

Quality Control and Standards of Traditional Medicinal Products: A Highly Committed Agenda

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ABSTRACT

The utilization of traditional therapeutic results of different classifications is expanding geometrically in the worldwide scene in the course of recent decades. In spite of the fact that Africa and Asia socially remain the home for Traditional medicines, the north with the most advanced traditional restorative framework is making progress in traditional medicine. Traditional medicine is viewed as safe on the grounds that it is Natural. Available evidence shows that natural medicine could be deadly if not utilized reasonably. Education coupled with training of practitioners, scientific Evaluation and validation, Government regulation of herbal medicine use and open patient-practitioner communication remain the root of the safety, quality and standardization of medicinal products.

INTRODUCTION

The health of individuals, families and communities is a key issue in global development. Health problems are at the forefront of the national development agenda. It is an indicator of development and also the means to achieve a desired development. But for a country to grow, its population must be healthy and strong, and to be healthy calls for efficient and effective use of current health care facilities.

In his preface, Rosen (1958: 17) prescriptively states that "the protection and promotion of the health and well-being of its citizens are considered to be one of the most important roles of the modern state. This function is the quintessence of a public policy based on political, economic, social and ethical considerations. "Article 25 of the Universal Declaration of Human Rights (UDHR) explains that everyone has the right to a standard of living health and well-being, including food, medical care and the right to safety in the event of illness, debility and disability, so the right to good health care is not only an element essential for human existence, but also a major role of the government.

Studies have found that the economic development of a nation is not only a function of income or wealth, but also of other social services such as the improvement of health services. Human resources in organizations cannot function effectively at full capacity in the absence of effective and efficient health services. It is for this reason that the 1992 Constitution of the Republic of Ghana requires the Government to ensure sustainable socio-economic development of its citizens, without distinction as to class, ethnic origin, sex, age, religion or geographical location.).

In this regard, the role of the health sector is to improve human capital - "create wealth through health" - and to develop and implement proactive policies to ensure the health and vitality of

The health status of a country's population affects the condition of the workforce, which determines production, while poor health has a serious impact on the education of children. Improving health would therefore result in significant savings on health care costs as a result of reducing the burden of disease. Healthy, strong, smart and active human capital will be more productive, creating more wealth

and increasing the nation's Gross National Income (GNI). Burden of illness and deaths reported by preventable diseases such as malaria Cholera, HIV / AIDS and more are on the rise now, while health promotion mechanisms such as sanitation, personal hygiene, improved nutrition, good water sources, literacy, are in place.

In Ghana, primary health care (PHC) has been adopted as the strategy of the country's health delivery system to achieving health for all. Primary health care is part of the socio-economic development goals of ensuring equity in overall development efforts. This has become necessary because most Ghanaians live in rural areas. They produce most of the nation's food and cash crops for export.

The role played by the TRM system in ensuring quality of life with appropriate medications and the well-being of citizens and national economic, social and political growth is critical in developing economies. In this regard, WHO has officially recognized the importance of integrating TRM into health care systems at the World Health Assembly in 1977. This policy change was based on the fact that traditional medical care could be an additional resource for health care delivery (WHO, 1979). Full integration is essential in the delivery of comprehensive health care. Instinctively, the integration of medical systems should be guided by an understanding of the health seeking behavior and how the available medical modalities are used.

Background of Study

The Ghanaian health system has gone through a series of developments and revolutions since the accession to political independence. Nevertheless, like other developing countries, Dagbon Area is still struggling to find ways to provide an effective, efficient, appropriate and comprehensive health system for its ever-growing population. Preventable infectious diseases, which are the main cause of morbidity and mortality in the country, continue to affect the population.

With the double burden of emerging diseases and the escalating costs of health services, there is an urgent need to expand health services beyond orthodox medicine, especially to address the challenges posed by HIV / AIDS, HIV and AIDS.

The traditional medical system, designed according to the orthodox system of health care

delivery, has been woefully inadequate to meet the basic health needs of citizens. Most Ghanaians do not have access to orthodox health care, especially in rural areas.

The spatial gap in access to health care is a major concern Ghana. It is largely demonstrated by unequal and differentiated distribution of health facilities between rural and urban division. Studies shows that more than 71% of health facilities, 85% of all physicians or physicians and their assistants in Ghana are concentrated in the regional capital (MOH / GHS, 2012, GSS, 2012) at the expense of rural areas. There is the problem of the unequal distribution of health structures between the urban core and the urban peripheries. In the Kumasi metropolis, for example, rural areas are lacking maternal and pediatric health services. So, women and children in the rural should go far to the center where such facilities are available.

Income has been identified as a major factor that forces the use of health care Services in Ghana (Buor, 2008a). High costs of imported drugs and the costs have made orthodox health care expensive and unattractive to the ordinary Ghanaian.

TRM is in harmony with people's personal values, religious and health philosophies (Osamor and Owumi, 2010, Bishop et al., 2007, Furnham and Forey, 1994, Vincent and Furnham, 1996, Moore et al, 1985) and the system is used in this way. With the current dispensation, influx and progress of the orthodox medical system in Ghana, TRM continues to play an important role in Ghana's health system. To offer a clear and explicit elucidation of this phenomenon, the existing literature is desperate. Economic approaches are for the most part separated from anthropological perspectives. Thus, economic work is largely focused on accessibility, availability and accessibility.

Unfortunately, there is little information on the prognosticators of the use of TRMs in the northern sector since the subject is poorly empirically studied and defies documentation procedures. However, the factors that favor the choice and use of TRMs are unraveled elsewhere. Some studies associate the use of TRM with the socio-demographic and economic physiognomy of patients.

Indeed, the conclusions of studies on the determinants of the use of TRMs plunge into

perplexity. They are Mostly unpredictable and not well understood either. Keeping the point of view, investigating the determinants of TRM use in Ghana becomes relevant and therefore very clearly highlighted. The main objective of this study was to fill this research gap and enrich existing knowledge by analyzing the predictors of the use of TRMs in Ghana, taking Dagbon as a prefecture of study as evidence.

Rational of the Study

It has been recognized that, as society's modernize they experience significant changes in their patterns of health care delivery. Despite rapid modernization across the globe, there are relatively few detailed case studies of changes in health care within specific countries especially for Sub Sahara Africa countries and for that matter the Dagbon Area of Ghana.

This research has been necessitated as a result of the need to as a matter of urgency take a look at the quality control of herbal products originating from traditional medical doctors. This was after a study was done on the need to integrate the traditional medicine into the orthodox medicine in Ghana.the reason being that traditional medicine by itself has some challenges in itself which the orthodox medicine can make up to. For this to be very successful, the quality of herbal products will have to be put under scrutinization.

As a result, this research is to come help identify those weakness and challenges at both side and also suggest the possible ways of controlling the quality of traditional herbal products in Ghana and around Dagbon area for that matter. synergizing this to achieve an optimal result in health delivery in and around the Dagbon area.

Literature Review

Towards the end of the nineteenth century, the production of traditional medicine changed from artisanal production to artisanal production and then to mass industrial production. For example, today in India there are more than 9,000 registered pharmaceutical industries of various Indian medical systems. Although the percentage of large industries is lower, quality control is a major challenge.

According to the WHO, the quantity and quality of safety and efficacy data available on TRM are far from sufficient to meet the criteria necessary to support its worldwide use. This is due to a variety of reasons such as lack of proper documentation, appropriate policies and

even an appropriate research methodology. It is argued that, while modern medicine emphasizes a scientific approach and a content that is worthless and untagged by cultural aspects, TRMs have developed differently with much influence from the culture and historical context in which they are based. have evolved.

Their epistemic framework, principles, concepts and practice are very different from those of western biomedicine (Shankar et al., 2006). They generally tend to focus on a holistic approach to life, balancing the mind and body and the environment and adopting a preventive approach (WHO 2002), making it difficult to develop appropriate methodologies without harming these unique characteristics. In addition, problems such as the chemical complexity of several herbal formulations are also challenges in developing an appropriate methodology for research.

It is generally accepted that herbal medicines are safe. However reports of toxicity in traditional medicines have been a topic of concern at present. A recent study reported heavy metal content in Ayurvedic herbal preparations sold on the US market and recommended mandatory heavy metal testing for all herbal products. The researchers say that these studies are important and necessary, however, are more related to failures of quality control of mass manufacturing activities. Often these reports are misinterpreted and have a negative impact on usage. Effective quality control and regulation is certainly necessary without limiting public access to these preparations or through restrictive business practices, while ensuring the public interest (Patwardhan 2005).

There has been no development of standards and alternative methods at national or international level. There are therefore different risk assessments in different regions for disaster risk management. As in other products, different regulations in different countries often create double standards for the export and domestic consumption of herbal products, especially in developing countries. In many countries, customary use is considered a reason for exemption from the strict safety rules for TRM, which may not be valid in all cases. According to Shia et al. (2007), when traditional medicine is practiced outside its original context and practiced as a complementary or alternative medicine, increased vigilance is required because of differences in population characteristics, modification of formulations and

methods of transporting knowledge. According to WHO, as a rule, the evaluation of the TCAM should take into account its medical, historical and ethnological context of herbal products and the traditional experience of its use. The European Union adopts a registration procedure for traditional uses of herbal medicines. Likewise, many other countries introduce such systems. The monitoring of the safety of herbal medicines is also increasing. Adverse experiences of plants such as Aristolochia, drug interactions of St. John's Wort, and kava-kava toxicity have raised awareness among the public and the scientific community. Reports and the poor quality of user-provided data are major challenges for regulators (Barnes 2007). Countries with their own traditional medical systems are more likely to measure risks versus benefits.

In countries where TRM has recently become popular, safety is often seen as paramount to efficiency, as in the United States (Shia et al., 2005).

Standardization of several aspects such as the nomenclature of medicinal plants and other resources, their collection practices, semi-process and final processing, packaging, storage, shelf life, labeling and distribution methods, including clinical application are needed to ensure quality, safety and efficiency of TRM.

TRM practitioners are also monitored in different countries by checking their use of medicines and medical procedures, re-registration after a number of years, medical surveillance by allopaths, introduction of voluntary self-regulation systems. etc. Ambiguities in regulation often affect the references and relationships between conventional practitioners and TRM practitioners. The non-disclosure of complementary therapies used with conventional drugs by patients during allopathic consultation reaches 77%, which prevents the evaluation of the effectiveness of therapies. Concerns about negative responses, the perception that physicians do not need to know therapies outside their field, and doctors do not raise questions about other therapies are considered reasons for non-disclosure (Bodeker et al. Other reasons could be that the patient does not consider complementary interventions as serious medical methods and lack of awareness of the consequences of drug interactions. This underscores the need to

strengthen the doctor-patient relationship and to educate conventional patients and physicians about the potential and the likely problems of such therapies.

METHODOLOGY

1. Mixed method (qualitative and quantitative approach) of Research was used for this very study.
2. Sample size of Five hundred (500) was used. This includes 475 residents and 15 herbalists and 10 orthodox health Practitioners.
3. Snore ball approach was used to identify the Traditional Hospitals at Five Villages.
4. At each village, focus group discussions were held with a minimum of five members for a period of 30 days.

DISCUSSION OF FINDINGS

The analysis of the data is done according to the research objectives.

1. The first objective of the study was to analyze the extent to which people attend or use herbal medicine in the Dagbon area.
2. The second was to explore the perceptions of the effectiveness of herbal medicine compared to orthodox medicine.
3. The third was also to discover the basic characteristics of people who use herbal medicine and the conditions under which they use it.
4. The ultimate goal was to ensure the safety and the quality of Traditional medicine. how safe are they.

Use of Herbal Medicine

When respondents were asked which health care system they used the last time they were sick, 48.4% said they used medicinal plants, while 45.3% used orthodox drugs. But when asked what health care system they usually use when they are sick, 48.4% of those surveyed mentioned herbal medicine and 45.3% cited orthodox medicine.

Usage of Herbal Medicine

In addition, 24.9% of the users interviewed use herbal medicine "always or almost always", 41.5% use it "sometimes" but not always, 26.3% use it "from time to time" and only 7.3% "rarely or never" use herbal medicine. In addition, 9 of the 10 orthodox health professionals surveyed used

herbal medicine "from time to time", with only I used it "sometimes" without anyone claiming to have "ever" used medicinal plants. This is indeed an obvious proof of the high patronage of herbal medicine, even among orthodox health professionals (doctors). This way of using herbal medicine was supported by the focus group responses. In general, most of them reported that herbal medicine was widely used in the study area.

Overall, 92.7% of users surveyed used herbal medicine at least once in their lifetime, while only 3.9% never used herbal medicine, but 3.4% did not know if they had already used. To complete the high patronage of herbal medicine in the district is the fact that all 10 orthodox health professionals surveyed in the study also used herbal medicine at one time or another in their lives. In addition, 12 of the 15 herbalists surveyed confirmed that an average of 6 to 10 people patronized their services every day. This shows the high level of use of herbal medicine.

The main factor contributing to the growing popularity of plants in developed countries and their sustainable use in developing countries is the belief that they are effective and, in some cases, more effective than allopathic medicines. This favorable level of perceived efficacy supports their continued use, and in a significant number of patients, concomitant use with orthodox or allopathic medicines (Clement et al., 2007). In Dagbon District, herbal medicine is seen as effective in treatment.

Many diseases or conditions can be effectively treated with the roots, bark, leaves, fruits and flowers of plants. The study found that the common medical conditions under which herbal medicines are used include malaria, typhoid, jaundice, fever, infertility, sexual weakness, impotence, sexually transmitted diseases, diabetes and epilepsy. Others include piles, waist pain, menstrual pain, hernia, stroke, hypertension, tuberculosis, asthma, mental illness, arthritis, bone fracture, snake and dog bite, cutlass wound, boils and other skin infections.

Common Medical Conditions Treated with Herbal Medicine

According to results findings, piles and waist pains accounted for about 18.9% of the diseases that can be effectively treated with medicinal plants, infertility, sexual weakness, hernia and menstrual pain accounted for 14.2%, Malaria, fever, typhoid and jaundice 14.7% Percentage,

boils and chronic skin infections accounted for 12.6 percent, and epilepsy and mental illness accounted for 9.2 percent.

Although most herbal practitioners in Dagbon District specialize in the diagnosis and treatment of diseases, some may be able to treat almost any disease. In all, about 15.8% of the herbal therapists surveyed treat infertility and sexual weakness, 11.6% treat malaria, fever, typhoid and jaundice, 18.9% treat hemorrhoids and waist pain, 10.7% treat boils and chronic skin infections and 9.8% sexually transmitted diseases.

Quality Control of Traditional Medicine

The scientific basis of factual medicine is still poor in herbal medicine. For the incorporation of herbal medicine into Western medicine, internationally accepted standards are needed, including quality control of herbal products as well as preclinical and clinical evidence of safety and efficacy. In recent years, breakthrough innovative technologies have emerged in phototherapy research, e.g. DNA-based technologies for plant species authentication, good practice guidelines for standardized experiments. High quality herbal products must be rigorously examined by analytical techniques for the chemoprophylaxis of medicinal plants, as well as toxicological methods to detect contaminations. The state of the art, necessary for the pharmaceutical use of medicinal herbs, is documented in monographs of national and international pharmacopoeias. The flourishing progress of molecular biology is also affecting research in herbal medicine, which benefits from new technologies in systems biology. The detection of bioactivity in animal experiments is a prerequisite for conducting clinical trials in human patients. A solid base of evidence for the safety and efficacy of herbal medicines will promote their integration into Western medicine. Herbal medicine is not only easy to access at low cost for primary health care, but can also serve as a valuable reservoir for the development of pharmacological drugs. Remarkably, the majority of the world's population cannot afford to pay for Western medicines. This is especially true for third world countries. It is therefore not surprising that traditional medicines are widely distributed around the world. On the other hand, it is estimated that there are between 30,000 and 70,000 medicinal plants in the world, most of which have not been scientifically analyzed. Since prehistory, herbal medicines have been

used without the rigorous rules needed to register medications today. As a result, the safety and effectiveness of medicinal plants have been challenged by Western academic medicine. Therefore, the development of traditional evidence-based medicine seems to be the only option to convince skeptical Western doctors. Paradoxically, about 90% of current Western medicines do not work in about 60% of patients who use them, indicating that the principles of evidence-based medicine have not been vigorously applied to Western medicine. The lack of efficacy of Western medicines in all patients has led to the concept of personalized medicine. The vision of personalized medicine is that tailor-made treatments can be developed for each patient, leading to greater treatment efficacy and low side effects. Personalized medicine, however, is not a new invention, but a well-known feature of most traditional medicines, if not all, for hundreds or thousands of years. This indicates that both systems, traditional and modern medicines have advantages and disadvantages, and that both systems can complement each other for the sake of patients. Two major requirements for herbal medicines to be integrated into Western medicine are, first, the standardization and quality control of herbal products and secondly, evidence of safety and effectiveness.

Herbal recipes are often composed of complex mixtures of different plant species, and even within the same species, the composition and quantity of chemical compounds can vary considerably depending on exogenous factors (climate, composition and altitude of the soil) and endogenous (eg genetics, epigenetics). Quality control is therefore of high priority to ensure that herbal products have greater consistency and effectiveness. Establishing internationally accepted standards is certainly one of the priorities for the future of medicinal plants.

Standards are needed at three different levels: (a) quality control of herbal products, (b) preclinical safety and efficacy data, and (c) clinical safety and efficacy data.

QUALITY CONTROL OF HERBAL PRODUCTS

DNA-Based Technologies

Proper identification of medicinal plants is essential, as species, subspecies or varieties of misidentified species are either less therapeutically active or inactive, or may even contain toxic ingredients. Classical botanical

methods for plant identification have recently been supplemented by a variety of DNA-based technologies, including RAPD, RFLP, ARMS, CAPS, AFLP, DAF, ISSR, SSR, hybridization and microarrays. Recent technological development is the authentication of medicinal plants by barcode DNA. This method is based on the detection of variable sites of the internal transcribed spacer (ITS) of the rDNA. In systematic botany, PCR determination of barcode DNA is used for taxonomy studies. DNA barcoding provides a powerful tool for plant authentication and is ideally suited to control the quality of medicinal plants. Current research in this area focuses on the question, how much and what DNA fragments are needed for optimal discrimination of different species. The largest database of DNA barcodes for medicinal plants, with more than 1000 species listed in the Chinese Pharmacopoeia and the US Herbal Pharmacopoeia, represents the DNA Barcode Database (MMDBD).

The good practice guidelines have the plants correctly identified in hand, they must be treated in a standardized way. For this reason, international guidelines have been developed such as Good Procurement Practices (GMP), Good Agricultural Practice (GAP), Good Laboratory Practice (GLP), Good Manufacturing Practice (GMP) and Good Manufacturing Practices (GMP). clinical practices. In this context, an interesting project is the cultivation and breeding of Chinese herbs in Germany, which is an interdisciplinary approach covering various aspects ranging from seed supply to medicinal application. A recent report describes the results of experiments on seeds and agricultural fields, the breeding program, the botanical and chemical characterization of the experimental material, the comparison of experimental and imported phytotherapeutic material, the transfer of production methods and plant material to farmers. specialized farmers. , medicinal application and finally, information for users along the distribution chain about the benefits of locally produced plant material.

Chemo Profiling

As already noted, the chemical composition of plants may vary to some extent and must be standardized to ensure comparable therapeutic effects. A number of chromatographic fingerprinting assays are known to disclose the detectable ingredient composition and the concentration distribution. Standard analytical

techniques include thin layer chromatography, high performance liquid chromatography and capillary electrophoresis. Recently, new technological developments have become available for chemoprophylaxis, such as infrared spectroscopy, metabolic fingerprinting and quantitative determinations based on nuclear magnetic resonance spectra.

Toxicology

Another aspect of quality control, in addition to ensuring adequate composition of herbal prescriptions, is to avoid contamination by mycotoxins, pesticides, heavy metals or other chemical toxins. In addition, fake herbal prescriptions with adulterated drugs of Western medicine, e.g. With glucocorticoids, must be banned. Monographs and Pharmacopoeias Due to the above concerns regarding traditional herbal medicines, there are legal frameworks for the pharmaceutical use of herbal products. The knowledge of medicinal plants that is relevant for pharmaceutical purposes is collected in monographs, which are part of national or international pharmacopoeias, eg. the International Pharmacopoeia, the European Pharmacopoeia, the American Herbal Pharmacopoeia, the German Pharmacopoeia, the Chinese Pharmacopoeia, etc. The monographs contain definitions, analytical techniques for identity and purity and content, as well as storage rules for all types of medicines (herbal, chemical, biological). Each drug used pharmaceutically must meet the requirements of the monograph. Preclinical Safety and Efficacy Evidence In the development of conventional drugs, candidate compounds pass through a pipeline of preclinical investigations, using in vitro and in vivo test models. If the preclinical evaluation is positive, the candidate drug is further investigated in Phase I to IV clinical trials and ultimately used in daily clinical routine. Phototherapy has a different approach. Herbal medicines have been used for years and it is only in recent years that the need to understand their mode of action and to gain knowledge about their safety and effectiveness has been taken into account. . In this sense, herbal research can be understood as a reverse pharmacology. On the other hand, research on the bioactivity of medicinal plants is part of the quality control that a certain herbal preparation is effective and safe.

Systems Biology

After the establishment of standard molecular biology techniques over the last three decades,

more recently, systems biology with a range of new, flourishing methods has come into play. Traditional medicines are often based on holistic therapeutic approaches, while Western medicine is reductionist in nature. While conventional pharmacological approaches are able to explain some of the mechanisms of medicinal plants, e.g. receptor-ligand interactions, the chemical composition of herbal mixtures is extremely complex and can only be inadequately understood by reductionist approaches. The advent of the biology of "-omic" systems and technologies has been viewed with great interest among scientists working in the field of traditional medicine, because "-omic" technologies are also holistic in that they measure whole profiles of molecules in whole cells, organs or organisms. DNA microarray hybridization and LC-MS are basic technological platforms for measuring changes in the genome (genomic), transcriptome (transcriptome), proteome (proteomic) or metabolome (metabolomic) metabolism. In particular, metabolomics is of interest for herbal medicine because plants produce a wide range of chemicals, far more than most other organisms produce. Bio-computerized methods such as hierarchical cluster analysis, principal component analysis and others are used to statistically process the massive amount of data resulting from "-omic" technologies. An attractive strategy is to interconnect data obtained from genomics, transcriptomics, proteomics and metabolomics to cellular interaction networks, which may explain the activity of complex herbal mixtures in a manner that includes. Therefore, systems biology is appreciated as an innovative discipline to study holistic phytotherapeutic approaches. Systems biological research can also facilitate understanding of the synergistic interactions of herbal mixtures.

Animal Experimentation

There is a plethora of studies reporting the activity of plant extracts in in vitro test models. Such assays are often easy to perform and used for the bioactivity-guided isolation of the phytochemicals active in the extracts. Sophisticated methods are sometimes also preferably performed in vitro because the in vivo settings further complicate the experimental design. Despite the unambiguous advantages of in vitro assays, in vitro bioactivity does not necessarily translate into in vivo biological activity. The influence of drug metabolism on living organisms may not be

adequately reflected in cell culture models. Plant secondary metabolites may be in the form of prodrugs that must be metabolized *in vivo* by intestinal microflora or by liver enzymes.

Clinical Evidence of Safety and Efficacy

There is still some reluctance on the part of Western universities towards herbal medicine, which is in stark contrast to the general public, which is open to phototherapy and other forms of complementary medicine. There are several reasons that can be discussed:

- Traditional (holistic) medicines are often mixtures that do not fit well with the general configuration of clinical trials.
- Herbal medicines are frequently sold as over-the-counter products without official registration. Their effectiveness and security are therefore questioned. Knowing that traditional and herbal medicines have been used successfully for thousands of years, it is not always easy for herbalists and traditional doctors to carry out preclinical or clinical studies, in order to prove efficacy of herbal medicines. However, the only pragmatic way to integrate traditional medicines into Western medicine in a realistic time frame seems to be to conduct sound clinical trials and convince Western doctors with solid evidence-based herbal medicine data. In recent years, an increasing number of clinical trials and meta-analyses have focused on the efficacy of herbal medicines. Once evidence-based TRMs are on the market, pharmacovigilance studies are required to monitor adverse effects.

Cultural Health Care and Policy Regulations of Traditional Medicine

Intercultural health care suggests health care practices that bring Aboriginal medicine closer to and integrate with western biomedicine, where both are considered complementary (Vandebroek, 2013, Mignone et al, 2007, Awodele et al, 2011). The practice of integrating traditional Western and traditional medicine is becoming an accepted and more widely used approach in health care systems around the world. The concern to fully integrate TRM into the national health care system has been in academic and political discussions for decades. This integration can take place at different levels including individuals (patients, healers and biomedical providers), institutions (health centers and hospitals) and / or society (government policy) (Vandebroek, 2013, Mignone et al, 2007).

Since WHO officially promoted TRM in developing countries in 1978, developing countries have become increasingly interested in integrating TRM into a national health care system. However, most of these policies tend to be the policy of coexistence rather than integration. Indeed, the debate on intercultural health approaches has raised important concerns about regulation, efficiency, security, intellectual property rights, lack of intercultural research, access and accessibility, and the protection of sacred native plants. 2006, Mignone et al, 2007, Payyappallimana, 2010).

Buor (2008a) observed that an attempt to integrate both systems is a *sine qua non* for improving the efficiency and completeness of health services. An integrated and efficient health care system would facilitate the more efficient use of national medical resources and enhance self-reliance in health development for resource-poor countries (Chi, 1994). China, Vietnam and India have standardized their own medicine and indigenous pharmacopeia, but the countries of Africa in general and Ghana in some areas, despite pressure from the burden of disease and abundance of plant species, did not follow. The results of a study of four villages in northwestern Ecuador on Western and TRM practices and their relationship to the health status of the populations report the existence of complex social networks for interpretation and disease management. Pedersen and Coloma, 1983).

Determined efforts for the integration of modern and traditional medical systems in a culturally appropriate manner, particularly at primary level, was made by international organizations such as WHO, WHO, etc., while in many decades. For example, in 1977 the WHO declared a collaborative effort between the MNCs and modern medical providers and, therefore, the Alma Ata Declaration (1978) highlighted how primary health care at the local level depended agents health. socially and technically trained to work as a health team and to respond to the community's expressed health needs "(WHO, 1978a, Sato, 2012d).

In addition, as part of its due diligence, WHO published in 1995 a further comprehensive guidance on the training of family physicians as primary health care workers with sufficient contingency for health policy to all (WHO, 1995). In 2008, the Beijing Declaration urged member states to "respect, preserve and widely communicate, where appropriate, knowledge of

TRM, treatment and practices ... on safety, efficacy and quality" highlighting persistent gaps in policies and regulations. 2012d). Recommendations were then made to strengthen relations between traditional medicine professionals and modern medicine professionals through better communication and cooperation. It is important to note that healers must be licensed and trained to "enhance their knowledge and skills in collaboration with the relevant health care providers, based on the traditions and customs of individuals and communities" (WHO, 2008a). Nevertheless, WHO Effort has published a number of policy papers on TRM. These include documents on quality, safety, standards and monitoring (WHO, 2004); registration and regulation (WHO, 2001, 2005); advice to users (WHO, 2004b); methodology for research and evaluation (WHO, 2000a); training for practitioners (WHO, 1995); and a "TRM strategy" (WHO, 2002a). This document highlights four objectives, integrating TRM with the national health system; ensure its safety, efficiency and quality; increase availability and accessibility, especially for the poor, and promote wise use (WHO, 2002a: 43, Sato, 2012d). These and other products produced in this way provide an indication of political interest in TRM's practices and activities. The goodwill and commitment of each country to intercultural health care is igniting. In Uganda, integration efforts have resulted in the emergence of traditional and modern health practitioners together against AIDS and other diseases (THETA). The goal of THETA (a local NGO) is to work with modern and traditional health professionals to prevent, control and treat HIV / AIDS and other sexually transmitted diseases (World Bank, 2009). The World Bank report indicates that THETA has trained more than 5,000 traditional healers in 17 districts of Uganda with basic knowledge of HIV / AIDS treatment, presentation and care such as counseling, education, counseling, and condom promotion and condom distribution. This form of collaboration between modern and traditional health professionals has contributed to the successful development of health care, particularly for the victims of HIV / AIDS (World Bank, 2009, 2006, Baidoo, 2009). Similar attempts at medical assimilation are evident in other African countries including Kenya, South Africa, Ethiopia, Mali, etc. In Ghana, concerted efforts are being made to integrate TRM into scientific medicine. In this respect, research

organizations and other relevant bodies have been set up to ensure the safety, efficiency and quality of ERT as a vector of integration. In 1975, the Mampong-Akwapim Plant Science Research Center for Plant Medicine (CSRPM) was established by the Government of Ghana in recognition of the pioneering work of Dr. Oku Ampofo, a Ghanaian allopathic physician. The objective was to conduct research in plant medicine; Address quality and safety issues in the use of herbal medicines by scientifically validating the therapeutic effects of herbal preparations on integration processes. Today, CSRPM has become a leading research institution in Africa that has made research and development of herbal medicines a top priority (CSRPM, personal communication, 2013). Practitioners are now required to sign up for some recognition and have their drugs tested scientifically (Buor, 2004, Wreford et al, 2006).

As part of the Arrangement for Intercultural Health Care, Department of Phytotherapy at the Faculty of Pharmacy, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi was established to run a diploma program in herbal medicine. This is to maintain and preserve the knowledge and use of TRM as alternative health care. In addition, LMPs have formed an association to regulate their activities, learn from each other and receive formal training to be able to exercise their profession in a more organized and reliable manner. In addition, herbal units have been established in some public hospitals to promote herbal medical practice in the country. The Police Hospital in Osu, Accra and Suntreso Hospital in Kumasi have begun operating their plant care unit to care for people who prefer TRM drugs. Plans to introduce plant-based treatment units in 17 other government hospitals across the country are also very advanced (Personal Communication, 2013). Although WHO has continued to support TRM since the 1970s, coupled with the efforts of individual countries, the application of the intercultural health care approach has proved to be a difficult task for most country to date. This may be due in part to the tense institutional relationships between the two health care systems. Vandebroek (2013) noted that there are several barriers to intercultural health care at the societal level. The general acceptance by biomedical practitioners of issues related to the safety, efficacy, quality and rational use of TRMs is uninterrupted. In considering the rationale for using TRMs and their implications

for equity, Sato (2012d) argues that these relentless efforts by WHO focus on supply rather than on demand factors. Buor (2004) explained that there are no legal restrictions on PMTs that do not register before operating. Some TRM practitioners are professionalizing, applying the concept of "all green". The most important area of concern is the lack of trust and respect among the categories of practitioners. The relationship between the two is marked by suspicion, lack of recognition, and mistrust (Buor, 2008a). Orthodox health care providers view traditional healers with intense disdain and disdain for their lack of formal medical education (Wreford, 2005) and their knowledge of health and its complex relationships and practices. In fact, many biomedical practitioners perceive traditional healers as a source of chaos in the health care delivery system and therefore view their practices as an unnecessary burden on the profession (Langwick, 2006, Wreford, 2005). . They avoid any form of collaboration with traditional healers (Campbell-Hall et al, 2010).

However, TRM practitioners feel that scientific medicine has sacrificed the effectiveness of curative methods. They see themselves as natural healers and feel that integration will weaken the power of their operations (Buor, 2004, Meissner, 2004, Wreford et al, 2006). Chi (1994) suggests that effective intercultural health care should start at the grassroots level, involving the training of doctors and practitioners. Sato (2012d) maintains, however, that integrating TRM into a biomedical setting will be a nine-day wonder and will not be nearly successful if the demand side of the equation is avoided. From a similar point of view, Gorn and Sugiyama (2004) argue that it is necessary to evaluate the TRM in its own cultural perspective rather than being restricted and controlled by the orders defined by Western medicine. These arguments are probably in line with the sentiment shared by Halfdan Mahler (former director general of the WHO) that "For too long, traditional and modern medicine has followed its own separate paths in mutual antipathy. are certainly the same - the improvement of human health and hence the improvement of the quality of life "(Iancu, 2011). To achieve integration, we must distinguish between practitioners and qualified practices. The elimination of corrupt charlatans, deceivers and TMPs is the key to a complete medical integration. Building bridges between health care systems remains the surest way to update the delivery of robust health care

for the poor and underserved in Africa. Meissner (2008) suggests that, with mutual respect, PMTs can be successfully integrated into prevention and biomedical treatment interventions, and thus improve their effectiveness.

CONCLUSION

The safety, efficacy and quality of medicinal products continue to annoy medical geography and medical society since worldwide quality control and proper regulatory restraints continue to remain a challenge. Regulation and legislation of herbal medicines particularly in Africa and some parts of Asia is limited despite various efforts made by regulatory authorities at different levels in different countries in developing guideline and principles. Further and future advancement of Traditional medical methodology rest on scientific validation and technological standardization. Education and training of those involved in the treatment episode, including traditional healers and their practices, physicians, patients and members of the community to understand and appreciate the fact that complementary and alternative health care leaves nothing to be desired when rationally applied. Understanding indigenous knowledge and practices is the way forward regarding safety and efficacy of traditional medical therapy. Stakeholders and policymakers and the implementers are urged to encouraged the full incorporation of traditional systems of medicine into the mainstream health care delivery system with particular reference to the sub-Saharan African region.

RECOMMENDATION

1. Supports is highly needed by the Traditional healers as a benefits to the private public partnership policy to push the efficiency of the traditional healers.
2. The orthodox medical system will have to accept and upgrade the traditional healers to make health care system more of a success.
3. The ministry of health must encourage further studies to aid in recognizing traditional healing as an accredited instituted to help increase access to good health care in Dagbbon area as policy makers.

REFERENCE

- [1] Freeman, M., and Motsei, M. (1992). Planning health care in South Africa: is there a role for traditional healers? *Soc Sci Med*, 34: 1183–1090.

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- [2] Freund, P. J. (1986). Health care in a Declining Economy: The Case of Zambia. *Social Science and Medicine*, 23(8), 75-88.
- [3] Friedman, A. and Lahad, A. (2001). Health behaviour in a kibbutz population
- [4] Gyasi, E., Agyepong, G. T., Ardayfio-Schandorf, E., Enu-Kwesi, E., Nabila, J. S. and Owusu-Bennoah, E. (1995). Production pressure and environmental change in the forest-savanna zone of Southern Ghana. *Global Environmental Change*, Volume 5, Issue 4, Pages 355–366.
- [5] Gyasi, R. M., Tagoe-Darko, E. and Mensah, C. M. (2013). Use of Traditional Medicine by HIV/AIDS Patients in Kumasi Metropolis, Ghana: A Cross-sectional Survey. *American International Journal of Contemporary Research*, Vol. 3 No. 4.
- [6] Gyasi, R. M., Mensah, C. M., Adjei, P. O and Agyemang, S. (2011). Public Perceptions of the Role of TRM in the Health care Delivery System in Ghana. *Global Journal of Health Science*: Vol. 3, No. 2; doi:10.5539/gjhs.v3n2p40.
- [7] Harnack, L. J., Rydell, S. A. and Stang, J. (2001). Prevalence of Use of Herbal Products by Adults in the Minneapolis/St Paul, Minn, Metropolitan Area. *Mayo Clinic Proceedings*, Vol. 76, Issue 7; 688-694.
- [8] 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 TherMed*, 8:88–96.

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