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LEARNING IN A MISSION OUTPATIENT DISPENSARY IN SIERRA LEONE - A FIELDWORK STUDY

By

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ABSTRACT

LEARNING IN A MISSION OUTPATIENT DISPENSARY IN SIERRA LEONE - A FIELDWORK STUDY

By

Evvy Hay

Mission outpatient dispensaries, which often operate at frenetic level of activity, are a common source of health care services in developing countries. It is meaningful to consider what patients are learning about the nature and treatment of their illnesses under such conditions. Most health center research has focused on staffing and delivery of services, an area of interest to administrators. In contrast, this writer examined the learning experiences that occur in an outpatient dispensary from the perspective of the patient, an area of concern to adult educators.

An ethnographic approach was used to focus on patient learning in the Kasela Hospital outpatient dispensary. The study was delimited to patient learning in outpatient settings and did not include patient learning in other health care settings such as hospitals, Under Five clinics, and primary health care programs. Strategies used included observations, participant observations, interviews of staff and patients, and a survey of dispensary outpatients. Investigation focused on the learning environment, learning opportunities, and patient recall of specific information. Three area villages were surveyed to determine to what extent villagers were using the dispensary and to interview villagers regarding what they had learned from

the outpatient dispensary experience. Local health authorities were interviewed for information on health habits. In addition, 50 people were interviewed regarding their perceptions of Western pharmaceuticals. Finally, to understand better the Kasela Hospital outpatient dispensary in the larger context of outpatient services in Sierra Leone, on-site visits were conducted at six other mission hospitals.

Study findings demonstrated that what patients learned was primarily related to instructions about their treatments and knowledge of how to take medications. Environmental factors, including crowding and limited time, staff roles that did not include expectations for patient education, and a lack of teaching protocol affected the learning environment. Findings related to health habits of patients centered on a number of themes, including medical pluralism, the importance of therapy-managing groups, and the reinterpretation of Western pharmaceuticals.

For Gordon and Helen Hay

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CHAPTER I

INTRODUCTION TO THE STUDY

The purpose of this fieldwork study was to describe what patients learn about the nature and treatment of their illnesses in a mission outpatient dispensary, specifically the Kasela Hospital outpatient dispensary located in the Sela Limba chiefdom of Sierra Leone, West Africa. The study resulted in a conceptualization of patient learning in this context. The investigation was intended to provide insights into what patients learn about their illnesses and treatments in a busy outpatient dispensary, to contribute to the knowledge of what effect a dispensary experience has on patient learning about illnesses and treatments, to assist health care workers in considering what constitutes an educative outpatient environment, and to bring into focus the issue of outpatient learning for people who have both a concern for this area and the ability to do something about it.

In Experience and Education, John Dewey (1938/1963) provided a conceptual framework for learning experiences in which he described experience as an interaction between the individual and his environment. Experience, then, generates habits that are both available in and temper the character of subsequent experience. That is, experience is continuous. As described by Dewey, habits need not be executed blindly but can be carried out intelligently with awareness of circumstances and probable consequences. Habits are the means (or tools) by which people actively cope with the problems posed by their environments. "Certain sorts of habits" are manifestations of growth. That is, those habits that enable an individual to

clarify and cope with the problems of his environment and lead to additional habits for understanding and coping with new problems as they occur manifest growth. The implication of Dewey's theory is that in a learning environment there needs to be a knowledge of the problems participants have (and are likely to have), together with a knowledge of the habits which are useful in clarifying and coping with those problems, in order to provide the sorts of experiences in that environment that will result in the development of those habits.

Dewey's theory is germane in the context of patient learning in the Kasela Hospital outpatient dispensary. A patient coming to the clinic has already had experiences related to learning about health, illness, and various types of treatments. Seeking no assistance when ill, turning to a traditional practitioner, or purchasing medicines in the local market are all "experiences," and have resulted in particular health habits. In the outpatient dispensary environment, an additional interaction takes place. This writer looked at what patients learned in the dispensary environment, while considering the influence of their previous experiences as part of that learning process.

Context of the Problem

The need for health care services in Sierra Leone is clear. The 1974 census figures fixed life expectancy at birth as 36 to 40 years for females and 33 to 37 years for males. The infant mortality rate at that same time was 225 per 1000, rivaling Guinea and Upper Volta for the world's highest rates (Okoye, cited in MacCormack, 1984). In the capital city of the Southern Province, mothers aged 14 to 20 lost more than half the children they had borne (Kanden & Dow, cited in MacCormack, 1984). A survey of 4,880

children under five years in 1977 judged 24% (below the 90th percentile of the median of the standard used) to be malnourished (AID, cited in MacCormack, 1984).

Endemic environmental diseases such as malaria, hookworm, roundworm, amoebiasis, schistosomiasis, and onchocerciasis affect adult health as well. Infectious diseases such as pneumonia, leprosy, and tuberculosis also influence health.

High morbidity and mortality rates do not exist in isolation, however. They form only one part of the common quintet of developing countries: poverty, ignorance, fecundity, prejudice and disease (Fendall, 1967). Sierra Leone's approximate per capita income of $210 per year is the second lowest among 17 West African countries (Lamb, 1985). Health care expenditures have steadily declined from 15.4% of government expenditures in 1963-64 to 8.2% in 1980-81, reflecting government policies which have not favored health (Nickson, cited in MacCormack, 1984).

The government alone is not able to meet the health needs of the country. In the three provinces (Northern, Southern, Eastern), 46% of hospital beds are provided by seven mission and three mining hospitals. "The worst served provincial area [is] the Northern Province" (Clark, 1969, p. 66).

Within the Northern Province, Kasela Hospital has provided health services in the Sela Limba chiefdom since the 1930s. In 1986 there were 70,953 outpatient visits and 1,781 hospital admissions. Major surgeries numbered 511 and procedures 1,555. In the 10 monthly Under Five immunization clinics in the town of Kasela and surrounding villages, 5,116 children were seen. The four chiefdoms surrounding the hospital have a catchment area population of 72,000 (Zampese, 1984), but in fact more chiefdoms use the hospital.

In designing rural health care systems, planners historically have focused on the geographic distribution of health services and the training and supply of personnel. Evaluation of these health centers has been limited to investigating staff work loads and patterns of time allocation, according to a Johns Hopkins University study (cited in Akin, 1985). Analyses of work patterns consistently have indicated a "frenetic level of activity" in these health centers. A typical example described in a World Health Organization study by Sharma and Chaturvedi in India indicated that medical officers were seeing from 100 to 130 patients in a five-hour work day, which means that each patient received only two to three minutes of attention (cited in Akin, 1985).

In such hurried clinic environments, staff typically spent a large percentage of their time delivering curative services. A study by Spruyt (cited in Akin, 1985) indicated that relatively little time was left for other characteristic clinic services, such as preventive care, maternal and child services, and nutrition and health education programs.

Given the need for health care services and the fact that in developing countries clinics frequently function at a frenetic pace a meaningful question to consider is what patients learn about the nature and treatment of their illnesses under such conditions. As indicated, most health center research has focused on staffing and delivery of services, an area of interest to administrators. In contrast, this writer examined the learning that occurred in a health center clinic from the perspective of the patient, a topic of concern to adult educators.

Research Questions

The main question of the research study was "What are patients learning about the nature and treatment of their illnesses in the Kasela Hospital outpatient dispensary?" The research questions that arose from that were the following:

1. What is the learning environment of the outpatient dispensary?
2. How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?
3. What specific information about the nature and treatment of their illnesses do patients recall from their clinic visits?
4. Is the learning environment of the Kasela Hospital outpatient dispensary similar/dissimilar to that of other mission hospitals in Sierra Leone?
5. What are the health habits (beliefs, practices) of those using the outpatient dispensary?
   a. What health habits (beliefs, practices) have been generated from previous experiences?
   b. What health habits (beliefs, practices) have been generated from the outpatient dispensary experience?

Precedents in the Literature

Four bodies of literature provided meaningful precedents for this study: the ethnographies of Evans-Pritchard and Finnegan, research information related to health in Sierra Leone, medical anthropology research, and literature related to health education.

Evans-Pritchard's monographs entitled Witchcraft Oracles and Magic Among the Azande (1937) and The Nuer (1940) provided methodological

insights into ethnographic research, as well as substantive insights into beliefs regarding health and disease in a specific culture in the Sudan. Finnegan's monograph Survey of the Limba People of Northern Sierra Leone (1965) not only provided valuable methodological suggestions, but was rich in information on the Limba people, including their beliefs about health and disease.

Two bodies of literature related to health in Sierra Leone contributed to the study. The first was literature relating to health status, and the second concerned health beliefs and practices. The usual "litany of depressing statistics" (Parker, 1986, p. 499) was placed in the larger context of information related to available services and an analysis of problems in health services. The literature on health beliefs and practices touched on concepts of disease, traditional medicine, geophagy, perceptions of Western pharmaceuticals, and women and health.

The medical anthropology literature illuminated several themes that emerged in the course of the research in Sierra Leone. In The Quest for Therapy in Lower Zaire, Janzen (1978) highlighted the concepts of medical pluralism and therapy-managing groups. Prins (1979) touched on the coexistence of diverse therapy systems. Twumasi (1979) dealt with the adaptation that occurs when diverse therapy systems coexist. Davis-Roberts (1981) presented a case study, done among the Tabwa of Zaire, which demonstrated that the pragmatic use of different therapy systems, including Western therapy, did not involve engagement with an epistemological system that contradicted the Tabwa system.

In the health education literature, attention was focused on how the concepts of health education have changed over the years. Health education is no longer concerned with disseminating information to passive audiences;

rather it focuses on an educational role in which behavior changes result through people understanding their own environment and how they can exercise control over it (Walt, 1985). Finally, attention was focused on factors that affect health education programs, such as administrative and environmental considerations, the population being served, and principles and methods of learning that influence health education efforts.

The literature provided both substantive and methodological precedents for the study. It also provided a larger context in which to view health care at the Kasala Hospital outpatient dispensary. The medical anthropology literature provided tools for analyzing the findings of the research. The health education literature showed the stress placed on community participation in health education today. It also highlighted specific considerations that arise in health education in outpatient dispensaries.

Procedural Overview

Research was conducted from September 1986 through mid-December of 1986 in Sierra Leone. The ethnographic approach was used to focus on patient learning in the Kasala Hospital outpatient dispensary. Ten weeks of research time were spent at the Kasala Hospital outpatient dispensary. Methodologies used there included observations, participant observations, interviews of staff and patients, and a survey of dispensary patients. The foci for investigation were the learning environment, learning opportunities, and patient recall of specific information. The researcher visited three area villages, as well, to ascertain to what extent villagers were using the dispensary and to interview villagers regarding what they had learned from the outpatient dispensary experience. To clarify the issue of health practices, local authorities were interviewed for information on health

habits. Further, 50 people were interviewed concerning their perceptions of Western pharmaceuticals. To understand the Kasela outpatient dispensary in the larger context of outpatient services in Sierra Leone, there were on-site visits and interviews conducted at six other nongovernment hospitals, all of which belonged to the Christian Health Association of Sierra Leone (CHASL).

Narrative data were analyzed with a view to developing a theory of what patients learned in the Kasela Hospital outpatient dispensary. Limited quantitative data were obtained to support the narrative data. This information is displayed in tables and figures.

Population

The primary population of the research study comprised persons using the services of the outpatient dispensary at Kasela Hospital. In 1986, 70,953 patients were seen. The major ethnic groups using the clinic were the Limba (46.3%) and the Temne (24.4%). The Susu, Fullah, Loko, Mandingo, and 10 other groups were also represented. About 57% of all patients traveled less than 10 miles to reach the dispensary. Nearly 40% of all clinic patients paid less than Le 15.00 ($0.42) per illness episode.

The population using the outpatient dispensary lived in countryside that was criss-crossed with winding rivers, laterite motor roads, and narrow bush paths. Villages were clusters of thatch or "pan"-roofed houses. The majority of household heads were farmers. Rice farms were located outside the villages, in the surrounding area. The town of Kasela, with a population of about 10,000, was in a rural area. It does not have running water or electricity.

Delimitations

The study was delimited to patient learning in outpatient settings and did not include learning that took place in other health care settings such as hospitals, Under Five clinics, and primary health care programs. Some staff interviews and a number of the interviews on the use of Western pharmaceuticals were group interviews. Groups were selected because they occurred naturally. Participants were free to interact in these interviews.

Limitations

Patients from five language groups were present on any given day in the outpatient dispensary. The researcher conversed freely with Krio-speaking patients and was able to ask specific questions in Temne and Limba. Other conversations in Limba and Temne, and all conversations with patients of other ethnic groups, took place through an interpreter. In many instances, the depth of conversation was more limited than is desirable in an ethnographic study.

Reliability of responses to interviews in the clinic may have been affected by interaction effects in a congested environment. In group interviews the interaction among participants might have influenced the validity of individual responses.

Definition of Terms

Acculturation. The process of coming to share the cognitive orientation of people in a second culture (Brewster & Brewster, 1976, p. 122).

Appointment Unit clinic. A Thursday-morning clinic in which patients paid a fee to be seen by a physician. In general, more affluent patients attended this clinic.

Continuity in experience. Habits that are available in and temper the character of subsequent experience (Dewey, 1938/1963, p. 44).

Educative. That which fosters growth (Dewey, 1938/1963, p. 36).

Environment. Whatever conditions interact with personal needs, desires, purposes, and capacities to create one's experience.

Experience. An interaction between the individual and his environment (Dewey, 1938/1963, p. 43).

Geophagy. The eating of earth, including vespid and termite clays. In Sierra Leone, geophagy is common during pregnancy.

Green spoon. Plastic spoon containing a measuring scoop on each end, used in mixing sugar and salt solution for oral rehydration.

Growth. Securing "certain sorts of habits." One is said to be growing (in general) when the habits he/she is acquiring from experience do not thwart problem solution or create new problems, but rather help him/her to clarify and cope with present problems and make some contribution to the acquiring of additional habits for understanding and coping with subsequent problems as they occur (Dewey, 1938/1963, p. 36).

Habits. Means (or tools) for actively coping with the problems posed by the environment . Habits need not be executed blindly or unthinkingly, but can be carried out intelligently with awareness of (changing) circumstances and (probable) consequences. A habit is a learned tendency or disposition to respond in a certain manner in a given situation (Dewey, 1938/1963, p. 35).

Herbalist. An individual who practices only herbal treatment.

Illness Episode. A visit, or cluster of visits, for the treatment of a single illness.

Level of education. Level 1 = no formal education

Level 2 = some primary school

Level 3 = some secondary school

Level 4 = secondary school graduate

Level 5 = some post-secondary education

Looking ground man (Look grun man). Individual who mixes herbal treatment with clairvoyance.

Miseducative. That which thwarts growth (Dewey, 1938/1963, p. 25).

Moriman. A Muslim diviner.

Onchocerciasis. A condition produced by an infestation of filarial worms, which live in subcutaneous and connective tissue.

Schistosomiasis. A parasitic disease resulting from infestation with blood flukes belonging to the genus *Schistosoma*. People become infected by bathing or wading in water that contains cercaria which have come from snails.

Sorcerer (Medicine man). Individual who mixes herbal treatment with supernatural practices.

Traditional birth attendants. Community women working as midwives among their own people. They are respectfully described as "grannies." Some have had formal training, but more have not had any training. Virtually all are members of the women's sodalities.

Under Five clinics. Monthly immunization clinics for children up to the age of five years. The clinics include health education and curative care components.

Xerophthalmia. Conjunctival dryness following chronic conjunctivitis and in disease due to a vitamin A deficiency. Softening, desiccation, and ulceration of the cornea result.

Generalizability

Numerous similarities existed between the Kasela Hospital outpatient dispensary and the outpatient dispensaries of the other nongovernment hospitals visited as part of the study. Therefore, the findings from the study at Kasela may well be applicable to the other outpatient dispensary settings. Further, as discussed earlier, overcrowded outpatient dispensaries are common throughout Africa, and indeed other parts of the world. Portions of the study may be of value to staff of those institutions as well.

Importance of the Study

The study answered the major question, "What did patients learn about the nature and treatment of their illnesses in the outpatient dispensary?" The answer was that learning was primarily related to information patients gained regarding instructions about their treatment and knowledge of how to take medications. They learned little about the nature of their illnesses or the purpose of their medications. Environmental factors including crowding and limited time partially shaped the learning environment, but staff role expectations that did not include expectations or a protocol for patient education were also important. That is, there was no institutional plan for, or commitment to, outpatient education.

Other important data focused on the health habits (beliefs, practices) of those using the outpatient dispensary. In some cases the Western and traditional systems coexisted but did not seem to affect each other. In other cases, modifications of one of the systems occurred. The findings supported the results of other studies in the medical anthropology literature. Important themes included medical pluralism, the importance of therapy-managing groups, and the reinterpretation of Western pharmaceuticals.

The study was intended to make four contributions: (a) to provide insight into what patients learn about their illnesses and treatments in a busy outpatient dispensary, (b) to contribute to the knowledge of what effect a dispensary experience has on patient learning about illnesses and treatments, (c) to assist health care workers in considering what constitutes an educative outpatient environment, and (d) to bring into focus the issue of patient learning, in this common setting, before people who have both a concern for this area and the ability to do something about it.

CHAPTER II

PRECEDENTS IN THE LITERATURE

Four bodies of literature provided precedents for this study: ethnographic anthropological studies, literature related to health in Sierra Leone, works in the field of medical anthropology, and health education literature.

Two writers in the field of anthropology provided ethnographic precedents for this study. They were E. E. Evans-Pritchard and Ruth Finnegan, both of Oxford. Evans-Pritchard focused on two ethnic groups in the Sudan, whereas Finnegan wrote on the Limba of Sierra Leone. Literature relating to health in Sierra Leone provided a context in which to view health care at the Kasela Hospital outpatient dispensary. In this area, literature on health status and services was considered, as well as writings on health beliefs and practices. Literature related to health beliefs and practices included writings on concepts of disease, traditional medicine, geophagy, perceptions of Western pharmaceuticals, and women and health. The medical anthropology literature provided rich substantive precedents for understanding patient learning in an outpatient situation and dealt with such themes as therapy-managing groups, causality, logic in selection of treatment, and medical pluralism. The health education literature reviewed for this study dealt with the way health education concepts have changed over the years and specific considerations that arise when one examines health education in an outpatient dispensary setting.

Ethnographic Precedents

Ethnographies by two British writers provided both methodological and substantive precedents for this study. E. E. Evans-Pritchard of Oxford wrote about the Azande and Nuer in Sudan. His student, Ruth Finnegan, wrote extensively about the Limba of Sierra Leone.

Evans-Pritchard

A social anthropologist, Evans-Pritchard wrote classic ethnographic studies of the Azande and the Nuer in monographs entitled Witchcraft Oracles and Magic Among the Azande (1937/1983) and the The Nuer (1940/1982). At the request of British colonial officials, Evans-Pritchard lived among the Azande, and later the Nuer, in the Sudan. Specific interests, which relate to concerns of this study on patient learning, were cases in which people met and dealt with misfortune, allocation of responsibilities for action, and how people directed their lives.

Methodologically, Evans-Pritchard recommended that ethnographers have rigorous training in general theory before fieldwork and a clear sense of *what* and *how* one plans to observe. He suggested it is "useless going into the field blind" and that "one must know precisely what one wants to know" (1983, p. 241). Once in the field, however, a researcher should be guided by what he finds in the society under study. For example, the Azande constantly talked of witchcraft and the Nuer of cattle. Consequently, Evans-Pritchard's observations focused on those areas because of their prominence in the lives of the people he was studying.

With regard to fieldwork methodology, Evans-Pritchard recommended a thorough knowledge of the language. He achieved this during his 20 months among the Azande and year among the Nuer by working at it 12 hours every

day. He advocated learning about social processes and relationships by noting material things because every idea is represented in words and objects. He also suggested sharing in the ideas and belief systems of the people being studied on the grounds that a remunerative or even intelligent conversation with people about what they regard as self-evident is not possible if the researcher appears to regard their belief set as an illusion or a delusion. That is, he advocated becoming acculturated.

Evans-Pritchard used the data-gathering methodology that the particular situation required. When he lived outside the community, Evans-Pritchard gathered data on the Azande primarily from key informants. When he lived among the Nuer, he relied on participant observation.

> As I could not use the easier and shorter method of working through regular informants I had to fall back on direct observation of, and participation in, the everyday life of the people. From the door of my tent I could see what was happening in camp or village and every moment was spent in Nuer company. Information was thus gathered in particles, each Nuer I met being used as a source of knowledge, and not, as it were, in chunks supplied by selected and trained informants. (1982, p. 15)

Finally, Evans-Pritchard (1937/1983) suggested that the real work of fieldwork is in developing theoretical conclusions, which should be implicit in exact and detailed descriptions of empirical observations. Anyone "who is not a complete idiot can do fieldwork," but the intention of fieldwork is not to produce a new fact but a new idea (p. 243). For example, Evans-Pritchard described the cosmology of the Nuer. In this cosmology, an invisible sky spirit named Kwoth both caused and cured sickness. People communicated with him through prayer, sacrifices, and obedience. Complaining at misfortune or grieving excessively at death was considered inappropriate. Evans-Pritchard described the Azande concept of causation,

which he detailed as part of a coherent and consistent epistemology. He suggested that factors within a social system made it impossible for people to think conceptually or account for reality beyond the framework of their social system. In relation to health, for example, the Azande considered only causation for an episode of a particular sickness, but had no coherent theory for causation of sickness in general. Particular situations were accepted, but they were never clarified or discussed. Consequently, there was no theory in general about causation of sickness that could be proved true or false. Evans-Pritchard's monographs provided both methodological insights into ethnographic research and substantive insights related to health and disease among a particular group of people.

Finnegan

Evans-Pritchard supervised Ruth Finnegan's comprehensive ethnographic study, Survey of the Limba People of Northern Sierra Leone (1965). This monograph covered the history of the Limba people to the end of the nineteenth century, the political structure in the twentieth century, social institutions, economy, religion and witchcraft, and migration. Finnegan's was the first, and to date only, published indepth study of the Limba people. A book of readings on the Limba people edited by Joseph Opala (Department of Linguistics, Fourah Bay College, University of Sierra Leone) and K. P. Moseley (Department of Sociology, University of Port Harcourt in Nigeria) is soon to be published. The ten contributors focused on Limba history, arts, culture, and developmental issues.

Methodologically, Finnegan's work was also a qualitative study. Detailed demographic sampling was not included because of variability among the seven Limba chiefdoms and because it was felt that intelligent selection for

quantitative sampling could be done only after a preliminary qualitative study. The first government census among the Limbas was not taken until two years after Finnegan's 1961 fieldwork. She collected data for her study from informants in each of the chiefdoms, as well as from migrant Limbas in Freetown and Lunsar. Findings of Finnegan's research on religion and witchcraft, which relate to the Limbas beliefs regarding health, are briefly summarized below.

The Limba believe in one god, named Kanu, who ultimately causes all things. People who are well have their health "by the grace of Kanu." If asked about health, an appropriate reply is, "I am well by God's grace" (1965, p. 108). Death can be caused in four ways: by witchcraft, by a swear, by the power of a spirit, or by Kanu. The Limba would consider a natural death in old age to be caused by Kanu. The way to deal with the first three cases is to divine the cause of death and then to catch the person responsible or to free those involved from further effects.

A *sara* or *saraka* is a material charm that is used to protect health. It may be a variety of objects, such as cowries or kola nuts. A saraka also implies a sacrifice, which might be a hen, millet, guinea corn, or rice flower. In Medicine, Magic, and Religion, Rivers (1924) described belief in the power belonging to material objects prepared in a certain way as fetichism. Dead ancestors may be reached through sacrifices and prayers and are believed still to be concerned with helping their children.

Spirits, who have never been human, live outside the villages and are believed to have particular relationships with individuals. People who have double sight or "four eyes" are said to have the ability to see the spirit world. All twins have four eyes, and the child who follows them in the birth order does also. Spirits help individuals prosper but may later demand

payment, including requiring a person to "eat by means." When a person is "eaten by means" nothing appears to happen immediately, but the victim later dies an unexplained death. Disease may be ascribed "to absence of the soul or of the vital principle" in other areas of West Africa, as well (Rivers, 1924, p. 79).

Witches are men or women who attack their enemies by spiritual means. They go out at night spiritually, not in a physical body, and "eat" the heart of a victim, who later dies. Charms on the door of a house can prevent a witch from entering and may even cause the witch's death. Deaths are commonly attributed to witchcraft. Witches may control animals such as snakes and crocodiles, causing them to bite people. Witches are also thought to use special guns called "witch guns" to kill people. These guns are made from a variety of materials, such as animal horns.

Finnegan (1965) summarized the importance of religion and witchcraft in relation to health and disease in this way:

> Limba life is therefore full of detailed rules and prohibitions which must be observed; sacrifices must be made to the dead, offerings to spirits, charms hung up to fight witches, cowries fixed on knives, handkerchiefs, instruments, certain places and acts avoided as being forbidden and so on. But the main theme that unites all these swears and sacrifices and purifications is that of combating evil influences, those that cause death and disease. (p. 122)

Knowledge of religion and witchcraft is essential to an understanding of causality in Limba thinking. In turn, this understanding is essential to an understanding of health beliefs and practices.

The ethnographic studies of Evans-Pritchard and Finnegan provided both valuable methodological suggestions regarding fieldwork, as well as substantive insights on thinking regarding causality, health, and disease.

Finnegan's work also provided much information on the Limba people, the major population of this study.

Health in Sierra Leone

An understanding of the learning that occurred in the Kasala Hospital outpatient department can be strengthened by an understanding of health care services, practices, and beliefs that existed in the country as a whole. The information relating to health in Sierra Leone is considered in two main categories: health status and services, and health beliefs and practices.

Health Status and Services

In a 1980 World Health Organization (WHO) Sierra Leone: National Health Sector Review (Amonoo-Lartson & Olu-Williams) article, the leading causes of morbidity and mortality were cited as infection, malnutrition and communicable disease. Solutions to those problems were made more difficult by acute shortages of "human, material and financial resources at the disposal of the government" (Amonoo-Lartson &Olu-Williams, 1980, p. 9). Vital statistics cited in the study are shown in Table 1:

Table 1. Vital Events Statistics-Sierra Leone

Event	Rate
Crude Birth Rate	4.4%
Crude Death Rate	1.8%
Rate of Natural Increase	2.6%
Maternal Mortality Rate	4.5 per thousand deliveries
Infant Mortality Rate	130.3 per thousand live births
Life Expectancy at Birth	46.9 years for males
	50.1 years for females

Source: Sierra Leone Country Profiles (Health).

Table 2 shows the number and types of health care facilities in Sierra Leone and also demonstrates the important role that nongovernment organizations play in the country's health care delivery system.

Table 2. Distribution of Health Manpower and Structural Facilities in Sierra Leone

	Hospitals	Dispensaries	Treatment Centers	Health Centers
Government	24	24	60	30
Mission	8	21	-	7
Private	6	-	-	4
Mines	4	-	-	4
Total	42	45	60	45

Source: From Medical Statistics Unit, Ministry of Health: Vital and Health Statistics Series A, No. 7, June 1980

A variety of nongovernment organizations (NGOs) exist in Sierra Leone. In the past, they focused on curative services, but more recently they have become involved in health education, immunization programs, and the training of village health workers (VHWs) and traditional birth attendants (TBAs). A brief listing of the NGOs and their major functions is in order, to provide an overview of services.

Planned Parenthood Association of Sierra Leone provides services in family planning clinics. Foster Parent-Plan International has three child welfare programs in the Northern Province, is engaged in training TBAs and VHWs, and has a Family Development program that focuses on making the family and community self-reliant. Care has numerous programs, including a feeder road construction program, a village water supply and environmental sanitation program, and Project Learn, which is a child health education

program. Catholic Relief Services distributes food supplements through government and private clinics. The Christian Health Association of Sierra Leone (CHASL) coordinates the activities of the NGO hospitals and clinics. The West Africa Leprosy Secretariat works with the Ministry of Health as part of the National Leprosy Control Programme. Additional major health programs, which involve both government and NGO cooperation, include the Expanded Programme on Immunization and primary health care programs in the Bombali district, and in the Bo and Pujehun districts.

A 1980 evaluation of the initial pilot primary health care programs cited the Southern Province program in Serabu (56 kilometers from Bo) as being culturally appropriate and concerned with community participation. The Northern Province (Bombali) program was criticized for focusing primarily on covering the national population by the year 2000 while lacking community participation, building on the wrong categories of health workers, selecting inappropriate people for training in new categories, lacking regular in-service training and supervision, lacking regular evaluation for replanning, lacking realistic means of long-run financing, and needing a better organization and management structure (MacCormack, 1984, pp. 207). In the Southern Province program, community assessment was used to stimulate community participation and to measure program effect. One result of the program was that the infant mortality rate was almost halved in the 12-month period between 1979/80 and 1980/81 (Edwards & Lyons, 1983).

A March 1987 evaluation of the Expanded Programme on Immunization stated that the program was ineffective as it had fully immunized less than 10% of the new-born population and did not even contact 50% of that population for an initial DPT/polio immunization. Primary factors

contributing to program problems were economic, including the high cost and scarcity of fuel for transportation, inadequate kerosene for refrigeration of vaccines, and a devaluation of staff salaries because of rising living costs which eroded the motivation and morale of the health workers (Expanded Program on Immunization, 1986).

A review in The Lancet cited "a litany of depressing statistics" related to health in Sierra Leone. The review was followed by an analysis of the problems and some positive points to consider.

> Infant mortality (among the worst in Africa according to the Government and the World Health Organization) is about 200/1000 live births; the maternal mortality rate varies from 4.5-6.5%; 95% of females are circumcised; up to 30% of children are undernourished, 20-25% chronically undernourished, and 3-5% acutely malnourished; the childhood mortality rate is about 360/1000; only 2.7% of people living in rural areas have access to safe drinking water and basic sanitation; gross national product is estimated at $400 per person; about half the nation's children go to primary school but the illiteracy rate remains at 80-85% of the population, 44% of whom are less than 15 years old and 16% less than 5 years old; and such hospitals as there are, are concentrated in the capital, Freetown, although nearly 75% of the population live in the countryside. (Parker, 1986, p. 449)

A main source of Sierra Leone's economic problems was described as a shortage of foreign exchange, owing to a law that permits businessmen to keep the foreign exchange earned from exports overseas, given permission from the cabinet. An intermittent oil supply, due to the foreign exchange problem, has resulted in inadequate electricity, refrigeration, and telephone service, and has made travel both difficult and expensive. In 1985, immunizations outside Bo, the country's largest city, had to stop due to gasoline shortages. A WHO report stated that at government hospitals "equipment and supplies are chronically inadequate especially in the supply of essential drugs" (Parker, 1986, p. 449).

Favorable aspects of the situation are that infant mortality rates may be inflated due to inadequate reporting of live births, the Bo and Pujehun primary health care project reports good community participation, health education may improve as the British Council has equipped the primary schools with 1.25 million textbooks, and problems of long-term funding of health care programs may be resolved with cost-recovery strategies. In the Bo and Pujehun project, 85% of the cost of drugs was recovered; that figure dropped to 40% in the Bombali district program.

The subjects of nutrition and malnutrition in Sierra Leone were dealt with extensively in a series of Michigan State University studies. Kolasa (1978) cited the nutritional status of children and parturiant women as being the most important nutrition problem in Sierra Leone. Data on 4,679 children indicated 16 to 56% were underweight. A study of food consumption in 576 households in rural Sierra Leone (Smith, Lynch, Whelan, Strauss, & Baker, 1979) demonstrated that mean calorie consumption per day was 1,285 calories and that households with higher incomes had higher consumption rates. Ethnic factors and market orientation also affected consumption (Smith, Strauss, Schmidt, & Wheland, 1980).

To provide a larger context in which to view health care at the Kasela Hospital outpatient dispensary, the literature review has considered both the current health status of the people in Sierra Leone and the health services available to them. Next, literature relating to the health beliefs and practices of the people of Sierra Leone is considered.

Health Beliefs and Practices

In the course of the research, a variety of health beliefs and practices came into focus. The literature related to those beliefs and practices is

considered here. Areas of interest are concepts of disease, traditional medicines, geophagy, perceptions of Western pharmaceuticals, and women and health.

Concepts of Disease

An article by a physician in The Sierra Leone Bulletin of Religion discussed concepts of disease in traditional patterns of thought (Maclure, 1962). "Diseases of Allah" are those of which it is stated merely that "God has sent the disease." In Temne areas, leprosy, measles, smallpox, and yaws have been considered this way. No further explanation of the disease is given. Accidents constitute another class. They result from the malevolent influence of a hostile angel, the inattention of a good angel, or demonic activity. Some diseases are believed to be directly connected with spirit activity. These supernatural agencies are represented by a variety of words, variously translated as spirits, witches, demons, and devils. The various spirits may range from amiable to malevolent and must be "bribed, placated, used, opposed or tricked" (p. 31).

Witch doctors have special influence with the spirits, though it may be a special knowledge of particular spirits. For example, among the Temne, fetishes (which may consist of a bundle of sticks, leaves, and mud), may be tied together and suspended over an entrance to a farm to protect it from thieves and the "cutting grass" pigs, which destroy the crops. Diseases caused by violating such fetishes include asthma, dropsy, tetanus, tertiary yaws, and some types of rheumatism, among others. Epilepsy is thought to result from direct contact with a demon. Miscellaneous diseases may be brought about by jealousy. For example, elephantiasis in a man can be caused by a curse from a jealous wife. A witch doctor may make people fall sick.

Sterility can result from one person "summoning" another to a witch. Some diseases result from breaking a supernatural law, such as trespassing on a path that has been "tied" so some cannot pass. Other health problems result secondarily from traditional practices. For example, the scarring from a clitoridectomy (female circumcision) may lead to obstructed labor. Pressure from an obstructed labor can result in injury to the urethra, bladder, or rectum. Pursuing traditional treatment may result in delays in seeking Western treatment, as in allowing obstructed labor to progress until the child dies.

Traditional Medicine

In Medicinal Plants of West Africa (1983), Sawyerr discussed the use of a variety of medicinal plants, as well as some of the problems and difficulties associated with using herbal medicines. A variety of practitioners use medicinal plants. Some are simply herbalists and use only medicinal plants. Others, known as *look grun men,* mix herbal treatments with divination, seeking the cause of diseases. At another level, those known as sorcerers or medicine men mix herbal treatments with supernatural practices.

Several problems are associated with the use of medicinal plants, which are commonly boiled and then drunk. The potency of the plants varies with the season and climatic conditions. Also, the dosage is not regulated, and such regulation is particularly important in medicines for children. Further, there is limited communication between practitioners as herbal practice is usually esoteric. Recipients of herbal knowledge are often the children of herbalists or others who are specially selected.

Geophagy

Geophagy, the eating of earth, is a phenomenon that occurs in many cultures and may be variously related to religious beliefs, medicinal practices, and nutritional need (Hunter, 1984). In Sierra Leone, eating clay, including vespid and termite clays, is common during pregnancy (Hunter, 1985). A field study done in the Kailahun District of Sierra Leone in the Eastern Province showed that 50% of pregnant women regularly ate clay obtained from the inside of termite mounds. Women in this study also reported eating geophagial clays, as well. Analysis of the geophagial, vespid and termite clays showed that they are mineraliferous, containing magnesium, phosphorus, potassium, calcium, manganese, iron, nickel, copper, zinc, and selenium. The study further demonstrated the amounts of extractable minerals present under conditions of simulated digestion, using the acid levels of the stomach lining. An example of a farm wife eating vespid clay during her fourth pregnancy showed that she was taking 160% of the recommended pregnancy supplement of zinc, 62% of calcium, 59% of manganese, 47 to 93% of iron, and 30% of phosphorus. Under circumstances of near-subsistence living, inadequate diet, and frequent pregnancy (Hunter, 1984), it was noted that geophagia provides important minerals necessary for fetal development.

Perceptions of Western Pharmaceuticals

A study by Bledsoe and Goubaud (1985) among the Mende demonstrated that Western pharmaceuticals are being used inappropriately, as people employ traditional beliefs about diseases and treatments to reinterpret the function of available pharmaceuticals. The authors concluded that the efficacy of a medicine is determined by its size, taste, color, and purported

success in treating analogous illnesses. The result is that the actual use of medicines is not consistent with the use intended by Western manufacturers.

Western pharmaceuticals are available through mission hospitals, private pharmacies of physicians, pharmacies, nurses, dispensers, shop keepers, market women, and unlicensed and frequently illiterate drug salesmen who sell on the streets and in the villages. Such pharmaceuticals are usually not available at government hospitals or clinics due to theft, a problem that also occurs at the shipping docks. Further, pills are commonly sold without containers or directions.

An elicitation device of some 30 medicines was made, which included such things as antibiotics, digitalis, worm medications, and analgesics. Ten people were interviewed. Findings demonstrated that the drug choices people made were logical. One factor influencing the choice of drug was the alleged success of the drug in treating a similar illness in a friend or relative. Large pills were regarded as more powerful than smaller ones. Dosages taken varied among informants; most took only a few antibiotic capsules.

Drug choices are also related to concepts of disease. Fevers are believed to be caused by exposure to cold or wind. The remedy, therefore, is to dress warmly, take bitter herbs internally, which produce heat sensations; and rub white clay on the skin, which gives a sense of warmth. White tablets, analogous to the white clay, are believed to help with fever. Worms are thought to generate spontaneously when a person has eaten too many sweet things, in the sense of being sugary (candy, oranges, papaya) or being good to taste (chicken, meat). The remedy is to avoid eating sweet things and to eat bitter things such as herbs or a bitter Western pharmaceutical. Blood can be lost through injury, debilitating sickness, or worms that suck it. Red foods

(palm oil, deep reddish brown Guiness Stout beer, red soft drinks) and red medicines (vitamins, diuretics, and others) are believed to replace blood. Maintaining health is traditionally done by consuming certain foods, such as greens and palm oil, but certain Western pharmaceuticals are also believed to be effective. For example, plastic capsules are taken after a hard day of work so one will awaken refreshed for another day. Multicolored capsules are thought to contain more than one medicine and are therefore believed to be more potent. The majority of capsules available are antibiotics; they are commonly opened and poured on wounds. Consequences of these perceptions included inadequate and inappropriate use of drugs, both of which are serious problems.

Women and Health

Familiarity with the importance of the women's sodalities and the role of traditonal birth attendants is fundamental to understanding the beliefs and practices of women related to health and birth.

At about age 13 to 15, young girls are taken to the bush, following a night of singing and dancing, and a clitoridectomy is performed by the head of the Bundu or Sande society. This ritual is practiced among all groups except the Creole women of Sierra Leone. After a period of time in the bush, which varies from two weeks to two months, the girls return to the village amid much celebration. Following this, girls are full society members and are eligible for marriage (Finnegan, 1965). Sande women explain that circumcision makes a woman "clean." Uninitiated women are not respected and remain girls socially although women biologically. One explanation is that the ritual scars bring the woman within a moral sphere (MacCormack, 1982).

The sodalities, or "societies," exist in virtually every village. Senior officials and some especially adept younger women traditionally supply maternal and child care, as well as treatment for certain types of illnesses including infertility, dysmenorrhea, and other female problems. These traditional birth attendants (TBAs) do not stand by passively during the birth process but are "towering figures in a village, communicating confidence and authority" (cited in MacCormack, 1982, p. 118). The youngest TBA identified in Sierra Leone was 35, but most are over 50 years. A TBA cares for women during pregnancy, labour, and following delivery, and is the local authority on customs and taboos associated with child bearing and rearing. Only seriously ill maternity cases are referred to the hospital (Williams, 1979). The role of the societies in regard to the beliefs and practices of women related to maternal and child health cannot be underestimated and must be considered in any health education of women.

Medical Anthropology

The discipline of medical anthropology provided rich substantive precedents for understanding patient learning in an outpatient dispensary situation. A number of themes from the literature, including therapy-managing groups, pluralistic medical care, causality, and logic in selection of treatment were useful in analyzing the research findings.

Janzen

In The Quest for Therapy in Lower Zaire, Janzen (1978) studied the therapies of the BaKongo in Lower Zaire. The therapies people sought included both Western and traditional types. A key finding was that although Western medicine was adopted this did not lead to the demise of traditional

practices. In fact, the different forms of therapy played complementary rather than competitive roles in the lives of those seeking assistance. Recognizing that a study of the various practitioners did not provide a key to understanding the relationship between the forms of therapy, Janzen turned his attention to the group that surrounded the patient. A patient's family was inevitably present to cook, wash clothes, talk, or simply sit. Janzen called this group of kinsmen and advocates the "therapy-managing group" and demonstrated that this group gleaned information, provided moral support, and made decisions related to care. The group fulfilled a brokerage function between the patient and specialist, whether the specialist was a traditional herbalist or a Western surgeon. Janzen concluded from this that the therapy-managing group rather than the individual patient should be the focus of public health instruction.

The BaKongo distinguished between natural illnesses ("an illness of God") and illnesses caused by humans ("an illness of man"). The former were mild conditions that occurred when there were no disturbances in the patient's social relationships. Such things as the death of the elderly and newborn were also considered "illnesses of God." Western medicine was considered to be helpful in treating these natural illnesses, but a variety of signs, such as a slowly healing sore or conflict in the patient's social group, could indicate that the disease was caused by man. Assistance sought for the latter diseases involved conflict resolution, counterspells to retaliate, and purification rituals to bring about healing. Janzen suggested that deciding which category an illness falls into is one of the functions of the therapy-managing group.

Janzen's strategy for studying the complex, multiepisodic therapies was to do case studies. He documented cultural phenomena (concepts, symbols,

categories), social phenomenons (roles, social groups, situations), and the physical condition of the patient. The quests for therapy turned out to be far ranging as he followed managing groups to a variety of diviners and therapeutic specialists.

Medical pluralism was a second key concept with which Janzen dealt. Although indigenous therapies and Western practices coexisted, the beliefs and practices that constituted them rested on different premises. The result was that people manipulated these practices individually without synthesizing them. The logic of choice in seeking therapy was related to the perception of the problem, and the way in which the problem was perceived determined what therapy and specialist were sought. With a minor illness, individuals might simply go to a dispensary, but in a major illness the cause of the disease was sought.

Janzen concluded with recommendations for integrating the systems. One suggestion was to develop a well-informed referral network between the systems. Janzen stated that African practitioners of Western medicine already do this and that only European practitioners of Western medicine referred exclusively to other practitioners of Western medicine. A second suggestion was to move Western medical personnel nearer traditional therapists, and a third was to bring the ritual therapist into the Western hospital. Finally, Western practitioners were encouraged to enlist the sanctioning power of the therapy-managing group to reinforce their therapies.

Additional Medical Anthropology Literature

The issues of therapy-managing groups, causality, logic in selection of treatment, and medical pluralism have been dealt with extensively in the

medical anthropology literature. Feierman (1979) suggested that therapeutic pluralism exists in explanations of misfortunes as well as in treatments of illness. Medicine men in Dar es Salaam, for example, treated not only sickness but also mental illness, unemployment, unfaithfulness of a spouse, and problems related to an unprofitable business. Some sicknesses were attributed to malfunctioning organs, spirits, or sorcery, but those causes could also result in loss of business, lawbreaking, and arrest. Diverse cures included penicillin injections, herbal medicines, and exorcism. Feierman also pointed out that therapies change as the therapy managers' perceptions about the efficacy of various therapies change. He cautioned that variations in practice relate to occupation, sex, age, rural or urban residence, and religious affiliation; thus those factors need to be considered in analyzing therapy-seeking behavior. Factors of changing economy and demography also must be taken into account. Feierman discussed the themes that Janzen developed, but he did so within a broader context.

In an article about the history of therapeutics in western Zambia, Prins (1979) argued that the introduction of allopathic therapy did not falsify beliefs in systems of diagnosis and explanation that already existed, but that the two therapeutic systems coexisted.

A study in Ghana suggested that although two therapeutic systems do coexist, the modernization process has eroded the authority pattern of the traditional structure. The educated and economically powerful, who live in urban areas, have carried new ideas when visiting their rural homes, which has caused innovations to be adopted in rural areas. This model suggests the element of adaptation (Twumasi, 1979).

Davis-Roberts (1981) presented a case study of illness among the Tabwa of Zaire, in which a family seeking treatment for their small daughter used

Western and traditional medicine as well as divination. He described the three treatment efforts as being subordinate to the Tabwa medical system as a whole. The system had an essential goal of alleviating suffering, rather than achieving remission of symptoms. Thus the pragmatic use of different systems by therapy-managing groups did not involve engagement with an epistemological system with underlying principles that contradicted their own. A key idea in this case study was the way in which the Tabwa system subordinated the other systems.

Kimani (1981) emphasized the unsystematic nature of the traditional medical care system among the Kikuyu of Central Kenya. A key point was that traditional medicine is not static but is affected by patterns of health-seeking behavior, social structures and institutions, and the personnel involved in therapy.

In "Knowledge of Illness and Medicine Among Cokwe of Zaire," Yoder (1981) made two important points with regard to causation of illness. The first was that isolating the cause of an illness was more important in choosing treatment than in diagnosing the disease. That is, diseases were caused by God, by sorcery, or by displeased ancestors. In each case, the treatment was different. The second point was that causal explanations changed when illnesses did not respond to treatment. Because causes of disease overlapped in some measure this was not problematic, but it did explain how a therapy-managing group could logically pursue a variety of therapies.

Sussman's (1981) study of medical pluralism was conducted on Mauritius, an island with individuals of Indian, African, French, and Chinese origin. A wide variety of secular and religious healing resources were available on Mauritius, and most practitioners were consulted by individuals with diverse

religious and ethnic backgrounds. Further, in this heterogeneous population, individuals tended to have similar categories of illnesses and beliefs about the causes of illnesses.

The medical anthropology literature touched on a number of themes that arose in the Kasela Hospital outpatient department study, including therapy-managing groups, pluralistic medical care, causality, and logic in selection of treatment. It therefore provided a number of precedents that were useful in analyzing the findings of the research study.

Health Education

In a study that examines what patients are learning in an outpatient dispensary, an obvious issue that arises is "what is being taught?" That is, what type of health education is occurring? The field of health education is vast, but at least two topics merit investigation in relation to the present study. The first is the way in which concepts of health education have changed over the years and what the term currently encompasses. The second topic concerns specific considerations that arise when examining health education in an outpatient dispensary setting.

Health Education Concepts

Walt (1985) discussed the ways in which concepts of health education have changed over the years. In the industrial nineteenth century, preventive health education was in focus and efforts were directed to improving sanitary conditions. However, people were not involved in direct action. Information was presented to them on cholera and typhoid, and substantial health legislation was passed in Europe. There was, however, no community participation in laying waterpipes or sewerage systems. Generally speaking,

the public was passive. During the next era, the emphasis was on curative medicines and technical interventions. Health education emphasized the individual and the responsibility people had to alter their behaviors related to eating, drinking, and smoking in order to be healthier. In the third world this became victim-blaming, in which people were blamed for conditions over which they had no control. In the third phase there has been a shift toward community responsibility and a desire to promote self-reliance.

The attention being given to primary health care has again stimulated an interest in health education. In the colonial era, Western-model health services were developed in the colonies. Following independence, many countries continued to use the same structural system for health care, concentrating largely on sanitation, health centers, and curative hospitals. In the 1950s and 1960s in French-speaking Africa, an emphasis was placed on *animation rurale*, or self-help for rural people (MacCormack, 1983). In Latin America, Paulo Freire's method of conscientization encouraged oppressed people to envision taking control of their lives (Freire, 1970). In Central America, David Werner sought to make health services more democratic by simplifying medical services and providing them for village people (Werner, 1978).

In September 1978, an international conference on primary health care (PHC), sponsored jointly by WHO and UNICEF, was held at Alma Ata in the Soviet Union. A number of political assertions related to health care were subsequently stated in the Declaration of Alma Ata: health care is a right; people's participation in planning and implementing their own health care is a priority; morbidity and mortality rates world-wide must be decreased; health care must be cost effective and equally available for all; intersectoral cooperation is imperative to improve the health status of a

population; and health care services must be culturally acceptable. Participation does not simply imply mobilizing community resources but indicates the process by which people gain increased control over the economic, political, social, and environmental factors that affect their health (Morley, Rohde, & Williams, 1983). Primary health care, as envisioned at the conference, includes education, water, and sanitation programs; maternal-child health efforts; control of communicable and endemic diseases; and an adequate supply of drugs. "Health for all by the year 2000," the conference slogan, has been widely publicized as the goal of the primary health care movement. Although implementation of primary health care has in some measure been frustrated by political, management, and community participation factors, the movement has still served to focus world-wide attention on health care as a right for disadvantaged people.

Health education is a core element of the primary health care movement. This type of health education is integrally related to development, and emphasis is on participation and involvement. Such health education is not concerned with disseminating information to passive audiences, but rather focuses on an educational role in which behavioral changes result through people understanding their own environment and how they can exercise control over it (Walt, 1985).

Health Education Considerations

In the last decade, the trend in providing health services in developing countries has been toward primary health care programs. All of the nongovernment hospitals in Sierra Leone, in fact, have implemented community health programs that incorporate at least some of the elements of the primary health care philosophy. Nevertheless, all of the hospitals

still have outpatient dispensaries and a population attending those dispensaries who have particular health education needs. A large body of literature exists, indicating that the type of situation faced in the outpatient dispensaries of Sierra Leone nongovernment hospitals is not unique. Overworked staff in overcrowded health centers is almost a norm in Africa (Kasili, 1983). It is appropriate, then, to consider what the literature says about health education that is suitable for this patient population.

Administrative and Environmental Considerations

Scotney (1976) suggested the obvious and often-overlooked fact that health center or dispensary administration affects health education. The emphasis is often "How many patients did you see this morning?" He pointed out that emphasis on efficiency in numbers of patients seen often influences effectiveness in health education. Organizational changes may be in order before improvement in health education occurs. Barnes (1978) suggested that program resources, in terms of both staff time and funds, need to be specifically budgeted to support the planning, implementation, and evaluation of health education programs.

Scotney (1984) stressed the effect environmental factors have on a suitable setting for health education. Negative factors include noise and crowding, whereas positive ones include cleanliness, adequate ventilation, and the availability of food and water for patients. Discomfort and distractions similarly inhibit learning (Leedam, 1972).

The Population Being Served

Knowledge of the population being served is essential to effective health education. Cognizance of population values influences teaching strategies. A study among the Temne of Sierra Leone, for example, indicated that certain forms of tribal social organization together with particular child-rearing practices placed considerable value on group reliance, conformity, maintenance of authority, and strict discipline. Village children who were "too intelligent" and spoke up were said to be "affected by witchcraft." Individual competitiveness was thereby discouraged, and people were pressured to conform to group norms (Price-Williams, 1969).

In describing education among the Gikuyu in Kenya, Kenyatta emphasized the importance of knowing the values of the population being served. He said that for Europeans "freedom of personality is the highest good, and co-ordination with other people and especially mutual subordination are on the contrary something accidental," whereas in the Gikuyu system of education "the primary place is given to personal relations" (Kenyatta, 1979, p. 117).

Miller (n.d.) emphasized the importance of understanding the attitudes of the population being served. He recommended asking "What is their attitude toward the issue under consideration?" and "What is their attitude toward the person conducting the instruction?" (p. 6)

Principles of Learning

Knowles (1951) suggested that adult learning requires wanting to learn, the putting forth of effort, and the experiencing of satisfaction. Dewey termed these elements *need, effort,* and *satisfaction.* Knowles stated that learning must be purposive and echoed Butler in saying that the best time for

learning is when an individual feels acutely uncomfortable about not knowing something. He also emphasized that learning will not take place if the learner is passive, but only when the learner takes part.

In keeping with Dewey's thesis that experience is an interaction between an individual and the environment, Cross (1982) suggested a new framework for learners that included their past experiences, what they thought about nonschool learning, and what they thought with regard to their life situation. In How Adults Learn, Kidd (1973) suggested that learning is effective when learners determine their need, design the learning situation, and evaluate the learning experience.

Whereas the preceding authors addressed various aspects of adult learning, other texts specifically addressed guidelines for health education in ambulatory settings. Major guidelines commonly included the following: planning for health education should be an integral part of overall planning; health education should be based on the needs, values, and previous experiences of specific individuals and groups; health education should be conducted when people are most receptive and ready for learning; patients should be active participants in health education; health education should use concepts and language familiar to the learner; health communicators should be selected who are accepted by the patient group as trusted and credible sources of health advice; all personnel should be prepared to recognize educational needs and opportunities and to fulfill their educational functions effectively; responsibility for the overall planning and direction of health education should be assigned to one person; and finally, health education should be evaluated continuously, as well as at the conclusion of the program (Barnes, 1978).

Long (1982) specifically addressed the issue of health education in

outpatient clinics. He suggested that lack of effective education in clinics is a result of several things. In the waiting area, where health education is sometimes done, patients are preoccupied with their illnesses and are distracted by other ill people. Also, health education in that setting tends to be very general. During the consultation period, health education is affected by the press of work, clinicians who are poorly prepared in health education skills, and status differences between the patients and clinicians. The patient has come for treatment and not advice. Health education is on the agenda of the agency, but not on the agenda of the patient. Long described three types of clinic health education. The first was prescriptive education, which essentially adds an extra step to the clinic process. Prerequisites for prescriptive education are a person assigned to give health education and a quiet place. The chief liability of this method is that patients are in a passive role and teaching often lapses into the "service delivery" mode (p. 6). Second, Long described health education by referral, in which community health workers visited patients in their homes following clinic visits. Third was health education by repetition. Staff "from the cleaner to the doctor" (p. 7) are trained to give the same health education message on the most common problems. Long suggested that advice from a variety of people is more likely to be accepted and acted upon than is advice from a single person.

Methods

The goal of a health education program is a behavioral change and not simply a change in knowledge. Traditionally, health education has involved knowledge imparted through flip charts, pamphlets, posters, and films; little attention has been paid to effectiveness of the effort in changing

behavior. Although a variety of methods or strategies may be used, Miller (n. d.) suggested that in any behavior modification there must be change at the cognitive stage (involving the communication of information), the affective stage (concerned with attitude change), and the action stage (related to translating attitude change into behavioral change).

In health centers or dispensaries, dialogue is perhaps the most effective means of health education. Scotney (1984) suggested that the one-to-one relationship is both the most effective and has the most lasting effect. Byrne and Bennett (1973) recommended the individual encounter because it deals directly with the patient's immediate needs.

A WHO technical report on health education (1954) recommended two-way or Socratic methods, which can involve discussion, drama, demonstrations, or interviews, as being effective in promoting action. Using the waiting time in clinics to provide group health education was also recommended (Colgate, Carriere, Jato, & Mounlom, 1979).

Patients' educational level is also a consideration in selecting the most appropriate method of health education. Anderson and Windham (1982) suggested that literacy is perhaps one of the most critical factors contributing to development. Rural women consistently have had literacy rates lower than rural men and urban women (Safilios-Rothschild, 1979). High literacy rates in industrialized countries contrasted sharply with 28% in least-developed countries, with rates of only 13% among the women of those countries. Literacy enabled people to understand their health problems and ways of solving them, as well as facilitating an "active involvement in community health activities" (WHO, 1981).

The issue of appropriate instructional materials for nonliterate learners is also salient in health centers and dispensaries in developing countries. In

Preparing Instructional Materials for Illiterate Learners: A Set of Guidelines, Miller (1976) described the characteristics of adult illiterates and then suggested 16 guidelines for learning. Among the guidelines were such items as identifying traditional modes of learning and then employing them in the instructional materials, and designing instructional materials with appreciation of the learners' adulthood, which drew on their experience, values, and perceptions in the learning process. Atucha and Crone (1980) recommended emphasizing verbal communication (group discussion and memorization of new information) and decoding visual images.

An interesting example of these principles being violated occurred in a functional adult literacy program conducted in the Sela Limba chiefdom of Sierra Leone. It essentially failed as a functional literacy program. One of the factors in this failure was the tutors' inability to relate the content of their lessons to the adult learners' experiences. Spelling lessons included such words as desk, teacher, classroom, and blackboard. These words and objects were more within the experience range of primary school children than of the adult learners attending the literacy classes (Bangura, 1986).

Summary

The ethnographic studies of Evans-Pritchard and Finnegan provided methodological precedents; substantive insights on causality, health, and disease; and much specific information on the Limba people. The literature on health in Sierra Leone provided a larger context in which to view health care at the Kasela Hospital outpatient dispensary. In addition, the insights into health beliefs and practices provided a basis for understanding the people who use the dispensary. The medical anthropology literature provided substantive precedents for understanding patient learning and behavior in an

outpatient dispensary. In touching on many themes that arose in the Kasela Hospital outpatient department study, including therapy-managing groups, pluralistic medical care, causality, and logic in selection of treatment, it provided a number of tools for analyzing the research findings. Finally, the literature on health education provided insight into the current concepts of health education and focused on specific considerations that arise in health education in outpatient dispensary settings. These areas of literature related to the methodology used in the study and to the findings regarding patients' learning in the Kasela Hospital outpatient dispensary.

CHAPTER III

RESEARCH POPULATION AND PROCEDURES

When the investigator went to Sierra Leone to investigate what patients were learning in the outpatient dispensary, the specific outcome of the study was certainly not known. More than four years of previous clinical experience in this setting, however, provided the soil out of which the research questions grew and suggested avenues of investigation that might provide answers to those questions. Further, it was impossible to deal personally with the hundreds of patients over those years who came each week and month without being deeply moved by their responses to the health problems they were experiencing and the efforts they were making to be restored to health.

In The Quest for Therapy in Lower Zaire, Janzen (1978) touched on an issue that arises for practitioners who are also doing research in a setting such as the one at Kasela Hospital. "Canons of medical anthropology require the systematic reconstruction and analysis of illness. But the urgency of lives hanging in the balance deserves an artful telling." "Art and science," he went on to say "share an uneasy union in these studies" (p. 63). One reason for choosing ethnography as the methodology for this study was that it lent itself to both systematic reconstruction and analysis, as well as artful telling.

This chapter focuses on the population involved in the research study and on the research procedures, including the research questions.

Population

The primary population of the research study comprised persons using the services of the outpatient dispensary at Kasela Hospital, which served 70,953 in 1986. Many of the patients came from within the Sela Limba chiefdom. The town of Kasela, with a population estimated at 10,000 by the paramount chief, was the largest town in the chiefdom. The chiefdom had an estimated population of 27,032 in 1984 (Zampese, 1984, p. 15). Although it was a Limba chiefdom, the town of Kasela had a substantial number of Temne, Fulla, and Susu inhabitants who also used the outpatient dispensary. In addition, people from outside the chiefdom used the dispensary. Historically, the Limba chiefdoms that were in the Northern Province remained relatively isolated from the Southern and Eastern Provinces due to poor roads, no railway system, and no significant local mining or industry. There was no high school in the area until the 1960's.

Outpatient Dispensary Usage

One of the first research tasks was to describe the outpatient dispensary population. Even the question of who was using the dispensary required some detailed investigation. At the end of each day, the number of individuals who had attended the clinic was routinely recorded by dispensary staff. By obtaining those figures for the last seven years, it was possible to state how many had come, as well as to note variations in attendance by both days of the week and months of the year (see Appendix A, Table A.1., & Figures A.1.-A.4.).

Outpatient dispensary attendance ranged from 50,978 in 1980 to 70,953 in 1986. Attendance generally peaked at the onset of the dry season in October and November of each year. Weekly attendance was highest on the

four full clinic days of Monday, Tuesday, Thursday, and Friday. In 1986 the average Monday attendance was highest at 315, and Thursday attendance was lowest at 252. Wednesdays and Saturdays were half-day clinics, and on Sunday the dispensary was open only for emergencies or scheduled revisits.

No data were available on the ethnic group, gender, age, or level of education of those using the clinic. Nor was there information on how far patients had come, how much time they had waited at the dispensary, or how much an illness episode had cost them. Information regarding those factors was necessary to describe the study population accurately. To obtain those data, a survey was conducted.

Outpatient Survey

For the survey, all patients attending the clinic on seven different days were interviewed briefly at the end of their clinic visit. The patient's ethnic group, gender, and age were noted from his/her clinic card. The cost of the illness episode was recorded from the card. An illness episode was defined as a single dispensary visit, or cluster of visits, related to a specific event of ill health. Each patient was asked about level of education and where he/she had come from for that clinic visit. The researcher and one assistant collected the data as patients left the clinic. A translator or "word turner" who spoke five local languages also sat at the survey desk to assist with translation as needed. The time at which the patient left the clinic was recorded. Data were obtained on each day of the calendar week (i.e., Monday, Tuesday, Wednesday, and so forth) during five separate weeks. By having the survey periods at least three days apart, revisits for the same illness episode were minimized. The total number interviewed was 1,452.

Information collected on ethnic groups using the outpatient dispensary demonstrated that the two major groups were the Limba and Temne, constituting 46.3% and 24.2% of the population respectively. Susu, Fullah, Loko, and Mandingo groups represented significant but smaller portions of the outpatient dispensary patients (see Appendix B, Figure B.1). The Fullah constituted a larger percentage of the weekly Appointment Unit (AU) clinic group. This clinic was available for those who wished to pay a fee to see a physician on their initial visit. The Fullah are known as those who own and tend cattle. Many of the area traders are also Fullah (see Appendix B, Figure B. 2).

Males constituted 53% and women 47% of the sample. Adults constituted 65% and children 35% of the sample (see Appendix B, Figures B. 3-4).

Figures on level of education were particularly informative and showed that 57.16% of the patients had no formal education and 27.89% were not yet of school age. Only 4.06% were secondary school graduates or had post-secondary education (see Appendix B, Figure B. 5).

Data gathered on how much time patients spent in the clinic showed that 55% had completed their visit before the clinic closed for lunch break from 12:00 noon to 2:00 p.m. This indicated a considerable waiting time for the remaining 45%, who were seen in the afternoon (see Appendix B., Figure B.6).

The hospital fee schedule is contained in Appendix B, Table B.1. Both leone (Sierra Leone currency) and dollar figures are included. Dollar figures were calculated at the December 1986 exchange rate of Le 36.00/$1.00. Table B.2. shows, in both leone and dollar figures, the range of patient fees paid per illness episode. Figure B.7. displays the percent of patients who paid a fee within each fee range. Nearly 40% of all clinic patients paid less than Le 15.00 ($0.42) per illness episode. Although the dollar figures are

minimal, it is important to note that the leone figures are significant in terms of local income. Income figures for local farmers were not available. Hospital salaries at that time, which were above government wage scales, ranged from Le 243.34 for a hospital housekeeping employee to Le 592.27 per month for a registered nurse (K. Gentry, personal communication, March 1987). Rice cost Le 350.00 per 110 pound bag in December 1986, and by February 1987 the cost had increased to Le 480-550 per bag. One bag would not be sufficient to feed a family of 8 to10 people for one month. By February 1987 a single gallon of gasoline, when available, was priced as high as Le 240.00 per gallon. Public transportation to the next major city, Makeni, 55 miles from Kasela, cost Le 100.00 (C. B. Pierson, personal communication, February 27, 1987). Further, economic conditions were not static. By March 1987 the exchange rate was Le 53.00/$1.00. Government wage scales at that time were as shown in Table 3.

Table 3. Wage Payments

Employee	Annual /Le	Annual/$	Monthly/Le	Monthly/$
Registered Nurse	3,674.00	69.32	306.17	5.78
Medical Doctor	19,691.00	371.52	1640.92	30.96
Public Servant	4,146.00	78.22	345.50	6.52
Trained Teacher	8,406.00	158.60	700.50	13.22

Source: S. Ullom, personal communication, April 1, 1987.

Data on distances traveled to the dispensary were obtained in three ways. First, chiefdom and area maps were used to ascertain distances. Second, patients were often able to state how many miles they had traveled. Third, a list of towns and distances cited by patients was compiled during the survey and was reviewed several times by staff members. During the busy press of

a warm afternoon in the dispensary when one was hurriedly jotting down survey information, it was particularly touching to have an individual say simply that he did not know the distance he had come, but he had slept two nights on the road while walking to reach the dispensary. A list of distances traveled is provided in Appendix B, Table B.3. Some 57% of all patients traveled fewer than 10 miles to reach the dispensary. In contrast, approximately 70% of the AU patients traveled 30 or more miles to reach the dispensary (see Appendix B, Table B.4., & Figure B.8).

Village Surveys

To ascertain to what extent area villagers were using the dispensary and to interview them about what they had learned from the outpatient dispensary experience, the investigator visited three area villages over a period of five days. She selected a Limba village within the chiefdom that was six miles from the dispensary, as well as a Temne village that was approximately the same distance. The third was a Loko village 12 miles distant from the dispensary by bush path. Limba and Temne villages were selected because the Limba and Temne people constituted the largest number of outpatients. A Loko village was also chosen as representative of one of the smaller ethnic groups in attendance. None of the villages had a special institutional relationship with the hospital. One citizen of the Limba village had formerly been a Kasala Hospital employee. The Temne village was the home of a then-current hospital employee. Hospital staff occasionally had visited the Loko village over the years to hold clinics for one or two days.

The individuals mentioned in the first two villages and a teacher in the third assisted the researcher in studying the respective communities. The assistants drew maps (see Appendix C, Figures 1-3) indicating the location

of each house and then listed the names of all household members. If a villager had a Kasela Hospital outpatient dispensary card, that number was recorded as well. The patient records of those having outpatient dispensary cards were pulled from the outpatient dispensary file.

When the researcher visited the village, with the assistant, basic descriptive information was obtained that related to housing, sanitation, water supply, facilities related to education and religion, the economic status of the community, and local health resources (see Appendix C, Table C.1). In the afternoon and evening, when villagers had returned from their farm work, the researcher visited with those who had outpatient dispensary records to discuss their clinic visits and what types of things they had learned from their trips to the outpatient dispensary. Because the researcher had the patient records in hand, she could ask questions related directly to the individual's experience. Former patients were asked what they had learned from the outpatient dispensary visit and how they had subsequently used that knowledge. Later the patient records were reviewed to see how frequently villagers were using the outpatient dispensary (see Appendix C, Table C.2).

In the following paragraphs, descriptive information about each village is provided, together with figures on the extent to which villagers used the Kasela outpatient dispensary. Information that villagers recalled from their outpatient dispensary visits is presented and discussed in Chapter IV.

Kaloko Village

The village of Kaloko (see Appendix C, Figure C.1) was a 12-mile walk by bush path or 25 miles by difficult motor road. Only one or two vehicles reached the town each year by the road. The walk involved crossing 13

watersides - that is, rivers, streams, or swamp areas. The villagers got their drinking and bathing water from a river that passed within a few hundred yards of the town. All household heads except the school headmaster were farmers. In addition to farming, five men were traders, three were tailors, four were teachers and one was the village blacksmith. Villagers sold oranges, bananas, and grass mats to each other and on occasion to people from the area gold mines.

Many of the inhabitants prepared native medicines made from leaves and roots. There was no trained traditional birth attendant but village women filled that role. There was no sorcerer. Four men explained that "we don't mix with evil medicine." Patients with serious illnesses came to the Kasela outpatient dispensary. Those too ill to walk were carried in a hammock over the 12-mile footpath.

Almost 44% of villagers had outpatient dispensary tickets, but the frequency of use was far below that of the other two villages surveyed. The 3.5-hour walk up and down steep hills, tiring even for healthy individuals, provided a formidable deterrent for the ill. Only two inhabitants had 10 or more visits to the dispensary recorded on their cards, in contrast to much higher usage rates in the other two villages. Villagers holding dispensary cards had an average of 2.71 illness episode visits recorded (see Appendix C, Table C.2).

Rotemne Village

A village of tobacco farmers, Rotemne was located within six miles of Kasela Hospital. A motor road into Rotemne was kept in good condition for the tobacco company trucks. The villagers, however, walked to the dispensary, and the seriously ill were brought in by hammock. Drinking

water was taken from a shallow hole just below the village that spontaneously filled with water. The population was 133 people, of whom 61.7% had dispensary tickets. The per capita visit rate was nearly quadruple that of Kaloko. Rotemne was a Muslim town, although it had no mosque. Health resources included two herbalists, a sorcerer, and traditional birth attendants in two of the houses who assisted with deliveries. They were described as "those that have carried age and delivered above five children."

Kalimba Village

A second tobacco-growing village within six miles of Kasela Hospital had both the largest population (368 people) and the highest percentage of people holding outpatient dispensary cards of the three villages surveyed (76.9%). The frequency of illness episode visits per capita (10.45) was slightly above that of Rotemne. Forty-five persons had visited the dispensary for 20 or more illness episodes.

A shallow well had been put in near the town waterside within the last year through the assistance of a Peace Corps volunteer. The town chief stated that the well water had eliminated the town's "belly problems," meaning that a clean water supply has decreased symptoms of intestinal problems. Local health resources included two herbalists, a sorcerer, and a trained traditional birth attendant, as well as other older women from the village. A trader selling medicines visited about every two weeks.

The village had the distinction of being the only one in the chiefdom with electric lights. Each house had one light bulb on the front porch, which was illuminated on special occasions by a gasoline generator that was a gift from a former citizen. All households had farms, but five of the men were also traders and one was a tailor. The tobacco raised in Kalimba was sold to the

local company that assisted with production, as well as on the black market through traders who sent it to the urban areas of Bo, Kono, and Freetown.

As indicated earlier, information on what villagers learned in their dispensary visits is discussed in Chapter IV.

Research Questions

The main question of the research study was "What are patients learning about the nature and treatment of their illnesses in the Kasela Hospital outpatient dispensary?" The research questions that arose from that were the following:

1. What is the learning environment of the outpatient dispensary?
2. How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?
3. What specific information about the nature and treatment of their illnesses do patients recall from their clinic visits?
4. Is the learning environment of the Kasela Hospital outpatient dispensary similar/dissimilar to that of other mission hospitals in Sierra Leone?
5. What are the health habits (beliefs, practices) of those using the outpatient dispensary?
   a. What health habits (beliefs, practices) have been generated from previous experiences?
   b. What health habits (beliefs, practices) have been generated from the outpatient dispensary experience?

Research Procedures

The ethnographic method was chosen for several reasons. First, it provided for an "insider's" viewpoint on the group being studied, which was particularly important in a cross-cultural setting. The researcher examined dispensary care from the patient's perspective. Second, with the ethnographic method it was possible to focus on the total situation rather than on a few elements within a complex situation. This was important in the environment of the Kasela Hospital outpatient department. At least five language groups used the dispensary each day. Staff interacting with patients rotated positions frequently and varied widely in terms of clinical experience and degree of acculturation. Severity of illness, length of waiting time, and the number of prescriptions received were all factors that affected the patient's learning experience. Third, by using the ethnographic method, the data were considered within the context of the environment in which they had been gathered. Fourth, ethnography provided an opportunity to use a variety of methodological strategies including observations, interviews, participant observation, surveys, and case histories. Finally, by not starting with specific hypotheses, preconceptions that could have biased what was seen in an observational situation could be minimized (Borg & Gall, 1983, pp. 492-493).

A recurring point of disagreement in the ethnographic literature with regard to methodology concerns the degree to which a study can be conceptualized before research is begun. In Qualitative Research for Education, for example, Bogdan and Biklen (1982) went so far as to suggest that even a proposal "is more of an exercise to show those who read it that you are conversant with the qualitative research literature and are imaginative in your thinking about the issues, than an actual, concrete

description of what you will do" (p. 71). Schatzman and Strauss in Field Research (1973) echoed this position, stating that problem statements are not prerequisite to field research but may emerge even toward the end of the research process. They described the researcher as a methodological pragmatist who sees "any method of inquiry as a system of strategies and operations designed . . .for getting answers to certain questions about events which interest him" (p. 6). In contrast, Miles and Huberman (1984) suggested that looseness in initial design results in less selective data collection because *everything* looks important before key constructs or regularities emerge. They further suggested that such looseness is unwise in research done under time pressure with a limited budget.

This researcher used a structured model for three reasons. First, previous experience in the field site provided a basis for knowing which methodologies and strategies might prove most fruitful. Second, time and financial constraints necessitated using the research period as efficiently as possible . Third, the writer preferred an articulated conceptual framework (in this case Dewey's theses on experience and education) that could be used to guide the research questions.

Erickson (in press) advocated this process of deliberate inquiry in a field setting and argued against "the romantic conception of fieldwork, in which the fieldworker arrives in the setting with a tabula rasa mind, carrying only a toothbrush and hunting knife" (p. 96). On entering the field, therefore, initial methodologies and strategies had already been selected. Adaptations were made to investigate meaningful data as they arose. A variety of research methods were used. Each is discussed as it applied to a specific research question.

The main research question, "What are patients learning about the nature and treatment of their illnesses in the outpatient dispensary?", was formulated before entering the field. Initially the writer had intended to study *what* and *how* patients were learning. Studying *how* patients learned would have involved exploring such elements as mimicry, modeling, and the influence of significant others. During data collection, however, while the content question of *what* patients were learning remained clearly in focus, the process question of *how* they were learning diminished in deference to a more salient issue - the health habits (beliefs, practices) of those using the outpatient dispensary. With the ethnographic method, it was possible to explore this important issue as it arose. The research design and findings, then, are grouped into two categories. Research Questions 1 through 4 pertained to patient learning, and the findings related to these questions are reported in Chapter IV. Research Question 5 concerned health habits; the related findings for this question are reported in Chapter V.

Design Related to Research Questions 1 Through 4

The strategies to answer the research questions focused on several key areas: the learning environment, learning opportunities, and knowledge patients gained from the outpatient clinic experience. Because the researcher's previous experience with outpatient dispensary work had been at Kasela Hospital, she decided to spend time looking at other mission hospital outpatient dispensaries to see if their learning environments varied significantly from that at Kasela Hospital. The questions that emerged from focusing on those four areas, and the methods and strategies used to pursue them, are considered in greater detail in the following paragraphs.

The Learning Environment

1. What is the learning environment of the outpatient dispensary?

The first task was simply to describe the facility itself as the location of the learning environment. Because no drawings of the dispensary and hospital complex were available, an initial step was to map the facility. A particular focus of the mapping was to note where patients waited, were interviewed or treated, and received their medicines.

Noting the services available to patients was a second step in gaining insight into the patients' learning environment. The hospital constitution, standard operating procedure, and annual report provided information on specific services, as well as insights into broader areas of hospital policy.

The first week, blocks of one or more hours were spent observing in areas where patients received services. These areas included the laboratory, record room, doctor's clinic, appointment unit clinic, drug-dispensing line, injection table, and dressing room. Observations were also done in nonservice areas, such as the waiting room and patient market. This style of initial observation was suggested in Dorr-Bremme's (1984) Practical Fieldwork From An Ethnographic Perspective as a way of familiarizing people with observer behavior and to "remind them that you are, in fact, present" (p.126). During brief intermissions from the observation site, the researcher recorded notes on a TRS 80/100 lap computer. She reviewed and printed the notes later the same day.

Within the first few days of observation, it was apparent that patients were involved in two major types of learning. The first type concerned learning how to get through the outpatient dispensary itself, that is, "learning to use the system." After this was noted through initial observations, interviews were carried out with people important in that

process. Such people included laboratory and record room staff, nursing staff, family and friends accompanying patients, and even a woman who played an important role in this area although her main clinic function was simply to provide water to patients.

The second type of learning was primarily related to information patients gained regarding instructions about their treatments and knowledge of how to take medications. Insights into this learning were obtained by observing at sites where patients interacted with staff (including registered nurses, drug dispensers, and physicians), by interviewing those staff, and by interviewing patients both in the dispensary and in their home villages.

Learning Opportunities

2. How are learning opportunties organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?

To address this question, observations were made to note at what points during dispensary visits patients had opportunities to learn about the nature and treatment of illnesses. As interactions with the registered nurse, drug dispenser, and physician emerged as the most significant areas, time was then spent observing in those situations. Interviews were later conducted with staff members involved in the interactions. In those interviews the issue of what staff felt patients learn in the outpatient dispensary setting was also explored. Health education for patients was discussed, although Kasela Hospital had no organized health education program for dispensary outpatients.

Patient Recall of Specific Information

3. What specific information about the nature and treatment of their illnesses do patients recall from their clinic visits?

To determine how patients perceived their illnesses before their dispensary visits and what they learned about their illnesses and treatments during the interaction, both pre-visit and post-visit interviews were conducted. Pre-visit interviews did not pose problems because the majority of cards for patients who had previously used the clinic and new patients were available by 10:00 a.m. each morning. Arranging post-visit interviews with those same patients in the general clinic was more difficult. A patient interviewed at 9:00 a.m. might well not be finished with the clinic visit until 4:30 p.m., and the area that had been a quiet interview setting in the morning was a busy doctor's clinic in the afternoon.

To see how the interview process might work best, the first set of interviews was done in the Thursday morning Appointment Unit clinic. In this clinic, unlike the general clinic, patients paid a fee to see a physician. The physician did the interview, physical examination, and prescribing. Patients then went directly to get their medications. Normally 30 to 40 persons attended this clinic. On one of the Appointment Unit clinic days the researcher conducted the regular morning registrations, as a participant observer, and in the process was able to obtain the information contained on the pre-visit interview form. Registrations began at 8 a.m., but the physicians often did not begin work until 9:30 or 10:00 a.m., so ample time was available to talk with patients about what had brought them to the dispensary, what they felt might have given them their sicknesses, and what they had done for their illnesses before coming to the clinic (see Appendix E). On another Appointment Unit clinic day, roughly half of the total patients

were interviewed both before and after their visit. To avoid interfering with the flow of the clinic, interviewees' cards were simply selected from the stack of those waiting to be seen. No effort was made to obtain a true random sample. Data from each interview were typed onto a computer immediately following each interview. On numerous occasions patient comments were typed on the computer during the course of the interview. The computer either was accepted as "part of the treatment" or was the subject of friendly inquiry. All 21 patients interviewed before seeing the physician returned for a post-visit interview.

Some of the post-visit interviews were limited to the four questions listed on the Outpatient Interview Form (Appendix E), but many were more open-ended. Longer interviews occurred particularly with patients who had come to the clinic a number of times or over a period of years.

Similar interviews were conducted in the general clinic; 28 patients were seen over the course of several days. The greater time lapse between interviews, the location of the interview area, and the more general confusion in this part of the clinic had the anticipated effect: 9 of the 28 patients did not return for a post-visit interview. Nevertheless, the interviews provided many profitable insights.

In the Population section of this chapter, village survey work was described. One purpose of that survey was to ascertain to what extent villagers were using the dispensary. Another purpose was to determine what outpatients had learned during dispensary visits. During the survey, villagers with outpatient records were interviewed. Having the patient's outpatient dispensary record in hand enabled the researcher to know what treatment and instructions patients had been given. If the card showed, for example, that a green spoon used to measure salt and sugar had

been given for oral rehydration, the individual was questioned about what he/she remembered of the instructions and was asked if the green spoon had indeed been used for that illness or subsequent episodes of dehydration. Individuals who had received treatment for schistosomiasis or onchocerciasis were asked if they knew what caused that sickness. The village interviews are described in more detail in the section dealing with the three village surveys under Population. Data collected from those interviews are discussed in Chapter IV.

The Learning Environment of Other Mission Hospitals

4. Is the learning environment of the Kasela Hospital outpatient dispensary similar/dissimilar to that of other mission hospitals in Sierra Leone?

An important factor affecting health care services in rural or "up country" Sierra Leone was the system of roads, which made travel to the various hospitals and outpatient dispensaries difficult in many places. Under normal conditions the last 55 miles to Kasela Hospital took three or more hours. One effect of this was limited communication between hospitals. Short staffing at the institutions often meant that staff commonly did not leave their own institutions for several months at a time. Consequently, staff often were not familiar with services available or methods of doing things at other similar institutions. At a Ministry of Health/Nongovernment Organization conference held in February 1987, 32 agency representatives presented papers highlighting their activities. One of the constraints identified by the organizations was poor communication among nongovernment organizations (Staff, 1987).

In 1974 the Christian Health Association of Sierra Leone (CHASL) was formed. The membership comprised eight hospitals and 21 clinics, all nongovernment organizations. One of the objectives of the organization was to foster cooperation among members. The eight hospitals all had outpatient dispensaries. To describe and analyze patient learning in the Kasala Hospital outpatient dispensary without considering what was occurring in other similar institutions would have been to neglect an important source of comparable data. Thus, part of the research involved traveling to the other CHASL hospitals over a two-week period with the executive secretary of CHASL. One of the eight hospitals was not reached because of impassable roads. A letter was sent to that hospital requesting information on attendance figures and health education efforts, but a reply was not received. The other hospitals, however, were visited and provided a broad context in which to view the learning that occurs in outpatient dispensaries. At each institution the researcher had an opportunity to tour the facility, interview administrative officials and staff members, and read the annual reports. Data collection focused on services offered, health education programs, and what occurred in an outpatient dispensary visit.

Design Related to Research Question 5

5. What are the health habits (beliefs, practices) of those using the outpatient dispensary?

As already indicated, John Dewey provided a conceptual framework for learning experiences in which he described experience as an interaction between the individual and his environment. Experience, in Dewey's framework, is continuous and generates habits that are available in and temper the character of subsequent experience. In view of the continuous

nature of experience, then, it was important to view patient learning in the Kasela Hospital outpatient department in the larger context of previous and subsequent experiences that produce health habits.

Health Habits Generated From Previous Experiences

5a. What health habits (beliefs, practices) have been generated from previous experiences?

The question essentially asks, "What do clinic patients believe about the causes and treatments of illnesses, and what do they do when ill?" It is important to remember that the individuals sampled in the research were all dispensary patients. The researcher would not have been looking at health practices before a dispensary visit when the individual being interviewed was seated in the dispensary. People who had come to the dispensary seeking care were already different from those who had never come. The starting point for looking at health beliefs and practices was among those who had chosen to come to the dispensary. Further, to limit interviews to those using the dispensary for the first time would not have provided a useful distinction because many patients had used other dispensaries as well. That is, they had had an "outpatient dispensary experience" even if it was not at Kasela Hospital.

The main source of information in answering this question on health practices was the outpatient interviews mentioned in connection with the first research question. The ninth question in the Outpatient Interview Form (see Appendix E) addressed one of beliefs about illnesses: what the patients felt had caused the sickness that had brought them to the dispensary.

The tenth question dealt with what patients had done for their illnesses before coming to the dispensary. Patients were asked if they had used traditional medicine, purchased medicines from traders or in the markets, or gone to other hospitals or dispensaries. After answering that structured question, they were asked to talk further about the course of action taken.

In the outpatient interviews, several themes relating to beliefs and practices kept recurring. Patients were seeking treatments from a variety of sources. Families were influential in selecting the type of treatment. Nevertheless, the information and insights were limited to those particular patients. To gain a broader understanding of the recurring themes and their meaning within the local culture, several local authorities were interviewed, as well. Goodenough (1970) recommended seeking out local experts to gain a better understanding of a group's culture.

> Ethnographers concerned to describe a group's culture, in the sense in which I am using the term, make a regular practice of seeking out recognized local authorities and experts in order to use them as their principal sources of information. . . .The authorities are, obviously, more likely to provide information from which an ethnographer can formulate for the community he studies a set of standards that, taken as a guide for acting and interpreting the acts of others, leads to behavior the community's members perceive as in accord with their expectations of one another--behavior they accept as being properly Trukese, country Irish, or whatever. (p. 100)

Eight interviews were particularly rich in this regard. Three informants were traditional practitioners: an herbalist, a traditional birth attendant, and a Muslim shopkeeper who sold traditional medicines. One was a health worker not employed at the hospital, two were townspeople, and two were hospital staff members. All eight informants had used the outpatient dispensary services at some time. Six were Limba, one was Temne, and the

shopkeeper was a Hausa who had lived in Kasela a number of years. All had respected positions in their various communities.

Two publications mentioned in the literature review proved useful as springboards for discussion in the interviews. The first was McCormack's "Health, Fertility and Birth in Moyamba District, Sierra Leone" (1982), and the second was Sawyerr's (1983) Medicinal Plants of West Africa. For example, in talking to the midwife it was useful to say, "The Mende believe that eating plantain in pregnancy can cause a retained placenta. What do the Temne and Limba think of this?" Or, "Among the Mende, green paw-paw leaves are crushed and tied to the stomach for abdominal pain. Is that also done here in Kasela?"

In addition to the use of traditional medicines that patients discussed, it was also readily apparent that Western pharmaceuticals played an important role in the health habits of patients coming to the dispensary. Even the small market stand within 200 feet of the outpatient dispensary sold not only analgesics and antihelminthics, but also such prescription drugs as tetracycline, ampicillin, ephedrine, and valium. A useful means of obtaining information about the way in which patients regarded and used these medicines was to make an elicitation device similar to the one described in Bledsoe and Goubaud's study (1985). The device used was a manila folder containing 32 different samples of pharmaceuticals and traditional medicines in small plastic bags. Sixteen were available in the Kasela town market and 16 were from the Kasela outpatient dispensary. The purpose of the device was to stimulate discussion on appropriate treatment for various diseases. Fifty people, both children and adults, comprised the sample. Following Bledsoe and Goubaud's methodology, the sample was not selected to be representative of the local population. Patients, those accompanying

patients, and several individuals from the town were shown the medicines and were asked which medicines they had seen before, the illnesses for which they were used, and what quantities were taken. In addition, discussions were held with local drug vendors about their medicines and the various ways in which they were to be taken.

Health Habits Generated From the Outpatient Dispensary Experience

5b. What health habits (beliefs, practices) have been generated from the outpatient dispensary experience?

Before entering the field for research, the researcher had anticipated that the outpatient dispensary experience would have some effect on the health habits of those who came to the dispensary. This effect was anticipated in keeping with Dewey's theses that experience is continuous and that health habits existing when patients came to the dispensary would interact with the dispensary experience, resulting in subsequent health habits.

Patient interviews, staff interviews, observations of patients' behavior, and several case studies related to behavior in specific illness episodes provided the material for a series of vignettes that illustrated a range of health habits generated from the outpatient dispensary experience. These are presented in Chapter V.

Summary

The ethnographic method was chosen for the study because it provided a framework for a systematic reconstruction and analysis of events, as well as an opportunity for "artful telling." Both outpatients and area villagers were surveyed to gain a clearer understanding of characteristics of the

research population. The major ethnic groups using the clinic were the Limba (46.3%) and the Temne (24.2%); the Susu, Fullah, Loko, and Mendingo groups constituted significant but smaller portions of outpatients. With regard to education, only 4.06% of patients were secondary school graduates. The waiting time for clinic patients was considerable; 45% of patients were still present at 2:00 p.m. Although nearly 40% of clinic patients paid less than Le 15.00 ($0.42) per illness episode, even that small amount constituted 5% of a monthly income of Le 300.00. Approximately 57% of all patients traveled fewer than 10 miles to the dispensary, but 70% of the AU patients traveled 30 or more miles to attend the clinic. In the three villages surveyed, from 43.9% to 76.9% of all villagers had been to the dispensary at least once.

The main research question focused on "What are patients learning about the nature and treatment of their illnesses in the Kasela Hospital outpatient dispensary?" To answer that question, research strategies focused on the learning environment, learning opportunities, specific information patients recalled from their clinic visits, the learning environment of other mission hospital dispensaries, and the health habits (beliefs, practices) of those using the outpatient dispensary.

The value of using the ethnographic method was reinforced during the course of the research as it became evident that numerous complex elements were related to patient learning in the Kasela outpatient dispensary. With the ethnographic method it was possible to explore those elements as they arose. The village surveys, for example, grew out of the need to gain a clearer understanding of who was using the dispensary, and also to know what patients recalled and did after some time had elapsed following their dispensary visits. Similarly, data collection focused on health habits

(beliefs, practices) of patients after that emerged as an important theme.

An important consideration that arose in exploring this complex environment was how best to focus the study so it did not devolve into a superficial exploration of many areas. In time, however, it became clear that two major themes were emerging. The first was the importance of patient learning and factors that affected that learning. Related findings are analyzed in Chapter IV. The second theme that emerged was the patients' health habits - that is, the way in which patients incorporated the dispensary experience into a larger system of health beliefs and practices. Findings related to that theme are analyzed in Chapter V.

CHAPTER IV

FINDINGS RELATED TO PATIENT LEARNING

The method of analysis in qualitative research has historically been ambiguous. As Miles and Huberman (1984) stated, "One cannot ordinarily follow how a researcher got from 3600 pages of field notes to the final conclusions, sprinkled with vivid quotes though they may be" (p. 16). To demonstrate as clearly as possible the way in which the findings of the research were reached, the data related to each research question in Chapters IV and V are presented first, followed by a discussion of the implications. Chapter IV deals with the findings of the first four research questions, which arose from the main research question: "What are patients learning about the nature and treatment of their illnesses in the outpatient dispensary?" Those four questions are as follows:

1. What is the learning environment of the outpatient dispensary?
2. How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?
3. What specific information about the nature and treatment of their illnesses do patients recall from their clinic visits?
4. Is the learning environment of the Kasala Hospital outpatient dispensary similar/dissimilar to that of other mission hospitals in Sierra Leone?

To answer those questions, attention ultimately focused on several areas: the learning environment, learning opportunities, and knowledge gained from

the outpatient dispensary experience. The outpatient dispensary learning environment of other mission hospitals in Sierra Leone was also considered. On initial review of the main research question, it might seem that simply considering knowledge gained from the outpatient dispensary experience would essentially answer that question. But even a brief period of observation in the dispensary would alert a researcher to the fact that the frequently crowded, often hot, and almost invariably busy environment might affect both the learning opportunities and the subsequent knowledge gained from the outpatient dispensary visit.

The Learning Environment

1. What is the learning environment of the outpatient dispensary?

In this section the facility and services of the outpatient dispensary are described, and observations related to patient learning are discussed.

The Facility and Services

The outpatient dispensary was part of Kasela Hospital as a whole (see Appendix D, Figure D.1). The hospital buildings were constructed of whitewashed cement block and had zinc "pan"-roofs. Outpatients went to the hospital for minor surgery, dressing changes, and procedures, but otherwise they were cared for in the outpatient dispensary. The outpatient waiting area was covered with a "pan"-roof and was open to the air. Numerous benches were provided, but seating was generally inadequate on busy days as the 300 or more patients who came were often accompanied by escorts or kinsmen. Patients commonly sat out under the trees or congregated in the market area. Services for patients were provided in the interview area, at

the drug-dispensing counter, in the laboratory, in the X-ray room, and in the doctor's clinic (see Appendix D, Figure D. 2).

The outpatient dispensary was open 8:00 a.m. to 5:15 p.m. Mondays, Tuesdays, Thursdays, and Fridays. On Wednesdays and Saturdays the dispensary was open until noon, and on Sundays it was open only for requested revisits and emergencies. On Thursday mornings, patients who did not wish to attend the general clinic and who wanted to see a physician at a particular time could attend the Appointment Unit clinic, for which they payed an additional fee. Wednesday afternoon was free for staff meetings, classes, and work projects. In addition to the general clinic patients, 25 to 30 more came each morning for the streptomycin injections, which were part of the treatment for tuberculosis. The dispensary was closed from noon until 2:00 p.m. each day. During that time patients could be seen stretched out on benches, resting on a cloth on the concrete floor, chatting under the trees, or simply sitting and waiting.

The market outside the dispensary provided food and small wares for patients: oranges, hot groundnuts, bananas, guavas, cola nuts, rice chop, cherry tomatoes, fried cakes, candy, cigarettes, razor blades, and even assorted medicines.

Observations Related to Patient Learning

During the observation sessions, numerous incidents similar to the following one, recorded by the researcher, occurred. The dialogue, transcribed in Krio, was translated to English with as little alteration as possible.

> Ya Konde, the elderly part-time women's chaplain, sat in the middle of the dispensary waiting room with a metal bucket filled with water

at her feet. Inside was a worn green plastic pitcher and two equally worn plastic cups with handles. As I approached she stood up and offered her seat. I went instead to the doctor's clinic and got a chair to sit on as all the benches were filled. She patted my shoulder and chatted amiably in Krio. Every few moments a person waiting in the dispensary area came up, and she would hand them a cup of water.

At 9 a.m. a sudden, sharp shower poured down. A young woman in an attractive blue tie-dye outfit who had gotten caught in the shower hurried up the dispensary steps. Our eyes met and she smiled brightly. "You have come back. It has been a long time. The time I borned this child [gesturing to the child on her back] you gave me clothes for the child." Ya Konde greeted her also. A small, clear plastic envelope was in her hand. Inside the envelope a green clinic ticket, a five leone note and other money were visible. "I don't know if I brought the right ticket," she said shyly, taking the green clinic ticket and holding it out to Ya Konde. Ya Konde took the ticket and handed it to me to read. "Fatmata Jalloh. That's your name," I said. "Yes." She smiled again, seeming relieved that she had brought her own ticket and not one for someone else in her house. She hesitated with the ticket. Ya Konde took it from her again and went off to the Record Room. We chatted until Ya Konde returned, and then I excused myself with "I have to go do some work now."

Although Ya Konde's official job was dispensing water, her amiable nature and central location in the middle of the dispensary made her an information source for patients, as well. Aware that Fatmata could not read her ticket to see if she had brought the right one, and perceiving that she did not know where to take her ticket after arriving, Ya Konde took care of both functions for her.

The clerk in the Record Room had a similar function beyond his regular duties. A conversation recorded between the clerk and a patient was as follows:

Patient: "I've been here since this morning. I came first, but until now they haven't called me."
Clerk: "Did you come yesterday? Did you bring a [stool] sample?"

Patient: "Yes, they told me to see the doctor today."
Clerk: "The doctor hasn't come yet. Wait until 2 o'clock."

During one morning's observation an old lady came repeatedly to the clerk's window for assistance. She had brought two children's tickets instead of her own, but being nonliterate she did not know she had brought the wrong tickets. When asked about the help he had given her, the clerk replied:

> I have to help her because she's old and doesn't understand too much. You have to help her throughout. So today to clarify the whole show, I had to take the mum inside. I have to get them all [the staff] to assist. You have to go every place with some. You tell her to go inside [to the screener] but she goes to the doctor instead and says, "He told me to come here." So it is good for me to take them. It is good for us to take them hand in hand.

On numerous occasions, the Record Room clerk was observed helping patients who did not know how to proceed through the dispensary system. Other staff assisted patients, as well.

A lab technician, when asked about his role in assisting patients, responded, "When some people come in the morning, they don't understand [how to do things]. They always ask questions." In the laboratory, during an observation period one morning, a local pastor stood by a woman with a young child; through gestures and by speaking quietly to her, he told her what to do next.

The assistance patients commonly sought in the clinic was not limited to information on how to progress through the course of a day in the clinic. Frequently, patients also needed assistance with food and lodging. On the day of interviews in the lab, one technician had six patients who had come to stay with him and the other had ten. The Record Room clerk had four "strangers" or guests. Virtually all staff had outpatients staying with them.

People in the town had the same experience. One townsperson who was asked about patients who had come to "sit" with him said:

> Many times it costs more to keep the person than even the amount of money he pays at the hospital and [for] his transport. Kasela people are doing a *lot* to run this hospital. The amount of money they put in to run this hospital is too much. Because many times somebody will come here just for a day. Sometimes he feels that he has malaria and is coming just for malaria treatment and will go. And when he comes he has amoebiasis, he has schistosomiasis, he has spiders [onchocerciasis]. . . . Different things. And then it is far for him to pay transport to go back and come back. So he stays. You are going to end up feeding a man, keeping a man, lodging a man for a month or two months who has just come for a day and has only planned for a day, you see?
>
> And sometimes the people come here and don't know anybody and [don't know] the procedure in the hospital. First, you go here. From there you go there. They're not used to that. The hospital is a big city for them when they come here. A big city. So they are afraid even to come alone. So they ask the person from Kasela to bring them, just to go through the procedure for two, three days before they can know how to go by themselves. So it is costing again the man in Kasela to stay out of his work two, three days just taking care of the man.

This, then, is the environment of the Kasela outpatient department. Busy. Crowded. It is a place of multiple languages, and a spot that is unfamiliar to many. And for many patients coming through the dispensary line, questions of importance are not simply "What medicine am I getting?" or "What sickness do I have?" but "Where will I sleep tonight?" and "Do I have enough money to get home?"

A Kasela police officer, who had accompanied a patient to the clinic one morning, said that on that particular day he had six patients staying with him. He had originally come from a Loko village, and when people from Loko areas came to Kasela they often stayed with him. He said that most of the time he had three to five patients at his house. "They bring only a pan of

funde [millet]," he said, "and a bottle of palm oil. I am responsible for the rest of it."

Learning Opportunities

2. How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?

Observations about learning in the dispensary focused on three specific areas in which patients and dispensary personnel interacted with regard to understanding the nature and treatment of illnesses: nurse/patient interactions, drug dispenser/patient interactions, and physician/patient interactions. In addition to observing these interactions, the researcher interviewed staff who participated in them.

It would perhaps be more accurate to describe these as "interaction opportunities" rather than "learning opportunities." Although the intention was to find out about patient learning, the observations actually focused on teaching and the constraints on teaching.

Nurse/Patient Interactions

The registered nurses interviewed, diagnosed, and prescribed for some 80% to 90% of the outpatients each day. The other 10% to 20% who had more serious illnesses or needed to be evaluated for surgery were seen in the doctor's clinic each afternoon. A set of standing orders provided guidelines for treatment of maladies seen frequently in the clinic, such as malaria, measles, onchocerciasis, schistosomiasis, neonatal tetanus, and amoebiasis. On full clinic days (Mondays, Tuesdays, Thursdays, and Fridays) an RN would characteristically see 80 to 120 patients. The average interaction time was about five minutes, although this was less at particularly busy times. The following interactions occurred in a 15-minute period.

The interview desk was clean, and the only item on it was an infant scale. The patients' cards were already on the desk, and the patients had been seated outside in order on a long bench. As the name was called by the RN, each patient came inside and sat down on a chair next to the RN.

The first patient was a young man who appeared to be in his twenties.
RN: (The RN spoke in Krio) "What thing is hurting you?"
Patient 1: "It's my chest" (encircling both sides of his chest with his hands).
RN: "Do you cough?"
Patient 1: "Yes."
RN: Do you smoke?
Patient 1: "No."
RN: (The RN wrote silently on the card, then put the card face down at the side of the desk.)
Patient 1: (He quietly went out the same door he had used to enter.)

The second patient was a woman with a small child. The conversation was again in Krio.
RN: "What is the sickness?"
Mother of Patient 2: "He isn't well."
RN: "Is his body warm at night?"
Mother of Patient 2: "Yes."
RN: "Does he cough?"
Mother of Patient 2: "Yes."
RN: (The RN put the child on the scale and weighed him in order to calculate a medication dosage. The child voided and the RN made a smiling comment to the researcher, "They always urinate when put on the scales." The RN returned the child to the mother, wrote silently on the card, then placed the card aside and the woman stood to go.)

The third patient was again a woman with a small child.
RN: "Do you speak Krio?"
Mother of Patient 3: (She nodded her head from side to side, a negative response.)
RN: "Go call someone."
Mother of Patient 3: (She rose and walked to the waiting room to

call someone to speak for her. Another young woman entered, stood beside the first, and addressed the RN in Krio.)

Second Woman: (She nodded toward the child.) "His body is warm at night. He coughs."

RN: (The RN listened to the child's chest with a stethoscope.)

Second Woman: (After talking to the first woman in Fulani) "The woman herself is not well."

RN: (Addressing the first woman) "Did you get medicine?"

Second Woman: (Answering for the first woman) "They didn't call her yet."

RN: (The RN finished writing orders on the card and set it face down.) "Go wait yonder."

The preceding set of interactions was selected because the environmental factors associated with it were so common and because a similar type of interaction occurred with virtually all the staff in this role at some time. A large number of patients awaited their turns. The verbal interchange basically focused on symptoms. Language barriers further hindered communication in a situation already constrained by time pressures. The presence of a number of people also meant that there was no privacy in the conversation. The treatment written on the patient's clinic card was not explained, nor was the health problem of the patient discussed. It must be noted, however, that this set of interactions was characterized by a sense of courtesy and orderliness. Patients gave no appearance of dissatisfaction. A sense of "this is the way things are done here" seemed clear to those involved.

Drug Dispenser/Patient Interactions

Two staff normally dispensed medications to patients and relayed to them the instructions written on the clinic card by the registered nurse or physician. One dispenser was a registered nurse and the second was often a nursing assistant. There were no pharmacists or pharmacy clerks at the

dispensary or hospital. The nursing staff handled pharmacy responsibilities. When the clinic first opened, patients who were "revisits" coming for particular medicines were called first. A translator or "word turner" who spoke six languages sat at the counter and explained the medications when one of the staff dispensing drugs was unable to speak that patient's language.

Instructions generally involved how much of the medicine to take and how often it should be taken; for example: "Take two morning, two suntime, and two at night for three days." The name of the medicine was almost never mentioned, and the function was explained sporadically. During an observation done part of one afternoon, for example, 72 patients received a total of 196 medications whose purpose was explained 57 times or 29% of the time. One nurse accounted for 38 of the 57 explanations or 67%. Patients were occasionally asked if they understood the instructions but were not requested to repeat them. The medication packages were marked with circles in pencil or magic marker to indicate the frequency with which the medicine should be taken. Three sets of two circles, for example, meant that two tablets were to be taken in the morning, two at noon, and two again at night. Mothers often tried to listen to the explanation about the medicines while coping with small children. Some patients would be untying a small piece of cloth to get their money while listening to the instructions. Occasionally a patient would return to the line, after having left the dispensary, and ask again how the medication should be taken. Quite often those in line waiting for medications moved close to the counter, and the noise level invariably rose as the dispensers tried to explain the medications amid the press of people. One staff member was responsible for keeping the line in order.

Several elements of the drug-dispensing line were salient with regard to learning opportunities for patients. First, the dispensers basically communicated how to take the medications. There was no emphasis on what the medication was for, or side effects of which patients should be aware. Second, the interaction was primarily a one-way communication. Thus it was not possible to know, from observation, how well the patients understood the instructions. Third, numerous environmental factors such as crowding, noise, heat, paying for the medicines while simultaneously listening to instructions, and distractions by other patients or small children interfered with the learning situation. The fact that one, and sometimes both, of the staff dispensing medications were nurses contributed in a measure to some of the confusion that arose on the line. Patients would periodically ask for "more medicine" or launch into another explanation of their illnesses, and the nurses would become involved in an assessing and prescribing role. This was invariably time consuming and conflicted with the drug-dispensing function of the line.

The learning opportunity presented to patients at this interaction site was primarily "how to take your medicines."

Physician/Patient Interactions

Beginning at 2:15 p.m. each afternoon of full clinic days (Mondays, Tuesdays, Thursdays, and Fridays) there was a doctor's clinic. The registered nurses who screened the patients determined who would be referred to that clinic. A variety of patients attended the doctor's clinic, including those needing a surgical evaluation, those with eye injuries, those suspected of having tuberculosis, the seriously ill, trauma cases requiring a police report, and those who had not responded to earlier treatment by the RN. Perhaps 10%

to 20% of the general clinic patients attended this clinic. One or two physicians worked each afternoon along with a registered nurse who was also a physician's assistant (PA). Interruptions requiring the physicians to leave were common and included such things as emergency surgeries, diesel generator problems, and treatments needed for hospital patients. A nursing assistant served as a translator for patients who did not speak Krio.

An average of eight minutes was spent with the patients seen during one afternoon's clinic. The time was spent reading the history recorded on the patient record, listening to the patient talk, writing orders, and talking with the patients. The practitioners sat within eight feet of each other, separated only by partitions, and considerable interaction took place between them. Animated conversations on paradoxical effects of digitalis, appropriate tolinase dosages, and a new bronchodilator punctuated the afternoon. Seven interactions related to appropriate treatment for patients. The physician's assistant, who was new to the clinic, received extensive information and suggestions from the physicians. With the exception of one town dignitary, the patients were usually silent except when addressed. At that time they would usually relate symptoms associated with their health problem, often quite extensively. During this particular afternoon of observation, only the physician's assistant explained the medication orders to one patient.

Observations similar to those already noted were made on five separate occasions in the doctor's clinic. The camaraderie among the health professionals was evident. Patients consistently received courteous attention when talking about their health problems. Virtually no time, however, was devoted to explaining anything about the illness or the treatment that was being prescribed.

Staff Interviews

Ten staff involved in the interactions just described were interviewed, singly or in groups, regarding their perceptions of what patients learned in the dispensary. Some specific information that had been communicated by nurses in the screening area was mentioned, such as appropriate oral rehydration therapy, contaminated water as a cause of diarrhea in children, and foods recommended for young children. But discussions largely centered on barriers to patient learning. The barriers mentioned were language, culture, education, limited time, and the discomfort caused by the afternoon heat. A drug-dispensing staff member, commenting on interactions in the drug-dispensing line, said:.

> We're awful in the afternoon. We just get so tired. You've said 50 times that day 'this is for your worms' or whatever and you start to get slack. And where you might have been patient with somebody pulling out their money really slowly the first thing in the morning, by the time it's 5:30 p.m. all you want to do is go home.

An RN commenting on a patient screening experience said:

> I don't *really* know what's going on in the patients' heads. One lady with some education and multiple chronic complaints including chest pain begged and begged for a chest X-ray. She believed that would cure her chest pain. I spent a long time talking with her and trying to educate her and help her understand X-rays do not cure anything, but she went away believing that was her only hope of recovery.

Several staff also said that the role expected of them, by both patients and other staff, did not include patient education. A physician commenting on an experience in the doctor's clinic said:

> [In the USA] I was used to spending probably 20% to 40% of the time making the diagnosis, and the other 60% helping the patient understand his disease and what we were going to do about it. A game plan. Work out a game plan with the patients about what to do. When I

> first tried to do that here the word turners [translators] would listen and they wouldn't turn it [i.e., translate it]. I'd say "You tell them this. Tell them what I said." And they might try. And finally they got frustrated with me and said "Just tell them to go for their medicines." Well, I found that with the numbers we were seeing, and with the problems of language and everything. . . .I found it very tempting just to say "Go for medicines." Which is what I mostly do now. It's the tradition. What the patients expect, what the word turners expect, what everybody else expects. Once in a while I still tackle it. I usually tackle it in a patient that can speak Krio, that I can talk to directly.

In analyzing staff responses to the question of what patients learned in the dispensary, it is important to know that no organized health education program existed. Neither was there a protocol for teaching patients in the screening or drug-dispensing areas. Although there was consensus among those interviewed that there *ought* to be more systematic health education, the energies of the staff were actually focused on coping with the large numbers of patients coming each day. Like many other problem areas awaiting attention in busy situations, health education might be described in this situation as "a high-priority item on a low-priority list."

Patient Recall of Specific Information

3. What specific information do patients recall about the nature and treatment of their illnesses?

As indicated in Chapter III, information on what patients recalled about the nature and treatment of their illnesses after an outpatient dispensary visit was elicited first from patients in the clinic, and later during interviews in three villages.

Dispensary Interviews

The interview questions are listed in Appendix E. Patients were interviewed both before and after their clinic visits. Questions 1 through 7 were posed to obtain baseline information on this group. Questions 8 through 10 related to Research Question 5a and are discussed in Chapter V. Question 11 simply concerned whether the patient had come alone or had been accompanied or "escorted" by another person. The post-interview questions focused on information the patient had gained from the clinic visit. The interview data are presented in Appendix F.

As noted in Appendix F, more than half of the patients in the AU sample were Fullah, and more than half in the general clinic sample were Limba. No children were among the AU patients, whereas 13/28 of the general clinic group were children. Of the AU patients, 18/21 came from more than 30 miles, and only 3/28 of the general clinic patients came from that distance. Only 2/21 AU patients had any formal education. Eleven of the general clinic patients were not yet of school age, but of the remainder only 5/17 had any formal education. These data are similar to those describing the clinic population, which were presented in Chapter III. A number of patients were accompanied by someone who either translated for them or simply stayed with them.

In the post-visit interviews, patients were asked to recall specific instructions they had been given regarding their illnesses. Individuals came to the interview directly from the drug-dispensing line. Instructions included orders to return at a later date for additional medicines, directions on bringing sputum samples, and dietary recommendations. All 21 AU patients and all 8 general clinic patients correctly recounted the instructions written on their clinic cards (see Appendix F, Post-Visit

interview, Question 1). Patients were then asked to show the medications they had been given and demonstrate how to take them. The data showed 51/56 correct responses among AU patients, and 41/49 correct responses among general clinic patients (Question 2). However, when asked what the medications were for, only 10 AU patient responses and 6 general clinic patient responses were correct (Question 3).

In analyzing this information, it seemed clear that patients understood instructions given on the drug-dispensing line and likewise knew how medications were to be taken. Since the interview immediately followed patients' receipt of the medications, the data did not reflect knowledge decay over time. It is not surprising that patients did not know what the medications were for, since observations of the drug-dispensing line showed that this information was not systematically communicated to patients.

When patients were asked to recall what they had learned about their diseases or treatments from earlier visits, relatively limited information was forthcoming. For example, a patient described an admission four years earlier and said that the medicine was "good" and made her stronger to go and work on her farm. One portion of the general clinic group, however, was a marked exception to this. Seven of the mothers had attended one of the area Under Five immunization clinics with their children, and they had a great deal to say about what they had learned there. One told about being taught not to hand feed children (because of the dangers of aspirating food) and said since then she had been using a spoon to feed her eight month old. The same woman told how she had used the green spoon (given to measure salt and sugar for making an oral rehydration solution) to make "salt and sugar water," which she gave in "small sips all day" to her child when it had diarrhea. Another told how she had listened to instructions about feeding

small children starting at four months. She had started her child on soft mango and ground rice following that. At the time of the interview the child was old enough to eat soft rice with finely cut greens. Another also talked about the correct diet for children and told how she had started sponging her children when they had fever, after learning about it in the Under Five clinic. Others told about learning to feed their children "fine chop" (good food) and sponging them with cool water when feverish. Two mothers indicated they had been instructed about such things at the outpatient dispensary, as well as at the Under Five clinics.

An analysis of this information pointed to the effect on both knowledge and practice of the planned educational programs of the Under Five clinics. Teaching in those clinics was done through songs, stories, and demonstrations, in addition to didactic instruction. Mothers were in their own villages and seated comfortably during the clinics. The Under Five clinics were staffed and financed through Kasela Hospital. A number of the staff who went to the clinics also worked at times in the outpatient dispensary.

Village Interviews

The three village surveys had two primary functions. First, they provided an indication of dispensary usage by villagers several miles distant from Kasela. Second, they provided an opportunity to talk with people at their own homes about what they had learned from using the outpatient dispensary. By having the individual's outpatient record in hand, it was possible to ask what he/she recalled about specific illnesses. A secondary benefit of the village surveys was that they provided descriptive information about the life circumstances of the survey population.

Kaloko Village

Kaloko Village, an arduous 12-mile walk from Kasela, had the lowest use rate of the three villages. Seventy-one people who had used the clinic were at home during the survey. Two mothers had received green spoons for oral rehydration therapy for their children, but in each case the spoon had been lost. The mothers said, "It got missing." They remembered the instructions for using the spoons but no longer made an oral rehydration drink. No sugar was available in Kaloko Village, so the mothers could not make the sugar-containing oral rehydration solution they had been instructed to make.

One patient who had been treated for amoebiasis knew only that he had "worms." A mother commented that she received "no teaching, just medicines." A man who had come in for 12 weeks of streptomycin a year earlier for treatment of tuberculosis had followed through on taking all his oral medicines, as well. He was feeling well and had gone back to doing heavy work on his farm. Several talked about bringing patients in to the hospital by hammock over the steep, narrow footpath. One man had carried patients in more than ten times, including his own son who subsequently died at the hospital. He said, "Anyone that is sick says 'Go call John, let him come,'" indicating that the people of Kaloko were accustomed to having him help carry patients in to the dispensary. One woman had been carried in twice for Caesarean-sections. The second time she had arrived too late and the child had died. Another woman with both pulmonary edema and a nephrotic condition took two days to walk to the hospital. Her symptoms abated after five weeks in the hospital, and it again took her two days to walk home. One woman had been instructed at the dispensary to join an Under Five clinic, but the nearest one to Kaloko was 12 miles away. Another patient had asked for, and received, additional medication for a skin condition after explaining in

the dispensary that he came from "a far place." One household head, who had outpatient tickets for all 14 members of his family, said that he learned at the dispensary to take care of his body and keep clean by washing. All the children he had taken to Kasela for treatment were still living, and he expressed gratitude for that. An older man, with a heavy worm load of onchocerciasis, had been instructed to come for treatment, but he said he was not able to walk that far and so would not go.

In analyzing what Kaloko villagers learned through their visits, two matters were particularly important. First, with regard to oral rehydration, although the mothers correctly recalled how to use the green spoons, the knowledge was of no benefit to them once the spoons were lost. Further, since no sugar was available in Kaloko, an alternate rehydration solution was necessary. The green spoons had created a dependency. Mothers needed to learn how to rehydrate their children with resources available to them. Second, orders could be more appropriate for patients when their home circumstances were known. A negative example of this was suggesting the mother have her child join an Under Five clinic when the nearest one was 12 miles away. A positive example was providing a patient with additional medicines because of the distance he had to travel.

Rotemne Village

Information gleaned from Rotemne villagers was similar to that learned in Kaloko. A patient with amoebiasis said he knew only that he had "worms." Another was also told only "worms." A woman who had been treated for chronic cervicitis said she had been told "nothing at all" about the nature of her sickness. A woman with anthrax said she was told that eating "sick goat" had given her the disease. One patient, who had been referred to an eye

hospital several hours south of his village, followed through on the referral and went. Another older man, however, had not followed through on treatment for his onchocerciasis at the Kasela Hospital outpatient dispensary because he "forgot about it" and had "no chance to come." When he was offered the treatment free of charge, he accepted and came to the dispensary the next morning. One older woman who had used the dispensary on a number of occasions smilingly said, "I am the owner of the hospital," referring to the money she had invested in her health care. Several mothers in Rotemne attended an Under Five clinic that was within two miles of the village.

One issue that these data made apparent was that a financial barrier prevented some patients from following through on instructions related to treatment.

Kalimba Village

In Kalimba, eight of the interviewed mothers had been given green spoons for their children. In all cases the mothers recalled the instructions on how to use the spoons, but three had been lost, one had been broken, and four had been used only once. On asking one mother where she had put the green spoon she no longer used, she replied, "there" and pointed upward, to where the bright plastic piece had been woven into the thatch roof as a decoration. Everyone present joined in laughing over the fate of the unfortunate green spoon.

Of the four villagers who had been treated for onchocerciasis and the ten who had been treated for schistosomiasis, none knew what caused the disease. One man described his schistosomiasis as "GC," a reference to the common conception that blood in the urine, which occurs with

schistosomiasis, is caused by gonorrhea. A common belief related to "GC" was that a person contracted the disease by stepping on ground where another person with venereal disease had urinated.

One woman explained how she had been taught to sponge a child with fever. Two had received medications for the treatment of scabies, but both had used it incorrectly. One stated she had not returned for medicines as instructed because of lack of money.

In considering the significance of the Kalimba findings, one important observation is that correct *knowledge* of how to use the green spoons for oral rehydration had not affected *practice* in the village.

In considering the data from the three villages, it seems clear that those who had used the dispensary had not learned a great deal about the nature and treatment of their illnesses. It is important to note, however, that the villagers used the dispensary frequently. Comments by villagers regarding the dispensary commonly concerned the issue of availability of medicines: "Medicine is there." "I believe the medicine." "There is medicine to carry." The importance of medicines to patients is further discussed in the findings of the fifth research question.

The Learning Environment of Other Mission Hospitals

To provide a basis for discussing the outpatient dispensary learning environments of other mission hospitals in Sierra Leone, the following figures are given to indicate the size and work loads of the facilities in 1985 (see Table 4). The facilities are referred to by pseudonyms (courtesy of H. L. Maclure).

Table 4. Attendance Figures at Nongovernment Hospitals and Outpatient Dispensaries (1985 figures) (Biseye 1984 figures)

Hospital	Kasela	Bua	Gbobe	Foreban	Robake	Biseye	Gbeba
OPD Visits	63,915	9,164	9,553	9,387	68,530	16,865	5,830
Hospital Admissions	1,680	1,979	4,037	853	3,321	1,542	843

Source: Hospital annual reports

All were general hospitals except Foreban, which was an eye hospital. Gbeba was a combination leprosy/general hospital. All of the hospitals had community health outreach programs that had an educational component. Only Foreban and Robake had daily educational programs for outpatients. In both places the programs for outpatients occurred at the beginning of the clinic day. At Robake the presentation was limited to 10 minutes. Topics were based on various diseases: measles, polio, tetanus, diarrhea, and so forth. A nurse and primary health care worker coordinated the program. The program at Foreban had been set up in 1986 by a professional health educator, who had spent six months assisting staff in developing a health education program. Attractive visual materials, a well-prepared curriculum, and staff skilled in encouraging patient dialogue characterized the daily presentations. At the time of the researcher's visit, the individual who had a full-time assignment as head of the health education program was serving in an administrative capacity, as well, due to a staffing shortage. He stated that "the health work has gone down a little bit because I have not been working [on it]." This example supported Scotney's (1976) assertion, discussed in the literature review, that administrative priorities affect health education.

Bua and Gbobe Hospitals had nurse-training programs. Teaching in the outpatient clinics was part of the nursing program curriculum. Gbeba had eight staff members who worked with patient education and rehabilitation programs. Biseye Hospital had just reopened after being temporarily closed and had no organized educational program for outpatients.

Two main impressions arose after observing patients in these various environments. The first was that the Kasela outpatient department was the most crowded of the facilities. Other facilities of similar sizes were seeing far fewer patients. Robaka, which saw a comparable number of patients, was more spacious and patients had more privacy when seeing the health professional. Each patient there was seen by a physician. Also, the Robaka clinic did not close over the noon hour; consequently, the clinic was normally finished by 3:00 p.m. or 4:00 p.m., which was an earlier closing hour than at Kasela. Greater privacy was also evident at Bua, where most of the patient education was done on an individual basis and related specifically to that patient's health problem.

The second impression was that having an individual with a specific assignment in the area of health education was the key to a well-prepared program. All of the general hospitals had health education staff in their community health programs. These people could be excellent resources for developing appropriate strategies for outpatient health education.

Annual reports from the mission hospitals indicated that economic conditions in the country and staffing shortages were their main problems. Characteristic statements were as follows. "A major problem in administration. . . .was obtaining foreign currency to pay our drug bills." "Rising costs of living, of transport and [a] closed border to Guinea caused. . . reduction in the patient load of the hospital." "The present economic

constraints in the country [have] repercussions. . . .at every level of functioning; the consequence being struggles for survival rather than the implementation of the ideals of health care delivery." "[Our hospital] was faced with inflation, economic depression, devaluation [of the currency], shortage of imported goods, and scarcity of essential equipment and drugs for healing patients." "The medical director has been alone with the medical responsibility [for six months] and has not been able to leave the compound for a break. . . ." Several hospitals reported not having an adequate water supply and all reported shortages of fuel to run their generators. Three administrators indicated that the monthly cost of running the hospital generator for a few hours each day exceeded monthly staff salaries. The phrase "chronic crisis" could be used to describe the functioning of the hospitals in a number of respects. This is important because staffing and funding for health education programs are commonly compromised during times of shortage.

Summary

The data related to the first question asking "What is the learning environment of the outpatient dispensary?" indicated that the learning environment was shaped by environmental factors including crowding and time pressures. Many patients were unfamiliar with the dispensary system. Hence, one type of learning that took place was "learning to use the system." Patients' concerns in this regard included not only finding their way around the dispensary, but finding food and lodging as well.

The second research question asked, "How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?" Data from interactions between patients and

staff demonstrated that communication was primarily related to instructions and was essentially a one-way process rather than a dialogue that included the patient. Instructions regarding health practices, such as sponging a feverish child or mixing an oral rehydration solution, were given at the discretion of the physician or nurse and were not associated with a teaching protocol. Staff roles did not include an expectation of patient education.

The third research question asked, "What specific information do patients recall about the nature and treatment of their illnesses?" Information the patients recalled was primarily related to instructions about treatments and knowledge of how to take medications. Patients who recalled information that affected their practice were more likely to have gained that information from an Under Five clinic learning situation than from an interaction in the dispensary. Similarly, data from the village interviews indicated that meaningful learning about the nature of a patient's illness did not take place during the dispensary visit. The data regarding the use of green spoons for oral rehydration suggested that the knowledge acquired had not affected practice.

The fourth research question asked whether the learning environment of the Kasela Hospital outpatient dispensary was similar/dissimilar to that of other mission hospitals in Sierra Leone. Only Kasela and Robaka hospitals were seeing 60,000 to 70,000 outpatients annually, whereas the other facilities were treating 9,000 to 17,000 patients. One overall impression was that the Kasela outpatient department was the most crowded of the facilities. Each of the seven hospitals had a community health education program, but only two had educational programs specifically for outpatients. The community health education staffs could be excellent resources for

developing appropriate strategies for outpatient health education. A second overall impression was that having an individual with a specific assignment in the area of health education was a key to a well-prepared program. All hospitals reported economic difficulties and staffing shortages.

The implications of these findings are considered in Chapter VI.

CHAPTER V

FINDINGS RELATED TO HEALTH HABITS

In considering the fifth and final research question, "What are the health habits (beliefs, practices) of those using the outpatient dispensary?", it is again appropriate to turn to Dewey's conceptual framework. Dewey emphasized the importance of continuity in experience. A person coming to the dispensary as a patient had already had experiences related to learning about health, illness, and various types of treatment. Those experiences had generated various health habits. Because experience is continuous, those habits interacted with the dispensary experience. To understand what health habits had been generated from previous experiences, and then to examine what health habits had been generated from the dispensary experience, a longitudinal study would be in order. But as indicated in Chapter III, the starting point for this study was with patients who had already presented themselves at the dispensary for treatment. It was also mentioned that limiting interviews to patients using the dispensary for the first time did not provide a useful distinction, as many individuals had used other dispensaries as well. They had had an "outpatient dispensary experience" even if it had not been at Kasela Hospital.

The strategies used to answer the fifth research question were detailed in Chapter III, and the data obtained are considered in the following sections.

Health Habits Generated From Previous Experiences

5a. What health habits (beliefs, practices) have been generated from previous experiences?

Data from dispensary outpatient interviews were a main source of information in answering this question; these findings are considered first. Second, information from local authorities was obtained through interviews. Finally, the importance of Western pharmaceuticals in health habits was investigated. In each case the data demonstrated a mixture of beliefs and practices. For that reason, the categories are simply considered as health habits.

Data From Outpatient Interviews

The interview data considered here were obtained as part of the pre-visit interviews discussed in Chapter IV. The interview form is contained in Appendix E, and the data are contained in Appendix F.

Question 8 asked, "What brought you to the dispensary?" Patients generally responded to this query by recounting symptoms (20/21 AU patients and 23/28 general clinic patients). The remainder named a particular disease such as "dry cough" (tuberculosis) or "kidney infection." Question 9 asked, "Do you know what gave you this sickness?" The majority of respondents simply said they did not know. Often that response was accompanied by a gesture that seemed to indicate the question had not been considered before. Occasionally the response was, "Na God," that is, "It is God."

In reflecting on those responses, it would seem that they had been conditioned by the clinic environment. Question 8 was essentially "Why are you here?" or "What is the problem?" In the screening setting, patients

invariably responded to that question with a recitation of symptoms. Responses to Question 9 demonstrated that there was not much consideration of causation within a Western context. One informant said, "They don't trace cause. They know about the sickness. Sometimes they know about some kind of cure." He went on to discuss traditional beliefs in witchcraft, which concurred with Finnegan's description summarized in Chapter II. That is, patients had specific ideas of causation in traditional terms, but none in Western categories.

The responses of the 21 AU and 28 general clinic patients to the question about what they had done so far in seeking care for their present illnesses are contained in Appendix F. Seven members of each group had used traditional medicine. Four AU patients and three general clinic patients had purchased medicine in the market or from a trader. Only 6/28 of general clinic patients had gone to other clinics or hospitals, some of which in fact were area dispensaries, 7 and 12 miles from Kasela. Of the AU patients, however, 18/21 had already been to another clinic or hospital for this illness episode, and virtually all of which were major hospitals 100 or more miles from Kasela. Among the general clinic patients, 25/28 had traveled fewer than 30 miles to come, whereas 18/21 of AU patients had traveled more than 30 miles. Because the narrative responses of the AU and general clinic patients were different, their responses are considered separately.

General Clinic Patients

When asked about traditional medicines, two patients responded that they "tied their chests." One woman with edema of the feet had gone to an old woman in her village, who gave her water to drink, in which roots and leaves had been boiled. She had had diarrhea following that and noted some

decrease in the swelling, but had come to the clinic when no further improvement occurred. One mother said that she had not "joined upon native medicine" from an old woman in the town because she thought the medicine "humbugged" the children. If her children had fever at night and she could not bring them to the dispensary, she beat the leaves of the sour yellow plum tree, heated them in warm water, and then put them on the baby to keep him warm. She had also regularly attended one of the hospital's Under Five clinics. Four of her seven children had died. Two had died of measles after they had been weaned. All four children who had died had attended the Under Five clinic.

When asked about medicines bought in the market or from traders, one man said he bought the medicine from traders and then asked how to use it. If his child, who also attended the Under Five clinic, was not better a day or two following use of medicines from the trader, he said he would then bring her to the hospital. He said he did not use "country" or traditional medicine. Another man said he bought tetracycline tablets and would use the contents of one capsule in water for diarrhea in his child, which effectively stopped diarrhea "one time" or immediately. They had an oral rehydration green spoon at home but he said his wife did not know how to use it. Two men had used local dispensaries but when the dispensaries no longer had an adequate supply of medicines the men came to the Kasela dispensary.

Appointment Unit Patients

In contrast to the general clinic patients, the AU patients did not talk much about either traditional or market medicines, but they did talk a great deal about going to other clinics or hospitals. Numerous unlicensed "private practices" flourish, and one man had attended one of them. His laboratory

work at Kasela showed hookworm, amoebiasis, and tuberculosis. He reported seeking care in the following way:

> I went to a doctor in my village in Guinea. He told me I had malaria. He gave me seven days of penicillin chooks (injections). I sat down [stayed] for three months with him but I didn't feel better. The people in my family said "You go to Kasela to get a well body."

One patient who had had generalized abdominal pain for five years had been to two hospitals in Guinea and another in Senegal. He had come to Kasela because a relative had been to the hospital and agreed to accompany him on the trip.

Another man who had urinated blood for three years had been to two hospitals in Guinea. He had been given tablets for his illness but still did not feel better. He concluded he had "worms." His urine sample at Kasela showed a heavy infestation of schistosomiasis.

A woman who had first been to a Freetown hospital with generalized abdominal pain had came to Kasela at the suggestion of her mother. The mother had sent her other children to the Kasela dispensary with illnesses, as well. A man with kidney problems had been to two other hospitals and two dispensaries. Another man, who had used four different hospitals for sicknesses in the past, had come to Kasela needing a hernia repair. He said he had come because his family had told him, "if you don't go to Kasela, you won't get well."

Disturbing elements in the data were the evidences of inappropriate therapy and the extent to which patients lacked accurate knowledge about their health problems and therapies. Warming a fevered child is consistent with the belief that warmth drives away fever, but it is in fact a harmful practice. Penicillin injections for tuberculosis are both ineffective and detrimental. One tetracycline tablet is of no value for diarrhea and

contributes to the development of drug-resistant organisms. A green spoon for oral rehydration is of no value to the child if the mother does not know how to use it.

In analyzing the data about the health-care-seeking practices of the general clinic patients, two significant patterns emerged. The first was a pattern of medical pluralism. Patients were seeking care from many sources. Among the general clinic population, such sources included local traditional medicine, tablets from traders, and area clinics. The more affluent AU population traveled wider distances and made greater use of hospital services. The second theme was the importance of the therapy-managing group. Family members in these groups not only recommended where the patients should go, but often escorted the patients as well.

Medical pluralism was not limited, however, to those who used institutional health services. A man who lived in a village around 25 miles from the hospital, which was also quite a distance from the motor road, was asked about action taken when sick in that village.

> Normally, if they don't have trust in the hospital they go first to the medicine man. And they try. If no cure, they go to the looking-ground man. They look. And then the looking-ground man tells them something and then they go on that. And they try. If no success. . . .if they've done all these things and [have] no success, then they look for the hospital. The hospital [is] always last. Not the first place. That is one reason why so many times before they come to the hospital the child is hopeless.

The medicine man referred to was an herbalist who also had supernatural powers. The looking-ground man was one who divined the cause of a disease. When asked to what extent financial considerations affected the order of therapy choices, the response was:

> That also makes them go to the juju or to the medicine man, because they are cheaper. So they go there. They try there first. They find the cheapest place first to solve the problem. If they don't go through [i.e. get cured] then sometimes they go and trust [borrow] the money from a neighbor and come to the hospital.

In a remote village, the choices of therapy were different from those in larger towns or for individuals with greater financial resources. Nevertheless, individuals and families pursued a number of therapies within constraints that affected them.

Health-Habit Information From Local Authorities

Local providers of health care generously shared their time and the knowledge related to their particular arts. An herbalist, who lived seven miles from Kasela, related how his grandmother had instructed him in the art of herbal medicines. He said his ability to heal was "by God's power and the leaves" that he pulled. Some of his patients went on to the Kasela outpatient dispensary for treatment and then returned to him when "the doctor said there was no [more] medicine there" to help with that particular sickness. The wife of a *mariman*, a Muslim diviner, in the town of Kasela went to the bush to gather a dozen different leaves and then carefully explained how each was prepared and used. The moriman himself spent several hours talking about his own medicines and charms: a leather arm band that protected against enemies; a scissors-shaped neck charm that would ensure safe delivery of an infant; an egg in a bottle that prevented thieves from entering a house; a leather cord that went around the waist to prevent pain; and the lasmami water, containing ink from koranic writings, which had the power to drive away evil spirits and cure infertility.

A town market woman took time to explain the small pieces of baboon, goat, and monkey skin she sold as waist charms to protect from witchcraft.

Tailors working near the market showed the undergarments of red, white, and black sacrifice cloth they made, which were often seen on severely ill dispensary patients.

Women who were part of the village sodality graciously demonstrated obtaining and preparing geophagial clays from area clay pits. Clay was dug out of wet pits and then rolled into palm-size balls, removing as much yellow and red clay as possible so that only the white clay remained. The balls were dried in the sun for several days. When eating the balls, women separated the clay from whatever sand was present. The sand was discarded, and only the clay was eaten. The amount of clay consumed during pregnancy depended on personal preference. Some women ate a large ball each day, whereas others ate smaller amounts on a less regular basis. Similarly, the choice between eating mineral-rich termite mound or mineral-rich clay was a matter of personal preference (A. Langham, personal communication, March 30, 1987). The white clay was also put on the bodies of girls following their circumcision ceremonies. The same type of clay was used for finishing the surface of houses.

Two midwives related numerous folk meanings of fertility, such as prohibitions in pregnancy: eating pineapple will give the baby a skin rash; eating plantain will hinder the cord from dropping quickly; eating eggplant causes the umbilical cord to be big; eating a chicken's egg (i.e., causing the "chicken's child" to die) will cause the baby's death; sitting in a hammock will cause the child to stay and swing inside the womb instead of coming out easily at delivery; and bathing outside at night is dangerous because the child in the womb will see devils and look like one when born.

All facets of traditional beliefs and practices related to health deserved further exploration. From these interactions with local authorities, three

major insights arose. The first was the complexity and depth of meaning in the various traditional practices, whether herbal medicines, the role of the moriman, or folk meanings of fertility. The importance of these beliefs in people's lives was also evident. Traditional practices had legitimate authority, in the Weberian sense, in the culture in which they were practiced. A second major insight was the fact that these traditional systems were also part of a larger pluralistic system of medical care that included Western medicine. Traditional practitioners themselves used the Kasela outpatient dispensary. The Muslim moriman had 10 visits recorded on his clinic record and had been admitted for the surgical release of a small bowel obstruction. A prominent local sorcerer had 15 visits recorded on his card in addition to three admissions, including one for surgery. Western medicine, even to authority figures in the area of traditional practices, was an option used in times of illness. The third insight related to a lack of interrelationship between these systems and Western medicine. Traditional and Western systems of health care were both proximate and disparate. Like a mixture of oil and water, they were contained in the same cup and yet remained distinct.

One area in which an interrelationship of systems has developed over the years is women's health and childbearing. Ways to link that system of beliefs and practices with Western medicine have already been explored. In the 1940s, Margai (1948) began working through the society system to increase the skills of the traditional birth attendants. His "Village Maternity Assistants" were elderly and respected women of the community who were also members of the women's sodalities. The training program at that time emphasized cleanliness, safe deliveries, and recognition of abnormalities in the ante-partum period (Williams, 1979). More recently, MacCormack (1981)

argued, using Weber's analysis of the three forms of social legitimacy, that the traditional authority of the village midwives must be incorporated into the current primary health care system to make it effective. A legal-rational health care system that ignores traditional authority is not likely to be effective because it is not regarded as a legitimate authority. The willingness of traditional practitioners to augment their knowledge with Western medical skills makes them a natural link in developing a comprehensive health care system.

Western Pharmaceuticals as a Health Habit

The importance of Western pharmaceuticals to clinic patients cannot be overemphasized. Patients frequently made the following patient comments. "I have come to the hospital because I was told medicines are here." "The medicine here is good." "The first time I came I had a heavy sick. You gave plenty medicine and I felt better. I believe the medicine." "When I carried [brought] my mother [here] I got medicine." "I am ready to return to my home now. I have come for medicines to carry." When an eight-year-old boy was asked what he did when sick, his reply was, "You go to the hospital and make them give you medicine. If you get sick, you take the medicine to swallow it. When the medicine is done you go back for other medicine. Take it from the white man."

Both quantity and types of medicines were considered important. An Appointment Unit patient who had been seen by a physician, and had received only one medication for his intestinal parasites, was ridiculed by his peers with the comment, "Ah, you paid Le 50 to see the doctor and you only got Le 6.00 worth of medicine!" Patients who had been at Kasela for surgery and came back for a post-operative visit, or those who had come from great

distances, commonly requested "traveling medicines" to take with them on their journeys home.

A number of factors have contributed to the importance of Western pharmaceuticals in the patients' eyes. One major factor was the use of penicillin to treat yaws. In 1939, yaws was the most common disease seen in the Kasela outpatient dispensary. Five thousand patients that year received treatment for yaws. In the initial stage the patients had painless ulcers. In the second stage they had skin eruptions that looked like "a hundred raspberries over the skin." Eruptions on the hands and feet made work difficult and walking painful. In the third stage, patients suffered bone deformities, liver tumors, and ulcers on the palate and nose that ate the entire nose away (McMillen, 1939). Injectable penicillin used in the "yaws campaigns" brought dramatic cures. A resulting, firmly entrenched belief has been that an injection is essential for any serious illness and is more efficacious than tablets.

Second, Western pharmaceuticals were widely available. The Kasela town market tables contained chloroquin, aspirin, ampicillin, tetracycline, valium, ephedrine, and a large number of other analgesics, antibiotics, and antihelminthics. Market tables in the larger cities of Makeni and Freetown contained an even wider selection of pharmaceuticals, including such prescription drugs as butazolidin, tandearil, tagamet, lasix, and vibramycin. An independent pharmaceutical representative in Freetown said that once when he needed vibramycin for a customer he happened to pass a trader outside the City Hotel selling vibramycin. He asked the price and was quoted the same price as for any other antibiotic - Le 1.00 ($ .028) per capsule. He purchased the few capsules the trader had, as he knew the actual cost per capsule to be Le 12.00. The trader offered to get more, and the following day

he brought the pharmaceutical representative more than 1,000 capsules (Kargbo, personal communication, December 13, 1986).

Medication theft from government and private health facilities was described as "so widespread that it has rendered many medical facilities virtually impotent. Medications end up for sale on the street or in private drug stores and clinics of private practitioners" (Bledsoe & Goubaud, 1985, p. 277). Pills and capsules were sold at market tables without containers or directions. Purchasers usually bought one or two tablets.

Nongoverment hospitals commonly reported that cartons in drug shipments, in which each carton had been identified numerically, had been pilfered or were missing when the shipments were claimed in the capital city. A typical example included a carton that was missing a sphygmomanometer, a stethoscope, acetaminophen, penicillin, riopan, surgical tape, and surgical gauze. A missing carton contained 5,000 chloroquin, 800 valium, 40,000 iron, 40,000 folic acid, 5,000 penicillin, 2,000 promethazine HCl, 500 tubes of tetracycline eye ointment, and 5,000 tetracycline tablets (D. Spores, personal communication, March 2, 1987).

An elicitation device was made for this study, similar to the one described in Bledsoe and Goubaud's investigation. It contained 32 pharmaceuticals and traditional medicines, 16 of which were available in the Kasela town market and 16 from the dispensary pharmacy. Fifty people, including patients, children, villagers, and even visitors at the door were asked which medicines they had seen before, what illnesses they were used for, and what quantities were used. The purpose of the device was to stimulate discussion of appropriate treatment for various diseases. The findings were of interest (see Appendix G).

The traditional remedies sold in the market for toothache, bed bugs, and

round worms were included to stimulate initial discussion and were quickly identified by most informants. A small container of Mentholatum was variously rubbed on, licked, or mixed with water and drunk for colds and coughs. Nearly all informants agreed on how each remedy was to be used.

Virtually all informants identified the red and yellow tetracycline capsule. Most called it just "capsule" and agreed that it was to be put on sores or that one or two should be taken for "belly pain." Tetracyline had been in the markets for some time and was called "the old medicine," whereas the more recent ampicillin capsule was "the new medicine." Ilosone, being the newest, was described as the "most powerful." Antibiotic capsules such as keflex (green and white), chloramphenicol (white) and ilosone (orange and cream color) were assigned the same dosage and functions as the tetracycline capsules. Various informants commented that the yellow tablets (ambilhar for schistosomiasis and the tranquilizer valium) were for "fever." This association probably originated with the use of yellow mepacrine tablets for malaria treatment. One informant identified a small orange chlorpromazine tablet, a tranquilizer, as "blood medicine," probably because of its color. Some "small" tablets, such as chlorpromazine and digoxin, were considered to be for "small" children. Adults and children alike correctly identified the analgesics Cafenol and Top Tabs, sold in the market, as "head hurt" (headache) or fever medicine. Eleven respondents pointed to the small white tablet (digoxin for cardiac problems) and called it "dry chook," mistakenly identifying it as the ephedrine tablets (a powerful stimulant) that are sold at many market tables. People take it when they are "tired from the farm," and it is considered effective "if you don't sleep all night." It may be used before going to an all-night dance. Two informants knew individuals who had died after taking several ephedrine

tablets. It was also correctly identified for use with asthma. The essential finding confirmed that of Bledsoe and Goubaud (1985): people interpreted the medicines consistently. However, the uses and dosages that they described were at variance with those intended by the manufacturers. Western pharmaceuticals were being reinterpreted in light of local values related to size, color and efficacy.

Health Habits Generated From the Outpatient Dispensary Experience

5b. What health habits (beliefs, practices) have been generated from the outpatient dispensary experience?

A variety of sources provided information on the health habits of those who had used the outpatient dispensary as a source of care: patient interviews, interviews of staff, observations of patient behavior, and observations made while participating in providing care for patients. From those data, three vignettes were selected that represented classes of vignettes typical of a range of health habits characteristic of those who had used the outpatient dispensary. A brief discussion of emerging themes follows each vignette.

Vignette 1--Papa

Papa, the two-year-old son of a village dispenser, had fever and convulsions in his home village. His parents immediately took him to Kasela Hospital. There were no significant laboratory findings. A spinal tap was negative for meningitis, although the child had a markedly stiff neck. For two days the fever remained high and the convulsions continued. Treatment included antimalarials, antipyretics, and antibiotics. A diagnosis was made of probable cerebral malaria or encephalitis. A flaccid paralysis of the leg

developed. The child was discharged two weeks later to recover at home. The paralysis and stiff neck were still present. No fee was charged for the hospitalization.

Following no improvement at home, the family consulted a looking ground man to ascertain the cause of the illness. The looking ground man said that the illness had occurred because the child had seen a demon. The mother recalled that shortly before the onset of the illness she had taken Papa to a waterside. While there, he had said, "Mommy, look at the monkeys there." The looking ground man said the child had really seen the devil. The devil said, "You stop looking at me!" Sighting the devil had occasioned the child's stiff neck. The looking ground man said the child had four-sight (i.e., the ability to see the spirit world). The family paid the looking ground man Le 16.00. He referred them to a man who could deal with "devil business."

The man to whom the family was referred was a Muslim moriman. He asked for Le 8.00, as well as a black fowl and a kola nut for a sacrifice. He also prepared lasmami water (water containing ink from Koranic writings), which he sprinkled in Papa's eyes. More lasmami water was sent home with the family to rub on Papa. The stiff neck did not improve, and Papa was unable to sit up by himself.

After several days of no improvement, the parents took the child to another moriman in Kasala, who also prepared lasmami water. The child drank this water and it was rubbed on his skin. Additional sacrifices were also made there.

When the child was still unable to sit up by himself, the parents took him to a man especially known for driving the devil away from children. This village "Pa" (a term of respect for a man) confirmed that Papa had seen a

devil. Following another sacrifice, the child was able to walk a little bit by holding onto others.

After this, Papa's paternal grandmother came and took the child to her home village. Different sorcerers were consulted in the next three weeks, to ascertain what type of sweer had been put on the family that had resulted in this problem. The sacrifice of a sheep, costing Le 120, was required.

Several days later, the child was taken to a Limba sorcerer who agreed to help if the family used only his medicine. He made numerous cuts on Papa's buttocks and legs and then rubbed in medicine. Two days later, Papa began crawling. The father returned to the sorcerer and said, "There is much help in your medicine now." The sorcerer said, "Just continue with my medicine and don't mix it with any other." Papa began walking by himself, although his left foot was not straight. A charm (a small rope) was tied on Papa's left foot, two were put on his neck, and one was put on his waist. A charm in a bottle was hung at the house entrance to keep a devil or enemies from entering the house.

At the time of the interview, Papa still had on two of the protective charms. His father's conclusions about the situation were as follows:

> Interviewer: "As you look back on that illness, how do you understand Papa's recovery?"
> Father: "At first I thought it was the brain problem. That was my first thinking. But as time went on I changed my mind. I actually knew it was something superstitious."
> Interviewer: "As you look back on it now, do you feel that was the right course of action to choose?"
> Father: "Well actually I am glad about the whole situation. Even the money I spent. I felt it was just an expenditure. You know, the money did not go in vain. So I am glad over it, even if I spent two or three hundred pounds. As long as he has regained his health and is able to walk now, I am pleased about that."

Interviewer: "What response do you think you would have had if Papa had died or continued to be crippled?"
Father: "I can't actually judge, because I had two different minds (i.e. ways of thinking about the situation). One, I was thinking it was brain damage. But I knew he didn't have a fall, and nothing had hit him. On the other hand, I felt it was something superstitious. I might have thought that it was because of Papa's four-sight that he had seen the devil and the devil killed him."

The vignette about Papa demonstrated that Western medical care is incorporated into the quest for therapy. The father was the key figure in the therapy-managing group, and although he had had a Western education, including health training, Western therapy was not his final choice. Janzen (1980) described this pattern of behavior in seeking multiple sources of care. The evidence of this vignette also supported Yoder's (1981) finding that causal explanations change when illnesses do not respond to treatment. The cause of Papa's problem was initially perceived as encephalitis, but it was later perceived as being related to "something superstitious." The evidence likewise supported Prins's (1979) finding that the introduction of allopathic therapy did not falsify a belief in systems of diagnosis and explanations that already existed, but that the two therapeutic systems coexisted.

Vignette 2--Kalimba Village Measles Epidemic

In the village of Kalimba a measles epidemic occurred in 1975, when no measles vaccines were available. Many children died. The village people determined that witches had caused an evil breeze to come to the village and they planned to "eat" the children. The town decided to find a medicine man who could take the children out of the hands of the witch people. A medicine man from the distant Temne Sande area was summoned to come and "pull the

sickness" from the children. He came and stayed overnight. Amid drum beating, he went and dug in certain places around the village. He unearthed various things which he said were devils, ties (things that place a hold on other things) from the witch people, and even witch guns. The witch guns (a special "gun" used by witches to secretly kill people) looked like pistols. All of those things were burned.

This second vignette, describing Kalimba villagers' response to a measles epidemic, illustrated two things. First, it again illustrated the pluralistic use of health care systems. Some villagers were already using the outpatient dispensary for care at that time (see Appendix C, Table C.2). This was the same Kalimba Village as the one surveyed as part of the research study. During October and November 1975, dozens of measles cases were treated at the Kasela outpatient dispensary each day. Measles vaccine, however, was not available at that time, and the Under Five immunization program had not yet been started in a village near Kalimba. The villagers therefore resorted to a form of therapy well known to them.

Second, the vignette illustrated that a concept of causality will determine a course of action. Measles is generally believed to be caused by witches blowing on the children of a town. A single case may be attributed "to God," but multiple cases are attributed to witches. A logically appropriate action would then involve ridding the town of witches. Finnegan (1965) suggested that beliefs that form part of a concept of causality will not quickly die.

Vignette 3--Daniel

Pastor Abu, in a remote village 35 miles from Kasela, became seriously ill with a fever. At that particular time, nurses from Kasela Hospital came out to the village to hold a clinic. They treated him with chloroquin and aspirin for malaria. By the following morning his condition had worsened considerably, and he was delirious. The nurses returned with him to the hospital, where he was treated for a fulminating case of typhoid fever. When well, he returned to his village. Some time later, his small child Daniel also became seriously ill with fever. The following was his account of seeking therapy for Daniel:

> When Daniel became sick there were a lot of things said about his illness. The village was just newly evangelized and the people didn't know much about the hospital or even things on the religious side. So when Daniel became sick, they came to us. Some suggested that it was a devil. Some suggested that it was a kind of medicine they call *kutia* in Limba, which would make a child become unconscious. Normally [unconsciousness] is caused by the convulsion because of the fever. But to them it was not a convulsion. It was either a devil or this medicine *kutia*. You see, one particular woman in the town, an old lady, controlled that type of medicine. Sometimes they made a sign of it and put [the sign] in their groundnut or cassava farms. It threatened people. Whoever took the cassava would get that kind of medicine [i.e., a thief would get *kutia*]. Even if you passed by the sign, they had the belief that you might get the *kutia*. So they said my wife had passed by the sign and caught the *kutia*, and because of that the child got the *kutia*. So that was their belief.
>
> But myself, I knew what was wrong. I knew that it was a heavy, heavy malaria that had attacked the brain. We waited, but there was no medicine around. So I decided to come with the child at night. We started out around 12 o'clock at night, and we walked nearly the whole night with the child to the main road. We reached the main road around 6 o'clock in the morning, and we sat there and waited until 11 o'clock in the morning before we got a vehicle. . . .before we got transport to Kasela. And when we came, they said it was malaria. And they took care of it very quickly. And we went back.

The third vignette was representative of three similar vignettes obtained from interviews. All were of people who used herbal and Western medicines but no longer resorted to sorcerers or looking-ground men. A number of clinic patients who were interviewed also stated that for health care they used only Kasela Hospital or the dispensary. Several stated that their whole family used only the clinic for care. In the third vignette, Pastor Abu had had a positive personal experience of being helped with a serious illness by providers of Western medicine. Further, in his role as a pastor, he had developed personal relationships with hospital staff members. In his case, beliefs about the causes of illnesses had changed, as had his practices in seeking therapy.

Summary

Findings related to the fifth research question, "What are the health habits (beliefs, practices) of those using the outpatient dispensary?", were analyzed in this chapter.

First, the data related to health habits generated from previous experiences were examined. Both AU and general clinic patients practiced medical pluralism, although AU patients traveled greater distances, made greater use of Western health services, and paid more money in seeking care than did general clinic patients. Disturbing elements included evidence of inappropriate therapies and patients' lack of correct knowlege of their health problems and therapies. The important role of kinsmen as the patient's therapy-managing group was noted, as well.

Local authorities, including an herbalist, a morlman, and midwives, provided insights into traditional beliefs and practices. MacCormack suggested linking the traditional authority of these practitioners with

Western legal-rational systems to provide a comprehensive health care system. The importance of Western pharmaceuticals, and the extent to which they are misued, was also considered.

Second, data related to the health habits of those who used the dispensary were examined by means of three representative vignettes. The vignettes illustrated that those who had used the dispensary commonly combined that use with traditonal systems, particularly in the event of serious illness. Some people had come to rely solely on Western medicine. In the vignette that exemplified such behavior, both a positive personal experience with Western medicine and personal relationships with hospital staff members had contributed to that action.

The findings related to health beliefs and practices were congruent with Dewey's thesis on the continuity of experience. Health habits rooted in traditional beliefs about religion, witchcraft, and Western medicine formed the basis for interpreting the dispensary experience. If the dispensary experience had been satisfactory for the patient seeking therapy, then it was often a final source of care. If the experience had been unsatisfactory, the patient sought additional therapy.

The dispensary experience was incorporated into a larger system of beliefs and practices. In some cases the dispensary experience was overshadowed by traditional beliefs and practices, and in other cases the experience with Western medicine served to modify or alter those beliefs and practices.

Implications for providers of health care services arose from the data gathered in this study. First is the importance of knowledge of traditional beliefs and practices, which is essential in understanding patient behavior.

Second is the importance of developing strategies for working within that framework of understanding.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

As indicated in the initial description of the research methodology, it was not possible to be involved in the Kasela Hospital outpatient dispensary without being deeply moved by the responses of hundreds of patients to the health problems they were experiencing, and by the efforts they were making to be restored to good health. The purpose of the study, however, was not to produce a journalistic description of events, but rather to give an analytic description, concluding in a conceptualization of patient learning in a complex dispensary environment. Nevertheless, as medical anthroplogists Janzen and Prins (1981) well stated, when the subject includes suffering, pain, and bewilderment, its urgency never permits students to ignore the practical side and the role of practitioners (p. 169). So the researcher sought not only a conceptualization of learning but also the implications that arose from that conceptualization.

In this chapter the findings of the research questions are reviewed first, followed by implications and recommendations, and suggestions for further research.

Conclusions Related to the Research Questions

1. What is the learning environment of the outpatient dispensary?

In considering the learning environment, both observations and the literature supported the negative effect that environmental factors such as

crowding, discomfort, and distractions have on learning (Leedam, 1972; Scotney, 1976). Crespo (1985) stated that "learning environment" includes not only the aspect of the learning setting, but the aspect of customs that provide a context from which people relate to health behaviors--that is, what Dewey would describe as previous health habits, an area that was explored in connection with the fifth research question.

2. How are learning opportunities organized and conducted in this setting in terms of understanding the nature and treatment of illnesses?

Patient learning in the interactions with nurses, physicians, and drug dispensers was affected by at least three considerations. Environmental factors such as time pressure and lack of privacy influenced the interaction. Within the clinic setting, language and cultural barriers further hampered interaction. Second, there was not necessarily consensus on what constituted an appropriate role for providers and patients in that situation. What some interpreted as a passive posture on the part of patients, was interpreted by an anthropologist in Sierra Leone as a way of showing respect, submission, and obeisance (J. Opala, personal communication, December 11, 1986). MacCormack (1981) argued that practitioners' therapies normally involve talking at length with patients to understand their hopes and fears. Third, the dynamics of the situation may have been different from what is traditionally considered in a provider/patient relationship. In an article entitled "The Importance of Knowing About Not Knowing," Last (1981) suggested that people's disinterest in medicine is an important medical phenomenon. Patients are not interested in knowing about cures or ideas. They simply expect that, somewhere among all the providers, a cure is known. Practitioners do not care about other systems, and each is left to

flourish in seeming anarchy. Last suggested that in going to various sources for therapy, patients "do not so much 'switch codes' as simply 'switch off'" (p. 391). In a final analysis of what occurred in the Kasela Hospital outpatient interactions, it is probably most accurate to say that elements of all three considerations were present.

3. What specific information about the nature and treatment of their illnesses do patients recall from their clinic visits?

The data indicated that patients primarily learned instructions about their treatments and the correct way to take their medications. This ability to accurately recall an "information list" suggests the type of remembering described as rote memory, the ability to recapitulate what has occurred by simply repeating information in the original temporal sequence. Bartlett (cited in Cole & Scribner, 1974) described rote memory as the preferred memory technique of nonliterate people. It differs from the type of remembering that is an active process, in which past experience and information are reconstructed for the purpose at hand.

The study was delimited to patient learning in outpatient settings and did not include learning in Under Five clinics. Yet in the course of interviewing general clinic patients and former patients in their own villages, much of the information they did recall about oral rehydration, nutrition, and sponging feverish children, had come from their Under Five clinic experiences.
The knowledge retained about the use of green spoons for oral rehydration, however, did not seem to influence practice. When the spoons were lost or broken, or sugar was not available, no oral rehydration solution was made. Mothers had essentially learned "green spoons" rather than "oral rehydration." The issue of creating dependencies, and knowledge that is inappropriate for a

particular cultural setting, arises from this and deserves further consideration.

4. Is the learning environment of the Kasela Hospital outpatient dispensary similar/dissimilar to that of other mission hospitals in Sierra Leone?

Two main impressions arose following observations at other mission hospitals in Sierra Leone. The first was that the Kasela outpatient department was the most crowded of the facilities, and crowding negatively affected the learning environment. The second was that having an individual with a specific assignment in the area of health education was the key to a well-prepared program. All the hospitals had health education staff in their community health programs. These staff members could be excellent resource people in developing appropriate strategies for outpatient health education.

5. What are the health habits (beliefs, practices) of those using the outpatient dispensary?

Outpatient interview data, interviews with local authorities, investigation of the use of Western pharmaceuticals, and vignettes describing health-seeking behaviors all provided data with which to address this question. The findings related to health habits could not be stated as firm conclusions, but rather suggested a number of themes.

The outpatient interview data indicated that the dispensary experience was not a single, definitive event that affected patient learning. Rather, use of the dispensary was usually incorporated into a larger system of health-seeking behavior. This behavior was widely described in the medical

anthropology literature as medical pluralism. More than half of the general clinic population came from within 10 miles. Nearly 40% paid less than Le 15.00 ($0.42). They used local traditional medicine, tablets from traders, and area clinics as alternatives to dispensary care. Appointment Unit patients came from greater distances, paid more money, and generally used other hospitals and hospital dispensaries as sources of care. A second theme that emerged from the outpatient interviews was that in many cases the health-seeking behavior was guided by a therapy-managing group of kinsmen and associates.

Data from local providers of health care pointed to the complexity of and depth of meaning in traditional beliefs and practices. An implication arising from this finding was the awareness that an understanding of traditional beliefs and practices is essential in understanding patient behavior. Evans-Pritchard (Horton & Finnegan, 1973) pointed out that an adequate phenomenology of alien concepts, beliefs, and cosmologies is a precondition for an adequate sociology of them.

The finding that Western pharmaceuticals were reinterpreted supported the findings of Bledsoe and Goubaud (1985). Pharmaceuticals were an issue of major concern in the Kasela dispensary. Indeed, providing them was one of its major functions. This reinterpretation was not an isolated phenomenon, however. Characteristically, people structure the reality around them. These "social constructions of reality" are defined in terms of meaning to the people concerned, rather than in terms of an "objective truth" (Berger & Luckmann, cited in Horton & Finnegan, 1973, p. 28).

The vignettes on health seeking behavior demonstrated that a variety of health habits were generated by the outpatient dispensary experience. They were representative of a larger number of patients who were interviewed.

Some patients, in a serious illness, used both traditonal and Western care. Others relied soley on the dispensary as a source of care. More research is needed to explore factors that are important in those varied responses.

Implications and Recommendations

Implications of the findings and recommendations based on the findings are as follows:

1. Provision for patient learning begins at the administrative level, with an institutional plan for and commitment to appropriate patient education. Both environmental factors that affect learning and role expectations with regard to educational functions need to be considered.

2. If patient learning is to become more than rote memory learning, then staff involved in educational roles, who are not already acculturated, need to gain skills in sharing the cognitive orientation of the patients.

3. The type of participative education decribed by Werner (1978) and Freire (1970) is more suitable to community-based primary health care education programs than it is to dispensary situations. Nevertheless, health education efforts that fit within dispensary constraints can be implemented. Teaching protocols can be as simple as ensuring that each patient knows what has caused his/her disease, and the purpose of the prescribed medications.

4. Observations at other hospitals and recommendations from the literature suggested that responsibility for the planning and direction of health education should be assigned to one person (Barnes, 1978). Health education does not occur spontaneously just because a group of health personnel are involved in giving health care.

Suggestions for Further Research

An ethnographic approach was used because it offered methods that allowed a wide perspective on learning in a complex situation. Several areas emerged that require further investigation:

1. What constitutes appropriate health education in this setting?
2. What strategies for health education are best, given the constraints of the outpatient dispensary situation?
3. How are patients using the medicines they receive, and to what extent are they complying with treatment instructions?
4. What factors affect changes in health behavior?
5. How can traditional practitioners that have legitimate authority be incorporated into a health education program?
6. What elements are necessary for an educative, rather than a miseducative learning environment in the outpatient dispensary?

Summary

Dewey's conceptual framework provided a useful tool for exploring the learning environment of the Kasela Hospital outpatient dispensary. Further, the research findings supported Dewey's theses: both the dispensary experiences studied by the researcher and previous health-related experiences were incorporated into patients' health habits. Patients were indeed using those habits to cope with the health problems in their environments. Dewey, however, cautioned that only habits which enable an individual to clarify and cope with the problems of his/her environment and lead to additional habits for understanding and coping with new problems as they occur are habits which manifest growth. An educative environment is one which fosters growth. Growth is not evident when habits thwart

problem solving or create new problems. In terms of health education, this means encouraging the growth of habits that will give patients the ability to understand and cope with their health problems. The data from this study demonstrated that many patients' habits did not lead to solutions of their health problems. The challenge facing health care providers working in dispensary situations is to provide a learning environment that is educative rather than miseducative in nature.

APPENDICES

APPENDIX A

OUTPATIENT DISPENSARY USAGE

Table A.1. Outpatient Dispensary Attendance Figures, 1980 through 1986

Years	1980	1981	1982	1983	1984	1985	1986
Yearly Totals	50,978	59,074	58,064	66,876	59,850	63,915	70,953
Monthly Totals							
January	4,158	4,796	4,787	5,478	5,286	5,901	5,351
February	3,893	4,539	4,662	5,148	4,923	5,783	5,273
March	4,218	4,977	5,729	5,636	5,096	6,467	6,310
April	4,098	4,570	4,093	5,115	4,753	5,895	6,037
May	4,096	4,916	3,686	5,105	4,615	4,676	5,483
June	4,514	5,999	4,520	5,068	4,419	3,604	6,192
July	3,968	4,923	5,524	5,671	4,426	4,720	6,529
August	3,742	4,504	4,709	5,405	4,502	4,140	5,661
September	4,673	4,573	4,482	5,563	4,631	4,589	6,545
October	4,949	5,490	5,615	6,104	6,282	6,145	6,781
November	4,045	4,896	5,545	5,932	6,268	6,848	5,438
December	4,624	4,891	4,712	6,651	4,649	5,147	5,353
Daily Averages							
Sunday	16	23	23	20	13	11	16
Monday	239	276	279	309	287	297	315
Tuesday	189	219	209	247	223	250	274
Wednesday	87	97	91	105	100	116	135
Thursday	187	231	235	269	222	225	252
Friday	183	205	201	242	220	234	260
Saturday	79	85	79	95	86	96	113

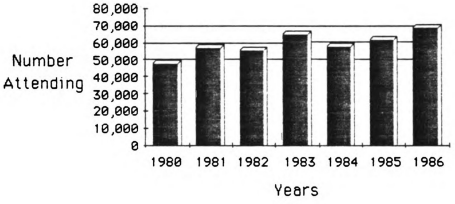


Figure A.1 Outpatient Dispensary Attendance for 1980 through 1986.

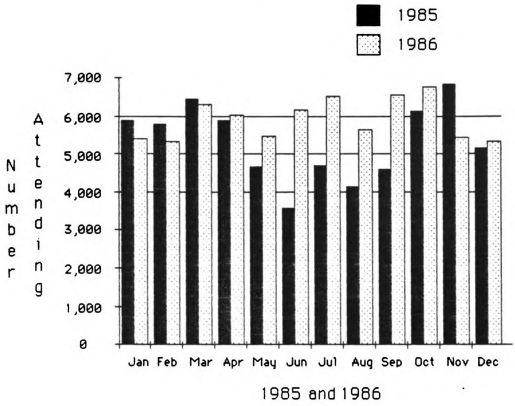


Figure A. 2. Average Monthly Outpatient Dispensary Attendance for 1985 and 1986.

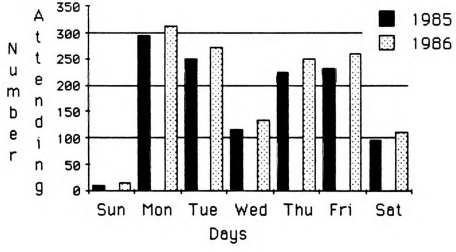


Figure A. 3. Average Daily Outpatient Dispensary Attendance for 1985 and 1986.

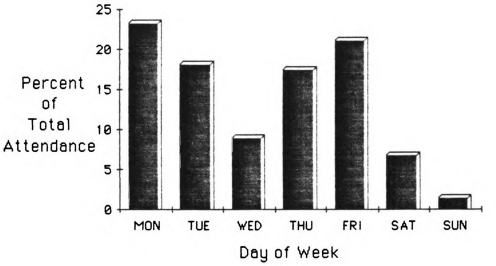


Figure A. 4. Outpatient Dispensary Attendance by Day of Week

APPENDIX B

OUTPATIENT SURVEY DATA

Table B.1. Kasela Hospital Fee Schedule - (December, 1986)

SERVICE		PRICE IN LEONES	PRICE IN DOLLARS
Admission (per month or portion thereof)	Adult	80.00	2.22
	Child 0-2 Years	20.00	0.56
	3-6 Years	30.00	0.83
	7-15 Years	40.00	1.11
	AU Adult*	120.00	3.33
	Child	80.00	2.22
Overnight	Adult	6.00	0.17
	Child	2.00	0.06
Private Room (per day, to be paid in advance weekly)		10.00	0.28
Intravenous fluids (per bag)		40.00	1.11
Whole blood (administration cost)		80.00	2.22
The cost of certain therapeutic courses (i.e., DEC,* Ambilhar*, special antibiotics) will be totalled separately, and added to above fees			
SURGICAL PROCEDURE FEES (+ Le 20.00 for AU Patients)			
Hernia	Repair-Double	280.00	7.78
	Single	200.00	5.56
	Reduction with Anesthesia	24.00	0.67
	Reduction without Anesthesia	10.00	0.28
Hydrocele	Repair-Double	280.00	7.78
	Single	200.00	5.56
Hydrocele with Scrotal Resection	Additional	80.00	2.22
D & C	Emergency	140.00	3.89
	Elective	120.00	3.33
	W/Rubins,EUA*	200.00	5.56
Circumcision	Neonatal	12.00	0.33
	Other	40.00	1.11
Ceasarean Section	Elective	160.00	4.44
	Emergency	240.00	6.67
Laparotomy	PP BTL*	200.00	5.56
	Interval BTL	240.00	6.67
	Ectopic / Hysterectomy	320.00	8.89
	GI Resection	400.00	11.11
Prostatectomy		320.00	8.89
VVF Repair		320.00	8.89
MD Delivery		400.00	11.11
Spontaneous Delivery	No Assistance	40.00	1.11
	MD Assistance	120.00	3.33
Symphysiotomy		160.00	4.44

SERVICE		PRICE IN LEONES	PRICE IN DOLLARS
Urethral Dilatation	Without Spinal	50.00	1.39
	With Spinal	100.00	2.78
Lacerations	Emergency	20.00	0.56
	Lipomectomy	32.00	0.89
	Nodulectomy	10.00	0.28
I.U.D. Insertion		40.00	1.11
Foreign Body Removal	Without Anest	6.00	0.17
	Ketamine/cc	12.00	0.33
Dental Extraction (Tooth)		12.00	0.33
Frenulectomy		6.00	0.17
OUTPATIENT FEES			
Registration/New Ticket	Regular	4.00	0.11
	AU	12.00	0.33
	Wed,Sat,Sun, Late Fee		
	Adult	10.00	0.28
	Child	1.00	0.03
Consultation with M.D.	Regular-Adult	2.00	0.06
	Child	1.00	0.03
	AU - Adult	50.00	1.39
	Child	30.00	0.83
Physical Examination	Adult	24.00	0.67
	Child	20.00	0.56
	School	6.00	0.17
MISCELLANEOUS			
Laboratory tests	Adult	2.00	0.06
	Child	1.00	0.03
X-Ray	Large film	80.00	2.22
	Small film	40.00	1.11
Ace Wrap	12cm	30.00	0.83
	8cm	20.00	0.56
Dressing Changes	Per Week	2.00	0.06
Casts	Per Roll of Plaster of Paris	10.00	0.28
Crutches	Adult	20.00	0.56
	Child	10.00	0.28
Police Report (requires evaluation by an M.D.)		20.00	0.56

*AU--Appointment Unit / *Ambilhar--a drug used in the treatment of schistosomiasis
*DEC--Diethylcarbamazine, a drug used in the treatment of onchocerciasis
*W/Rubins,EVA--done in fertility evaluations / *PP BTL--Post-partum bilateral tubal ligation

Table B.2. Fees Paid by Outpatients per Illness Episode

AMOUNT IN LEONES	AMOUNT IN DOLLARS	AU PATIENTS	ALL PATIENTS
Data not obtained		2	6
Fee not yet assessed		1	9
0.00-4.99	0.00-0.13	0	85
5.00-14.99	0.13-0.41	3	478
15.00-24.99	0.41-0.69	5	245
25.00-49.99	0.69-1.38	12	243
50.00-74.99	1.38-2.08	10	114
75.00-99.99	2.08-2.77	15	71
100.00-149.99	2.77-4.16	34	99
150.00-199.99	4.16-5.55	16	43
200.00-249.99	5.55-6.94	5	16
250.00-299.99	6.94-8.33	4	9
300.00-349.99	8.33-9.72	4	19
350.00-399.99	9.72-11.11	2	7
400.00-449.99	11.11-12.49	1	1
450.00-499.99	12.49-13.88	0	1
500.00-549.99	13.88-15.27	1	1
550.00-599.99	15.27-16.66	0	0
600.00-649.99	16.66-18.05	2	4
650.00-699.99	18.05-19.44	0	0
700.00-749.99	19.44-20.83	0	1
750.00-799.99	20.83-22.22	0	0
>800.00	>22.22	0	0
TOTAL OUTPATIENTS		117	1452

Table B.3. Distance to Kasela Hospital Outpatient Dispensary

Town or Village	Distance	Town or Village	Distance
Babakunaya in Kono	<165	Jamanimekoro in Kono	<165
Babakunaya near Makeni	55	---	
Bafodia	152	Kabaia	130
Bama Konta near Kenema	135	Kabba Ferry	7
Bamoi	5	Kabayia near Yebia near Madina	40
Bebeyan near Kambia	60	Kabodogo	6
Binkolo	60	Kabombo	7
Bo via Makeni	137	Kabonka	20
Bomali-Bana near Makeni	59	Kadabi	10
Bompe	115	Kadafafda near Mateboi	3
Bonkobana near Makumray	27	Kadari	Unknown
Bumpe near Kono	<165	Kadeli	2
Burimaya	Unknown	Kademba near Kabombo	4
Buyaromeday	Unknown	Kademba near Mateboi	5
---		Kadembella	8
Daresalam Guinea	45	Kadigidigi	4
Daresalam Sela near Kenendi	8	Kadingbili	2
Dumbuya	30	Kafukumba near Kamulay near Kabba Ferry	8
---		Kagbalibali	4
Fadugu	50/120	Kagberi	6
Fadugu Loko	25	Kagberi near Madina Sanda	30
Fintonia	14	Kagberi near Makanka	2
Freetown	180	Kagboray	6
---		Kagbungbo	3
Gbendembu	33	Kakagbiti	20
Gbendembu near Kamalu	7	Kakamba	7
Gbinti	135	Kakanthia	4
Gbintimaria	135	Kakasegi	2
---		Kakissi	3
Heremakono	61	Kakonso	48

Jaimasewafe near Mamadu in Kono	150		

Town or Village	Distance	Town or Village	Distance
Kakontiki	3	Kamathotho via Kamaporotho	15
Kakuru	3	Kamawanka	3
Kalangba	40	Kamawoni	8
Kamabai	76	Kamayebin	5
Kamabain	10	Kambia	55/66
Kamabaio	8	Kambia near Kamaha	7
Kamabala	26/30	Kambia Kapotho near Kathantha	6
Kamabanda via Kathantha	15	Kamethe near Ferry	6
Kamabombo	5/7	Kamoya	8
Kamabonko	1	Kamulay	3.5
Kamademay	46	Kamunday	Unknown
Kamaforay	3.5	Kanathara	6
Kamafufen	5	Kanawala	35
Kamagbenkaray	10	Kandema	25
Kamagbewue Sella	8	Kankuya	20/30
Kamagbewue Tonko	35	Kanthia	52
Kamaha	7	Kapotho	7
Kamakanka near Kenendi	5	Kaquena in Kono	>165
Kamakankoi	8	Kasama	3
Kamakili	8	Kasama	41
Kamakili near Kagberi	2	Kasasi	3
Kamakoni	8	Kasekia	4
Kamakuya	Unknown	Kasekia	7
Kamakwie Loko	30	Kasellen near Kambia	57
Kamalenka	4	Kasigeri	2
Kamalo	8	Kasoria near Kate near Kamakoni	13
Kamangi near Kakuru	3	Kasoria near Kathantoro	3
Kamaporotho	13	Kasumulay	25
Kamaranka	18	Kate Sella	1
Kamasama	1.5	Kate Tonko	11.5
Kamasasa	21	Katene	9
Kamasebe near Kasegiya	6	Kathambi via Thompari	14
Kamasoko Tonko	43	Kathantha	7
Kamasundo	12		
Kamataka	1		
Kamatakata near Madina	40		

Town or Village	Distance	Town or Village	Distance
Kathekia	5	Magburaka	67
Kathiri near Ferry	4	Maharibo	13
Kathiri Yimbo	8	Makai near Gbendembu	34.5
Kathumpe	1	Makaiba	23
Kathumpe near Kadada	4	Makanka	1
Kaunde near Kadubaya	17	Makanka near Maforay	5
Kawereh near Kenendi	5	Makanko near Gbendembu	31
Kawono	7	Makankoi	10
Kayathana	6	Makarankay	29
Kayasi	5	Makasa near Kamalu	13
Kayawuye	2/8	Makeni	55
Kayemba	13	Makoba near Kamalu	11
Kenema	179	Makulon	25
Kenendi	5	Malontho near Masaktaba	22
Kindia Guinea	94	Maluka near Kenendi	4.5
Kindia Loko via Laia	15	Mambolo near Kambia	76
Koidu	>150	Mambolo Rokupr	>87
Komoya via Kabba Ferry	>7	Mamu	150
Kono	165	Manahun near Makwie Loko	8
Kortho	17	Maron	5
Kukuna	48/57	Masaktaba	22
Kundaya near Madina	40	Masoti	4
----------		Matakay Loko	28
Laia Limba	8	Matakay near Gbendembu	39
Laia Loko	25	Matakay near Maron	6
Laminaya via Kamalo	33	Matandoko	15
----------		Mateboi	3
Mabanta	11	Mateboi near Gbendembu	44
Mabunyele	7	Mathoi	7
Madina Fulla	14	Matiti via Kamalo	16
Madina Limba	60	Mayolla	10
Madina Loko	32	Monrovia, Liberia	>200
Madina Sanda	25	Moriya	45
Madina Tonko	40	----------	
Madina Wulla	35		

Town or Village	Distance
Nafaye	50

Panlap	53
Papanko near Kabala	70
Pereyema Fulla	Unknown
Pereyema near Kabala	130
Pereyema near Kono	165
Petfu	20.5
Port Loko	129

Rochain near Maluka	56/77
Rogbanan near Kamulu	12
Rogbaneh	55
Rogbin	27
Rogbom near Mankala	13
Rogbom near Masaktaba	23
Rokenaya	16
Rokulan	24
Rokunthai near Rotembu	12
Rokulankori near Kamasasa Junction	20
Rokunthai Gbanti	28
Rokupr near Kambia	74
Rosenth	26
Rosenth near Gbendembu	38
Rosino (Temne) on Kambia Rd	75
Rotembu	4.5/9
Rothatha	8
Royema	25.5
Royenka	5
Royenkesa	8/15

Town or Village	Distance
Sakuma near Kamaranka	19
Samaya near Thompari	15
Sanya	30
Sarifula	148
Sefadu	150
Senthai near Kamuli	12

Thanene Tonko	40
Thompari	12
Tongofeld near Sefadu	155

Waliya	Unknown
Wangi near Gbendembu	30
Wonkifo near Madina	40
Wothanka	Unknown

Yamadu near Kono	113
Yana	20
Yebia	35
Yemereh	Unknown

Note: If two distances are listed the first is the footpath and the second is the motor road distance.

Table B.4. Distance Traveled to Kasela Hospital Outpatient Dispensary

Distance in Miles	All Patients	Percent of Total	AU Patients	Percent of Total
Unknown	27	1.86	3	2.56
Town of Kasela	281	19.35	8	6.84
0.5-3.9 Miles	176	12.12	1	0.85
4.0-6.9	170	11.71	-	-
7.0-9.9	202	13.91	4	3.42
10-14.9	110	7.58	11	9.40
15-19.9	49	3.37	4	3.42
20-29.9	84	5.79	4	3.42
30-39.9	78	5.37	10	8.55
40-49.9	37	2.55	4	3.42
50-59.9	43	2.96	5	4.27
60-79.9	30	2.07	9	7.69
80-99.9	17	1.17	10	8.55
100-149.9	49	3.37	19	16.24
>150 Miles	99	6.82	25	21.37
Total	1452	100.00	117	100.00

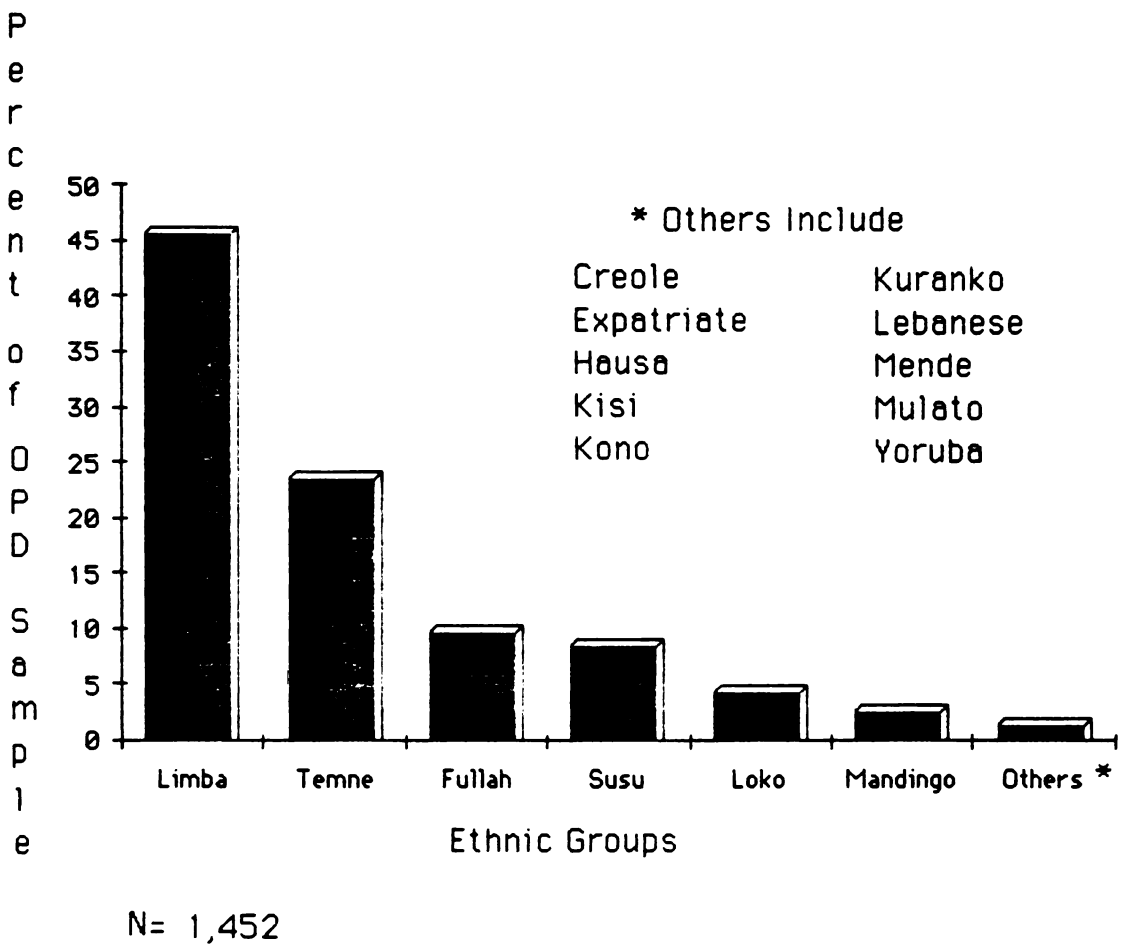


Figure B.1. Ethnic Groups Represented in the Outpatient Survey

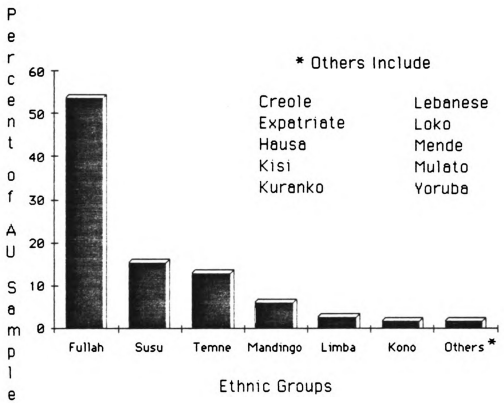
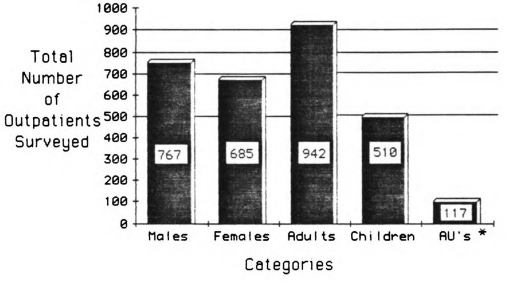


Figure B.2. Ethnic Groups Represented by Appointment Unit Patients in the Outpatient Survey.



*AU= Appointment Unit Patients
N= 1,452

Figure B.3. Categories of Outpatients Surveyed (Numerical Representation).

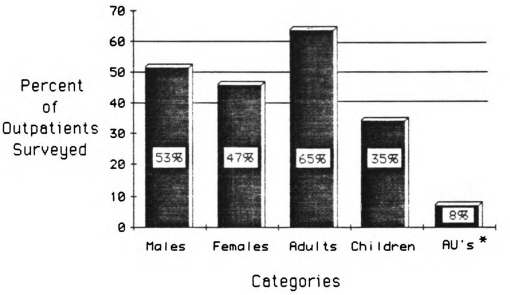


Figure B.4. Categories of Outpatients Surveyed
(Percent Representation).

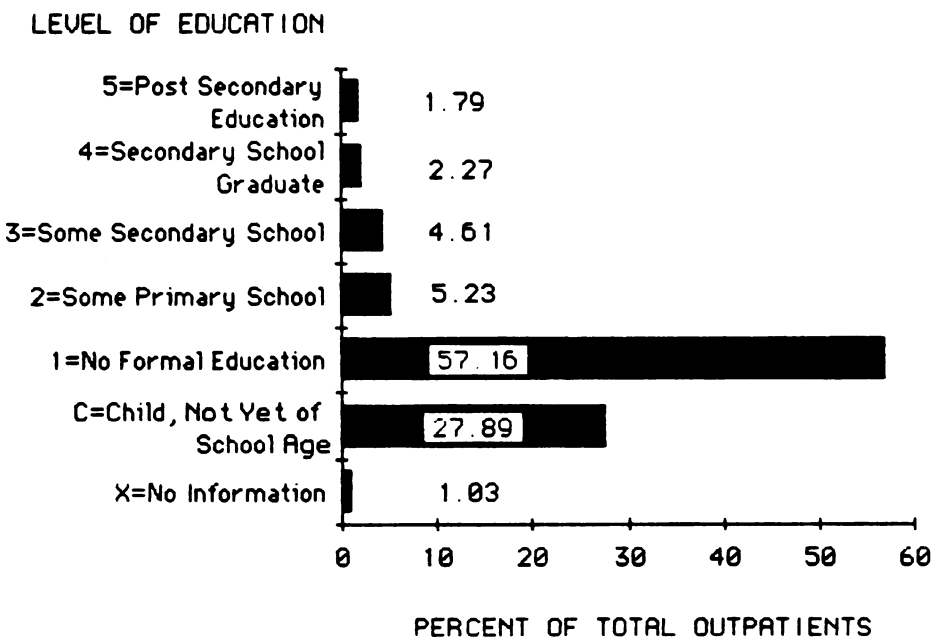


Figure B.5. Level of Education of Outpatients Surveyed.

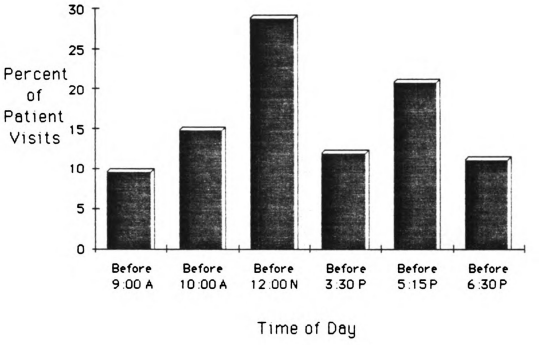


Figure B. 6. Time of Day at Which Patients Completed Their Outpatient Dispensary Visits.

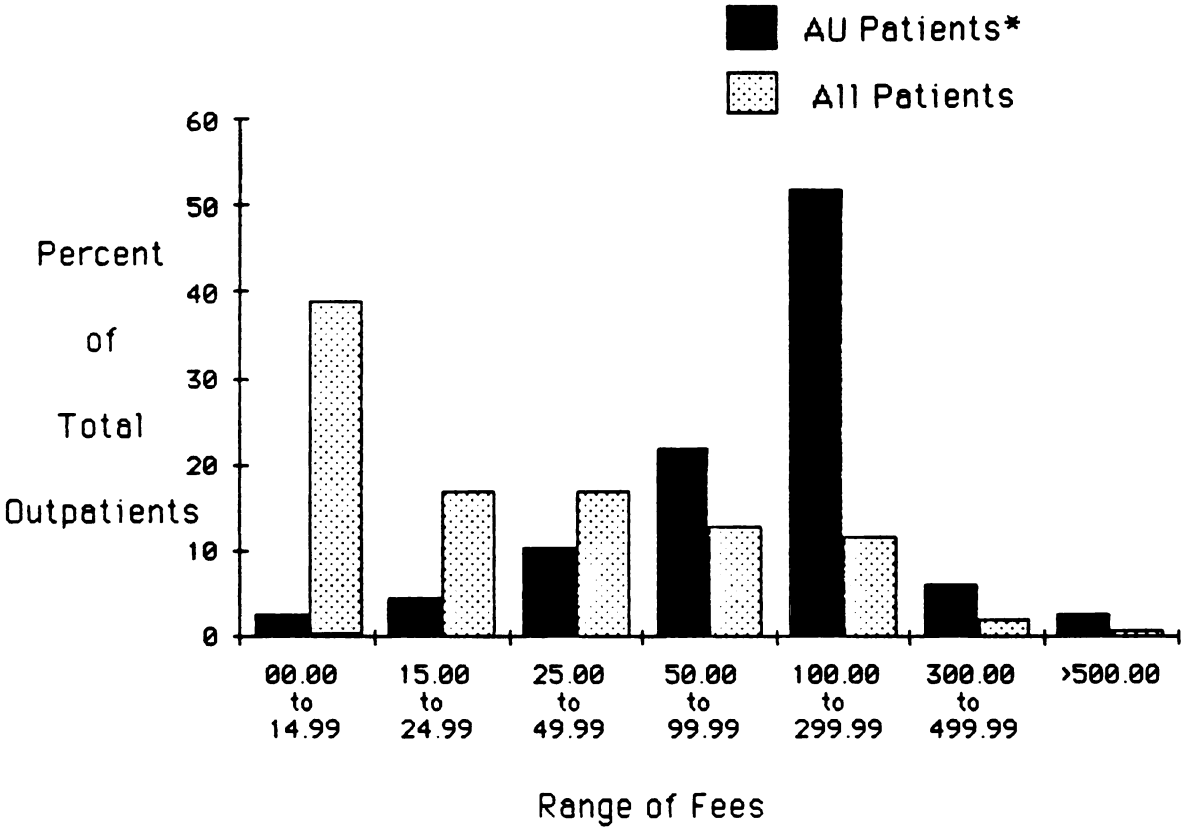
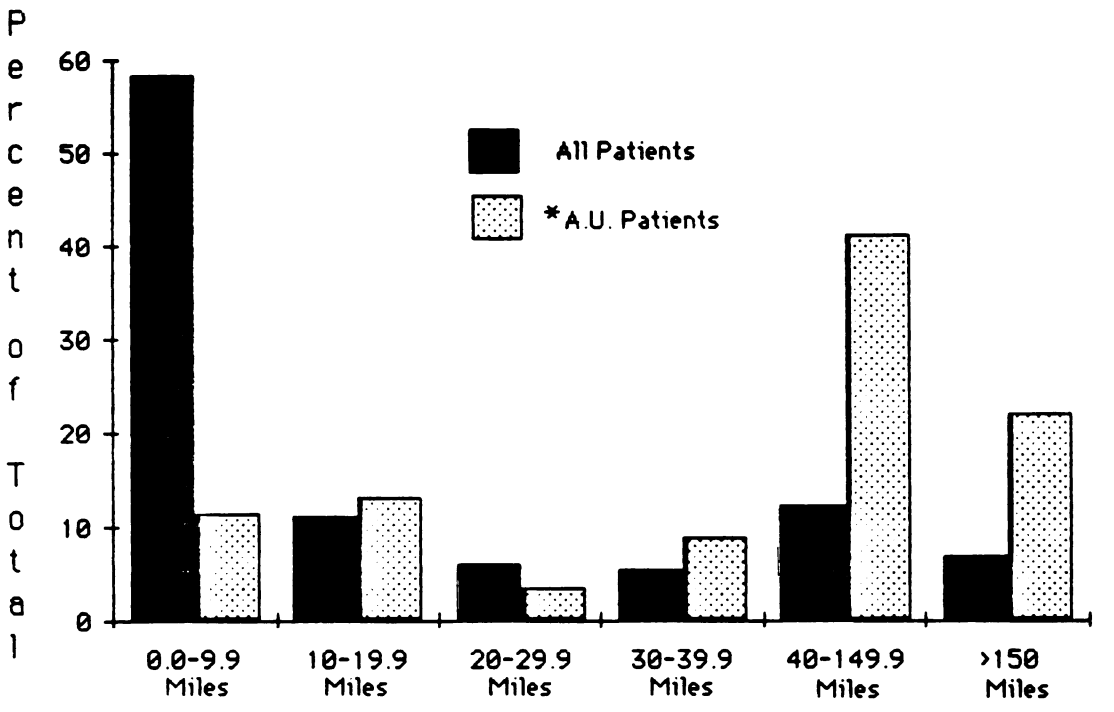


Figure B.7. Fees Paid by Outpatients Per Illness Episode.



* AU = Appointment Unit

Figure B.8. Distance Traveled to Kasela Hospital.

APPENDIX C

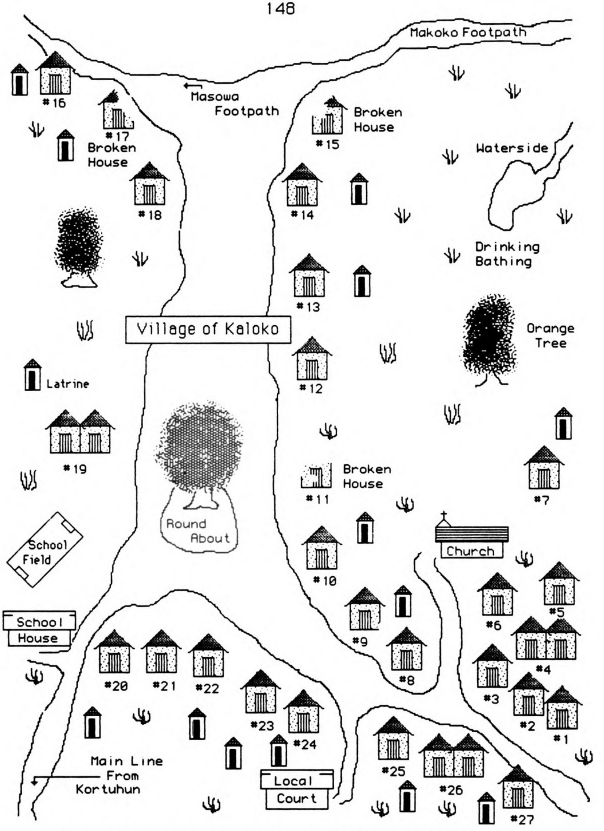
VILLAGE SURVEY DATA

Table C.1. Basic Descriptive Information on Villages Surveyed

VILLAGE	KALOKO	ROTEMNE	KALIMBA
POPULATION			
Total Population	260	133	368
HOUSING			
Number of Houses	27	10	34
No. of Pan Roofs	27	9	26
No. of Grass Roofs	0	1	8
SANITATION			
Number of Latrines	21	4	21
% with Latrines	78	40	62
WATER SUPPLY			
Number of Wells	0	0	1
EDUCATION			
Elementary School	1	0	1
RELIGION			
Church	1	0	0
Mosque	0	0	1
ECONOMIC INDICATORS			
Number of Radios	2	2	12
Number of Bikes	1	0	5
Number of Hondas	0	0	3
LOCAL HEALTH RESOURCES			
Herbalist	many	2	3
Sorcerer	0	1	1
Trained TBA	0	0	1
Untrained TBA	yes	yes	yes

Table C.2. Outpatient Dispensary Usage in Villages Surveyed

VILLAGE	KALOKO	ROTEMNE	KALIMBA
Total Population	260	133	368
Number with OPD tickets	114	82	283
Percent with OPD tickets	43.85	61.65	76.90
Year of Ticket Registration			
1960-64	5	1	12
1965-69	7	6	14
1970-74	12	12	31
1975-79	12	14	49
1980-84	45	22	98
1985-86	30	21	59
OPD Card not Available	3	6	20
Number of Illness Episode Visits per OPD Card			
1-4	94	33	107
5-9	14	18	56
10-14	2	5	38
15-19	0	5	16
20-24	0	5	19
25-29	0	3	11
30-34	0	4	4
35-49	0	1	6
>50 Visits	0	2	5
OPD Card not Available	4	6	21
Total Illness Episode Visits Recorded on OPD Cards	298	789	2739
No. Visits/No. OPD Cards	298/110	789/76	2739/262
Per capita visits	2.71	10.38	10.45
No. of Hospital Admissions	16	13	27
No. of Villagers Interviewed	71	33	155



Broken House = House damaged in a serious windstorm.
Residents lived elsewhere at the time of survey.

Figure C.1. Map of Kaloko Village.

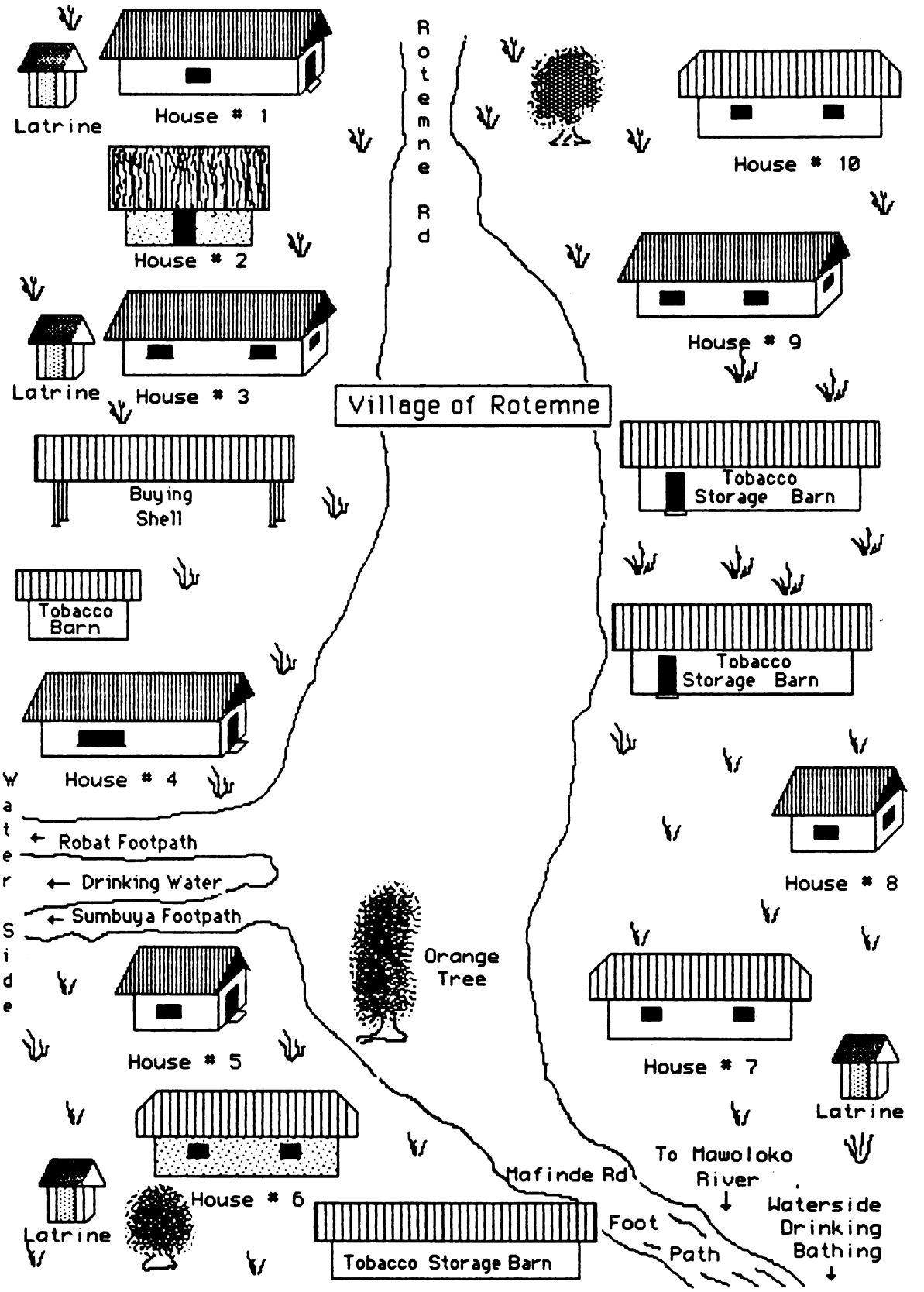


Figure C.2. Map of Rotemne Village.

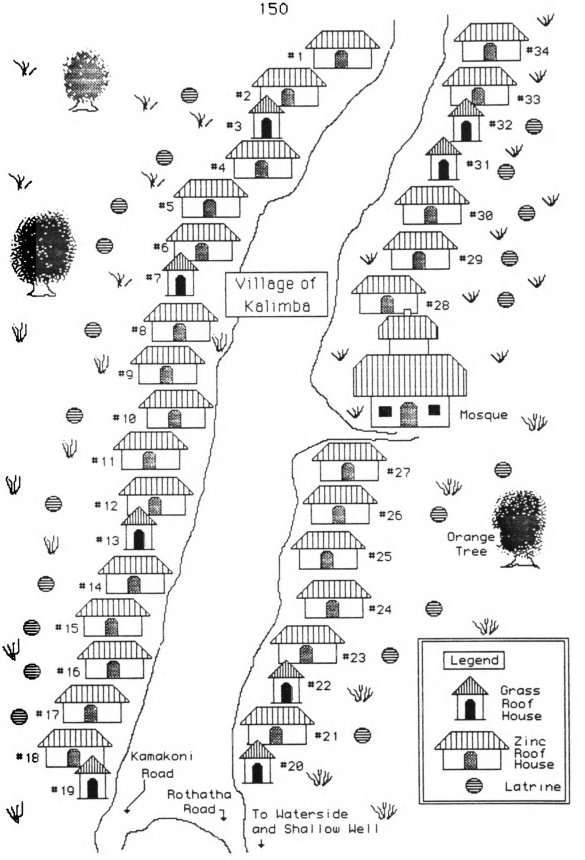


Figure C.3. Map of Kalimba Village.

APPENDIX D

FACILITY MAPS

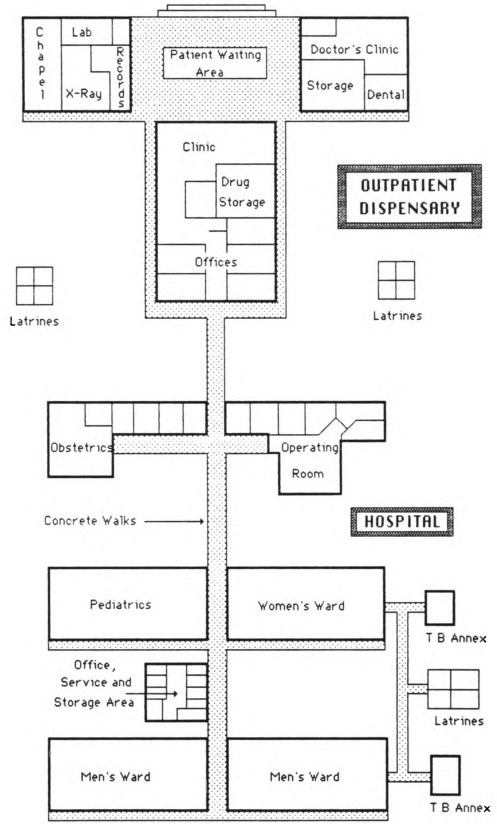


Figure D.1. Diagram of Kasela Hospital and Outpatient Dispensary.

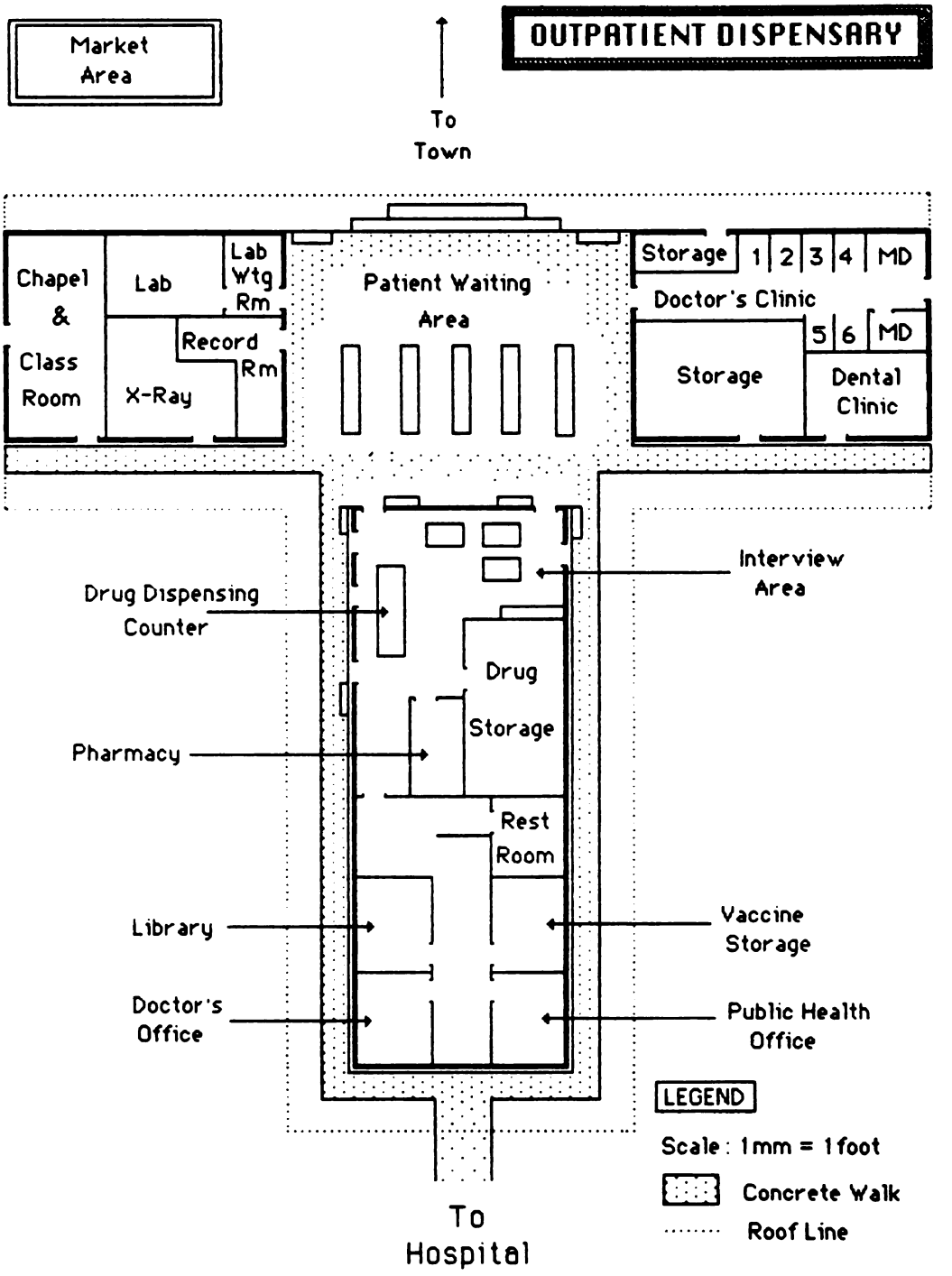


Figure D.2. Diagram of Outpatient Dispensary

APPENDIX E

OUTPATIENT INTERVIEW FORM

OUTPATIENT INTERVIEW FORM

PRE-VISIT INTERVIEW

1. Code number

2. Ethnic group
   a. Limba
   b. Fulleh
   c. Temne
   d. Susu
   e. Other

3. Sex
   a. Male
   b. Female

4. Age
   a. Child
   b. Adult

5. Distance traveled
   a. Less than 30 miles
   b. 30 or more miles

6. Level of education
   a. Not yet school age
   b. No formal education
   c. Some formal education

7. Religion
   a. Muslim
   b. Christian
   c. Traditional
   d. Not asked

8. What brought you to the dispensary?
   a. Named a particular illness
   b. Described symptoms

9. Do you know what gave you this sickness?
   a. Known cause
   b. Unknown cause
   c. Not asked

10. What have you done so far for this sickness?
   a. Traditional medicine
   b. Medicines from market or trader
   c. Treatment at other dispensary or hospital

11. Escort present with patient?
   a. Yes
   b. No

POST-VISIT INTERVIEW

1. Patient could repeat instructions recorded on clinic card.
2. Patient could repeat instructions on how medications were to be taken.
3. Patient could state what medicines were for: e.g., "worms," "fever," "cough."
4. Patient was asked to recall what he/she had learned about his/her disease and treatment.

APPENDIX F

OUTPATIENT INTERVIEW DATA

OUTPATIENT INTERVIEW DATA

	AU Patients	General Patients
Pre-visit interviews	21	28
Post-visit interviews	21	19
PRE-VISIT INTERVIEW		
1. Code number		
2. Ethnic Group		
a. Limba	1	15
b. Fullah	12	1
c. Temne	2	8
d. Susu	1	0
e. Other	5	4
3. Sex		
a. Male	12	16
b. Female	9	12
4. Age		
a. Child	0	13
b. Adult	21	15
5. Distance Traveled		
a. 0-29.9 miles	3	25
b. 30 or more miles	18	3
6. Level of Education		
a. Not yet school age	0	11
b. No formal education	19	12
c. Some formal education	2	5
7. Religion		
a. Muslim	19	16
b. Christian	1	10
c. Traditional	0	2
d. Not determined	1	0

	AU Patients	General Patients
8. What brought you to the dispensary?		
a. Named a particular illness	1	5
b. Described symptoms	20	23
9. Do you know what gave you this sickness?		
a. Known cause	3	5
b. Unknown cause	11	23
c. Not asked	7	0
10. Treatment sought for this illness:		
a. None	0	0
b. Self-treatment at home	0	0
c. Traditional medicine	7	7
d. Medicines from market or trader	4	3
e. Other dispensary or hospital	18	6
11. Escort present with patient	8	18
POST-VISIT INTERVIEW		
1. Treatment instructions on clinic card	21	8
Correct recall of instructions	21	8
Percent of correct recall	100%	100%
2. Medications dispensed	56	49
Correct recall of how to take medications	51	41
Percent of correct recall	91%	84%

	AU Patients	General Patients
3. Knowledge of what medicine was for	10	6
Percent of correct knowledge about medication	18%	12%
4. Knowledge of disease and treatment	Narrative Data	Narrative Data

APPENDIX G

DATA FROM STUDY OF PERCEPTIONS OF PHARMACEUTICALS

Data From Study of Perceptions of Pharmaceuticals

1. Name: Codeine tablet
   Intended Use: Analgesic
   Sold: Kasela market
   Cost: Le .60 ($ .017)
   Appearance: Large, white, scored tablet, 1/2" in diameter
   Interpreted Use: Dysentery, "head hurt," two at night for chest pain, 1/2 tablet for a child. Seven identified it as the mild analgesic Panadol. None knew it was codeine.

2. Name: Tetracycline
   Intended Use: Antibiotic
   Sold: Kasela market, Kasela Hospital outpatient dispensary
   Cost: Le 1.00 ($.028) market price, Le .60 ($ .017) hospital price
   Appearance: Red and yellow capsule
   Interpreted Use: Called "capsule" by virtually all informants. Opened and used on sores. Seven identified it for "belly hurt." Dosage: one (children) or two (adults). Also used for diarrhea. Described as "the same" as the antibiotic Ilosone (item 27).

3. Name: Mentholatum
   Intended Use: Advertised to "rub on affected parts" for "colds, catarrh, influenza, etc." Topical analgesic.
   Sold: Kasela market
   Cost: Le 3.00 ($ .083)
   Appearance: Commercially packaged in container, 1" diameter
   Interpreted Use: Rub on nose, throat, or affected body part. Rub on body when you feel "cold." Lick, or mix in water and drink.

4. Name: Unknown
   Intended Use: Unknown
   Sold: Kasela market
   Cost: Le 1.00 ($ .028)
   Appearance: Large (1/2" diameter), white, scored; manufacturer AFRAB
   Interpreted Use: Vendor stated "two for dysentery." No one else identified this tablet.

5. Name: Tops (Top tab)
   Intended Use: Analgesic containing aspirin, phenacetin, and caffeine
   Sold: Vendor in town of Kasela
   Cost: Le .60 ($ .017)
   Appearance: Medium (6/16"), white, coated
   Interpreted Use: Pain ("head hurt," "waist bone," "back"). Recognized by most informants.

6. Name: Cafenol
   Intended Use: Analgesic containing aspirin
   Sold: Vendor in town of Kasela
   Cost: Le .60 ($ .017)
   Appearance: Commercially packaged, including instructions on use.
   Interpreted Use: Pain, identified for "head hurt" by 11 informants. Recognized by most informants. Manufactured in Sierra Leone.

7. Name: Padrax (piprazine citrate)
   Intended Use: Powdered concentrate for roundworms. 2-6 years 1 packet; 6-12 years 2 packets; >12 years 3 packets.
   Sold: Kasela market
   Cost: Le 1.00 ($ .028)
   Appearance: Commercially packaged, including instructions on use.
   Interpreted Use: Informants identified this as for worms. Dosages were less than recommended (e.g. one for children, two for adults). Three small boys said to put it in "warm water with no sugar." One girl said it was to "soak any swollen limbs."

8. Name: Penicilline pommade
   Intended Use: Antibiotic ointment
   Sold: Vendor in town of Kasela
   Cost: Le 14.00 ($ .389)
   Appearance: Commercially packed tube of ointment, including instructions in English and French.
   Interpreted Use: For sores, for wounds, for scabies ("krew krew," penicillin not effective for this), for tinea skin infections ("facing cloth," penicillin not effective for this), for conjunctivitis ("Apollo," skin ointment, not intended for use in the eye).

9. Name: Paw-paw seed
   Intended Use: Vendor said to grind two with groundnut paste and eat for "dry belly" (i.e., constipation). Actual efficacy unknown.
   Sold: Kasela market
   Cost: Le .20 ($ .006) per cluster
   Appearance: Small, brown seeds
   Interpreted Use: Some suggested grinding and drinking, or grinding and rubbing on the body for "bone hurt," or "head hurt," or burns.

10. Name: Alum
    Intended Use: For "teeth hurt." Alum is a mild astringent for mucous membranes. Put next to sore gum, or break in small pieces and put in carious teeth.
    Sold: Kasela market
    Cost: Le 1.00 ($ .028)
    Appearance: White stone
    Interpreted Use: Virtually all informants agreed that it is used for "teeth hurt." Two older primary school students said it is put in water to kill worms. Another student said it is "chlorine, to purify water." Some suggested grinding and drinking in water. "It will help any kind of sick."

11. Name: Ampicillin
    Intended Use: Antibiotic
    Sold: Itinerant vendor, Kasela Hospital outpatient dispensary
    Cost: Le 1.00 ($ .028)
    Appearance: Black and red capsule
    Interpreted Use: It was recognized by most informants. There was consensus that it could be used for sores, abdominal problems, and good health. For diarrhea "a big man swallowed one" and "a small pikin" took the powder. For "worms in the belly" one or two were taken. For "belly hurt" one could be taken each day. One could be taken after "you come out from hard work on the farm, for well body" (i.e., to have a well body). It was described as more powerful than, or "powerful past" tetracycline.

12. Name: Sheku (unidentified botanically) or plum tree nut
    Intended Use: Worms (efficacy unknown)
    Sold: Kasela market
    Cost: Le .20 ($ .006) per cluster

Appearance: Medium-size brown nut
Interpreted Use: Informants consistently said that the prickly inner substance should be put inside a banana (to avoid scratching the throat) and eaten for "worms."

13. Name: An pos (the spice Xylopia aethiopica)
Intended Use: For cough, as a purgative, and for infertility (efficacy unknown).
Sold: Kasela market
Cost: Le .20 ($ .006) per cluster
Appearance: 1-2" brown fruit pods
Interpreted Use: Informants indicated they used it for cough (including whooping cough), and also for fever.

14. Name: Chenj powder
Intended Use: Powder used for lice and bed bugs (efficacy unknown)
Sold: Kasela market
Cost: Le 2.00 ($ .056) per packet
Appearance: Gray powder
Interpreted Use: Used as intended for lice, bed bugs, and roaches.

15. Name: Calcium lactate
Intended Use: Calcium supplement
Sold: Kasela Hospital outpatient dispensary
Cost: Le .20 ($ .006)
Appearance: Slender, white, 3/4" long
Interpreted Use: Only one informant identified it and called it "strong aspirin." In appearance it resembled an extra-strength aspirin formerly carried by the outpatient dispensary.

16. Name: Chloroquin
Intended Use: Malaria
Sold: Vendor in town of Kasela , Kasela Hospital outpatient dispensary
Cost: Le .60 ($ .017) vendor, Le .10 ($ .003) hospital
Appearance: Plain white tablet, 6/16"
Interpreted Use: One informant identified it as chloroquin. Others said it was for headache, "cold," or "body hurt," or that it was aspirin.

17. Name: Chlorpromazine
    Intended Use: A phenothiazine derivative used as a tranquilizer
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .25 ($ .007)
    Appearance: Small orange tablet, 1/4" diameter
    Interpreted Use: A young mother described it as "blood medicine," probably because of its orange color. One school boy said, "Drink it when your body is not well." Another said it was for "any kind of sickness that catches you." One informant said his sister bought some from a trader who came up from Freetown and gave it to her small child. A young boy said it was medicine for "a small pikin (child) to swallow when he isn't well."

18. Name: Niridazole (ambilhar)
    Intended Use: A potentially toxic drug used in the treatment of schistosomiasis
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le 3.40 ($ .094)
    Appearance: Yellow tablet, 1/2" diameter
    Interpreted Use: Three informants described it as "quinine," confusing it with yellow mepacrine tablets. Another two said it was for the same "belly hurt" as item 30, a round yellow tetracycline tablet. Another confused it with the similar flat yomesan tablets and said four should be taken for tapeworm. A seller of market medicines said the correct dosage was "one for adults, and 1/2 for children" when the medicine actually has to be taken consecutively for seven days. Another identified it as medicine he had taken, whereas clinic records showed that his brother had been given niridazole and he had been given yomesan for tapeworm.

19. Name: Chloramphenicol
    Intended Use: An antibiotic used primarily in typhoid fever, which should not be used indiscriminately or for minor infections.
    Sold: Kasela Hospital outpatient dipsensary
    Cost: Le .64 ($ .018)
    Appearance: White capsule, 3/4"
    Interpreted Use: Only one informant commented on this medication. He sold traditional medicines in the Kasela market and said it was to be used "the same as all capsules," pointing to the tetracycline, ampicillin, rifampicine, and keflex. He said capsules "all do the same work."

20. Name: Rifampicine
    Intended Use: An antibiotic used in the treatment of tuberculosis.
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le 2.50 ($ .069)
    Appearance: Red capsule, 3/4"
    Interpreted Use: Seven commented on this medication. One said it was "blood medicine," probably due to its color. Six identified it as a "capsule," saying variously that it was for sores or for "belly hurt." None identified it as a drug for "dry cough" or tuberculosis.

21. Name: Keflex (cephalexin)
    Intended Use: Antibiotic
    Sold: Local vendors, Kasela Hospital outpatient dispensary
    Cost: Le 2.25 ($ .063) hospital price
    Appearance: Green and white capsule, 3/4"
    Interpreted Use: Ten informants commented on the keflex capsule. It was to "put on sores" or for "belly hurt." One commented that this was "the new medicine" and that the red and yellow tetracycline was "the old medicine," as it has become available in the markets more recently than tetracycline. Three said it was for a "big person" or "young people" but not babies. One individual said he had bought some one evening from a hospital staff member on duty, although the drug was not recorded on his clinic card. A woman incorrectly identified it as "Anacin," and said it should be taken for pain, confusing it with the green and white Anacin capsules that were available through the dispensary at one time.

22. Name: Iberet
    Intended Use: A multivitamin with iron
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .10 ($ .003)
    Appearance: Coated red tablet, 3/4", with manufacturer's stamp
    Interpreted Use: Only one group of three boys commented on the medication and said that it was for "malaria." One boy said his brother had taken it.

23. Name: Bufferin
    Intended Use: An analgesic containing aspirin
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .10 ($ .003)
    Appearance: White tablet, 1/2" diameter, marked with a "B."

Interpreted Use: Two individuals who had extensive clinic records correctly identified the medicine. One was a secondary school graduate who knew that two tablets should be taken three times each day for fever.

24. Name: Mebendazole
Intended Use: An antihelminthic used for pinworm, whipworm, roundworm, and hookworm
Sold: Kasela Hospital outpatient dispensary
Cost: Le .60 ($ .017)
Appearance: Small white, scored tablet, 5/16"
Interpreted Use: Seven commented on this medication, one correctly identifying it as an antihelminthic. It was variously identified for "head hurt" and for "small children." It was said to be "the same" as digoxin (item 25), which is a cardiotonic glycoside.

25. Name: Digoxin
Intended Use: A heart stimulant or cariotonic glycoside
Sold: Kasela Hospital outpatient dispensary
Cost: Le .20 ($ .006)
Appearance: A small white tablet, 3/16"
Interpreted Use: Nine informants commented on this tablet, describing it primarily as "dry chook" (dry injection) or "penicillin." They were referring to the small ephedrine tablets commonly for sale in the market. Ephedrine is a sympathomimetic drug which acts similarly to adrenalin. It is used in asthma to dilate the bonchial muscles and contract the nasal mucosa. Two said the drug could be used for asthma. Primarily the drug is used to produce a "high" and is, for example, taken after a day of farm work when an individual wants to stay awake for an all-night dance. The drug is considered successful if the individual does not sleep. It is called "dry chook" (dry injection or "pencillin") because the effect is powerful in the same way that injections are perceived as powerful. Only one informant identified the medication as digoxin, a tablet that individual had been taking for a number of years for a heart condition. Two said it was for "small pikin" or children, probably because of its size, and that it was for "head hurt" or "belly hurt."

26. Name: Ilosone (erythromycin)
    Intended Use: Antibiotic
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .70 ($ .019)
    Appearance: Red and cream colored capsule
    Interpreted Use: Six informants commented on this antibiotic, saying it should be put on sores, taken "once a day," or "swallowed for belly hurt." One individual pointed to the tetracycline and ampicillin capsules and indicated it was "powerful past" or more powerful than those. Only one woman correctly indicated that it should be taken "four times a day" for "a heavy sick" or serious illness.

27. Name: Erythromycin
    Intended Use: Antibiotic
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .70 ($ .019)
    Appearance: Peach-colored, coated tablet, 1/2" diameter
    Interpreted Use: No informant identified this medication. One individual said he had taken it. None recognized it as an antibiotic as it was not in a capsule form.

28. Name: Vitamin A
    Intended Use: Vitamin supplement and treatment of xerophthalmia
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .40 ($ .01)
    Appearance: Gold, fluid-filled capsule, 1/2" long
    Interpreted Use: No informants identified this medication.

29. Name: Mepacrine
    Intended Use: Malaria
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .80 ($ .022)
    Appearance: Gold, coated tablet, 5/16" diameter
    Interpreted Use: Interestingly enough, no informants commented on this tablet. Although some identified niridazole (item 18) and valium (item 32) as mepacrine, no one identified the actual mepacrine tablet. The niridazole and valium looked like the flat yellow mepacrine tablets that were formerly available, but the new gold, coated mepacrine tablet no longer "looked like" mepacrine.

30. Name: Tetracycline
    Intended Use: Antibiotic
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .60 ($ .017)
    Appearance: Deep yellow, coated tablet, 7/16" diameter
    Interpreted Use: Only four people commented on this medication. Two said it was "bitter medicine for belly hurt," one said it was for cough, and another said it was for "chest pain." While virtually all respondents recognized the identical medication in capsule form (item 2), in this form it was basically unrecognized.

31. Name: Engarde
    Intended Use: A multivitamin supplement
    Sold: Kasela Hospital outpatient dispensary
    Cost: Le .10 ($ .003)
    Appearance: Maroon tablet, 1/2" long
    Interpreted Use: A staff member recognized it as a vitamin. Another individual said to "soak it in water and drink it for belly hurt."

32. Name: Valium (diazepam)
    Intended Use: Tranquilizer
    Sold: Kasela market, Kasela Hospital outpatient dispensary
    Cost: Unknown market price, Le .15 ($ .004) hospital price
    Appearance: Flat yellow tablet, 5/16" diameter
    Interpreted Use: Three informants said it was for malaria. One said it was for "belly hurt" and another for "worms."

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