

MAJOR CHALLENGE AND CONSTRAINT OF DOCUMENTING INDIGENOUS KNOWLEDGE ABOUT AFRICA'S COMPLEMENTARY AND ALTERNATIVE MEDICINE (e-ACAM).

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This paper is located within global debates about indigenous knowledge (IK) and Africa's complementary and alternative medicine (e-ACAM). The paper explores whether it is possible to document all types of indigenous knowledge about Africa's complementary and alternative medicine (e-ACAM) following that this medicine encompass common and uncommon knowledge of which the latter is practised secretly as it is a source of livelihoods to traditional medicine practices. The raison d'être for the examination stem from the notion that the ethnopharmacological information of medicinal plants is fast disappearing and in view of the rapid loss of such knowledge, its documentation as well as a better understanding of its botanico-historical roots has become an essential task. The paper attempts to expose a major challenge and constraint that may inhibit the documentation of all indigenous knowledge about Africa's complementary and alternative medicine. Finally, the paper proposes measures within intellectual property rights (IPR) in the form of patents that could be implemented in order to document those types of knowledge about Africa's complementary and alternative medicine that are a source of livelihoods to traditional medicine practices.

Key words: Indigenous knowledge, Complementary and alternative medicine, Intellectual Property Rights (IPR) - patents.

1. Introduction

According to Amenu (2007), indigenous knowledge entails knowledge, rule, standards, skills, and mental sets that are possessed by local people in certain areas. Aburahma, et al. (2010: 117), are of the view that complementary and alternative medicines (CAM) encompass a group of miscellaneous medical and health care systems, practices and products that are not currently considered component of conventional medicine. Complementary and alternative medicine (CAM) is skills, practices and knowledge based on the experiences, theories, and beliefs indigenous to different cultures that are used to sustain health, as well as to diagnose, prevent, improve or treat mental and non mental illnesses (WHO, 2011). The purpose of this paper is to examine indigenous knowledge and Africa's complementary and alternative medicine (e-ACAM). The paper explores whether it is possible to document all types of indigenous knowledge about Africa's complementary and alternative medicine following that this medicine

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encompass common and uncommon knowledge of which the latter is practised secretly as it is a source of livelihoods to traditional medicine practices (Galabuzi et al., 2010: 11). The rationale for the examination stem from the notion that 'the ethnopharmacological information of medicinal plants is fast disappearing ... [and] in view of the rapid loss of such knowledge, its documentation as well as a better understanding of its botanico-historical roots has become an essential task' (Weldegerima, 2009: 400). Corroborating this view, Okello et al. (2010: 1-2) are of the opinion that the documentation of African traditional plants is an urgent matter following the rapid loss of natural habitats, traditional community life, cultural diversity and knowledge of medicinal plants.

In order to examine whether it is possible to document all types of indigenous knowledge (IK) about Africa's complementary and alternative medicine (CAM), this paper first examines the possible reasons for the documentation of indigenous knowledge about Africa's complementary and alternative medicine. Secondly, the paper examines the various – common and uncommon – types of indigenous knowledge about Africa's complementary and alternative medicine. The type of indigenous knowledge about Africa's complementary and alternative medicine that can and cannot be documented is revealed. Thirdly, the paper explores the challenges and constraints about Africa's common complementary and alternative medicine. Possible ways of averting these challenges are revealed. Fourthly, the paper exposes a possible major challenge and constraint that may inhibit the documentation of uncommon indigenous knowledge about Africa's complementary and alternative medicine. Finally, the paper proposes measures within intellectual property rights (IPR) in the form of patent that could be implemented for uncommon types of indigenous knowledge about Africa's complementary and alternative medicine to be documented.

Raison d'être for documenting IK about Africa's complementary and alternative medicine

Among the possible reasons for documenting Africa's complementary and alternative medicine is because it is widespread and universally used within diverse populations of dissimilar cultural and ethnic backgrounds (Aburahma, et al., 2010: 117). Following Whitehead (2003), one in five Britons use complementary therapies and the UK spend £350m each year on natural remedies. In 1990, in the United States of America, an estimated 427 millions visits were made to alternative medical practitioners, exceeding the estimated 388 million visits to primary care physicians during the same year (Miller et al., 2000: 877). In the USA the use of herbal product is increasing (Liebert, 2003), as hospitals are increasingly involved in offering CAM services (Clement et al., 2006: 109). For example, in 2008, the National Health Interview Survey (NHIS) concluded that 38% of American adults use some form of CAM and jointly spend just about \$34 billion on CAM in 2007 (MacDuff, Grodin, & Gardiner, 2011: 585). Also, in Canada, Low (2004), reports that Canadians invested approximately \$1.8 billion on alternative health care strategies and in 1996/7, a total of 3.8 billion was spent on complementary and alternative therapies. In Australia, it is reported that 48.5% of Australians used CAM, and in 2000 Australians spent A\$2.3 billion on alternative therapies (Cincotta, et al., 2006). Following Aburahma, et al. (2010: 118) in the North of Jordan, 57% used CAM and 33% use it before seeking conventional medical advice. In the rural areas of India, most especially the people of far-flung still rely to a large extent upon plants and household remedies for curing ailments (Phondani, Maikhuri, & Kala, 2010: 195). Holistically, the populations of under developed countries continue to depend profoundly on the use of traditional medicines as their primary

source of healthcare (Okigbo, Eme & Ogbogu, 2008: 128). For example, approximately 70% of Ghanaians depend on alternative health practice for their primary health care needs (Adusi-Poku et al., 2010: 85). Furthermore, there is an increasing reliance on the use of medicinal plants in the industrialized societies for the extraction and development of numerous drugs and chemotherapeutics (Okigbo, Eme & Ogbogu, 2008: 128).

Another reason for documenting CAM is because it is cost effective. In the cause of using CAM, many rural dwellers cut the cost of the extensive distances they would have to trek to the nearest health facility (Tjaronda, 2008: 12). A number of persons live too far from the closest conventional clinic (Lewis, 2009). According to Ventegodt et al. (2009: 243), CAM, was found to be 100 (10-500) times as cost-effective as pharmaceutical drugs for most clinical condition. A large number of clinical conditions is cured with CAM and not with conventional drugs that at times only reduce symptoms. Hence, consumers of CAM products disburse for most CAM services out of pocket. It is reported that in the U.S.A., consumers spent between \$36 and \$47 billion annually for CAM therapies in 1997, more than the out-of-pocket spending for hospitalizations that year (Clement et al., 2006: 109). Following Machione & Stobbe (2009), alternative medicine makes up for more than 11 percent of out-of-pocket spending on health care in the United States. Sorkness (2009: 609) reports that in 2007, 38% of adults and 12% of children in the United States used some type of complementary and alternative medicine (CAM). This represented visits to CAM practitioners and out-of-pocket expenditures that in 1990 were estimated to exceed those for conventional therapies. Following Clement et al. (2006: 109), CAM use is a way for consumers to avoid paying the rising cost of conventional medical care. This is because for example, CAM therapies usually entail low technology and promote broad-spectrum well-being and disease prevention (Clement et al., 2006: 110). According to Machione & Stobbe (2009), almost half of those who use alternative medicine say they cannot pay for conventional care. Hence, following Ventegodt et al. (2009: 243), the swing from drugs to CAM is likely to improve health radically in the society and reduce the cost of healthcare.

Following that Africa's complementary and alternative medicine is generally perceived as less invasive and safer than conventional medicine (Aburahma, et al., 2010: 117), is another reason why it should be documented. Corroborating this view, Whitehead (2003) say, complementary medicines are alleged to be more natural than conventional medicines and do not have any side-effects. Hence, the possible reason why numerous herbal medicines do have unique pharmacologic actions that can advantage patients (Miller et al., 2000: 878) and why people invest time and money for CAM (Sorkness, 2009: 609). According to Phondani, Maikhuri, & Kala (2010: 195), cost, inaccessibility and other nuisance like side effects of modern health care system have encouraged local people to depend on traditional rural knowledge. Following Ventegodt et al. (2009: 243), CAM is more efficient than conventional drugs and has no side effects. On the other hand, treatment with conventional drugs almost always has many severe adverse effects. The majority of people seeking herbal alternatives assert that conventional medicine has chemical substances that may generate more side-effects than herbal medicine (Okulo, 2009). Furthermore, western drugs/medicines are prepared with an unusually high dosage of chemicals when taken can cause serious side effects (Osei, 2008: 15). For example, in the U.S.A., in 1990 it was discovered that of 198 approved conventional drugs released for sale to the public from 1976-1985, 102 had serious side effects and had to be either taken off the market or labelled as dangerous (Lewis, 2009). Pendota et al. (2010: 40) are of the view that the

use of non conventional medicines for healing purposes is progressively more popular as it is believed that botanicals are beneficial and free of side effects. Supporting this view, Clement, et al. (2006: 109), are of the opinion that among the reasons consumers turn to CAM are to avoid the side effects of some conventional medical drugs.

Another rationale for documenting Africa's complementary and alternative medicine is that old aged individuals who have more knowledge and experience in remote areas about CAM only transmit such knowledge from one generation to other by word of mouth (Phondani, Maikhuri, & Kala, 2010: 195; Weldegerima, 2009: 401). The knowledge and experience of old people in remote areas on CAM is fortified because these people are knowledgeable of the culture, the local languages and local traditions (Lewis, 2009: 1). The oral transmission of CAM by old people may be detrimental to its existence as the passing down of customs from one generation to generation is in imminent danger of disappearance following that this knowledge is without written records and the old age healers are dying (Weldegerima, 2009: 400; Okello, et al. 2010: 1-9). Hence, the passing away of these old people with their knowledge may be dangerous if the knowledge is not documented. These people are the faculty, keepers of CAM of generations as the plants they utilize in their practice are the storeroom of potential medicines (Weldegerima, 2009: 400).

Following that most CAM are unique and are often known only to a few persons and communities and some of CAM products are at the brink of extinction due to over exploitation (Phondani, Maikhuri, & Kala, 2010: 195), is another reason why it should be documented. Complementary and alternative medicine is unique because it has a philosophical difference with conventional medicine (Clement et al., 2006: 109). Complementary and alternative medicinal plants are recognized in the international markets, e.g. *Ancistrocladus abbreviatus*, a Cameroon plant with anti-HIV potential (Okigbo, Eme & Ogbogu, 2008: 127). Weldegerima (2009: 400), is of the view that the loss of CAM is due to rapid land degradation that encompasses accelerated destruction of forests by deforestation. Following Okello et al. (2010: 1), overgrazing and exploitation of plant resources have already led to a decline of medical plants available. Okigbo, Eme & Ogbogu, (2008: 128) report that due to deforestation, several medical plants and other generic materials become destroyed before they are documented.

One can argue that CAM should be documented because in rural setting it is the major source of health care for about 80% of the populace, because of its cultural acceptability, affordability and accessibility (Kasilo & Trapsida, 2010: 25). Corroborating this view, Odhiambo et al. (2010: 53) say, approximately 80% of rural masses in Africa use traditional medicine, mostly plant preparations, for their primary healthcare. Following Okigbo, Eme & Ogbogu (2008: 127), the function and contributions of medical plants to healthcare, local economies, cultural integrity and the well-being of people in the rural area, have been increasingly recognized over decades. One can say that rural people chose CAM because conventional medicines are more incompatible with their personal beliefs and values (Miller, et al., 2000: 877). Hence, they rely on traditional healers as they are the health labour resource (Lewis, 2009: 1). Furthermore, the majority of people mostly in African rural setting rely on herbal medicines for treating a variety of diseases due to the high cost of conventional medicine and inaccessibility of modern health care facilities in most areas (Galabuzu et al., 2010: 12).

The desire to promote CAM because it cures chronic health problems is another reason for the documentation of the medicine. According to Clement et al. (2006: 109), conventional medicine has not been able to solve chronic health problems of patients. In Canada for example, some people sought out CAM in order to solve problems for which they found little or no redress in other quarters (Low, 2004). Jacobs, Levatin & Breuner (2003: 241) say, there are a momentous number of persons who rely mainly on CAM therapies to meet most of their health care needs. This is because most conventional drugs do not work on most people who take them. Following Osei (2008), the vast majority of conventional drugs – more than 90% - taken by persons for therapy only 30 or 50% are healed. The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) discovered that more than four in ten patients who received chemotherapy near the end of life suffered fatal effects from the drugs (Rose, 2009: 32). It can be argued that following the effectiveness of CAM as a source to cure chronic health problems, in the United States of America chain drug stores and grocery stores have advertised CAM products aggressively to clients in a manner similar to conventional drug products (Miller et al., 2000: 878). Furthermore, governments of the United States, Japan and Switzerland have together released \$400,000 to hold up research work on the conservation and utilization of medicinal plants in three major ecological zones in Ghana (Rina, 2009). Following the interest placed on CAM by different governments, it can be said that biomedicine may no more be a threat to repress CAM (Ventegodt et al., 2009: 244). Hence, CAM can be promoted through documentation as it will allow many people to be aware of it and have the aptitude to exercise more control over their care with it as a cohort other than what conventional medicine allows (Clement, et al. 2006: 109).

The demand and recognition for CAM by the majority of the populace of Africa and beyond (Okigbo, Eme & Ogbogu, 2008: 128; Gilbert, 2004: 547), is another reason why CAM should be documented. In Africa there is an impressive list of recognized medicinal plants that are based on the local knowledge of the people (Lewis, 2009: 22). Following Low (2004), health associations have centralized access to CAM and there are hundreds of web sites committed to discussion of CAM on the Internet. The popularity of CAM has been the public's request for its services and accessibility. One third of all Americans for example, rely on CAM. In Britain, it is estimated that one fifth to one third of the populace have been using CAM which is a similar proportion to that of the United States and Europe (Gilbert, 2004: 547). According to Clement, et al. (2006: 110), several physicians consign their patients to CAM providers, provide CAM services themselves, or show an interest in providing such services. Clement, et al. (2006: 110) reports that in a 1997 survey in the U.S.A. over half of medical schools reported offering CAM courses or CAM as a topic in required courses. Furthermore, insurers had begun to offer some coverage of CAM services in response to consumer demand and state mandates for insurance coverage. In 1998, eight states insisted that insurers should cover at least some CAM services and by 2003, the number had increased to eleven states (Clement, et al. 2006: 110). Also, data from the American Hospital Association (AHA) show that 8.5% and 19.2% of non-federal acute care hospital in 1998 and 2003 reported offering at least one CAM service (Clement et al., 2006: 110). According to Low (2004), one Canadian community college not only offered several workshops or courses in CAM but also provided a certificate programme in aromatherapy, and was in the process of developing a diploma programme in CAM.

Another rationale for documenting CAM is to generate incomes for local communities. Weldegerima (2009: 401) say,

in order to conserve traditional medicine knowledge, it is necessary that inventories of plants with therapeutic value are carried out, and the knowledge related to their use documented in systemic studies. These studies can have other values too for society besides conserving traditional knowledge, for they can help to identify plants with market potential that can generate incomes for local communities. Generation of incomes for local communities is seen as important motivation for the conservation of local species.

One can say that in cases where the market potential of plants are not identified, local communities stand to be robbed of their knowledge of traditional medicine and income because of ignorance about what value their medicines carry (Tjaronda, 2008: 12). Following Okello et al (2010: 9), CAM plants used in local health traditions are generally becoming extinct due to over utilization, population explosion and for other anthropogenic reasons. In order to reverse this trend, domestication of wild medicinal plants is of utmost importance. This would augment the income of rural people and in turn help in the conservation of species.

IK brands about Africa's complementary and alternative medicine – Which type for possible documentation?

One can argue that the various types of IK about Africa's complementary and alternative medicine cover common and uncommon knowledge of plants leaves and roots that can be used to cure certain illnesses. The common knowledge of plants leaves and roots are those that are well known to the culture and tradition of a people (Okello et al., 2010: 9). It can be said that it is possible to document the common plants leaves and roots because it is commonly known by nearly everyone in the community and it is not essential for any individual to make a health claim for the product (Lewis, 2009). For example, traditional herbs such as *momordica charantia* can be classified as common knowledge herbs as they are known and used by many people to treat various ailments. Following Uche-Nwachi & McEwen (2010: 25), the *momordica charantia* herbs that is located in several parts of the Amazon, East Africa, Asia, and the Caribbean has been used as a folklore medicine to treat diverse ailments including diabetes. Furthermore, it is common knowledge with the Sabaots in Kopsiro Division Mt. Elgon District Kenya that malaria, ulcers, urinary tract illnesses is treated by drinking boiled and pounded roots or leaves of *rodipchepkukwa* or *aloe elgonica bullock* plant species (Okello et al., 2010: 4). Also, according to Odhiambo et al., (2010: 53), it is common knowledge among the local communities in the Kenyan Lake Victoria Basin that *gladiolus dalenii* plants is used to treat various infections such as meningitis, malaria, diarrhoea, ulcers and HIV related fungal infections. Following Odhiambo et al. (2010: 53), it is common knowledge that ulcer is treated by drinking hot water extracts of freshly chopped or dried bulb. Meningitis is treated by sniffing dried powdered bulb and a pinch of dried powdered bulb in water is drunk for to treat malaria and diarrhoea. Within the Chinese community it is common knowledge that the herb licorice, (*gancao in Chinese*) is used as an expectorant to arrest coughing, reduce fever, and comfort the stomach (Shang et al., 2010: 17). In West Africa, it is common knowledge that the *cola nitida* that is a specie of kola nut is eaten by many students, pregnant women, drivers and other menial workers as a stimulant, masticatory, astringent and antioxidant (Ojo, et al., 2010: 47). According to Ojo et al. (2010: 48), the *cola nitida* can be used to neutralize hunger and thirst; used to control vomiting in pregnant women; used as a principal stimulant to keep awake and withstand fatigue by students, drivers,

and other menial workers. Furthermore, it is common knowledge in West Africa, that *cola nitida* is not to be eaten by people who suffer from stomach ulcers due to its caffeine and its tannin content (Ojo, et al., 2010: 48).

On the other hand, there is the uncommon knowledge of plants leaves and roots that are not well known to culture and tradition because their use in treating certain illnesses is done with some measure of secrecy (Uche-Nwachi & McEwen, 2010: 24), as it is the source of livelihoods to traditional medicine practices (Galabuzi et al., 2010: 11). These uncommon plants leaves and roots may be difficult to document because it is not commonly known by everyone in the community. The few individuals – traditional healers - who know these plants leaves and roots use them as a source of generating income to themselves and thus construe a health claim for the product. Hence, it may be impossible for instance, to document the uncommon knowledge of plants leaves and roots that are used to cure spiritual illnesses. Following Homsy, King & Tenywa, (2003: 25), African traditional medical knowledge is associated to the spiritual, herbal and technical knowledge that have been developed and used to heal and alleviate all kinds of physical, emotional and spiritual ailments in Africa. Those with this knowledge may not be willing to divulge the ingredients of their medicines for possible documentation as they derive their livelihoods from the practices (Galabuzi et al., 2010: 11). Supporting this view, Mbogo (2009) say, herbalists have incessantly resisted attempts by the conventional doctors and even some government agencies to disclose active ingredients of their medicines, for fear that their knowledge will be stolen and they will be prevented from generating income from the use of the plants leaves and roots. An example is the plants leaves and roots that are used by traditional healers to treat spiritual illnesses. Following Galabuzi et al. (2010: 1), there are special plants leaves and roots that are used by traditional healers for spiritual psychotherapy. In several developing countries, a mental illness is not considered a hospital case, rather one for traditional healers as mental illnesses that make up 45 percent are caused by spirits that can only be handled by traditionalists (Kavuma, 2009). It is reported that mainstream medicine cannot improve brain disorders in Sub-Saharan Africa without traditional healers and it had been demonstrated that traditional healers are very helpful colleagues in treating persons with epilepsy (Kavuma, 2009). Following Lewis (2009: 22), traditional healers with their herbal remedies that are made from plants contribute to the health of millions of people. One can therefore argue that the plants leaves and roots used by traditional healers for the treatment of mental illnesses, brain disorders and epilepsy for example, is uncommon knowledge because traditional healers use the plants leaves and roots with some degree of secrecy. In Cameroon for example, it is reported that if a sick person tells a traditional healer that he was beaten all night in his bed, the healer will understand him and help him chase away the spirits (Hillenbrand, 2006). The plants leaves and roots used to chase away the spirit are uncommon to outsiders but only known to the healer or similar healers as it is not documented or not written down. It is held in the healers head, passed down from one generation to the next by word of mouth (Mundy & Compton, 1991/3).

Challenges and constraints about Africa's common complementary and alternative medicine

Among the challenges and constraints for Africa's common complementary and alternative medicine is that practitioners of conventional medicine disapprove of these medicines for lack of peer review and scientific scrutiny that are supported by research findings (Okulo, 2009: 9). Supporting this view, Kasilo (2003: 16) say, CAM lack sufficient data on evidence based safety,

efficacy and quality of its product. CAM products are yet to be tested for safety and efficacy (Clement et al., 2006: 110). The quality tests and production standards of CAM are less thorough or controlled (Kasilo & Trapsida, 2010: 26). According to Whitehead (2003), few CAM products are subject to the scientific scrutiny of conventional medicines. The scientific trails that do exist are often questioned for being of limited value because of the uncertain composition and consistency of the products. Following that CAM does not provide sufficient scientific data on safety, validation, efficacy and quality, it is disrespected and denied by conventional medicine practitioners and policy makers and cannot be integrated into national health care systems (Chatora, 2003: 7; Wambebe, 2003: 19). Sambo (2003: 9), is of the view that traditional medicine is not integrated into Africa's national health care systems because the medicines are not politically recognized following their method of preparation. It is reported that CAM is associated to inappropriate preparation (Kasilo & Trapsida, 2010: 26), as most herbalists employ unhygienic methods when preparing and administering herbal potions (Selby, 2009: 25). However, one can argue that the safety of CAM product may be demanding as the requirements and methods for research and evaluation of its safety and efficacy is more complex than those of conventional medicine (Sambo, 2003: 9). A single product may contain hundreds of natural constituents, and a mixed CAM product may contain several times that number. If for example, every ingredient were to be isolated from every CAM herb, the time and resources required to assess the product would be remarkable (Kasilo & Trapsida, 2010: 30). Such analysis may be impossible in practice because CAM demands and requires special expertise that is in short supply in Africa (Sambo, 2003: 9).

Also, the lack of certified guidelines on herbal medicine that leads to twisted information on the availability of various herbal therapies and their cost evaluation (Okulo, 2009: 11), is another challenge and constraint facing Africa's complementary and alternative medicine. Following the lack of guidelines, CAM practitioners hide for example, vital information from their clients on possible side effects of their product that result to death and also deceive their customers that their product cures certain terminal illnesses. It is reported that British scientists requested the World Health Organisation to slam homeopathy as a cure for serious diseases such as TB and malaria as patients were dying after turning to homeopathic preparations instead of effective medicine. Those who administered homeopathy deceived patients that conventional drugs worked temporarily as a cure for TB and malaria and that homeopathic preparations were cheap and effective alternatives with fewer side effects (Sample, 2009: 28). Corroborating the certified guidelines for CAM products, Sambo (2003: 9) say, CAM products lack regulatory and legal guidelines for its practice. Following Miller et al., (2000: 877), CAM product lack uniform standardization. This is the procedure by which one or more active ingredients of a herb is identified, and all batches of the herb created by a single manufacturer enclose the same amount of active ingredient (Miller et al., 2000: 878). Furthermore, CAM does not have standardized preparation method, weight and duration of extraction – boiling or infusion, convenient storage or dose ranging studies (Adjei & Nyarko, 2003: 37). Furthermore, CAM standardized preparation method is more complex as it is difficult to perform quality controls on the raw materials of CAM product. For example, manufacturing CAM products requires numerous quality controls of starting materials, including accurate detection of species, special storage and special sanitation and cleaning methods for diverse materials. In the quality control of finished CAM products, particularly mixed products, it is more complicated to establish whether all the plants or starting materials have been incorporated (Kasilo & Trapsida, 2010: 30). Also, because

of lack of guidelines on CAM products may lead to patients taking larger quantities of the product than required on the premise that CAM products carry no risk because they are natural (Kasilo & Trapsida (2010: 31). Owing to the complexity of CAM herbs, it is important that they are subjected to rigorous guidelines like conventional medicines in order to guarantee their safety, quality and efficacy (Kasilo & Trapsida, 2010: 26).

Another challenge and constraint of CAM is that it lacks the necessary expertise on its products. CAM practitioners are not certified or licensed (Kasilo & Trapsida, 2010: 26). CAM does not carry specific warnings about interactions with other medicines as well as statements on whether their effectiveness has been demonstrated in clinical trials (Lewis, 2009: 21), or their products should be consumed as a food, a functional food or a dietary supplement (Kasilo & Trapsida, 2010: 30) because it lacks the expertise. According to Kasilo & Trapsida (2010: 30), many countries vary in their classification and definition of CAM products. A single CAM product in different countries is regarded as a food, a functional food, a dietary supplement or herbal medicine depending on the set of laws applying to food and medicines. This makes it tricky to label CAM products and confuses patients and consumers. Hence because of the lack of expertise on CAM products, it is most likely that some of its products may be misidentified, adulterated, wrongly labelled, contaminated with toxic or hazardous substances, over dosed, misused by either health-care providers or consumers and used concomitantly with other medicines. This is a scenario that is less likely to occur with conventional medicine that does not lack expertise (Kasilo & Trapsida, 2010: 30).

Curbing common challenges and constraints?

In order to curb the safety, efficacy and quality of the common challenges and constraints of Africa's common complementary and alternative medicine, is for observational studies to be performed to further confirm safety and assess indicative efficacy of CAM. For example, patients who are treated with CAM should be enrolled and followed-up to detect and take care of any side effects of CAM. This is by conducting randomized clinical trails (Homsy, King & Tenywa, 2003: 24).

Furthermore, in order to harness data on the services of CAM, government health ministries should establish medical centres under which the centre would evaluate the efficacy and safety of CAM (Simpore, Nikiema & Sia, 2003: 29). The responsibility of the centres would be to carry out research and laboratory tests on traditional medicines plants to confirm therapeutic activity and absence of toxicity in the plants. This would entail a preliminary clinical study that would encompass an open and uncontrolled study of the plants and an actual clinical test that would involve a double blind randomized controlled clinical test (Ranaivoravo, 2003: 33-34).

For practitioners of conventional medicine not to disapprove of CAM, there should be collaboration between conventional medicine practitioners and CAM practitioners. The collaborations should entail mutual respect between the two practitioners. Following Diallo et al. (2003: 35), traditional medicines provided by the traditional health practitioners is a major component of the collaboration between traditional health practitioners and conventional health practitioners. In order to establish the respect between the two practitioners there has to be a period of observation of the use of traditional medicines of traditional health practitioners selected on the basis of results and the actual practice by traditional health practitioners of their

profession. Also, for practitioners of conventional medicine not to disapprove of CAM, practitioners of CAM have to be evaluated. The evaluation is conducted by the conventional health practitioner following up patients receiving treatment from the traditional health practitioner over a certain period (Diallo et al., 2003: 35). This manner of collaboration could serve to guarantee the relevance and impact of traditional health practitioners on primary health care and safety of the patient. Also, it could motivate governments to promulgate decrees that enlighten the conditions and regulations for creating and running herbalists' shops, factories for producing traditional medicines, and compilation of health statistics within a certain region (Diallo et al., 2003: 35).

Also, in order to curb twisted information on CAM products, results of traditional medicine treatment should be identified and classified according to family, gender and species to avoid confusion or error (Ranaivoravo, 2003: 33), then shared, documented and disseminated to communities (Homsy, King & Tenywa, 2003: 25). The classification of traditional medicine can facilitate the manner in which CAM can be applied to manage the various diseases (Diallo et al., 2003: 35).

Major challenge and measures for uncommon IK documentation about Africa's complementary and alternative medicine

The major challenge and constraint with regard to documenting Africa's uncommon CAM is that it serves those who have and use the knowledge – traditional healers - as a source of income. In a situation that the traditional healers release the information, they may find themselves deprived of the derived income. Hence, in order to undo the uncommon knowledge from herbalist, knowledge ownership must be compensated financially to the herbalist or community where that traditional knowledge emanated (Mbogo, 2009). The herbalists are significant as they are recognized by members of the community as competent to practice traditional medicine (Diallo et al., 2003: 35). Also the community is imperative because there is traditional medicine knowledge that is owned by a community or communities (Wambebe, 2003: 19). The herbalists or community should be sensitized to only reveal their uncommon traditional medicinal knowledge by licensing them under legal agreements (Homsy, King & Tenywa, 2003: 26). The agreements should specify that the proceeds acquired from their product would be shared within the herbalists, community or communities that revealed the uncommon knowledge product (Gamaniel, 2003: 28).

Hence, the route for financial compensation to be acquired for holders of uncommon CAM knowledge could be by governments enacting proper intellectual property rights in the form of patent laws in consultation with the people or community that hold the product. However, for the patent to be accorded to either the herbalists or the community or communities the traditional medicines have to be scientifically evaluated. The evaluation can be conceived where a conventional health practitioner follows up patients receiving particular treatments from a traditional health practitioner using certain traditional herbs over a certain period of time. During the period of evaluation, the formulas used by the traditional health practitioners would be photo chemically analysed. The results of the analyses would remain the property of the traditional health practitioners who will then use them to compose a dossier in order to obtain a patent (Diallo et al., 2003: 35). The funds for patenting the product could be provided by the government or acquired through the United Nations Development Programme (UNDP)

(Gamaniel, 2003: 27). Furthermore, herbalists or community should be educated about the prospective importance of their traditional medicine and how through patent laws they would benefit from any marketing of their medicine (Tjaronda, 2008: 12). Supporting this view, Kasilo & Trapsida (2010: 27) say, the skills and awareness of traditional health practitioners need to be upgraded through appropriate training and continuing education. The rationale for patent protection is to enable the patent holder – patentee – to keep out all others from making, selling, or using the subject matter of a valid patent (Besen & Raskind, 1991).

One can argue that through patents the traditional herbalists or their communities would be able to make profits just as pharmaceutical industries make huge profits on the patenting of new drugs (Laws of the Pharmaceutical Industry, 2009: 6). One can say that where those that hold the uncommon knowledge are protected through patent laws and educated of the benefits thereof, it is most likely that the herbalist or community would divulge the active ingredients of their medicines and possibly indicate how the ingredients are mixed to make their medicine (Mbogo, 2009). There is a scarcity of trustworthy information on herbal preparations which are being used successfully for the management of prevailing diseases in Africa (Wambebe, 2003: 19). The lack of adequate mechanism in the form of patent laws for the protection of traditional medicinal knowledge has the potential to negate uncommon herbal plants leaves and roots used by herbalist and hence negate their documentation (Kasilo, 2003: 16).

Conclusion

Notwithstanding that CAM products can be documented, it is worth acknowledging that only common complementary and alternative medicine can be documented. It may be difficult if not impossible to document uncommon CAM products as it is used as a means of livelihood. However, in order to possibly document the uncommon CAM products, the products have to be compensated financially through patents. Hence, it can be said that until financial aspect cease to be the cardinal point for the protection of uncommon CAM products, it would be impossible to document all types of CAM products.

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