## ORIGINAL ARTICLE: CHANGING SOCIETY

# Recourse to multiple treatments or the problem of the therapeutic itinerary in Louga

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Abstract. Louga, where the nomadic pastoral economy and the sedentary agricultural economy coexist, provides a particular environment to study the therapeutic itinerary of the population. In this region, as in developing countries, the great majority of people have a low income. As a consequence, recourse to modern medicine has economical and geographical limitations and traditional medicine is preferred for its accessibility. However, practices show simultaneous recourse to both health care systems. Another widespread practice not to be neglected is self-medication, in which both modern drugs and products derived from the traditional pharmacopoeia are employed. This research deals with all health practices across a geographic area marked by a strong traditional influence. The study of the choice of treatment in such a context traces the laborious therapeutic itinerary of each patient in search of health improvement. (www.actabiomedica.it)

Key words: health care system, traditional medicine, self-medication, therapeutic itinerary

## Introduction

The area we've considered is part of Louga region (Senegal) (1). It includes the municipality and the surrounding villages. We selected the quarters of the municipality of Louga and many villages divided into two groups: the group around *Gande*<sup>a</sup> and the group around *Pare Cisse*<sup>a</sup>. In these urban and rural areas, we have studied the health system<sup>3</sup> to try to account for the patient's itinerary in search of a cure.

A large section of the African population has recourse to traditional medicine for their health needs (2). Even if the modern health system offers a wide range of treatments, it is characterised by an unequal access to care (3-5).

In the context of a developing country, the study of therapeutic itineraries becomes an acute issue when a large number of practices are employed to try and answer health needs. Traditional medicine is an important element of this system. It is characterised by a mix of empiricism and of magic-religious beliefs (6,7) which have nothing to do with the Cartesian mode of thought. It is indeed difficult to think of them in this perspective. This is probably due to the fact that traditional medicine was performed secretly in colonial times (8). In contrast, during the years that followed the independence, in many countries «se succèdent des tentatives de reconnaissance, d'officialisation, d'harmonisation, de collaboration» between modern medicine and traditional medicine<sup>4</sup>.

<sup>&</sup>lt;sup>1</sup>Peuls village, located approximately 50 km east of Louga.

<sup>&</sup>lt;sup>2</sup> Predominantly wolof village located approximately 30 km south of Louga

<sup>&</sup>lt;sup>3</sup> According to Gérard Salem (1998), the health system is the set of social practices in a given area which exposes each area to a different health profile.

<sup>4&</sup>quot;there were attempts of acknowledgement, formalization, harmonization, collaboration" [N.d.T.]. Banermann, OMS, 1983, p 205.

The resurgence of interest in the latter after the indipendence is not only due to the fact that Africans find in it their «socio-cultural identity»<sup>5</sup> but it is also related to its being in a certain way «less expensive»; moreover, it is accessible to everybody and it sometimes succeeds where modern medicine fails. Alongside traditional medicine, we must consider conventional or modern medicine.

In this context, environment, as receptacle of a society and its practices, acquires peculiar characteristics. In the municipality of Louga and its surroundings, the health care system is very diverse and the choice of treatment leads to a mix of therapeutic practices. Local people have recourse to both modern and traditional medicine, but they also take different routes to treat themselves. It is a long and tortuous journey which can convert into «wandering»<sup>6</sup> between the modern andwand traditional health systems (4).

In this study we carried out a classification of health systems. They were divided into three categories: modern medicine, traditional medicine and self-medication. On the basis of this classification, we developed a questionnaire for each of them and we targeted a representative sample of the population.

# Materials and Methods

The data collection was performed in four months, from May to August. It was carried out as part of the field surveys. The surveys were conducted mainly in the municipality of Louga (the two markets and the different quarters). In this context the study combined both qualitative and quantitative data analysis.

## Materials

# The Questionnaires

In the context of a study dealing with three different categories (traditional medicine, modern medicine and general population), participants were subject to a selection process.

We singled out 30 traditional practitioners, who received each 50 *questionnaires*. In addition, each traditional practitioner was given a *reference sheet*. If the

condition persisted, the patient was referred to a modern health care facility or to another traditional practitioner. Each traditional practitioner was also given a *worksheet*. It consisted of a form where they noted down the patient's civil status, his or her origin, the symptoms, the diagnosis, the duration of treatment and its outcome, specifying in addition whether the patient had been referred or not. It must be noted that data collection among traditional practitioners was very difficult because a large number of them cannot write in French. They had the option either to choose a member of their family to record data or to write them in the local language: the *wolof* 7.

In the questionnaires for data collection on the three categories, several parametres were considered, ranging from the patients' identity to the illness from which they suffer, with an insight into their therapeutic journey: every parameter which can influence the patient's itinerary was taken into consideration.

The illness from which the person suffered or is suffering was also taken into account, as well as the recurrence of the disease: how many times has the patient been ill? In the same way, symptoms were described (fever, headache, diarrhoea, constipation...). The origin of the illness was also investigated (surgical, organic/physiological, psychological weakness, relational and social causes, spiritual causes, substance abuse).

Finally, there were the questions about the patient's journey in search of a cure. They focused on whether the patient was cured by a member of his family (himself, mother, father, wife/husband, brother, sister, son/daughter, grandson/granddaughter, nephew, niece, others (specify)). Attention was also paid to the time lapse between the start of the illness and consultation. In a context where the patient has recourse to every possible option, we enquired into the type of treatment he received (divination, herbal therapies, rituals (prayers, offerings, spells), massage and manipulation, drug therapies, others (specify)). We were also interested in knowing who provided the treatment. It could be a member of the family, a traditional practitioner or a doctor. It was also our purpose to learn

<sup>&</sup>lt;sup>5</sup> "identité socio-culturelle" [N.d.T.]. Ibid. 4

<sup>6 &</sup>quot;errance" [N.d.T.]. Fassin (1992), Paris; PUF, p 122.

<sup>&</sup>lt;sup>7</sup>Local language most widely spoken in Senegal.

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more about the provenance of the treatment. It could be found at the market, in the bush, at the chemist's, in a place of worship or in another place which had to be specified.

As for the questionnaire addressed to health care facilities, it focused on symptoms, diagnosis and therapy. It was easier to conduct the survey in this context, as the Head Nurse of the Health Post (ICP) filled in the questionnaire and his consultation register at the same time. His job was made easier by the fact that he didn't have another questionnaire to fill in and that he was accustomed to that sort of task.

With the purpose of providing a greater insight into the therapeutic itinerary, we asked if the patient had already requested a consultation for the same illness. If the question was answered in the affirmative (yes), we asked with whom (clairvoyant, healer, nurse, hospital, health post).

As regards the questionnaire addressed to the population, it laid stress on the treatment costs, its provenance (market, bush, chemist's shop or place of worship), how it was procured (bought, harvested or given as a gift) and the results (patient healed, improved, referred, in course of treatment or deceased).

#### Methods

Sampling

Out of a population of 90,000 habitants, our research involved 4,500 people, that is 5% of the adult male and female population. With a representative sample of 1/5 of the population, a male/female alternation (random method) was applied in the surveys. In order to differentiate the three categories, we devised for each a particular approach associated with a questionnaire.

Traditional practitioners are part of an organisation called AMPHOT/S (Association of traditional druggists, herbal therapists, herbalists, opotherapists of Senegal). Within the framework of this study, AMPHOT/S was chosen as a partner and an actor in the survey. Thus, a training seminar was held at Louga's cultural centre to make healers aware of the role they would play in the study and to let them know what to expect from it.

Traditional practitioners (healers) were selected according to the number of their patients and their writing skills. Out of more than 60 traditional practitioners who participated in the first meeting, half were selected for the study. The 30 healers who were singled out had to fill in 50 questionnaires each. The selection allowed us to have a clearer idea of their geographical distribution: 17 of them live in the municipality of Louga, 7 are from Gandé and 5 come from Pare Cissé.

As regards modern medicine, we had planned to select *10 nurses*, but we finally interviewed just three of them. This was due to a strike action taken by public health workers which occurred at the time of the survey. Nevertheless, the three Head Nurses of the Health Post (ICP) were able to meet our needs.

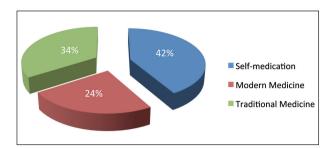
The survey addressed to the population took place in the village squares. We had chosen different squares, but the condition of some of them prevented us from carrying out the survey. Our initial aim was to interview people in the places of worship (mosque and church), during public events and at the market. Finally we preferred the latter, as it was difficult, if not impossible, to conduct a survey in a church or in a mosque while prayer services were held. A *random* method was employed in the survey with a choice of 1/5 and a male/female alternation.

# Results

Even if the aim of our study was to interview 4,500 people, only 3,820 questionnaires were completed. The initial goal was to attain 1,500 questionnaires for each category. We finally had 1,300 questionnaires for the population, 1,020 for the traditional practitioners and 1,500 for the Head Nurses of the Health Post.

Overall, it may be noted that patients took different therapeutic itineraries either before or after their last consultation. As a matter of fact, 3,050 people, that is 79,85% of the patients, had recourse to different types of treatments. Within this group, 80% were still in course of treatment; in general, they were affected by skin diseases.

Furthermore, 770, that is 20,15% of the patients, had recourse to both health care systems. Within this



**Figure 1.** Survey among the population

Table 1. Traditional practitioners's specialisations

Specialisations	No. of	
1	Traditional Practitioners	
Dermatosis	5	
Mysticism	4	
Paediatrics	4	
Herbalist	4	
Rheumatism	3	
Fractures, joint pains, massage	4	
Malnutrition	3	
STD	4	
Asthma	3	
Epilepsy	1	
Sore throat	1	
Haemorrhoids	1	
Backache, headache, toothache	4	
Childbirth, weaning	2	
Yellow fever	1	

group, 30% were referred to the medical services by the traditional healer.

After analysing the data, we realised that self-medication was the commonest choice among patients to treat the last illness they had suffered from (Figure 1). These data about self-medication, however, can only be found in the survey addressed to the population.

The survey conducted among traditional practitioners gave interesting results. In the course of this

study the traditional practitioners mentioned several specialisations, among which we selected the following (Table 1).

In the 1,300 questionnaires involving traditional practitioners, two main causes of illness can be observed: organic/physiological causes and mystical causes.

The majority of the illnesses treated by traditional healers in this study (60%) have an organic or physiological cause (Table 2).

Besides the illnesses with organic and physiological causes, we must consider the illnesses mystical in origin, which account for 35%. These illnesses include delirium, epilepsy, sterility, mysticism, bewitchment, bad luck, evil spirit.

With regard to health care facilities, two broad categories emerged, according to the diagnosis made: that of skin diseases and that of parasitic diseases. The majority of the diagnoses concern the first category. Thus, dermatoses and malaria account respectively for 55% and 35% of the diagnoses, whereas osteoarticular diseases and disorders of the blood and of the hematopoietic system account respectively for 9% and 6%.

### Discussions

This study was aimed at verifying a postulate concerning the population's recourse to traditional medicine, that is the assumption that about 80% of Africans have recourse to it. This hypothesis could prove right in a general study concerning all Africa, but when a smaller geographical scale is considered, the results can be different, as every area has its own peculiarities and characteristics. This appears to be the case in our study.

Different components of the health system, described by Salem (3) as being the set of social practices

**Table 2.** Frequency of illnesses having an organic or physiological cause

Illnesses with organic/ physiological causes	Frequency of the illness in %	Illnesses with organic/ physiological causes	Frequency of the illness in %
Sore throat	4	Weaning and child malnutrition	6,5
Headache	7	Toothache	1
Asthma	1	Fractures	28,4
Rheumatism	11,5	Stomach ache	7,3
Dermatosis	29	Haemorrhoids	5,3

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in a given area which exposes each area to a different health profile, can be found in this research. Within the framework of this study, we worked on three different levels to explore the patient's itinerary. These levels form an essential part of the health system. Within each level or category, the patient follows a complex itinerary. While traditional medicine lies at the confluence of empiricism, heritage and acquired knowledge, self-medication is completely different in Louga and modern medicine has some limitations related to its accessibility.

The empiric health system between heritage and acquired knowledge

Traditional medicine is defined as the body of knowledge, skills and practices based, whether rationally or not, on cultural specific theories, beliefs and experience and employed to preserve people's health as well as prevent, diagnose, treat and cure physical and mental disorders (9)

The survey conducted within the traditional health system shows that at the time of diagnosis patients had symptoms of organic and physiological illnesses. Among these, dermatoses and osteoarticular diseases are predominant, with dermatoses being the commonest finding, generally related to depigmentation in women.

The treatment of these illnesses requires different abilities. Traditional remedies are sometimes kept secret and shrouded in mystery. They're made from plants, animals or minerals (Figure 2).



**Figure 2.** Shop of a traditional practitioner (herbalist) of AM-PHOT in Louga

As already mentioned, herbalists are part of the traditional system. They claim to be healers and have the right to prescribe and give medicines (plants or minerals) to the patient. They are healers and pharmacologists at the same time. In the traditional health system the different skills are closely intertwined and no longer exist as a separate entity. Traditional practitioners owe their knowledge to inheritance, culture or learning.

It is important to highlight that traditional practitioners may have the ability to treat different types of illnesses. Among these, we can mention the ones specialised in mysticism. Mysticism is not synonymous with evil powers, although it is considered by some as a sort of «black magic» aimed at doing evil (bad luck, bewitchment, witchcraft). Mysticism goes well beyond that. It gives the possibility of treating the sick, expelling evil and it even succeeds in making peace between people. Beyond the health care dimension, therefore, it can have a social and societal value (10,11).

Self-medication: trying to avoid the illness and risking worse

Self-medication can be defined as the use of medicines without a medical prescription. It is a widespread social phenomenon which cannot be avoided. In the course of this survey, it emerged as a common practice in the interviews among the population. In fact, self-medication reaches about 42 % and it is related to the use of both modern and traditional medicines.

Within the traditional system, self-medication is practised by using herbal remedies bought from street vendors or at the market. As a general rule, they are sold in markets by people who do not meet the criteria set by the Ministry of Health for traditional practitioners. Medicines are sold in public places by people who blatantly claim their beneficial effects and, therefore, they are considered miraculous products capable of treating every medical condition.

Self-medication concerns both medicines derived from the traditional pharmacopoeia (herbs, roots,

<sup>&</sup>lt;sup>8</sup> According to the Ministry of Health, the acknowledgement of a traditional practitioner depends on the following criteria: Notoriety, Sedentariness, Results, Accessibility and Continuity of service.



Figure 3. Medicines sold in the street

barks, etc.) and drugs sold in chemists' shops (officinal). The choice of medication is based on word of mouth and on the reported beneficial effects of a drug. It can also be influenced by the experience of a close or distant relative. The acquaintance of the patient or his family circle with someone who can procure the drug can at times determine the choice.

The reason for this phenomenon lies in the fact that people are not culturally accustomed to consulting doctors, nurses and pharmacists. Moreover, the illness is often kept secret and patients seek remedies on their own. Self-medication has some peculiarities. It is often characterised by the use of modern medicines (officinal). One interesting fact about them is that they are usually bought at the market instead of a chemist's shop. As a matter of fact, in the town of Louga and throughout Senegal the sale of medicines in the street is a widespread practice (Figure 3). It is an illegal trade mainly controlled by young people (peddlers), who go up and down the different quarters of the town and its surrounding areas. Athough the sale of drugs in the street is forbidden, peddlers are not deterred from doing it. This accounts for the spread of self-medication highlighted by this study.

However, it is paradoxical that people who take the medicines to treat their condition find sometimes that their ilness has worsened, as self-medication exposes people's health to considerable risks. Poor financial and health care conditions account for this illegal traffic and for the demand for these products, as people have too low an income to afford different treatments.

Modern health care system and limitations to its access

According to the results of our survey, most patients suffered from skin and parasitic diseases. Der-

matosis was the commonest finding. This condition is widely spread in Senegal, reportedly affecting more than 80% of the population. Our survey shows that it occurs more often in women than in men: about 75% of the women interviewed suffer from dermatosis. It is caused by depigmentation, a common practice among African women.

Besides, the modern health care system is regarded as a last resort by patients, due to several reasons. Picheral (2001) describes the *health care system* as the part of the health system which corresponds to the *health care offer*°. This health care system, defined as «modern» in contrast with the traditional system and for its use of new technologies, has considerably improved the average level of health among the world's population (13) and in Africa. Nowadays, however, the question arises of its geographical and financial accessibility: some say that public health services are expensive, while others affirm that they are difficult to reach, being unequally distributed over the area.

The cost of treatment and the distance covered always came up in the interviews. Important financial means are needed to afford medical treatment. However, in 1990 the African Ministers of Health met in Mali's capital city (Bamako), where they approved a policy called «Initiative de Bamako». It was aimed at reducing the cost of medical treatment in order to grant equal access to it. Results, however, are not so encouraging in certain areas of Senegal.

The question of distance was mentioned several times during our research. In fact, people who live on the periphery are less likely to have access to medical care. Many of them cannot afford to take a taxi to reach the health post or the hospital, due to their low standard of living. Besides distance, there is the problem of the spatial distribution of doctors and paramedics. As a result, a patient who has a medical appointment may spend most of the day at the health post.

The modern health care system has largely contributed to the improvement of health among the population, but the problems it is confronted with make its access difficult.

<sup>&</sup>lt;sup>9</sup>The health care offer is the whole range of resources of a health care system within a given health system and therefore depends on the development level of the population, region, town or rural area taken into consideration.

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#### Conclusions

The main objective of this work was to study the therapeutic itinerary of the patient. This itinerary may appear simple, but it is in fact a complicated one, as it is determined by different factors within a society where attachment to cultural and traditional values is still very strong, chiefly in health matters. As a consequence, this society represents a major challenge when it comes to analysing people's behaviour when faced with illness. In this survey we aimed at sketching out the itinerary (or the itineraries) of the patient through modern medicine inherited from colonialism, traditional medicine handed down from ancestors and other practices imposed by the economic and social circumstances (14,15).

The therapeutic itinerary which outlines the patients' journey shows the recourse of the population both to modern and traditional medicine. The specificity of the illness may account for this: some conditions can be treated only by modern medicine. This generally happens with organic and physiological problems such as dermatoses, sores, pregnancies and respiratory diseases. On the other hand, certain conditions can only be treated by traditional medicine. This applies to organic and physiological illnesses, as well as mystical ones. Mystical illnesses are not usually perceived as such by patients and their family circle. It's only after the consultation with a healer that they become aware of the origin of the illness; at this stage, the patient has generally already visited all the health care facilities and/or healers.

Traditional medicine occupies a central position in Louga's health system, due to its accessibility. Nowadays, notwithstanding the constant demand for it among the population, it suffers from many ills. First and foremost, it is coveted by charlatans which exploit it at the expense of people, who are prepared to give all they have to cure the illnesses which oppress them. However, besides acknowledging traditional medicine, the Ministry of Health has set some criteria to identify traditional practitioners. These are Notoriety, Sedentariness, Results, Accessibility and Continuity of service. Thanks to these measures and many others, it could be possible to prevent fraud and improve the structure of the traditional system, in order to make its growth possible. Also, specific attention should be given to the plants and herbs employed with particular concern

for sustainability, so as to better conserve the different species for the benefit of traditional medicine.

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## References

- Sarr M. Louga et sa région (Sénégal): Essai 'intégration des rapports ville-campagne dans la problématique du développement, IFAN Dakar, 1973.
- OMS. Activités de l'OMS dans la région africaine: Rapport biennal du directeur régional, 2006-2007, OMS bureau régional de l'Afrique, Brazzaville, 2008.
- Salem G. La santé dans la ville: Géographie d'un petit espace dense: Pikine (Sénégal), Orstom, Paris, 1998.
- Fassin D. Pouvoir et maladie en Afrique: Anthropologie sociale dans la banlieue de Dakar. PUF, Paris, 1992.
- Fassin D. Les enjeux politiques de la santé: Etude sénégalaises, équatoriennes et françaises. Karthala, Paris 2002.
- Hombert JM, Van der Veen LJ. Maladie, remèdes et langues en Afrique centrale. Pholia 1994; 9: 2-24.
- Benoist J. Petite bibliothèque d'anthropologie médicale: une anthropologie. AMADES, Paris 2002.
- Bannerman H.R. Médecine traditionnelle et couverture des soins de santé: textes choisis à l'intention des administrateurs, OMS, Genève 1983.
- Dozon JP, Sindzingre N. Pluralisme thérapeutique et médecine traditionnelle contemporaine. Prévenir cahier XII, 1986; 12: 43-52.
- 10. Benoist J. Réflexion sur le pluralisme médical: tâtonnement, alternatives ou complémentarités? Psychosomatische und Psychosoziale medi-zin 1997; 26: 10-14.
- Dozon J.P., Ce que valoriser la médecine traditionnelle veut dire. Politiques de santé, politique africaine, Karthala, Paris 1987: 9-20.
- 12. Picheral H, *Dictionnaire raisonné de géographie de la santé*. Université de Montpellier, service des Publications. Montpellier 2001.
- 13. Niang A. Evolution de la desserte médicale et du recours aux soins de santé primaires dans le Delta et la moyenne vallée du fleuve Sénégal (1983, 1988, 1993): Analyse géographique, Thèse de Géographie, Université Cheikh Anta Diop de Dakar, Dakar 1997.
- Vigneron E. Le territoire de la santé: la transition sanitaire en Polynésie française. CNRS, Paris 1999.
- 15. Wackermann. Géographie régionale. Ellipses, Paris, 2002.

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