

## Research



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## Self-medication within the context of medical pluralism in Yaounde, Cameroon

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## Abstract

**Introduction:** this paper documents the experiences of patients who use the knowledge and practices of the "African chemist", and the determinants of this therapeutic recourse in their 'quest for therapy' as 'quest for relief' within the context of medical pluralism in Yaoundé, Cameroon. **Methods:** the study adopts a mixed qualitative and quantitative methodological approach comprised of 30 individual in-depth interviews and the administration of 100 questionnaires to participants. **Results:** this study neither found that self-medication is wholly nor exclusively preoccupied with therapy for minor physical ailments, but also for diseases and problems with perceived supernatural undertones and for the

*achievement of personal success and desires. It suggests that social relations, personal experiences and perceptions of trust are central to the choice of the 'African pharmacy' as a therapeutic recourse.*

**Conclusion:** *the popularity of this informal healthcare institution that can be categorized neither under traditional healing nor under modern medicine contradicts the focus on the latter stages of the illness referral system when a patient seeks help from a specialist. This practical case of medical pluralism articulates the need to focus on the local context, on the everyday realities of illness and therapy seeking and to prioritise experiences and social relations that are often obscured in health statistics and development policies.*

## Introduction

Medical pluralism is the likely tendency among patients and their therapy managing group to resort to 'different kinds of therapies' (including complementary and alternative medicine (CAM) and modern medicines) which at times offer mutually incommensurate explanations for the disorder [1]. This highlights the hybridity and permeability of boundaries, and consequently the borrowing of ideas and practices between distinct medical systems. It also shows the complementary as opposed to the competitive nature of different medical systems, as well as the perceived usefulness of each-at times simultaneously for a different kind of disorder [1-3]. In their double quest for therapy and relief, patients engage in "syncretic auto-medication". As pragmatic social actors, patients often combine biomedicine alongside plant and animal materials bought from the "African chemist" for the management of particular illness episodes. The "African chemist", also called "African pharmacy", which is the focus of this Cameroon case study, is comprised of both ambulant and stable street vendors of medicinal plants. The American Heritage Dictionary defines a pharmacy as "the art of preparing and dispensing drugs", "a place where drugs are sold, a drugstore" [4]. In most of the South, pharmacies are predominantly an urban phenomenon. We use

the term "African chemist" ("pharmacie Africaine") as found on billboards put up by the vendors that help to distinguish them from the conventional western pharmacy that mostly dispenses biomedicine. While in the western sense of the word, a pharmacy largely dispenses drugs, at times, these vendors prescribe medicinal herbs and packaged herbal drugs to their customers. The term is used here ("African pharmacy") only for vendors who sell African plants, or parts of plants and roots. In popular parlance, vendors who sell biomedical pharmaceuticals are referred to as "pharmacie de la rue" ("street pharmacy") while vendors of herbal medicines from China and India are usually referred to as "Pharmacie Chinois" ("Chinese medicine pharmacy", "pharmacie Indien" ("Indian medicine pharmacy"). The vendors sale plant and animal parts in both solid and liquid form for the preparation of various concoctions. A few of these vendors, as well as some users of the African chemist are traditional healers who buy particular medicinal items for the preparation of concoctions. Traditional medicine is "the totality of knowledge and practices, explainable or not, used to diagnose, prevent or eliminate physical, mental or social illnesses, and which may be based solely on experience and past observations handed down from generation to generation orally or in writing" [5].

Studies have shown that 66.7% of these vendors are uninitiated against 33.3% initiated healers [6, 7]. Some patients buy for themselves, others buy for themselves, family members and neighbours. They are referred to as "customers". This mixed method study seeks to make sense of the 'quest for therapy' from the African pharmacy by (1) exploring the range of medicines/diseases for which patients and members of their social networks ("customers") auto-medicate with, (2) the types of medicinal products urban-based healers obtain from these African pharmacies and (3) the socio-economic conditions in which this informal healthcare outlet that can neither be categorized under "biomedicine" or "traditional" medicine is embedded. This study demonstrate that self-medication is not limited to the treatment

of minor physical complains. It also encompasses treatment for ailments believed to be caused by personalistic agents (spirits), for securing good fortune, attracting sexual partners, obviating the course of justice and ensuring professional success. Apart from providing autonomy for patients and their therapy-managing group, the African chemist is cost-effective for urban-based healers. Additionally, socio-economic factors alongside social relations, personal experiences and perceptions of trust inform the choice of the African pharmacy as a therapeutic recourse. Additionally, it is suggested that the 'quest for therapy' should be seen as a 'quest for relief' [8]. Increased health seeking from the informal sector raise questions about the effectiveness of modern healthcare delivery programmes in sub-Saharan Africa [9-17]. Most of the estimated 80% of people in Africa who regularly seek care from traditional providers, rather than go to traditional drug sellers do so without proper consultations, and easy access and low cost, among others are important factors [14]. Informal health-seeking further articulates the perceived severity, classification as well as the range of therapeutic trajectories on offer for a given health condition [1].

Therapeutic itineraries are not only underpinned by 'the perceived speed of recovery achieved by a given treatment but by their sociomoral functions' [1,18]. Contrary to formal institutions with comparatively higher economic and symbolic capital, local healers may also have a strong grip on the local health field because of their social and cultural capital [1]. In suggesting that 'we speak of health systems', Kleinman points out that the healthcare system is "a local cultural system composed of three overlapping parts: the popular, the professional and folk sectors". He identifies the home as the locus of most health care and therapeutic decision-making [19]. Contrary to formal healthcare professionals, medicine sellers are further reported to maintain a more cordial and intimate relationship with customers, tailor their "prescriptions" to the purses of their clients, and 'medicines may also be purchased by proxy' [11]. Medicines are also 'things' in themselves-their

'democratic' and exoteric character confer on them a liberating effect [11, 16, 19-23]. In fact, home and self-treatment are significant components of health care, in both the First, but particularly in the Third World [16, 21]. In many cases of self-medication, perceived quality of care informs the choice of the provider more than cost or distance [12, 24]. Commenting on therapeutic recourse in the Northwest and Southwest regions of Cameroon, Ndeso-Atanga [25] concedes that in case of acute illness, seeking care from traditional healers was more often the first choice than consulting a healthcare facility. This study documents the experiences of clients of the "African chemist". This domain of healing knowledge and practices is found at the interface between what has been conventionally dichotomized and problematized as 'traditional' versus 'biomedical' or 'modern' medicine. The paper begins by addressing the reasons for the neglect of the "African chemist" as a healthcare institution by scholars. Following is the research methods and the context of study. The third section is a presentation and discussion of the findings. The penultimate section is the conclusion and recommendations.

### **Biomedical hegemony, medical anthropology and alternative health care**

Anthropologists have historically shown sustained interest in medicine and in indigenous healing practices. The exclusion of vendors of medicinal plants is however largely the result of the blind spots within medical anthropology. As a Western product, medical anthropology developed in the wake of Western medicine's colonization of the world from the early 19<sup>th</sup> century onwards. Initially, biomedicine was considered to be the only type of health service available, and was bestowed enormous power, hegemony and cultural legitimacy while all other forms of healing knowledge and practices were classified as ethnomedicine, alternative therapy, superstition, "illegal" or "deviant" and were vigorously suppressed [26, 27]. In the wake of debates over relativism and rationality, anthropologists embraced medical pluralism as a challenge to

biomedical hegemony. In other words, Western medicine is not the only system-other systems exist-the biomedical worlds are significantly diverse, fragmented and dynamic [1]. In the 1950s and 1960s, anthropologists entered the field of international development programmes as consultants. Their new role in international healthcare delivery programmes stimulated the emergence of medical anthropology as a specialised field of research and practice. The benevolence of international healthcare programmes was however, undermined by resistance from the target populations [27]. Physicians and public health experts who directed these programmes saw the problem from the prism of a chasm between modernity and tradition, superstition and science, and rational and irrational cultures [27]. The 1980s and 1990s witnessed a dramatic shift, as well as a distinctive and in-depth analysis of illness and medicine. The hegemonic claims of biomedicine and the dichotomy between tradition and modernity were readily challenged, alongside a cultural critique of biomedicine as well as its truth claims. The comparative analysis of biomedicine revealed that it was merely one among many systems and that the rapid spread of biomedicine had neither eclipsed nor led to the disappearance of so-called traditional medical systems and practices. Janzen JM [28] avers that all medical systems-modern as well as traditional, are inherently dynamic and responsive to socio-political changes [1].

The spread of biomedicine did not result in the complete integration of traditional medical systems into a dominant modern system on the principle of scientific rationality. In Southeast Asia for instance, the revitalisation of Ayurveda led to the development of a syncretic Ayurvedic medical tradition that co-existed in a complementary and conflictual relationship, with ritual curing and cosmopolitan medicine [28]. Similarly, practitioners in Africa and Latin America integrated antibiotic injections into ritual curing and herbal medicine [2]. Chinese doctors in Tanzania skilfully administer integrated treatments that combine traditional Chinese medicines with biomedicines "for rapid

effects" [18]. Medical pluralism and syncretism were thus finally acknowledged paving the way for medical pluralism as a central concept in medical anthropology. It was only by the late 1950s that anthropologists began engaging with indigenous forms of healing practices in different cultures under the banner of ethnomedicine-the study of folk illness categories, traditional medical systems and herbal remedies [19, 28]. Despite this growing interest in the healthcare services used by different communities, it was however Helman CG's [29] seminal study that provided a "holistic picture" of a pluralistic medical system, offering perceptive insights into the simultaneous use of biomedicine and traditional medicine. Since then anthropologists including Elizabeth Hsu *et al.* [1], Labhardt ND *et al.* [19] and Minocha AA [30] have embraced medical pluralism. Nevertheless, anthropologists have been preoccupied with defining different existing medical systems, the co-existence of traditional and biomedical systems, thereby excluding healthcare systems and practitioners who do not fall wholly or partly within the provinces of these systems. Lock M *et al.* [31] points out that few studies acknowledged medical syncretism-traditional healers who use or incorporate biomedical techniques such as laboratory tests within their practice.

Early studies informed by the concept of medical pluralism showed that patients are pragmatic and see nothing inconsistent about liberally combining different forms of therapy in their quest to restore health [32]. Janzen examined 'the quest for therapy'-the ways in which people use and evaluate the different therapies available to them. Janzen also introduces the 'lay therapy managing group', consisting mainly of close kin, as an important actor in the quest for therapy [29]. The failure to recognize the intersection between different medical systems has prevented the definition of various medical services even within the same locale-including the investigation of the utilization of the "African pharmacy" since this informal institution cannot be categorized under existing health care typologies. Additionally, medical anthropological studies have focused on the later



stages of the referral system of therapeutic recourse, with less focus on self-administered health care [19]. Self-medication entails seeking and obtaining access to various medicines for oneself and one's family members, including over the counter drugs and herbal medicines. Herbal therapies are readily available in the immediate environment for harvesting, at street corners and markets, and in the African pharmacy for sale. This ethnographic study examines the experiences of patients who make use of the knowledge and practices of the "African street chemist" in the healthcare system of Yaounde, the capital city of Cameroon. Specifically, it is about the actors of 'traditional medicine' and special attention is paid to the relationship between therapy seeker and therapy provider-what might be called the therapeutic encounter. Two key questions underpinned this research. 1) Do cultural representations of illness determine the choice of therapy? Or 2) Is the therapeutic recourse taken largely dependent on social factors, such as social networks and personal relations?

## Methods

This mixed ethnographic study combined participant observation, in-depth interviews and a survey of patients and clients in various "African chemists" in the Briqueterie, Marché Melen, Mokolo, Mvog-Mbi, Carrefour Obili and Avenue Kennedy neighbourhoods. A total of 100 questionnaires were administered to participants. This was complemented by twenty face-to-face in-depth interviews and numerous informal discussion sessions. The interviews were conducted in the English, French, Cam-franglais-a mixture of French, English, the creole language Cameroonian Pidgin English and several words borrowed from several dialects spoken in Cameroon and pidjin English respectively. Yaounde was chosen as the site for this research for three main reasons. The first is its location in the rainforest region of Cameroon. Secondly, it has been identified by ECOFAC (Programme for the Conservation and Rational Utilization of Tropical Ecosystems in

Central Africa) as the main center of trade in non-timber forest products in the country, which is traded mainly in the Center, South and East regions [33]. Additionally, Yaounde is a melting pot for the over 250 ethnic groups found in the country with their different cultural perceptions of illness and disease. This urban co-existence of people from different cultural backgrounds has influenced the range of medicinal drugs on offer due to diffusion. For instance, remedies and treatments associated with particular ethnicities have become widely accepted by other cultural groups. The huge demand for these remedies has led renowned tradi-practitioners such as Dr. Dewa and Dr. Fru to set up traditional medicine outlets in Yaounde and in most cities of Cameroon. Prior to their participation in the study, participants freely granted consent orally or signed a pre-designed consent form. Qualitative methods provide rich detail, whereas the quantitative analysis permits extensive statistical analyses [34]. The questionnaires provided socio-economic data about participants and the type of medicinal items they purchased. Furthermore, qualitative field notes on people's experiences with auto-medication and actor's interaction in the African pharmacy were collected. The transcripts were quantified by recording counts of different types of verbal behaviours exhibited by participants [34]. Additionally, plant samples collected from vendors were identified at the National Herbarium where the diseases and health problems were identified.

Study setting: the therapeutic field in Yaounde, like in most of Cameroon is characterised by the co-existence of a number of therapeutic alternatives. Western medicine is provided by state-owned institutions and by numerous lay private and confessional healthcare institutions. Biomedicines and traditional Chinese medicines (TCM) are provided separately at the Yaounde Hospital of Gynaecological Obstetrics and Paediatrics constructed through Sino-Cameroon co-operation. In tandem with a 1975 Agreement, this hospital also sales TCM products to patients of Chinese doctors. Furthermore, the Guilin Southern pharmaceutical laboratory based in Guilin, China

has monopoly over the manufacture and marketing of anti-malarial drugs in both its injection form (Artesunate) and in tablet-form (Arsuamoon) within Cameroon's national territory [35]. The acute lack of health care in the country, which has led to the opening of private surgeries and the sale of traditional medicine products, is compounded by the fluid gap between legal and illegal practitioners due to weak regulation and the preferences of desperate patients. The state health care institution is bedecked by lack of drugs, personnel and inaccessibility of most of the population to professional health workers and therefore the impossibility to obtain an official prescription. Furthermore, health workers are poorly remunerated and tend to involve in informal practices such as the illegal sale of pharmaceuticals to supplement their income. The shortcomings of the health delivery system, alongside poverty that inhibit relations with professionals push people towards self-help [16, 20, 23]. Pharmaceuticals are being incorporated into treatment practices due to the state's failure to provide effective health services and to control the trade in these drugs [36].

There are myriad formal and informal vendors of biomedicines, Indian and Chinese traditional therapies in specialized drugstores, clinics, and in general stores, at major thoroughfares, travel agencies linking major cities and on trains providing connections for travellers between the northern and the southern parts of the country. The proliferation of Chinese healers, clinics, shops and mobile drug vendors has been dramatic since 2000. Apart from hospitals, TCM like medicinal plants are also dispensed by private companies, and by both trained and untrained individuals [35]. While some people now shun western drugs and Cameroonian traditional herbs others combine all available options. Apart from treating diseases such as rheumatism, hypertension, typhoid fever and malaria, the Chinese also claim their drugs can treat AIDS by reducing its viral load in the body. Many customers of Chinese medicine claim that the drugs are effective, relatively cheap and that unlike western-trained doctors, Chinese healers are more

accessible. The lure of Chinese traditional medicines has led to conflict between local doctors and traditional healers from China [18, 36-38]. As Elizabeth Hsu demonstrates for Tanzania, there is a simmering conflict between biomedicine and other systems of medicine including TCM. Biomedical doctors vigorously lobby against Chinese traditional practitioners for allegedly combining biomedical knowledge with traditional knowledge, a self-interest polemic that arises from the biomedical profession, "rather than from an engagement with a viable health policy for the improved well-being of ordinary people" (18: 297). Biomedicine, African traditional medicines and TCM are readily available in markets and with itinerant hawkers. In fact, there is the proliferation of traditional medicine outlets in Yaounde and in most cities of Cameroon. Hawkers are also omnipresent in lorry parks, taxi parks and buses [11]. Despite the concentration of modern health care facilities in Yaounde, people still make recourse to vendors of traditional medicine-even when a majority are not traditional healers *per se*.

## Results

**Customer profiles:** analysis of the 100 questionnaires administered to customers showed that 45% were men whereas 55% were women. Of this, 80% mostly adults between 20 and 45 years of age were of Ewondo ethnicity and had education levels ranging from primary to university. They claimed membership of one religious denomination or the other: 70% Christians, 30% Muslims and 5% were atheists.

**Types of medicines on sale:** two categories of medicines are available in the "African chemist": (1) Traditional herbal medicines and animal artefacts in their natural state or as already prepared remedies. Some of these vendors claim to have studied textbooks on how to make concoctions of natural herbs to be used as medicines. Some call themselves "modern herbalists". They are omnipresent in the city of Yaounde, but are mostly concentrated around the central business district, at major markets, in popular transport agencies, in the streets, in open market places, or moving from

door to door. The vendors display both solid and liquid concoctions as wonder drugs with an exaggerated possibility to treat as many diseases as possible. The most prevalent diseases for which they claim to provide therapy for include, but are not limited to epilepsy, sickle cell disease, male sexual weakness, anaemia, malaria and typhoid. Some of them often take time off to explain the range of diseases cured by each concoction/herb and are not only pragmatic, but also very charismatic. Some of the herbal products (roots and plant extract) found at the African chemist are as shown in Figure 1 [36]. (2) Commercialized brands of refined herbal medicines, with modern packaging, relevant African brand names and motifs. These pre-packaged combinations of herbs and animal parts are also sold in the open market and in shops, alongside elephant skin, crocodile tooth and a local viagra, a root presumed to have aphrodisiac properties and which is very popular with ageing males. The most popular traditional medicine clinics, which administer their own local drugs, include Dr. Tekwa Traditional Clinic and Sons Limited, Dr. Fru and Bross Traditional Pharmacy SA, Universal Traditional Drugs SARL. The healers themselves, family members or employees operate these clinics. We noticed inconsistencies in the claims of the alleged therapeutic efficacy of the similar drugs from one vendor/traditional healer to the other. The production of the drugs is shrouded in secrecy, with the knowledge and technique transferable only to close family members and not for collaboration with other traditional healers or vendors. Some of the pre-packaged combinations of drugs sold in African pharmacy in Cameroon are as shown in Figure 2 [37].

**Categories of medicines purchased:** a wide variety of medicines is on offer for auto-medication. The ten most purchased medicines from the sample data is represented in Table 1 below. The most popular category of medicine purchased is for malaria (22%), back ache (lumbago) (15%), "preparation of concoctions" (15%) followed by impotence, anaemia, chest pains, with (8%) each and 6% for venereal diseases. Protection from evil spirit and luck in everyday endeavours had 7%

each, whereas, 4% of customers were acting as proxies to relatives and neighbours. Whereas, patients ("Self") bought 45%, urban-based healers bought 15% of medicinal items for the preparation of various concoctions for their patients. Additionally, 13% and 11% of medicines bought were for the treatment of infants and for other members of the household respectively. Furthermore, 8% bought on behalf of neighbours and other members of their social networks. Most individuals bought herbal remedies/animal artefacts (78%) and only 22% of patented drugs—mostly for children's illnesses (Table 1). The table shows that in terms of the number of references made by customers, the recurrent diseases are malaria and lumbago. Other drugs available at the African chemist are used for re-establishing physical health and for fulfilling culturally related needs—particularly protection from personalistic agents for both adults and children, for luck, to attract love and favours, to alleviate chest pains, stomach aches and venereal diseases.

**Healers/specialists:** healers, faith healers or individuals with specialist knowledge for the preparation of medicinal concoctions bought wide varieties of the products (15%). Most urban-based healers apart from planting a few medicinal plants in urban gardens often buy particular items from vendors to prepare remedies for their patients. Individuals who auto-medicate themselves or family members, usually acquire specific products for simple applications or for the preparation of concoctions.

*I came to buy this mboma oil and the carcass of the owl for 10,000 CFA to use in preparing an anti-poison for one of my clients. This other item and Indian incense is to prepare something powerful for another client who has a difficult court case to ensure that everything goes well for him in court next week (Kemenyi, 35 year-old traditional healer).*

*I acquired my healing powers from God when I was only twenty-three. Each time I have a difficult case, I go into a trance, God speaks to me, I come here to acquire the necessary materials. These red feathers,*

*candle, magic soap, incense, and powder will be used to exorcise a patient who has been possessed by demons. I cannot go back to Bamenda each time I need some herbs or barks of trees because it is expensive (Madam Manyi, thirty-three-year old, spiritual healer).*

We observed that most of the herbal and patent medicines bought by traditional healers and faith healers were for the treatment of their patients. They conceded that it was more cost-effective to replenish their supplies from the vendors than to go home each time they needed something or to go to the forest to harvest. Nevertheless, some urban-based healers regularly receive herbal remedies from most of the transport agencies, thereby saving on transport cost, energy and time.

**Infants and others:** most therapies bought for infants were for the treatment of malaria, anaemia, chest pains, measles, and convulsions and for protection against malevolent spirits. Medicines believed to repel evil spirits from infants and to enhance their well-being included medalias, Indian incense, and various barks of trees believed to have mystical powers. Mabel, a twenty-five-year-old mother of two asserted that:

*I have bought these charms and Indian incense from this Magida (Northern) for 5,000 CFA to hang behind the door and to burn in the house so as to wade off evil spirits that are always disturbing my children. They never sleep at night because they have four eyes each. Meanwhile, I will put this concoction into the toilet to destroy the mboma that is said to be living there.*

There was a higher preference for patent products for the treatment of infant's diseases. Additionally, anti-malaria herbs were bought for infants and other household members "because they kill the parasite in the blood stream completely unlike modern medicine". Various drugs were also purchased for household members (11%) and neighbours (8%). Thirty five plant species, belonging to 35 genera and 19 botanical families are readily available in the African chemist with

various performance indexes as illustrated below (Table 2). Some of the concoctions from the African chemist being used for COVID-19 in Cameroon is as shown in Figure 3 [38].

## Discussion

This study shows that the African chemist supplies a variety of medicines for self-medication. The charm of medicines partly lie in their "thinginess"-their 'democratic' and exoteric character as imbued with healing powers in themselves which confer on them a liberating effect that disentangles them from the social relations between patients and significant social others: "breaks the hegemony of professionals and enable people to help themselves" [11]. As a vehicle of individualization, medicines empower individuals by providing them with the means to solve their problem without the knowledge, social control and interference of experts and kin [20]. This implies that community knowledge and personal experience are often the basis of popular medical knowledge, rather than professional consultation or formal training, and that people treat most minor ailments by themselves [17, 39-41]. But at the same time, new kinds of relations-'less personal market relations' are formed with drug vendors/shopkeepers who provide advice to customers [20]. Some plants species widely available with these vendors and the diseases they are alleged to treat have been documented in the literature [42]. This might explain why although customers and vendors often differ, some of the former never ask for the usages of certain plants from the latter, suggesting their familiarity with these drugs. We can surmise that 'people often exchange their views and experiences with drugs' thereby disseminating popular knowledge of drugs and that customers are in search of medicines-not professional help *per se* [7, 20]. Self-and home treatment constitutes the majority of people's therapeutic recourse strategies: "Knowledge about herbal and pharmaceutical medicines for everyday illnesses is common property, accessible to all through



observation, experimentation and learning from others. It is not a secret or expert domain" [43].

Although most people were buying both for themselves and for members of their families and neighbours, the ages of customers (20-45 years of age) suggests that the products are neither age-specific, nor used by the uneducated and older generations. However, cultural background seems to play a key role in the patronage of the African pharmacy. For instance, in the Briqueterrie neighbourhood, most vendors like most of their customers were from northern Cameroon. This implies virtually no language and communication barriers. Kleinman A [22] suggests that the services of vendors in the African chemist also offer customers/patients more leverage over their own treatment (20). Drawing on Ngubane H's [44] concept of the social character of face-to-face market transactions, [11] suggest that commercial activities sometimes enhance social relationships with money serving as a conduit for creating confidence and enhancing interaction between people. Plattner concedes that: 'market' is the social institution of exchanges where prices or exchange equivalencies exist. 'Marketplace' refers to these interactions in a customary time and place. A market can exist without being localized in a marketplace, but it is hard to imagine a marketplace without some sort of institutions governing exchanges [44, 45]. Monetary transactions that are a component of health interventions, [23] are not only payments for medical services; they represent a significant component of communication between the healer and his clients [18].

The diverse religious affiliation of customers suggests that religious affiliation does not affect the patronage of these chemists. Brain A Bartelt cogently maintains that "the impact of African traditional belief systems continue to influence and mediate the experiences of contemporary Africans" [46]. The African belief system is based on a holistic view of health. Good health implies both physical health and the achievement of the very best results in every social situation and

undertaking in life, in employment, education, court cases and love among others. Following Welch S *et al.* [47] the social environment is full of malevolent individuals calling for the need for protection. In addition, certain medicines offer protection against possible bewitchment or to forestall repetition of illness or misfortune and to ensure the survival of infant. Apart from medalia, traditional animal fats (mboma oil) are highly sought after products for protection. Traditional animal fats are used for self-protection or to gain access to the main characteristic of the animal whose fat/part is used. The most recurrent health problems for which people in Yaounde often auto-medicate are malaria and lumbago. According to the Ministry of Public Health, malaria is responsible for 35-40% deaths in health facilities, 50% morbidity among children below 5 years of age as well as 40-45% medical consultations and 30% hospitalizations in Cameroon with a high burden of mortality [48]. This suggests that cultural beliefs and understandings of illness determine the choice of therapy [1]. It further suggests that patients categorize diseases into those, which can be effectively cured by either biomedicine or CAM. However, in their 'quest for therapy' as 'quest for relief' [29], they sometimes take both simultaneously to maximize the chances of relief. Patients generally believe that the two types of medicines are complementary but have different strengths in relation to cost, accessibility, accuracy of diagnosis and treatment. Syncretic auto-medication may also be informed by concepts of pathological process and etiology-the view of illness as a process in which the symptoms of a disease/different diseases develop sequentially, with one following the other necessitating the use of different medicines at different stages of the disease for the resolution of target symptoms [11]. In fact, therapeutic hybridity is 'common sense' in Cameroon. Most often, patients and members of their 'therapy managing group' [1] surreptitiously "supplement hospital care with something more powerful and effective usually through indigenous healing on the basis of widespread assumptions about illness, diagnosis and therapeutic possibilities" [40].

Contrary to doctors and senior clinical staff who may resist such medical pluralism as well as complementarity between therapeutic options in the name of patient 'compliance', less senior medical staff are at times involved [40]. Similarly, reports that at the Saint-Esprit Clinic in Douala, Cameroon, Chinese doctors sometimes combine traditional local remedies with TCM, massage and acupuncture [35]. Additionally, this study supported the view that most illness episodes are managed at the household/family level [19, 40, 41, 49], and not just at the level of medical and traditional healers. Patients most often, make recourse to the formal healthcare sector only when the situation cannot be managed through auto-medication or "syncretic auto-medication" the simultaneous use of at least two systems of medicine for self-therapy. Delays to seek or the interruption of Western biomedical treatment has been attributed to the consultation of traditional healers [40]. There is the need as Prince RJ *et al.* [38] argues, to recognize the level of responsibility assumed by unqualified practitioners/lay individuals and household members in diagnosis and therapeutic recourse. Although social relations, personal experiences and perceptions of trust as well as socio-economic factors are essential to the therapeutic recourse taken, we need to go beyond the individual and their treatment itineraries as well as their therapy managing group: an illness episode is embedded in larger social, economic, and political dynamics [1].

The African pharmacy is a crucial reservoir for the urban masses who buy drugs with which to auto-medicate for both physical ailments and for culturally bound syndromes both from their own cultures of origin and from other cultures. Pre-packaged traditional medicine recipes as well as mixtures of plant and animal materials are readily available for culturally related requirements such as in the search for employment and for good fortune. The act of "negotiating as a customer" is a form of "empowerment". The African pharmacy therefore provides both a site of agency as well as empowerment to patients over their health. They can either refuse a treatment or purchase exactly

what they want from the popular and folk sectors thereby exerting pressure on health-care providers [11]. As the most common and natural medical action, self-medication as facilitated by the availability of drugs is both convenient and economical-it serves as a way of assuming greater responsibility over consumer's health. Practiced beyond the purview of medical professionals-usually at home, self-medication is almost a routine act, but for when a medical personnel administers a drug (e.g. an injection) [11]. Whereas, traditional medicines have been recognized to treat culturally related problems, most studies dealing with auto-medication in less developed countries focus on self-diagnosis and medication for treating physical illness with pharmaceuticals [11, 45].

This study underscores the fact that although treatment for culturally related problems have been considered as the exclusive province of traditional healers and "witch doctors", in reality, individuals are diagnosing and treating themselves, family members and friends against malevolent spirits, securing good fortune, attracting sexual partners, ensuring professional success in business and education. Patients and members of their therapy managing group' [1] are actually creating a new type of medicine use, a medical pluralism that does not simply emulate tradition. It might even be a type that responds to uprootedness in the urban environment. In addition, the African chemist is cost-effective. Urban-based healers, faith healers and lay individuals have a ready outlet from which to procure medicines or materials with which to prepare concoctions for their patients, instead of returning to their home villages, or going to the forest each time the need arises. In fact, 'local users and providers of drugs are pleased that they can meet their needs when the formal system has failed them' [11]. As one respondent pointed out:

*What is the need of going to hospital when I can readily procure some herbs and prepare a concoction for myself? By the way, in the hospital, all medical personnel are more interested in your money than in your health. Nurses sometimes sale even well known drugs like paracetamol at a more*

*expensive price than roadside vendors (Usman, Interview of 11/11/2008, Briqueterie).*

The lack of money or geographical access to Western healthcare in rural Africa does not completely explain why people consult traditional healers. Unlike Western biomedical doctors, indigenous healers interact very differently with their patients, using a more patient-centred communication style, to reach common grounds with patients [14]. The popularity of traditional medicine has also been explained in terms of consistency with local cultural values and beliefs, proximity and lower cost compared to Western healthcare facilities [15, 16, 24].

The processing and packaging of some of these drugs and the use of modern media for purposes of advertisement shows the appropriation of modernity by practitioners of traditional medicine. These vendors have launched fierce advertising campaigns in popular Cameroonian radio stations, newspapers and magazines where they feature on top spots to attract customers to traditional medicines and to simultaneously undermine the use of biomedical products. In fact, the urban masses are increasingly facing a barrage of advertisements ascribing fantastic effects to drugs, emphasizing the non-toxic nature of traditional remedies while simultaneously discounting criticisms of traditional medicines. Nevertheless, 'the recommendation of a medicine vendor or personal acquaintance is far more influential in forming their views of the potential of various medicines' [16] as well as the exchange of medicine for the same health problem among social relations.

*My brother who was treated with a concoction he recommended to him referred me to that vendor. As a man, whenever I meet a woman [have sexual intercourse] and suspect that I might have contracted women's disease, I come here for a concoction of herbs to wash my system with (Amadou, interview of 5 December 2008).*

Traditional healers are actually adapting to changes taking place by advertising their products, making use of modern packaging styles and refining the contents of medicines to suit the needs of their modern clientele [46]. The interrelationship between patient agency, local consumers and health care (vendors) providers, alongside the personal element associated with "the medical encounter in the entrepreneurial setting and even a sense of friendship between some patients" and the vendors are shaping the market and the vendors as business people "tailor articles of consumption to their expectations" [18].

The healthcare crisis in Cameroon is compounded by the fact that most people have no healthcare insurance and all health services have to be paid out-of-pocket. The AIDS crisis actually brought traditional medicine to prominence in Cameroon as the government for political and economic reasons- the fear of tarnishing the country's image and scaring off tourists initially refused the existence of the pandemic. Traditional healers and vendors of medicinal plants took advantage of the government's ambivalence and put up billboards in the urban landscape carrying among others, pictures of pale and wasting, scary-looking, infected individuals. Various nicknames euphemistically as "slow poison", "maladie d'amour" (love disease) and associated to malevolent spirits, these billboards claimed that they had a ready cure for the "slim disease", "seven plus one", "nine minus one". Given their record of accomplishment in the treatment of venereal diseases, biomedicine's lack of an immediate response to the scourge and the collapse of the health care system in the wake of the structural adjustment programme imposed by the Bretton wood institutions on Cameroon and other African countries, they enjoyed a boom.

## Conclusion

Although patients often auto-medicate, the traditional medicine chemist has escaped the scrutiny of researchers because it falls outside the province of biomedicine and traditional medicine.

Auto-medication often entails the simultaneously use a modern healthcare facility and traditional herbal medicines (medical syncretism) just to maximize the prospects of getting well quickly. This implies that an individual's simultaneous interaction with various systems of health care depends on his or her perception as well as that of his or her social network of the health problem [1, 31, 32]. Depending upon the prevalent symptoms of the disease, an individual may choose to disregard an illness or health problem, use treatment modalities that are known to the individual or members of his/her social network or make decision to resort to a formal service such as a traditional healer or an informal institution such as the African pharmacy or to an allopathic medical practitioner. Similarly, Hsu [1] reports that in Tanzania, patients made recourse to traditional healers for cases of bad luck in business, protection for imminent travel, search of a partner, and marital problems". In addition, while some cases involved witchcraft (*nguvu ya uchavi*), others did not. Understanding the local context and the daily realities of illness and therapy seeking from the African pharmacy, exposes the primary place of experience and social relations which are often erased in health statistics and health enhancement/development policies. The important role played by the African chemist in supplying remedies for auto-medication suggests the need for the regulation of traditional medicines because despite its popularity among Cameroonians, the sector suffers from lack of standardization, efficacy and control. Regulation will improve hygiene and quality because these drugs could be potentially dangerous. Furthermore, biomedical practitioners ought to be conversant with the cultural aspects of healthcare delivery in their treatment of patients. In fact, they must adopt a cross-cultural perspective that pays attention to patient's perspective of illness and disease because healers and patients often have conflicting perspectives [19]. By understanding both types of medicine, healthcare professionals could play a more proactive role in the integration of both.

#### **What is known about this topic**

- *In sub-Saharan Africa, healthcare delivery programmes are largely ineffective because of a dismal lack of knowledge about the social context of health-seeking behaviour;*
- *Local healers ("vendors") who dispense their products on the streets under questionable hygienic conditions are sought after because of their perceived social and cultural capital that allies with health-seeking behavior (aetiology) of patients ("customers");*
- *Traditional healers are the point of entry into the healthcare system and are often consulted before recourse to biomedical health facilities.*

#### **What this study adds**

- *Although this study is not generalizable beyond the study area (Yaounde), it clearly highlights the fact that auto-medication goes beyond health-seeking for the management of minor illness episodes. It addresses diseases and problems with perceived supernatural causes;*
- *Economic factors (cost-benefit analysis) does not fully explain health-seeking behaviour from the informal sector;*
- *Health programme planners can draw insights from this study to better design effective healthcare delivery programmes that are culturally and socially sensitive and adapted to the needs of patients as well as to the design of health promotion strategies.*

## **Competing interests**

The authors declare no competing interests.

## **Authors' contributions**

We jointly designed the study, conducted the interviews, administered the questionnaires and analysed the data. We further conducted the intellectual inputs and review. We subsequently



reviewed and submitted the final manuscript. All authors read and approved the final version of this manuscript and equally contributed to its content.

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## Tables and figures

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**Table 1:** analysis of 100 questionnaires on type of medicine purchased by clients and for whom

Disease	%	Self	Healer	Infant	Family	Other	Patient	Herbal/ Animal Product
Malaria	22	6		5	8	3	5	17
Lumbago	15	10					5	10
Concoction	15	8	4	1		1	2	13
Impotence	8	6				2	1	7
Anaemia	8	3		5			4	4
Chest Pains	8	5	2	1			2	6
Veneral disease	6	4	1		1		2	4
Protection	7	2	4	1				7
Luck	7	3	4					7
Did not know	4				2	2	1	3
Total	100	45	15	13	11	8	22	78
Source: Fieldwork								

**Table 2:** plant species sold in African chemist as identified by Mr. Nsomfong Ndzana, National Herbarium, Yaounde

Plant species	No. of botanical families
Hexalobus crispiflorus	6
Baillonella toxisperma	7
Erythroleum suaveolens	8
Annonaceae	4
Mimosaceae	3
Caesalpiniaceae	3
Euphorbiaceae	3
Total	35

Source: sample collected during fieldwork



**Figure 1:** some herbs, roots and plant extract found at the African chemist





**Figure 2:** pre-packaged combinations of drugs sold in African pharmacies in Cameroon



**Figure 3:** concoction for COVID-19 on display in Cameroon