prevalence of use of complementary/alternative medicine: a systematic review. Bull World Health Org., **78(2)**: 252-257.
11. Farrand, D. (1984). Is a combined Western and traditional health service for black patients desirable? S Afr Med J., **66**:779-780.
12. Friend-du Preez, N., Cameron, N., and Griffiths, P. (2008). Stuips, spuits and prophet ropes: The treatment of abantu childhood illnesses in urban South Africa. Soc Sci Med., **Nov 22**. [Epub ahead of print]
13. Gqaleni, N., Moodley, I., Kruger, H., Ntuli, A. and McLeod, H. (2007).Traditional and complementary medicine. South African Health Review, Chapter 12, 175-185. Durban: Health Systems Trust.
14. Grobler, C. and Stuart, I.C. (2007). Health care provider choice. S Afr J Econ., 75(2): 327-350.
15. Harris, P. and Rees, R. (2000). The prevalence of complementary and alternative medicine use among the general population: a systematic review of the literature. Complement Ther Med., **8(2)**: 88-96.

16. Havenaar, J.M., Geerlings, M.I., Vivian, L., Collinson, M. and Robertson, B. (2008). Common mental health problems in historically disadvantaged urban and rural communities in South Africa: prevalence and risk factors. Soc Psychiat Psychiatric Epi., **43(3)**: doi 10.1007/s00127-007-0294-9.
17. Kasilo, O. (2000). Traditional African medicine. In WHO, Traditional medicine, better science, policy and services for health development Awaji Island, Japan: Hyogo Prefecture. pp. 86-94.
18. Kgoatla, P. (1997). The use of traditional medicines by teenage mothers in Soshanguve. Health SA Gesond., **2(3)**: 27-31.
19. Malangu, N. (2007). Self-reported use of traditional, complementary and over-the-counter medicines by HIV-infected patients on antiretroviral therapy in Pretoria, South Africa. Afr J Trad CAM, **4(3)**: 273-278.
20. Nattrass, N. (2005). Who consults sangomas in Khayelitsha? An exploratory quantitative analysis. Social Dynamics, **31(2)**: 161-182.
21. Peltzer, K. (1998). A community survey of traditional healers in rural South Africa. S Afr J Ethnol., **21**: 191-197.
22. Peltzer, K. (1999). Faith healing for mental and social disorders in the Northern Province (South Africa). J Rel Afr., **29**: 387-402.
23. Peltzer, K. (2000). Perceived treatment efficacy of the last experienced illness episode in a community sample in the Northern Province, South Africa. Curationis, **23(1)**: 57-60.
24. Peltzer, K. (2001). An investigation into practices of traditional and faith healers in an urban setting in South Africa. Health SA Gesond., **6(2)**: 3-11.
25. Peltzer, K., Khoza, L.B., Lekhuleni, M.E., Madu, S.N., Cherian, V.I. and Cherian, L. (2001a). Concepts and treatment of hypertension by traditional and faith healers in the Northern Province, South Africa. Health SA Gesond., **6(3):** 59-67.
26. Peltzer, K., Khoza, L.B., Lekhuleni, M.E., Madu, S.N., Cherian, V.I. and Cherian, L. (2001b). Concepts and treatment of diabetes by traditional and faith healers in the Northern Province, South Africa. Curationis, **24(2)**: 42-47.
27. Peltzer, K. (2003). HIV/AIDS/STD knowledge, attitudes, beliefs and behaviours in a rural South African adult population. S Afr J Psychol., **33(4)**: 250-260.
28. Peltzer, K., Mosala, T., Shisana, O. and Nqeteko, A. (2006). Utilization of delivery services in the context of Prevention of HIV from Mother-To-Child (PMTCT) in a rural South African community. Curationis, **29(1)**: 54-61.
29. Peltzer, K., Mngqundaniso, N. and Petros, G. (2006). HIV/AIDS/STI/TB knowledge, beliefs and practices of traditional healers in KwaZulu-Natal, South Africa. AIDS Care, **18(6)**: 608-613.
30. Peltzer, K. and Mngqundaniso, N. (2008). Patients consulting traditional health practitioners in the context of HIV/AIDS in urban areas in KwaZulu-Natal, South Africa. Afr J Trad CAM, **5(4)**: 370-379.
31. Peltzer, K., Friend-du Preez, N., Ramlagan, S., and Fomundam, H. (2008a). Use of traditional, complement-tary and alternative medicine (TCAM) for HIV patients in KwaZulu-Natal, South Africa. BMC Public Health, **24**: 8(1):255, doi:10.1186/1471-2458-8-255.
32. Peltzer, K., Mohlala, G., Phaswana-Mafuya, R. and Ramlagan, S. (2008b). Household survey on the pattern of utilization of medicines in selected communities in South Africa. Afr J Phys Health Educ Recr Dance, **14(2)**: 163-177.
33. Peltzer, K., Phaswana-Mafuya, N. and Treger, L. (2009) Use of traditional and complementary health practices in prenatal, delivery and postnatal care in the context of HIV transmission from mother to child (PMTCT) in the Eastern Cape, South Africa. Afr J Trad CAM.In press.
34. Phaswana-Mafuya, N., Peltzer, K. and Davids A. (2008). Baseline patient satisfaction survey in 275 clinics that are located in three health districts: Amathole, OR Tambo and Chris Hani, Eastern Cape, South Africa. Bisho, South Africa: Eastern Cape Department of Health.
35. Pretorius, E., De Klerk, G.W. and Van Rensburg, H.C.J. (1991). The traditional healer in South African health care. Pretoria: Human Sciences Research Council.
36. Pronyk, P.M., Makhubele, M.B., Hargreaves, J.R., Tollman, S.M. and Hausler, H.P. (2001). Assessing health seeking behaviour among tuberculosis patients in rural South Africa. Intern J Tuber Lung Dis., **5(7)**: 619-627.
37. SASPI project team (2004). Secondary prevention of stroke — results from the Southern Africa Stroke Prevention Initiative (SASPI) study. Bul World Health Org., **82:** 503-508.
38. Shisana, O. and Simbayi, L.C. (2002). Nelson Mandela/HSRC study of HIV/AIDS: South African national prevalence, behavioural risks and mass media, 2002. Cape Town: HSRC Press.

39. Shisana, O., Rehle, T., Simbayi, L.C., Parker, W., Zuma, K., Bhana, A., Connolly, C., Jooste, J. and Pillay, V. (2005). South African national HIV prevalence, HIV incidence, behaviour and communication survey. Cape Town: HSRC Press.
40. Shai-Mahoko, S.N. (1996). Indigenous healers in the North West Province: a survey of their clinical activities in health care in the rural areas. Curationis, **19(4)**: 31-34.
41. Singh, V., Raidoo, D.M. and Harries, C.S. (2004). The prevalence, patterns of usage and people's attitude towards complementary and alternative medicine (CAM) among the Indian community in Chatsworth, South Africa. BMC Compl Altern Med., **4**:3.
42. Sloan, D.J., Dedicoat, M.J. and Lalloo, D.G. (2007). Health-seeking behaviour and use of traditional healers after snakebite in Hlabisa sub-district, KwaZulu-Natal. Trop Med Intern Health, **12(11)**: 1386-1390.
43. Statistics South Africa (2003, 2004, 2005, 2006, 2007, 2008). General household survey 2002, 2003, 2004, 2005, 2006, 2007. Pretoria: Statistics South Africa.
44. Steyn, M. and Muller, A. (2000). Traditional healers and cancer prevention. Curationis, **23(3)**: 4-11.West, M. (1975). Bishops and prophets in a black city: African independent churches in Soweto. Johannesburg: Phillip.
45. West, M. (1972). Bishops and prophets in a black city: African independent churches in Soweto. Johannesburg: Phillip.
46. WHO (2000). General guidelines for methodologies on research and evaluation of traditional medicine, WHO/EDM/TRM/2000.1.
47. WHO (2002). WHO Traditional medicine strategy 2002-2005. Geneva: WHO.
48. WHO (2004). Global atlas of traditional medicine: proceedings of an international meeting, 17-19 June 2003, Kobe, Japan. Kobe, Japan: WHO.
49. Wilkinson, D. and Wilkinson, N. (1998). HIV infection among patients with sexually transmitted diseases in rural South Africa. Intern J STD AIDS, **9(12)**: 736-739.
50. Williams, D. R., Sorsdahl, F. and Stein, D. (under review) Traditional healers in the treatment of common mental disorders in South Africa.
51. Ziqubu-Page, T.T., Dangor, C.M., Makubalo, L.E. and Chetty, M. (1999) Determinants of traditional medicine use by diabetic patients in the Northern KwaZulu-Natal Province. Curare, **22(1)**: 49-5