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# Anthropological Approach of Adherence Factors for Antihypertensive Drugs

## Approche anthropologique des déterminants de l'observance dans le traitement de l'hypertension artérielle



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## Abstract

*Objective:* Uncontrolled high blood pressure leads clinicians to wonder about adherence degree among hypertensive patients. In this context, our study aims to describe and analyze patients' experience of antihypertensive drugs in order to shed light on the multiple social and symbolic logics, forming part of the cultural factors shaping personal medication practices.

*Methods:* The medical inductive and comprehensive anthropological approach implemented is based on an ethnographic survey (observations of consultations and interviews). Semi-structured interviews were conducted with 68 hypertensive patients (39 women and 29 men, between the ages of 40 and 95, of whom 52 were over 60) who had been receiving treatment for over a year.

*Results:* Antihypertensive drugs are reinterpreted when filtered through the cultural model of physiopathology (the body as an engine). This symbolic dimension facilitates acceptance of therapy but leads to a hierarchization of other prescribed drugs and of certain therapeutic classes (diuretics). Prescription compliance does not solely depend on the patient's perception of cardiovascular risk, but also on how the patient fully accepts the treatment and integrates it into his or her daily life; this requires identification with the product, building commitment and self-regulation of the treatment (experience, managing treatment and control of side effects, intake and treatment continuity). Following the prescription requires a relationship based on trust between the doctor and patient, which we have identified in three forms: reasoned trust, emotional trust and conceded trust.

*Conclusion:* Consideration and understanding of these pragmatic and symbolic issues by the treating physician should aid practitioners in carrying out their role as medical educators in the management of hypertension.

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## Résumé

*Objectif :* Les hypertension artérielles non contrôlées conduisent les cliniciens à s'interroger sur les niveaux d'observance des hypertendus traités. Dans ce contexte, notre étude visait à décrire et à analyser l'expérience des hypotenseurs par les hypertendus, afin de mettre à jour les logiques plurielles, sociales et symboliques, permettant de comprendre ce qui construit culturellement les pratiques médicamenteuses des individus.

*Méthodes :* La démarche anthropologique, inductive et compréhensive, mise en œuvre reposait sur une enquête ethnographique (observations de consultations et entretiens). Nous avons interviewé 68 hypertendus (39 femmes et 29 hommes, âgés de 40 à 95 ans, 52 d'entre eux ayant plus de 60 ans) traités depuis plus d'un an.

*Résultats* : Le médicament hypotenseur était réinterprété au travers du filtre des représentations populaires de la physiopathologie (corps machine). Cette dimension symbolique facilitait l'adhésion thérapeutique, mais conduisait à une hiérarchisation des autres médicaments prescrits, et de certaines classes thérapeutiques (diurétiques). Le suivi de l'ordonnance était conditionné par la perception du risque cardiovasculaire, mais également par l'appropriation du traitement et son intégration dans la vie quotidienne nécessitant une identification au produit, une fidélisation, et une auto-régulation du traitement (expérimentation; maîtrise du traitement; contrôle des effets indésirables, de l'ingestion, de la continuité du traitement). Le suivi de l'ordonnance requiert une relation de confiance entre le médecin et le patient dont nous avons relevé trois formes : la confiance raisonnée, la confiance affective, la confiance concédée.

*Conclusion* : La prise en compte et la compréhension de ces différentes logiques pragmatiques et symboliques par le médecin traitant devraient pouvoir aider les praticiens dans leur fonction d'éducation thérapeutique des personnes hypertendues.

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**A**CCORDING TO A 2003 STUDY CONDUCTED IN FRANCE, HYPERTENSIVE patients who are exempt from co-payments for severe hypertension have controlled blood pressure in 44.9% ( $\pm 2.6$ ) of cases (Tilly et al. 2004). Nevertheless, hypertension classified as “resistant to treatment” or “refractory” presents a threefold problem: clinical, owing to treatment failures; public health, because of its risks for cardiovascular complication; and economic, because of the increase in antihypertensive drug prescriptions. Confronted with refractory high blood pressure, practitioners have been encouraged to follow a clinical approach that aims to determine the cause of treatment failures, including inadequate patient adherence to therapy, the use of drugs that can neutralize the effect of antihypertensive drugs and drug-induced hypertension (ANAES 2000). Clinical studies suggest that inadequate compliance with antihypertensive treatments would be responsible for two-thirds of non-controlled hypertension (Bertholet et al. 2000; Mar and Rodriguez-Aratalajo 2001; Wuerzner et al. 2003); others show that improved drug adherence through the use of electronic pill-boxes is correlated to a decrease in blood pressure (McKenney et al. 1992).

Uncontrolled high blood pressure indirectly raises the issue of therapeutic adherence among hypertensive persons. In its broadest definition, adherence means the degree to which patients apply medical prescriptions in terms of dosage, number of daily doses, drug intake schedule, treatment duration and correlated recommendations. Adherence is quantified by a percentage demonstrating the degree or level of the patient's compliance. This quantification defines the threshold below which the treat-

ment is no longer effective or complications appear (for example, pharmacoresistance). This threshold has not been the subject of any study specifically addressing antihypertensive treatments. It has been classically accepted in medical literature since the studies by Haynes and colleagues (1976) suggested that the minimum threshold for therapeutic adherence to control blood pressure is an actual intake of 80% of the prescribed drug dosage. However, this biomedical definition of an adherence threshold for antihypertensive drugs has been recognized as arbitrary, lacking sufficient basis to estimate correlations with measurements of blood pressure (Ebrahim 1998). Moreover, it does not take into account new galenic formulations (preparations providing 24-hour efficacy on a once-daily basis) or newly available molecules, nor does it specify the maximum interval between two intakes. Nevertheless, several clinical and epidemiological studies have striven to measure the level of adherence to antihypertensive drugs. However, although simple methods such as self-monitoring questionnaires seem to be as effective as the more sophisticated use of electronic pillboxes (Girerd et al. 2001), objective and rigorous assessment of therapeutic adherence remains difficult (Farmer 1999).

Despite its imprecise and arbitrary definition, the quality of adherence to antihypertensive drugs is classically, and from a biomedical perspective, considered “poor” (Girerd et al. 1998). The level of antihypertensive drug adherence varies significantly in the biomedical literature according to the characteristics of hypertensive patients. It is lower among people with follow-up in ambulatory care settings (55% in a Canadian study<sup>1</sup>) than for patients in clinical trials who are highly motivated to adhere to their treatment (71% to 80%) or for those who are monitored in hospitals and are also highly motivated (90%) (Dunbar-Jacob et al. 1995). We do not have quantitative data on the degree of adherence to antihypertensive drugs among those French patients who are monitored by private doctors.

The level of adherence on a specific day of the treatment cannot confirm that an individual has not been adherent (Chesney et al. 2000). This construction of indicators of adherence can objectivize only one single dimension at a time in patients’ behaviours towards adherence. Numerous studies have been conducted to determine explanatory factors for “good” or “poor” adherence in order to explain, predict and monitor patients’ behaviours. Factors determining the level of antihypertensive drug adherence have been identified as follows<sup>2</sup>:

- *Factors linked to treatment:* The complexity of the treatment (the number of daily doses) and the drugs’ side effects (sexual dysfunction, polyuria) in specific social situations are considered barriers to adherence (Reugel et al. 2000).
- *Factors linked to the doctor–patient interaction:* It has been shown that physicians’ acceptance of the treatments they prescribe – in other words, the balance between established medical guidelines and their own convictions – is an important condition for the patient’s therapeutic adherence (Myers and Midence 1998; Kjellgren

et al. 2000). Communication between patient and doctor has also mobilized researchers' attention. Therefore, information given to patients (quantity, content, re-interpretation of this information), patients' understanding of the treatment based on the relationship of trust established with the practitioner, and the patient's satisfaction with the healthcare system are considered factors that promote adherence (Kjellgren et al. 2000).

- ♦ *Factors linked to the patient:* Socio-economic factors have been highlighted in studies conducted in African countries (Konin et al. 2007), where the cost of treatment for hypertensive patients, especially owing to lack of medical insurance, is the cause of inadequate adherence. Other social conditions for drug treatment seem to be determining factors in the United States, such as belonging to a medical network (frequent doctor or nurse consultations, telephone reminders) (Ebrahim 1998). In addition, a study showed that in France, patients who forget to take their treatment on the weekend or who shift their intake schedules on Saturday and Sunday are younger (and more involved in professional activities) than the average hypertensive patient and are more often Parisians (Mallion et al. 1995). Finally, some authors have described "personality profiles" in arterial hypertension as being significantly linked to the degree of adherence (Consoli and Safar 1985).

Nevertheless, social science research on adherence (and notably since the AIDS epidemic) has shown the limitations of these predictive approaches, "mechanical and simplistic hypotheses that hope to continuously and definitively predict and control the role of isolated factors on adherence behaviour" (Morin 2001). They have emphasized the complexity and variability of the relationship between social or cultural factors and the level of adherence (Chesney et al. 2000) and the need for a "dynamic approach to adherence" while "continuously monitoring the impact" that treatment has on patients' daily lives (Spire et al. 2002).

Based on the work of Conrad (1985) and from a patient-centred approach, some social scientists consider the varying levels of adherence as individual strategies that regulate the patients' day-to-day relationship with the drug and their drug consumption (Lerner 1997; Collin 1999, 2002, 2003; Haxaire 2002; Pierret 2007). They study the "medication practice" in order to understand "the meanings of medication in people's everyday lives" (Conrad 1985). In a critical approach towards the concept of compliance itself, particularly its inherently coercive nature regarding the extent of the patient's respect for the implicit order in the doctor's prescription (Lerner 1997; Fainzang 2001; Trostle 1988), some studies have preferred to position their analysis within a rationale constructed around the patient's experience of the medication (Ankri et al. 1995; Desclaux 2003; Wallach 2004). In this approach, the point is not knowing who are the "good" and "poor" adherents, but to "understand which social and cultural conditions lead to following a prescription or not" (Fainzang 2001).

Our anthropological study is part of this comprehensive perspective. It aims to describe and analyze high blood pressure patients' experience of antihypertensive drugs in order to reveal the plural social and symbolic logics that clarify how individuals' medication practices are culturally constructed.

## Methods

Our anthropological approach is based on an ethnographic survey conducted from October 2002 to April 2004 in a rural area of southeastern France. The study sample comprised hypertensive patients receiving treatment and general practitioners. This paper focuses exclusively on results related to patients; the ethnographic materials obtained through the survey of doctors have been analyzed in other publications (Sarradon-Eck 2007a,b). The survey combined semi-structured interviews of 68 persons treated for arterial hypertension and a study of the verbal exchanges between some of them (45/68) and their physicians. The distribution of the 68 interviewees according to gender (39 women and 29 men) and age (ranging from ages 40 to 95 years, with 52 of them over age 60) reproduces the prevalence of high blood pressure among gender and age groups in the French population (Duhot et al. 2002). The majority of respondents were exempt from co-payments for long-term illness (hypertension alone or associated with other diseases). All had been treated for over one year on the day of the survey. In using a comprehensive approach, we did not investigate correlations between the respondents' socio-demographic and economic characteristics<sup>3</sup> and the survey results. In the interviews, we were committed to understanding the day-to-day management of the drug-thing, its links to representations of the disease and body and the social experience of the treatment (patient status, treatment continuity and social and material constraints inherent to treatments).

Our study did not seek to assess the interviewees' adherence, even though we did question them about following their prescriptions. Aimed at understanding why and how these persons follow their medical prescriptions, our analysis is in line with an ethnology of experience, as theorized by Kleinman and Kleinman (1991) and Good (1994).

## Results and Discussion

The ethnology of the experience of hypertension and antihypertensive treatments enabled us to construct a semantic network for high blood pressure, to analyze the underlying logics that influence treatment acceptance and following prescriptions and to analyze the perceptions that individuals may have about cardiovascular risk and how to reduce this risk.

## 1. Confidence<sup>4</sup> in treatment

Confidence in treatment corresponds to the consistency between the patient's and doctor's perceptions of its value (Sow and Desclaux 2004). The concept of confidence is subjective and refers to individual and social perceptions of hypertension and hypertensive treatments. Confidence in treatment predetermines the patient's willingness to approve of the treatment.

### SOCIAL REPRESENTATIONS OF THE BODY AND PHYSIOLOGY

Analogous and metaphorical logics contribute to ascribing the event (the illness) to instrumental causes within cultural etiological models. In the interviewees' discourses, these causal logics refer to the "blood" and "nerves" that are central to the patients' cultural representations of the body and to their models for interpreting high blood pressure. Such models are typically based on a lay conception of the body as a hydraulic engine in which the heart corresponds to the pump, the vessels to pipes and the flow to its motive force. This social representation, described by Durif-Bruckert (1994), still seems valid for the cardiovascular system in the survey population that – as previously noted – was over 40 years old (52/68 individuals over 60 years old). It provided a framework to interpret the symptoms and the mechanism causing high blood pressure in the realm of excess pressure, compression or loss of motive force. Nerves had the capacity to raise blood pressure through their action on the blood ("*heating up the blood*,"<sup>5</sup> interruption of blood circulation). The physiological and metaphorical relationship between blood and nerves was close, as evidenced by the popular labelling of "*nervous tension*,"<sup>6</sup> a basic folk illness model linking the nervous system to high blood pressure. In our study, as with studies from the United States (Heurtin-Roberts 1993; Wilson et al. 2002) or Sweden (Kjellgren et al. 1997), popular etiological categories for arterial hypertension placed "stress" as this disorder's number-one cause. "Stress" – in its emic meaning signifying social pressure, emotional shock or both – and hypertension were connected by a metaphorical logic in popular thought. The semantic register used to describe the body's experience was that of overflow and repressed excess. Social life or events overwhelmed the individual, who could no longer tolerate the accumulated emotions and feelings. Therefore, arterial hypertension became the metaphor for social pressure and even worrying and emotions.

As Van der Geest and Whyte (2003) have written, metaphors make it possible to think in concrete terms about the body and illness and to assign meaning to drugs. Interviewees understood antihypertensive drugs as a remedy that re-establishes an internal equilibrium and perpetuates proper functioning of the body engine. It works by ensuring the circulation of fluids and energy (the "*force*") while regulating pressure by fluidizing blood and cleaning the vessels, eliminating excess liquid, dilating the vessels and protecting the heart as the force that pumps blood.



The social representation of the body as a hydraulic engine that performs work is deep-seated in rural culture (Julliard 1994) as in the culture of manual labour (Pierret 1984), from which most of the survey participants come and for whom the cardiac muscle, as a “*pump*,” was an “*essential*” organ. In this system of thought, arterial hypertension did not expose the heart to the risk of explosion (contrary to the blood vessels or the nervous system) but to a power failure. Nevertheless, placing importance on the heart was also intimately linked to a cultural representation of the body in Western society that assigns a symbolic dimension to the cardiac muscle (Sarradon-Eck 2007b; Durif-Bruckert 1994; Loux 1979). Whether sacred or sentimental, the heart is a propulsive force, an organ that protects humans and which should be protected specifically to the point that one interviewee described these drugs as “*drugs for survival*.”

The mechanical and symbolic perceptions of how these drugs function can explain the way in which some hypertensive patients classify their drugs according to a hierarchy, with drugs perceived as “*for the heart*” taken more regularly than those perceived as being secondary (lipid-lowering agents, hypoglycaemic agents). This hierarchization also applies to diuretics,<sup>7</sup> which some did not regard as a specific treatment for arterial hypertension but rather as a “*supplement*.” In effect, the diuretic was often re-interpreted by interviewees as a “*thinner*,” making it possible to “*thin out*” or “*air out*” the blood, and thus facilitating its circulation in the blood vessels, or even as a drug “*to relieve the kidneys*.” In the latter case, the drug’s action was considered to be supplementary, enabling the evacuation of excess liquid in the blood during episodes of increased blood pressure, as in the example of blood-letting, long associated in the popular imagination with medical thinking. Hence, diuretics were perceived as a treatment for increased pressure and not as the basic treatment for arterial hypertension; for some, this misperception has caused misuse of medication through irregular intake.

#### SOCIAL REPRESENTATIONS OF HIGH BLOOD PRESSURE: BETWEEN RISK AND DISEASE

Some of the interviewees did not see hypertension as a “*disease*” because of the absence of noticeable symptoms, discomfort or physical limitations. Nevertheless, two-thirds maintained it was a “*disease*” that should present symptoms, even if all patients did not feel them. This social representation of a symptomatic disease, also prevalent in the United States (Schoenberg and Drew 2002), has been constructed on the medical and societal discourse of the first 70 years of the 20th century. Until screening and treatment were generalized in the 1970s, only acute high blood pressure accompanied by a series of symptoms was treated. Medical advertisements for one of the first antihypertensive drugs in the middle of the 20th century portrayed middle-aged men whose faces were tortured with pain and were wracked by headaches, vertigo and profuse

sweating (Postel-Vinay and Corvol 2000). Today, medical treatises consider hypertension as an asymptomatic disorder, and active, smiling people who appear to be in good health represent hypertensive patients in medical advertisements. However, traces of hypertension's "loud" period remain fixed in memories and popular knowledge, all the more so since our informers were older and had witnessed severe cases of symptomatic, though untreated, hypertension during their youth. Moreover, high blood pressure also had an image as a "*silent disease*" and "*sneaky*," similar to its reputation as the "silent killer" perpetuated in the 1950s (Postel-Vinay and Corvol 2000) and dreaded because of its cardiovascular complications familiar to most of the interviewees.

The collected data show that the perception of cardiovascular risk for hypertensive patients has been constructed mainly on personal experience regarding complications due to hypertension and affective trauma caused by repercussions or deaths suffered in their close circle. Such objectification of the risk contributes to confidence in treatment and promotes adherence to antihypertensive medications. Hypertensive patients mainly fear strokes with their consequences for mobility, cognition and social interaction. They are less afraid of the myocardial infarction still associated in the collective unconscious with the "beautiful death," previously shown in the study by Aïach (1980). Individuals were primarily afraid of a failure of the body, a disqualification that prevents them from fully playing their present roles in society and assigning them a new role as someone who is sick or disabled.

When facing risk, our interviewees' attitudes ranged from denial of the risk to controlling it; these attitudes are based on individual, cultural or social factors. Therefore, the absence of noticeable physical symptoms can be an obstacle to treatment, with some "*forgetting*" to take their drugs or refusing to take them because they do not feel "sick." For others, despite the lack of symptoms, the fear of death and complications from arterial hypertension increased with age and awareness of the human body's fragility. This perception of the aging body's vulnerability eliminated the ordeal-like dimension of risk taking (Le Breton 1996), allowing the individual to exercise free will when choosing to take his or her drugs regularly. For still others, high blood pressure was a common and frequent illness starting at a certain age, a disorder that is practically normal since it affects a large percentage of the population and signifies the body's natural decline. "*Having high pressure*" equated with "being like everyone else." Consequently, individuals did not feel they belonged to a "risk group," which was reassuring to those who felt excluded (Paicheler 1998).

## 2. Self-regulation of treatment

### EXPERIMENTING WITH TREATMENT AND CONTROLLING SIDE EFFECTS

As described in other chronic diseases (Conrad 1985; Collin 2002, 2003; Haxaire 2002; Pierret 2007), the occasional or prolonged failure to take drugs, whether acci-

dental or voluntary, allowed high blood pressure patients to experiment with the effects on the body of treatment interruption and thus to gain knowledge about the disease. Several interviewees stated that they did not take the drug on certain days in order to limit the adverse effects with consequences on family and social life (effects on sexuality, incapacitating effects of diuretics linked to increased urination, fatigue affecting the quality of life). Most of the interviewed hypertensive patients were avid readers of drug leaflets, which they primarily perused looking for adverse effects, to prepare for or possibly prevent them. As the primary (and sometimes only) source of information on the interviewees' drugs, the drug leaflet gave the patient an active role in managing his or her treatment and contributed to building commitment to the drugs. It allowed individuals to connect their own experience with the drugs to biomedical knowledge. Obtaining a device to self-monitor blood pressure also fulfills this need for knowledge about one's own body and disease. The patients used it to verify the reality of high blood pressure, to test their assumptions on the causal links between the symptoms they felt and their blood pressure values and to find factors that cause a rise in blood pressure. Knowledge obtained through information, experience and experimentation also led to lay control of hypertension as a cardiovascular risk factor.

#### ENSURING TREATMENT CONTINUITY

Analysis of the ethnographic data also revealed personal strategies for adjusting treatment to avoid accidents in adherence or running out of drugs packaged in boxes of 28 tablets. In effect, patients – and doctors<sup>8</sup> – perceived the prescription's temporality through a cultural schema that defines a month as 30 or 31 days and not four weeks. Packaging drugs in 28-tablet boxes was thus seen as a constraint imposed on the individual who must manage his or her behaviour according to a definition of "time" that had ceased to correspond to society; instead, "time" was based on a social institution with rules that are not understood and that the individuals judged as "ridiculous" or "stupid."<sup>9</sup> We collected many accounts of incomprehension and, particularly, declarations of treatment interruptions of two to three days per month. Some patients had no tablets at the end of the treatment. Others, anticipating the end of the "month" of treatment suspended their treatment one or two days per month ("Me, I have my trick; I don't take any the 15th ... and the 30th," woman, age 70 years, employed). How drugs are packaged leads to other practices that involve some "tinkering" and the complicity of patients' family circle and health professionals; these include pharmacists delivering a treatment without a prescription, doctors doubling dosages and patients stocking up on reserve boxes of drugs.

In addition, the fact that hypertension requires a long-term prescription (often for an entire lifetime) and that it causes neither discomfort nor disability has led to tem-

porary treatment interruptions among some patients. For others, the lack of symptoms made the consultation for prescription renewal more constraining. The constraint was perceived as all the greater for professionally active patients who faced a significant social cost. Consequently, those who felt negatively about how the healthcare system worked (follow-up consultations and required monthly trips to the pharmacy to pick up drugs) sometimes interrupted their treatment voluntarily (temporarily or over time). This institutional determinant could be alleviated by recent measures authorizing pharmacists to deliver the quantity of drugs needed for three months of treatment.

### 3. Accepting “individualized” treatment

#### DRUG LOYALTY

Several respondents expressed the confidence they have in “their” hypertensive drugs; they describe having evaluated their efficacy, often after many “*trials*,” and state that they “*tolerated*” them relatively well and are accustomed to taking them. Those interviewed were quite insistent about the complexity of their treatment and “*trial and error*” by doctors to find “*the correct treatment*” that was compatible with them. Respondents often mentioned the idea of compatibility between the drug and the individual to explain therapeutic success. Both the observed doctors and patients regarded the effectiveness of antihypertensive drugs as the compatibility between an individual and a product and not the appropriate therapeutic action for a particular dysfunction. Consequently, a kind of treatment personalization (“*my drugs*”) has occurred, explaining patients’ reluctance to change brand-name drugs for generics (Sarradon-Eck et al. 2007). Such change disrupts the process of brand loyalty, built up over time, to the drug. Moreover, this substitution rarely involves just one generic drug that remains constant, but different generic brands based on the pharmacy’s supply, creating a lack of reference points (name, colour and shape of tablets) for patients. It compromises the product identification process for building a strong connection between the drug and the individual who takes it.

#### INTEGRATING TREATMENT INTO DAILY LIFE

Loyalty to a drug has also been found in ordinary practices among people who have integrated drug intake into their daily activities, favouring the perpetuation of drug use already described for long-term treatments (Fainzang 2001; Sow and Desclaux 2004; Pierret 2007). This translates into an intake routinization, often organized around meals. Antihypertensive drugs were usually stored, or at least taken, in the kitchen<sup>10</sup> to ensure their visibility; they were kept in salvaged everyday objects converted from their original function.<sup>11</sup> Storage space in the kitchen fulfills a practical logic (not forgetting

to take the drug and being able to take it with liquid), but also a logic to integrate the drug as an ordinary thing. According to Fainzang (2003), places where medicines are kept correspond to various modes of perception of these drug-things and the importance attached to them. Keeping drugs in the kitchen, “the main social space,” reflects the drugs’ position in the patients’ lives. Along with ingesting them at mealtime, it underlines the close relationship between food and drugs, also attesting to the patients’ acceptance of treatment and confidence in a therapy that is necessary for their survival, similar to the need to eat food several times a day.

How drugs are stored and ingested and the multiple tricks used to avoid forgetting them convey the individuals’ pragmatism. Moreover, it also reveals their creativity in the use and ultimate appropriation phase of a good (such as drugs) that has been imposed on them. In effect, the survey demonstrated the “tactics” used by hypertensive patients and “the ways to deal with medication” (paraphrasing De Certeau 1998) to re-use it in their own way and not by following the dictated medical rationale. One of these tactics was skipping hypertension treatment during the weekends. Often described in biomedical literature as a “drug holiday” (Urquhart 1997), clinicians considered this practice “neglect” that can cause overdoses and even rebound effects with serious clinical consequences (Burnier et al. 1997). And yet, our study showed that what we have termed a “therapeutic break” was not due to “neglect,” but to a deliberate choice by the hypertensive patient that corresponds to the need to temporarily efface the disease: *“Every other Sunday, I don’t take them voluntarily [...] Just like that. I don’t know why but often voluntarily on Sunday, I don’t take them. It’s not forgetting. It’s a day of complete rest! Is it to rest my stomach? I have no idea. Even so, I take my treatment very regularly, every morning after breakfast”* (man, operator, age 54).

Therefore, we can hypothesize that the therapeutic break perpetuates the use of the drug – and possibly strengthens long-term adherence – because it is a transitory break in the daily repetition of activities, making it possible to tolerate the monotony of the routine.

#### 4. The doctor–patient relationship

##### THE MODEL “GOOD PATIENT”

Patients mentioned instances of voluntarily skipping or involuntarily forgetting to take a tablet in a roundabout way (*“maybe one or two times a month,” “the morning one or the evening one”*) and did not consider them as infringing on medical prescriptions. They did not define adherence in terms of a threshold or doses of ingested drugs. The term adherence never appeared anywhere in their comments. They used the expression *“being serious”* or *“being careful”* to describe their drug-intake practices and how they followed a prescription. These locutions alternately designated watching their diet, avoiding alcohol and tobacco, regularly taking their drugs, maintaining regular follow-up consulta-

tions and following medical advice. Individuals also used the expression “*taking care of myself*” to signify simultaneously what they consider to be satisfactory compliance with the medical prescription, their acceptance of the biomedical system and the idea of promoting health through behaviours that, in their view, conformed to medical standards. These locutions are evidence of a behavioural model of the “*good patient*” that patients believed they should adopt if they wanted to maintain the image of the ideal patient expected by doctors; conversely, when they wanted to tell us that they did not follow medical directives exactly, they felt this reflected the image of the “*bad patient*.”

Consequently, doctors’ suspicion about inadequate drug compliance for uncontrolled hypertension was poorly accepted by patients because it attests to the doctor’s lack of confidence in them. Indeed, the hypertensive patient’s narratives revealed that following a prescription referred to an asymmetric doctor–patient relationship marked by submission to medical decision-making and obedience to the doctor, the holder of knowledge. Moreover, the coercive connotation of the French word *ordonnance*<sup>12</sup> (prescription) was fully perceived by the patients, as demonstrated by this extract from an interview with a person who stated having had repeated temporary treatment interruptions: “*Now, I’ve gotten everything back in order. I go for my appointment when ordered and all that*” (man, age 66, farmer).

Nevertheless, obedience does not exclude negotiation, and several hypertensive patients described situations in which they negotiated decisions (about seeking a specialist or the prescribed drug) by sometimes imposing their viewpoint on the doctor. The patients also expressed dissatisfaction concerning the lack of information provided by doctors on the drugs’ mode of action or their adverse effects. They ascribed this insufficient information to the doctor’s unavailability. However, by excusing the doctors, they disregarded other factors such as the social distance, directivity or paternalism associated with practitioners in the doctor–patient interaction that are often objectified by the social sciences (Fainzang 2006).

#### THE VARIOUS FORMS OF TRUST

According to the hypertensive patients<sup>13</sup> and doctors who were interviewed, submission to medical authority could not exist outside a “*relationship of trust*” that, for them, defines the doctor–patient relationship. The sociology of trust (Giddens 1990; Watier 2002) has shown the fundamental role that trust plays in structuring social relationships. Although there exist negative feelings among patients and practitioners, as well as areas of mistrust, the trust relationship is a cultural schema that codifies each partner’s behaviour in the doctor–patient relationship and allows them to interpret conduct. Collected narratives from the patients explicitly or implicitly described an idealized relationship that most recognize or aspire to recognize, in which trust simultaneously results from an interpersonal relationship and the *sine qua non* condition of

confidence in and adherence to treatment.

Based on narratives from hypertensive patients, the idea of trust was a complex and polysemous notion. Our analyses found several forms of trust. Reasoned trust concerns the practitioner's professional competence, mentioned by patients who were attentive to their doctor's knowledge, professional experience and scientific rigour. However, it goes beyond this, and the analysis showed another dimension that we have termed emotional trust. In effect, the interviews have described the ideal general practitioner<sup>14</sup> as an attentive and conscientious expert, who is also available, knows how to listen, is financially disinterested and has humane qualities such as "*kindness*" or "*sympathy*." This conception of the role and characteristics of the treating physician corresponds to a social representation of the "family doctor"<sup>15</sup> found in our ethnographic results. The general practitioner was first and foremost the doctor for "*the whole family*," treating people at all stages of life. This doctor was so close to patients that he or she was sometimes perceived as a family member or friend. Therefore, the relationship with the doctor was a personalized and long-lasting relationship that resulted in gaining greater, enduring mutual trust.

In the doctor–patient interaction – whether it corresponds to the paternalistic model or the shared decision-making model – drugs participate in symbolic exchanges. Indeed, as Van der Geest and Whyte (2003) write, "they facilitate, shape and strengthen social relationships because they express and confirm friendship, devotion and concern, particularly in interactions between the doctor and his/her patient." Through the prescription, the practitioner transfers the power to heal to the patient, while symbolizing the patient–doctor relationship through the drug (Collin 2002; Van der Geest and Whyte 2003).

Nevertheless, adherence can be considered a form of symbolic gratification objectifying the trust granted to the doctor as well as submission to medical authority based on medical expertise. We have termed this third dimension of trust conceded trust. Here, a high level of adherence was also conceded by the patient based on medical expertise and the doctor's professional responsibility, as highlighted by Collin (2003). In effect, some hypertensive patients have underscored that they had no other choice than to trust the practitioner.

## Conclusion

Following long-term treatment is a complex process that combines the patient's acceptance of a drug with its integration into daily life, identification and personalization of the drug as well as loyalty to it; additionally, it integrates loyalty to the doctor. It objectifies the patient's level of trust towards the doctor and recognition of his or her role as expert and as family physician. However, it also involves factors that are external to the patient, the drug and the therapeutic relationship as well as involving the drug's

symbolic dimensions. The hypertensive patient self-regulates his or her medication from day to day. This regulation corresponds to logics of experimentation, controlling health risks, controlling the body and treatment, controlling side effects, controlling ingestion, limiting constraints imposed by the prescription (renewing the prescription), ensuring treatment continuity (drug packaging), managing social integration, developing drug-taking habits and routinization.

Consideration and understanding of these pragmatic and symbolic issues by the treating physician should aid practitioners in carrying out their role as medical educators in the management of hypertension.

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### NOTES

<sup>1</sup> Overall, 22% took less than 50% of the treatment, 23% between 50% and 80% of the treatment and 55% took more than 80% of the treatment (Unger 1995).

<sup>2</sup> To avoid overloading this paper and its bibliography, we have limited the list to compliance with antihypertensive drug prescriptions. However, similar studies in other chronic pathologies show the same categories of factors, with the addition of institutional factors (constraints on patient linked to follow-up, such as consultation schedules, the patient's travel distance to the institution, travel costs, etc.) particularly determinant in low-income countries (see, in particular, Moatti et al. 2004).

<sup>3</sup> The majority of respondents were inactive (retired or on disability). Socio-professional categories included farmers (9%); artisans, retailers, business owners (16%); management and highly educated professionals (9%); intermediate professionals (7%); employees (50%); and labourers (9%). The population's education level was predominantly low: 79% had a degree lower than the baccalaureate (the French equivalent to a high school diploma), including 12% without any degree. Some 12% had achieved a level equivalent to the baccalaureate, and 9% had a degree higher than the baccalaureate.

<sup>4</sup> *Adhésion* in French.

<sup>5</sup> Excerpts from the interviewees' narratives are transcribed in italics.

<sup>6</sup> *Tension nerveuse* in French.

<sup>7</sup> This refers to diuretics prescribed specifically as antihypertensive drugs.

<sup>8</sup> Only one doctor in our study summons his patients every 28 days (or a multiple of 28 days); the



others set appointments every “month” (or a multiple of “months”).

- <sup>9</sup> The timeframe of 28 days for the drugs suggests the lunar calendar, and implicitly the menstrual cycle, as suggested by one hypertensive patient’s ironic remark: “There are boxes of 10 and boxes of 15. As for me, I don’t have any boxes of 28; that’s for women!” (man, age 73 years, employed)
- <sup>10</sup> Unlike the rest of the family’s pharmaceuticals that are stored in another part of the home (bathroom, bedroom).
- <sup>11</sup> We were able to observe that antihypertensive drugs, similar to drugs that are taken daily for other chronic illnesses, are stored in empty detergent boxes, small wicker baskets, plastic food containers, plastic bags and old drug containers large enough to be used as a “daily pharmacy.”
- <sup>12</sup> The primary meaning of the French word *ordonnance* is “order” in the legal sense. *Ordonnance* means the promulgation of decisions that are related to a law. Another meaning is “to put in order.”
- <sup>13</sup> Some 41/68 expressed thoughts on this subject (24/39 women and 17/39 men). Their narratives are quite homogeneous. At the start of the study, we thought that this homogeneity could result from a selection bias for those interviewees met through their treating physician (n=43), who more or less consciously select which hypertensive patients to interview. Hence, we conducted other interviews with hypertensive patients (n=25) recruited through a “chain referral” method without the intermediary of the doctor. In this second group, we actually collected more negative narratives towards doctors, but these implicitly show an ideal relationship based on trust.
- <sup>14</sup> Conversely, patients’ narratives about trust designate the characteristics of the “bad doctor”: negligence, lack of availability, intrusion in private life, lack of altruism and engaging in a business relationship.
- <sup>15</sup> This representation of the treating doctor as the “family doctor” is deep-seated in our survey, which was conducted in a rural or semi-rural area (where the general practitioner is also called the “country doctor”) among an older population that is accustomed to regular doctor visits, but the representation cannot be generalized to the entire French population. Unlike Anglophone cultures, the term “family doctor” does not pervade established categories for physicians in the French healthcare system and reflects popular labelling.

#### REFERENCES

- Agence nationale de l’accreditation et de l’évaluation en santé (ANAES). 2000. “Prise en charge des patients adultes atteints d’hypertension artérielle.” In ANAES, *Recommandations pour la pratique clinique*.
- Aïach, P. 1980. “Peur et image de la maladie : l’opposition cancer/maladies chroniques.” *Bulletin du cancer* 67: 183–90.
- Ankri, J., D. Le Disert and J.C. Henrard. 1995. “Comportements individuels face aux médicaments, de l’observance thérapeutique à l’expérience de la maladie, analyse de la littérature.” *Santé publique* 4: 427–41.
- Bertholet, N., B. Favrat, C.L. Fallab-Stubi, M. Burnier and H. Brunner. 2000. “Why Objective Monitoring of Compliance Is Important in the Management of Hypertension.” *Journal of Clinical Hypertension* 2: 258–62.
- Burnier, M., M.P. Schneider and B. Waeber. 1997. “L’observance thérapeutique dans le traitement de l’hypertension artérielle : un facteur important à évaluer.” *Médecine et hygiène* 55: 1591–94.

- Chesney, M.A., M. Morin and L. Sherr. 2000. "Adherence to HIV Combination Therapy." *Social Science and Medicine* 50: 1599–605.
- Collin, J. 1999. "Rationalité et irrationalité à l'origine du mésusage des médicaments." *Actualité et dossier en santé publique* 27: 55–58.
- Collin, J. 2002. "Observance et fonctions symboliques du médicament." *Gérontologie et société* 103: 141–60.
- Collin, J. 2003. "Médicaments et vieillesse. Trois cas de figure." *Anthropologie et sociétés* 27: 119–37.
- Conrad, P. 1985. "The Meaning of Medications: Another Look at Compliance." *Social Science and Medicine* 20: 29–37.
- Consoli, S. and M. Safar. 1985. "La non-observance d'un traitement anti-hypertenseur en tant qu'acte manqué." *Psychologie médicale* 17: 841–48.
- De Certeau, M. 1998. *L'invention du quotidien, 1. Arts de faire*. Paris: Folio Essais.
- Desclaux, A. 2003. "Les antirétroviraux en Afrique. De la culture dans une économie mondialisée." *Anthropologies et sociétés* 27(2): 41–57.
- Duhot, D., L. Martinez, P. Ferru, O. Kandel and B. Gavid. 2002. "Prévalence de l'hypertension artérielle en médecine générale. Revue du praticien." *Médecine générale* 16(562): 177–80.
- Dunbar-Jacob, J., L.E. Burke and S. Puczynski. 1995. "Clinical Assessment and Management of Adherence to Medical Regimens." In P.M. Nicassion and T.W. Smith, eds., *Managing Chronic Disease*. Washington, DC: American Psychological Association.
- Durif-Bruckert, C. 1994. *Une fabuleuse machine : anthropologie des savoirs ordinaires sur les fonctions physiologiques*. Paris: Métailié.
- Ebrahim, S. 1998. "Detection, Adherence and Control of Hypertension for the Prevention of Stroke: A Systematic Review." *Health Technology Assessment* 2(11): 22–28.
- Fainzang, S. 2001. *Médicaments et société. Le patient, le médecin et l'ordonnance*. Paris: PUF.
- Fainzang, S. 2003. "Les médicaments dans l'espace privé : gestion individuelle ou collective." *Anthropologie et sociétés* 27(2): 39–154.
- Fainzang, S. 2006. *La relation médecins-malades : information et mensonge*. Paris: PUF.
- Farmer, K. 1999. "Methods for Measuring and Monitoring Medication. Regimen Adherence in Clinical Trials and Clinical Practice." *Clinical Therapeutics* 21: 1074–90.
- Giddens, A. 1990. *The Consequences of Modernity*. Palo Alto, CA: Stanford University Press.
- Girerd, X., S. Gigeos-Hasnier and J.Y. Le Heuzey. 1998. *Guide pratique de l'hypertension artérielle*. Paris: Éditions MMI.
- Girerd, X., O. Hanon, K. Anagnostopoulos, C. Ciupek, J.J. Mourad and S. Consoli. 2001. "Évaluation de l'observance du traitement antihypertenseur par un questionnaire : mise au point et utilisation dans un service spécialisé." *Presse médicale* 30: 1044–48.
- Good, B. 1994. *Medicine, Rationality and Experience*. New York: Press Syndicate of the University of Cambridge.
- Haynes, R.B., D.L. Sackett, E.S. Gibson, D.W. Taylor, B.B. Hackett, R.S. Roberts et al. 1976. "Improvement of Medication Compliance in Uncontrolled Hypertension." *Lancet* 1: 1265–68.
- Haxaire, C. 2002. "Calmer les nerfs : automédication, observance et dépendance aux médicaments psychotropes." *Sciences sociales et santé* 20(1): 63–68.

- Heurtin-Roberts, S. 1993. "High-pertension. The Uses of a Chronic Folk Illness for Personal Adaptation." *Social Science and Medicine* 37: 285–94.
- Julliard, A. 1994. "Une belle plante. Anatomie humaine et plantes médicinales." *Écologie humaine* 12(1): 29–51.
- Kjellgren, K., S. Svensson, J. Ahlner and R. Säljö. 1997. "Hypertensive Patients' Knowledge of High Blood Pressure." *Scandinavian Journal of Primary Health Care* 15: 188–92.
- Kjellgren, K., S. Svensson, J. Ahlner and R. Säljö. 2000. "Antihypertensive Treatment and Patient Autonomy – The Follow-up Appointment as a Resource of Care." *Patient Education Counselling* 40: 39–49.
- Kleinman, A. and J. Kleinman. 1991. "Suffering and Its Professional Transformation: Toward an Ethnography of Experience." *Culture, Medicine and Psychiatry* 15: 275–301.
- Konin, C., M. Adoh, I. Coulibaly, E. Kramoh, M. Safou, B. N'Guetta et al. 2007. "L'observance thérapeutique et ses facteurs chez l'hypertendu noir africain." *Archives des maladies du coeur et des vaisseaux* 100: 630–34.
- Le Breton, D. 1996. *Passions du risque*. Paris: Métailié.
- Lerner, B.H. 1997. "From Careless Consumptives to Recalcitrant Patients: The Historical Construction of Noncompliance." *Social Science and Medicine* 45: 1423–31.
- Loux, F. 1979. *Pratiques et savoirs populaires. Le corps dans la société traditionnelle*. Paris: Éditions Berger-Levrault.
- Mallion, J.M., C. Dutrey-Dupagne, L. Vaur, N. Genes, M. Renault, P. Baguet et al. 1995. "Comportements des patients ayant une hypertension artérielle légère à modérée vis-à-vis de leur traitement. Apport du pilulier électronique." *Annales de cardiologie et angéiologie* 44: 597–605.
- Mar, J. and F. Rodriguez-Aratalejo. 2001. "Which Is More Important for the Efficiency of Hypertension Treatment: Hypertension Stage, Type of Drug or Therapeutic Compliance?" *Journal of Hypertension* 19(1): 149–55.
- McKenney, J.M., W.P. Munroe and J.T. Wright. 1992. "Impact of an Electronic Medication Compliance Aid on Long-Term Blood Pressure Control." *Journal of Clinical Pharmacology* 32: 277–83.
- Moatti, J.P., B. Spire and M. Kazatchine. 2004. "Drug Resistance and Adherence to HIV/AIDS Antiretroviral Treatment: Against a Double Standard between the North and the South." *AIDS* 18(3): 55–61.
- Morin, M. 2001. "De la recherche à l'intervention sur l'observance thérapeutique : contributions et perspectives des sciences sociales." In D. Bessette, M. Bungener, D. Costagliola, Y.A. Flori, S. Matheron, M. Morin et al., eds., *L'observance aux traitements contre le VIH/SIDA. Mesures, déterminants, évolution*. Paris: ANRS Collection sciences sociales et SIDA.
- Myers, L. and K. Midence. 1998. "Concepts and Issues in Adherence." In L. Myers and K. Midence, eds., *Adherence to Treatment in Medical Conditions*. Buffalo, NY: Hardwood.
- Paicheler, G. 1998. "Risques de transmission du SIDA et perceptions de la contagion." *Communications* 66: 87–107.
- Pierret, J. 1984. "Les significations sociales de la santé : Paris, l'Essone, l'Hérault." In M. Augé and C. Herzlich, eds., *Le Sens du mal*. Paris: Éditions des archives contemporaines.
- Pierret, J. 2007. "An Analysis Over Time (1990–2000) of the Experiences of Living with HIV." *Social Science and Medicine* 65: 1595–605.

- Postel-Vinay, N. and P. Corvol. 2000. *Le Retour du Dr Knock. Essai sur le risque cardio vasculaire*. Paris: Éditions Odile Jacob.
- Reugel, L., B. Rüedi and G. Guelpa. 2000. "Le traitement de LHTA et les dysfonctions sexuelles, une cause certaine de mauvaise observance du traitement ?" *Revue médicale de la suisse romande* 120: 461–69.
- Sarradon-Eck, A. 2007a. "Le Sens de l'observance. Ethnographie des pratiques médicamenteuses de personnes hypertendues." *Sciences sociales et santé* 25(2): 5–36.
- Sarradon-Eck, A. 2007b. "Prévoir la maladie cardiovasculaire : le discours médical et le discours profane." In I. Rossi, ed., *Prévoir et prédire la maladie. De la divination au pronostic*. Paris: Aux lieux d'être.
- Sarradon-Eck, A., M.A. Blanc and M. Faure. 2007. "Des usagers septiques face aux médicaments génériques : une approche anthropologique." *Revue d'épidémiologie et de santé publique* 55: 179–85.
- Schoenberg, N. and E. Drew. 2002. "Articulating Silences: Experiential and Biomedical Constructions of Hypertension Symptomatology." *Medical Anthropology Quarterly* 16: 458–75.
- Sow, K. and A. Desclaux. 2004. "Antiretroviral Treatment Adherence and Its Determinants: A Qualitative Analysis." In A. Desclaux, I. Lanièce, I. Ndoye and B. Taverne, eds., *The Senegalese Antiretroviral Drug Access Initiative: An Economic, Social, Behavioural and Biomedical Analysis*. Paris: ANRS–UNAIDS–WHO.
- Spire, B., S. Duran, M. Souville, C. Leport, F. Raffi, J.P Moatti et al. 2002. "Adherence to Highly Active Antiretroviral Therapies (HAART) in HIV-Infected Patients: From a Predictive to a Dynamic Approach." *Social Sciences and Medicine* 54: 1481–96.
- Tilly, B., B. Salanave, P. Ricordeau, N. Bertin, J. Guilhot, P. Fender et al. 2004. "Hypertension artérielle sévère en France : traitement et contrôle tensionnel en 1999 et 2003." *Revue médicale de l'assurance maladie* 35: 167–80.
- Trostle, J.A. 1988. "Medical Compliance as an Ideology." *Social Science and Medicine* 27: 1299–308.
- Unger, T. 1995. "Patient–Doctor Interaction in Hypertension." *Journal of Human Hypertension* 9: 41–45.
- Urquhart, J. 1997. "The Electronic Medication Event Monitor. Lessons for Pharmacotherapy." *Clinical Pharmacokinetics* 32: 345–56.
- Van der Geest, S. and S. Whyte, 2003. "Popularité et scepticisme : opinions contrastées sur les médicaments." *Anthropologie et sociétés* 27(2): 97–116.
- Wallach, I. 2004. "Vie personnelle et sociale et expériences des thérapies." In J. Levy, J. Pierret and G. Trottier, eds., *Les antirétroviraux, expériences et défis*. Montréal: Presse de l'Université du Québec.
- Watier, P. 2002. "Confiance et sociabilité." *Revue des sciences sociales* 29: 108–15.
- Wilson, R.P., A. Freeman, M.J. Kazda, C. Andrews, L. Berry, A.C. Vaeth and R.G. Victor. 2002. "Lay Beliefs about High Blood Pressure in a Low- to Middle-Income Urban African-American Community: An Opportunity for Improving Hypertension Control." *American Journal of Medicine* 112: 26–30.
- Wuerzner, K., C. Hassler and M. Burnier. 2003. "Difficult Blood Pressure Control: Watch Out for Non-Compliance!" *Nephrology Dialysis Transplantation* 18: 1969–73.