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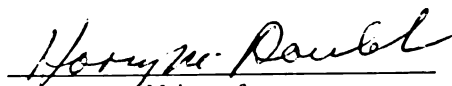
THE WOMEN OF IQBAL STREET:
POPULAR MODELS OF HEALTH AND ILLNESS

presented by

Janice Louise Eickmeier

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Anthropology


Major professor

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THE WOMEN OF IQBAL STREET:
POPULAR MODELS OF HEALTH AND ILLNESS
Volume I

By

Janice Louise Eickmeier

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree

DOCTOR OF PHILOSOPHY

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ABSTRACT

THE WOMEN OF IQBAL STREET: POPULAR MODELS OF HEALTH AND ILLNESS

By

Janice Louise Eickmeier

Laypeople, especially women, provide the bulk of health care world-wide, yet lay perspectives and beliefs about health and illness have seldom been incorporated into the planning of primary health-care programs. This dissertation is an attempt to explore the perspectives of sixteen, urban, middle-class Pakistani women living on Iqbal Street in Lahore, Pakistan. The concept of cultural models was used to describe and analyze the women's beliefs. Because real world conditions as well as perceptions shape therapeutic behavior, the beliefs and behaviors of the women of Iqbal Street were analyzed within the setting of contemporary urban Pakistan. Health conditions, medical resources, and governmental policy on health were discussed.

The focus of this dissertation has been on preventive behavior and common illnesses. Khasara (measles), dust (diarrhea), pechish (dysentery), and malaria were discussed at length. Taking proper precautions regarding appropriate diet, environmental cleanliness, and ethical living, were important for the

maintenance of health. Incorporation was a hallmark of the women's models of health and illness; elements were drawn from a number of medical traditions. Humoral theory about heat and coldness was a central organizing principle. Many preventive and therapeutic strategies date back to classic Unani and Ayurvedic texts. Allopathic medicines, if not concepts, have been incorporated into their models. The women have a basically flexible and pragmatic approach in their search for therapy. They appear to evaluate effectiveness on the basis of remedies and healers rather than by system and they use the medical resources available to them to piece together medical care for their families.

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To Jim for his patience and support.

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Doing field work and writing a dissertation seem like very solitary activities, but they involve many people. Dr. William Ross and Mrs. Lillian Kumata of the Asian Studies Center at Michigan State University supported my interest in Asia and Pakistan and helped make it possible for me to do field work in Lahore. The American Institute of Pakistan Studies funded my research in Pakistan during 1980-81. While in Pakistan, Shaheen Malik provided invaluable help as my field assistant. Hakim Fazal-e-Elahi, Principal of Tibbia College in Lahore, graciously allowed Shaheen and I to read at the College and thoughtfully curtained off a room for us so we could retain our respectability.

The patience and forbearance of my committee members certainly cannot be overlooked. Dr. Harry Raulet, Dr. Ann Millard, Dr. Judy Pugh, and Dr. Bob McKinley worked with me to shape my unfocused ideas into an acceptable dissertation. Dr. Herb Whittier, the Dean's Representative, also offered valuable suggestions. Jane Sherman edited the text. Her ability to be consistent is amazing. The responsibility for remaining errors is mine.

Friends here and in Pakistan supported me during this long process. The Aslams were gracious hosts and gave me many valuable insights into Pakistani family life and the practice of allopathic medicine in Pakistan. Finishing this degree with a modicum of sanity was an unexpected treat. Many beings contributed to this: Jim Schneck, Wenonah Lyon, Brenda Mayne, Niko, Miss Kitty, Puff, and Rascal.

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CHAPTER I

POPULAR HEALTH CARE MODELS

Introduction

In its effort to provide "Health for All by the Year 2000", the World Health Organization has called for a shift in priority away from hospital-based, tertiary care to community-based, primary health care. With this shift came the recognition that, to make primary health care universally accessible, "maximum community and individual self-reliance for health development is essential" (Levin 1981:179-80). Participation by laypeople is now deemed to be their "right and duty" (WHO Chronicle 1983:134). However, there has often been ignorance of and failure to incorporate the lay perspective into these programs. This failure has been suggested as one reason that the practical applications of primary health-care programs have remained "woefully inadequate" (Bloom 1985:7).

If this new health initiative is to succeed, the beliefs and motivations that shape lay health behavior must be understood by those who plan primary health-care programs. As the role of beliefs and motivations is being reexamined in light of this new health initiative, it is

becoming clear that laypeople, especially laywomen, play a central role in maintaining the health of their families and in providing the majority of health care. The health-seeking process is initiated within the family when family members evaluate the symptoms of the illness, identify it, and give it cultural significance. Once the illness has been evaluated and identified, appropriate sick roles are sanctioned and therapies can be determined. The advantages of home treatment are clear; both labeling and treatment come from the same set of beliefs, so misunderstandings about therapies are rare (Kleinman 1980:51-52; Litman 1974:495; Chrisman 1981:24).

The majority of symptoms are never treated by medical professionals; the medical system would be swamped if they were (Dean 1983:23). Most people, 70% to 90% of those who are sick or injured at any given time, have their sicknesses and injuries managed outside of the formal health-care system (Kleinman, Eisenberg, and Good 1978:251-54). The remaining 10% to 30% seek help from a biomedical practitioner or a health-care facility (Chrisman 1981:22). In those cases of illness that require healers, decisions that shape the choice of healer and evaluate the treatments usually are made within the family (Kleinman 1980:51-52; Litman 1974:505).

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But until recently, few studies have been done on lay contributions to health care. Physicians have often neglected family involvement in health care. By and large, they have been unaware that the family is a potent source of health care. Those who were aware of lay contributions to health condemned them as "misinformed and dangerous" (Levin, Katz and Holst 1976:3,9). The facts that lay health activities are the responsibility of women and that those tasks are so mundane have also lead to this neglect (Levin 1981:177). The contribution that women make to health has often been trivialized and denied (Butter 1983:25).

Anthropologists also tended to avoid studies of mundane health-care activities. They have focused instead on more dramatic healing traditions (Kleinman 1980:51). The "mystical" and "psychological" dimensions of ethnomedical data were emphasized at the expense of more technical information about health (Comaroff 1978:249).

Now, lay health care is receiving more attention from both the biomedical establishment and anthropologists. It is increasingly being recognized as an important constituent of total health resources and an essential constituent of primary health-care programs (Levin, Katz, and Holst 1976:3). This reevaluation of primary health care has led in turn to a reevaluation of

the role women play as health-care providers (WHO Chronicle 1983:134). Anthropologists are showing more concern with how laypeople evaluate therapies (Nichter 1978,1980,1985) and with the conditions that shape and constrain choice of therapy (Young 1981a). Investigations of lay beliefs and folk models of illness (Price 1985,1987) and the complexity of lay medical knowledge (Young 1981a,1981b) have been carried out.

This study aims to provide a better understanding of laywomen's health beliefs and behaviors in the context of urban Pakistan through a combination of micro- and macro-analysis. A description and analysis of the women's beliefs about a number of common problems and their evaluation and use of the medical resources available to them comprise the micro-analysis chapters. A description and analysis of the wider medical and social setting in which their beliefs and behaviors occur comprise the macro-analysis chapters.

My primary concern with beliefs is in the tradition of what is known as "micro-analysis." Micro-analysis consists of "studies of illness perception, disease occurrence, diagnosis, prevention, therapeutic effects.... (Janzen 1978:121). Micro-analysis is often associated with the work of Kleinman (1980) and Good (1977), which deals with individual experience of illness and with the

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beliefs that guide health-care choices. Concerned with how the individual and family members perceive, label, and manage illness, micro-analysis deals with cultural rather than social determinants of health (Kleinman, Eisenberg, and Good 1978:254).

Social scientists associated with macro-analysis focus on the social context of illness rather than the individual's experience of it. Frankenberg (1980), Young (1982), Navarro (1984), and Elling (1981) have studied those social, economic, and political factors that determine the distribution of illness and access to health care. Researchers allied with this position have criticized micro-analysis for restricting concern to the individual and to medical solutions (Young 1982:269; Frankenberg 1980:199; Navarro 1984:472).

According to its critics, micro-analysis establishes "the primacy of the individual and his values, motives, dispositions, and perceptions" (Young 1982:260). It is criticized for assuming that beliefs alone determine therapeutic approach and for overlooking the social factors that determine the structure of the medical system, the pattern of disease, and the available medical options (Ibid.:269). Overly medical solutions are also criticized for ignoring the poverty, crowded housing, and inadequate food and water that are the prime determinants

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of much ill health worldwide. In macro-analysis, political and social change, not medical solutions, is considered to be the answer to these problems (Benyoussef and Christian 1977:402; Navarro 1984:472; Elling 1981:98).

Some of the anthropologists affiliated with the macro-approach see the relationship between micro- and macro-analysis as antagonistic (Young 1982:279). Others see the relationship as complementary; macro-analysis is necessary to overcome the handicaps of micro-analysis (Janzen 1978:124; Young 1982:279; Frankenberg 1980:205). What they call for is an analysis of social and political factors in addition to, not instead of, an analysis of values and ideas. What they require is that local custom be situated in the context of local social structural process (Frankenberg 1980:205). This is the approach used in this study.

The rest of this chapter will serve as an introduction to lay or, as it is referred to by Kleinman (1980), popular health care. A more detailed discussion of lay health beliefs and behaviors dealing with issues such as the various kinds of medical knowledge, lay medical models, and the limitations of predicting behavior from beliefs will follow. Nonideational factors will also be discussed in order to give a fuller picture of how lay health beliefs and strategies are shaped by context.

Popular Health Care

Kleinman defines popular health care as:

...a matrix containing several levels: individuals, family, social network, and community beliefs and activities. It is the lay, non-professional, non-specialist popular culture arena in which illness is defined and health care activities initiated (1980:50).

According to Kickbusch and Hatch, it includes:

...unorganized health activities and health-related decision-making by individuals, families, neighbors, friends, colleagues at work, etc; it encompasses self-medication, self-treatment, social support in illness, first aid in a 'natural setting', i.e. the normal social context of people's everyday lives (1983:4).

Good defines popular medicine as the medicine of the people and of the home. It provides a language with which people can express their experiences with illness. Ideas, models, expectations, and norms that guide the response to illness made by the patient, his family, and community are found within the popular realm (1977:30).

The popular health sector holds the most central and important position in Kleinman's model of local health care systems. This model consists of three overlapping sectors--popular, professional, and folk. The professional sector includes specialists from professionalized medical systems like biomedicine and

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Unani (traditional Arabic or Islamic medicine). The folk sector is comprised of nonprofessional, nonbureaucratic specialists and includes diverse components from both sacred and secular realms (Kleinman 1980:51-59). The largest of the three sectors, the popular health sector, is where most decisions about health care are made. Contrary to common belief, it is laypeople, not professionals, who determine whom to consult, when to comply, and whether they are satisfied with therapy (Ibid.:51-52).

Kleinman states that the internal structure of local health care systems is the same cross-culturally (1980: 51). However, the actual content of popular health beliefs is unique to the culture in which it is found and reflects the same forces that shaped the entire health-care system. General technological level influences the kinds of health problems encountered and shapes the possible responses to them. Economic factors influence the standard of living, the disease profile, and the people's access to adequate nutrition and health care. Political and social factors determine which medical resources are available and which of them receives official support (Polunin 1976:122-26; Taylor 1976:289; Nichter 1980:225). These factors will be discussed in more detail in Chapters II and III.

Popular health care is a "ubiquitous and integral part of societies throughout the world" (Parker et al. 1979:3). Figures from Asia vary greatly, are somewhat different from the global figures, and should be used with some caution. As one intervention in the whole course of treatment, the incidence of care given in the popular sector is 20% in Nepal, 42%-45% in Karnataka State, India, and 93% in Taiwan (Parker et al. 1979:9; Nichter 1978:39; Kleinman 1980:183). Figures for exclusive use are lower: 16% in Nepal, 34% in Karnataka State, and 73% in Taiwan (Parker et al. 1979:9; Kleinman 1980:183).

Parker et al. attribute the low rate of reported popular health care in India and Nepal to possible underreporting of dietary modifications. They note that their respondents primarily reported the use of specific medicinal agents. They conjectured that dietary and other lifestyle modifications were infrequently reported because these activities were such common parts of everyday life (1979:23-24).

However, the low figures from India and Nepal may be a result of the survey methods used to collect these data. In neither case was self-care the focus of the study. Figures in some cases were based on subsamples (Parker et al. 1979:7), and in other cases they were estimated or extrapolated from other data (Nichter

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1978:39). The figures from Taiwan were based on long interviews with family members about family-based care. Data were collected on all reported illnesses over the preceding month and on all steps taken to treat them (Kleinman 1980:180-81). Had comparable data been collected from India and Nepal, figures there would probably have been higher.

Popular knowledge about health is not equally distributed within the population. The usual repositories of popular knowledge are those who have special responsibilities of nurturing--mothers and older women (Kosa and Robertson 1975:61). The adult female is most often the provider of health care for her family. She is the central agent of care and cure, the one responsible for health and nutrition matters, and the main source of comfort and assistance (Litman 1974:505).

Many of the health-care activities defined as primary are within the domain of women's normal activities. Women are responsible for teaching sound health practices to their children. They play an important role in maintaining health and preventing illness. Women are in charge of the family's food intake and nutrition. They attempt to provide a clean environment and to teach personal hygiene. The main

providers of maternal and child care are women, and it is primarily they who decide when treatment is needed (Bender 1983:7; Butter 1983:25).

Treatment of illness is the most obvious function of the popular health-care sector. Treatment includes the management of illness from its initial identification to the evaluation of the therapies used to heal it. Kleinman contends that there are "universal clinical activities" that occur in all treatment of illness, whatever the sector (1980:71). The activities, which he defines as core clinical functions, include constructing illness, establishing the general criteria to guide health seeking and treatment evaluation, managing a particular illness episode, healing activities per se, and managing therapeutic outcome (Ibid.:71-72). The sum, he says, of core clinical functions is healing (1978a:87).

There is a vast array of home remedies ranging from first aid to a "nice hot cup of tea" (Levin and Idler 1981:75). Home treatments in India commonly include diet, special foods, local herbs, indigenous medicines, both in traditional and contemporary forms, use of allopathic drugs, and symbolic interventions, including charms, prayer, and healing rituals (Beals 1976:189; Freed and Freed 1979). Diet is the mainstay of home treatment, since many illnesses are thought to result from dietary

imbalance. Dietary manipulation includes such things as diet changes to balance hot and cold foods, giving easily digestible foods to the patient, and giving foods that have specific effects on specific problems (Kleinman 1980:185-186, Nichter 1980:226-27).

Most of the problems treated at home are minor illnesses and injuries, problems that are usually minimal, self-limiting, and readily normalized. Since most minor illnesses are self-limiting, most remedies used to treat them are perceived to be effective (Kleinman 1980:51,182-83; Kleinman 1984:142; Levin and Idler 1981:74-76). Levin and Idler note though, that care at home may be what makes the minor sicknesses and injuries self-limiting. Prompt attention may prevent further complications (1981:76).

Sometimes it becomes obvious that more than just home treatment is needed. Decisions about the appropriate course of treatment and type of practitioner to visit need to be made, and these decisions are negotiated largely within the family. Laypeople decide whom to consult, when to comply with the healer's suggestion, and whether the care given was effective (Litman 1974:501; Dean 1983:22; Kleinman 1980:50; Worsley 1982:333). Women are most likely to decide if outside help is needed (Pizurki et al. 1987:13). The final therapeutic strategy may reflect the ideas of the family's senior females rather than those of the patient (Kleinman 1980:197; Beals 1976:197).

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To the more obvious function of treatment must be added the less studied, but perhaps more important, function of prevention. In fact, Kleinman states that the popular health-care sector is more occupied with health and health maintenance than with sickness (1980:53). But preventive aspects have often been overlooked by researchers. In the past, anthropologists have focused almost exclusively on the curative aspects of medicine (Levin and Idler 1981:68; Dunn 1976:137; Nichter 1985:34).

One reason prevention has been overlooked is that many preventive measures so are commonplace. Another is that some early researchers believed that peasant fatalism precluded prevention (Parker et al. 1979:23-24; Hughes 1963; Colson 1971:1-2). When anthropologists did study prevention, they often dealt only with latent functions that a given behavior might have (Hughes 1963).

However, Colson found that prevention of illness was an "explicit and active" concern of the people in Kelola, the Malay village that he studied (1971:128). He studied those behaviors that people in the community defined as having the express function of preventing undesirable health states (Ibid.:2). Colson found that the people employed a wide range of behavior, from taking home remedies and using talismans for protection from spirits to obeying Quranic injunctions about proper

behavior, for the purpose of maintaining health and preventing illness. Colson concluded that, "(1) peasant groups do not, by definition, display low degrees of concern with the prevention of illness; and (2) fatalism does not preclude an elaboration of preventive behavior" (Ibid.:128).

Lay Health Belief and Behavior

Laypeople are concerned with what anthropologists have called illness. In this scheme, elaborated by Kleinman, Eisenberg, and Good (1978), illness is contrasted with disease. Illness is defined in a variety of ways. In its most basic definition, it is what the patient suffers. It "represents personal, interpersonal and cultural reactions to disease or discomfort" (Ibid.:252). Another definition states that illness refers to the "psychological experience and meaning of perceived disease" (Kleinman 1980:72).

Illness is a cultural construct, an explanatory model, that can only be understood in the specific context in which it occurs. Kleinman states that constructing illness from the personal, social, and cultural responses to disease is one of the earliest and most fundamental tasks of a medical system (Ibid.:77). Illness terms are part of a semantic network, a "network of words,

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situations, symptoms and feelings which are associated with an illness and give it meaning for the sufferer" (Good 1977:39). Implicit in the illness label is a set of beliefs about how the patient and the problem should be evaluated and how the course of treatment should be chosen (Kleinman 1978b:76).

Disease is what physicians diagnose and treat. It refers to abnormalities in the structure and function of body organs and systems (Kleinman, Eisenberg, and Good 1978:252) or, as Kleinman states, "a malfunctioning of biological and/or psychological processes" (Kleinman 1980:72). Disease is seen as the primary malfunction upon which the personal and social responses, illness, are based (Ibid.).

There are problems with the definition of disease. Kleinman, Eisenberg, and Good state that, "Neither disease nor illness should be regarded as entities. Both concepts are explanatory models...." (1978:252). Yet Kleinman also appears to consider disease to be an entity. "Disease commonly has a typical course and characteristic features that are independent of setting" (Kleinman 1980:77). So, as opposed to culturally specific illness, Kleinman sees disease as universal.

This definition of disease as a universal entity and the belief that it represents quantifiable abnormalities and maladaptation has been criticized by Hahn

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for implying the existence of an "empirical assessment, free from value judgement" with which to judge if an illness is legitimate or not (1984:17). The assumption is that biomedicine is the only form of medicine capable of such empirical assessment. This puts the patient's experience of illness in a secondary position.

Ascertaining the biological basis of illness appears to be the criterion for legitimization by biomedical practitioners (Kleinman, Eisenberg, and Good 1978:251-52). Thus, according to Kleinman, it is possible to have disease without illness, such as in the case of massive trauma (although this implies that the initial trauma is all there is to the episode and overlooks the personal and social reactions to the outcome of and recuperation from that trauma), but illness in the absence of disease, such as in the case of hypochondria, is considered to be an "abuse of the sick role" (1980:74).

The legitimation of lay perceptions is a more important issue than the debate over the existence of disease as an entity, at least for the purposes of this study. As the term is commonly defined in biomedicine, disease can exist as a universal biological event. There exist pathogens that cause much the same constellation of signs in all susceptible humans. But viral pathogens form only one point in the spectrum of human suffering, and

even these universal entities are influenced by culture as soon as a specific human in a specific culture is infected.

It is possible to take issue with Kleinman's statement that disease has a course and characteristic features independent of setting (1980:77). Socio-cultural factors that determine health and nutritional status can affect the severity of the symptoms experienced. The same pathogen that causes fever and blistering rash in Lansing causes those symptoms in Lahore. But in Lansing it is measles, until recently a relatively mild inconvenience of childhood; while in Lahore, khasara is a serious childhood illness that kills many children.

Laypeople suffer from dis-ease. They are the ones who perceive and evaluate the initial warning signs that something is wrong, that something is out of balance, and that misfortune has befallen them. Whatever the cause of this dis-ease, be it fever from a viral pathogen or guilt over a broken moral code, it is the sufferer's perspective that is central to understanding the models she constructs and the therapeutic options she chooses.

Popular Models

Studying lay health beliefs is important not only for the cultural insights they provide but also for the effect they have on health behaviors. Understanding lay

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theories of etiology and ethnophysiology gives a better understanding of how various remedies and healers are evaluated and used (Nichter 1980:232; 1985:25-26). According to Young, discovering the ideational basis of health-care choices is the best way to explain the observable patterns of treatment choice (1981a:5). Understanding these beliefs and perceptions has value then for both anthropology and public health programs (Nichter 1980:231).

The organization of cultural knowledge and the way it relates to action has been a concern of cognitive scientists from many fields (Holland and Quinn 1987:viii). One way this organization has been conceptualized is as a model. Kleinman's explanatory model (1980) is an example well known to medical anthropologists. A number of other terms, such as conceptual systems (Nichter 1987), semantic network (Good 1977), cultural (Quinn and Holland 1987; Keesing 1987), and folk models (Price 1985, D'Andrade 1987), have been used to describe this knowledge.

Kleinman's explanatory model has many parallels with the models discussed below. However, his insistence that an explanatory model is "marshalled in response to a particular illness" and his clear distinction between explanatory models and general health beliefs that "exist independent of and prior to a given episode of sickness"

(1980:106) make its application to the study of general health beliefs, such as those elicited for this study, problematic. For the study of these more general health beliefs, cultural and folk models, as described by Quinn and Holland, Keesing, and others, offer good insight on how people think and behave. They are useful even though all the complex relations between verbal statements, models, and action have not yet been worked out.

As will be stated more fully below, models described by informants are fragmentary and only loosely organized. Verbal statements can serve many functions and are made in response to how the informant assesses the specific situation in which her statements are elicited. The truthful description of one's beliefs may not be the primary goal (Quinn and Holland 1987:7; Holy and Stuchlik 1981:22). Young notes that the theorized knowledge that is used to make up explanatory models is only one of several kinds of knowledge, serves only one of several functions related to an illness episode, and so is not a full representation of a person's medical knowledge (Young 1981a:326-27).

A number of terms have been used in the literature to describe verbal statements about cultural knowledge. Among them are notions, conceptions, and ideas (Holy and Stuchlik 1981:16). I have used the term belief. However,

the use of the term belief does not imply that they are concrete representations of a totally conscious creed. Nor, as Giddens states, can all knowledge be expressed in "propositional beliefs" (Giddens 1984:337). As used here, belief is as described by Young (1981a) and Quinn and Holland (1987): a multifunctional statement that only partially represents a person's total cultural knowledge.

It cannot be assumed that cultural models translate "simply and directly" into behavior (Quinn and Holland 1987:6). What cultural models do is "frame experience, supplying interpretations of that experience and inferences about it, and goals for action" (Ibid.). For example, Nichter states that the hot-cold conceptual system provides a framework "which sets conditions for action but which does not determine action" (1987:377). Since they are frameworks for interpretation rather than a set of rules, cultural models allow for flexibility, choice, and negotiated realities (Keesing 1987:372).

Given that cultural models elicited from verbal statements are incomplete and tap only one kind of medical knowledge, it is not surprising that a "strictly deterministic rule of action" has not been formulated (Holy and Stuchlik 1981:25). Discourse about action is only a fragment of people's knowledge about why they do what they do. People have a continuing "theoretical

understanding" of their actions that cannot be equated with their ability to specify reasons for action (Giddens 1984:5-6).

Giddens states that:

Human agents or actors...have, as an inherent aspect of that they do, the capacity to understand what they do while they do it. The reflexive capacities of the human actor are characteristically involved in a continuous manner with the flow of day-to-day conduct in the contexts of social activity. But reflexivity operates only partly on a discursive level. What agents know about what they do, and why they do it--their knowledgeability as agents--is largely carried out in practical consciousness. Practical consciousness consists of all the things which actors know tacitly about how to "go on" in the contexts of social life without being able to give them direct discursive expression (1984:xxii-xxiii).

Cultural models are not the only influences on behavior (Quinn and Holland 1987:6). "Operational contingencies" (Nichter 1987: 377) and "real world conditions" (Young 1981a:178), such as cost, accessibility, time demands and resource availability, also influence behavior. Still, while not strictly deterministic, cultural models do relate to behavior in complex and powerful ways (Quinn and Holland 1987:6).

In the following discussion, the term cultural model will be used to conform to current usage (Quinn and Holland 1987; Keesing 1987). After the review, however, the term popular model will be use to refer to lay health beliefs. This is done to distinguish the general beliefs

discussed here from notions about particular illness episodes required by Kleinman's explanatory model. The term cultural model, which is currently preferred over the term folk model, does not specify whose model it is, lay or expert. Because of the confusion over the term folk (Press 1980), the term folk model will not be used. Instead the term popular model will be used here to identify beliefs held by those who make up the popular sector of Kleinman's local health-care system.

Cultural models are

presupposed, taken-for-granted models of the world that are widely shared (although not necessarily to the exclusion of other, alternative models) by the members of a society and play an enormous role in their understanding of that world and their behavior in it (Quinn and Holland 1987:4).

Keesing describes cultural models as comprising the realm of (culturally constructed) common sense. They serve the pragmatic purposes of explaining the tangible, the experiential, and the probable. Rather than considering them to be a representation of a cognitive structure, Keesing considers cultural models to be a set of operating strategies that provide short-cuts, paradigms, and idealizations for using cultural knowledge. These strategies work well enough for everyday life without needing to fit into a single coherent system of knowledge (Ibid.:380).

While it is possible to identify domains of cultural knowledge such as marriage, kinship, or illness (Price 1985:53), it is difficult to isolate the continuum of cultural knowledge in discrete domains (Hutchins 1980:8). Comaroff states that "it is becoming increasingly difficult to sustain the view that 'medical facts' constitute a 'natural system' which may defensibly be bounded and excised from the total context... (1981:367). Instead, conceptions of illness and cure are embedded in larger frameworks (Worsley 1982:326).

For example, cultural models of illness intersect with those of social relations and religion to explain how and why someone falls ill (Price 1985:54). The network that exists between these separate domains allows the linkage of illness terms such as "heart distress" to ideas about "the problematics of female sexuality" and "oppression in daily life" (Good 1977:41). These semantic networks define what illness means for the sufferer (Ibid. 1977:39) and according to Kleinman, generate explanatory models (1980:106).

A "thematicity" seems to pervade cultural knowledge. According to Quinn and Holland, this results from a small number of "general-purpose" cultural models being incorporated into other models (1987:11). The hot-cold model is an example of this. "Reference to hot and

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cold is polysemous and made in a number of contexts...." It is used to describe such things as the quality of seasons, environmental conditions, and personality characteristics as well as states of health and illness (Nichter 1987: 377).

Giddens distinguishes practical from discursive consciousness. Discursive consciousness is what actors are able to say about the conditions of their own action (1984:374), whereas practical consciousness refers to what actors know but cannot discursively express (Ibid.:375). The line between them is not rigid but fluctuating and permeable, "both in the experience of an individual agent and as regards comparisons between actors in different contexts of social activity" (Ibid.:4). The position of this line is influenced by socialization and altered by learning experiences (Ibid.:4,7). The consequences of this on cultural models are numerous: there is individual variation in how well individuals can express models, models of different domains are differentially accessible for expression, models are largely tacit, and they are loosely organized.

Cultural knowledge is not evenly distributed among the members of a culture. Difference in social position or social role make for different models (Holy and Stuchlik 1981:18). It could be expected that those whose

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social role determines that they deal with a particular domain of knowledge would have a more developed model than those who do not need to deal with that domain. Not only is there individual variation in the cognitive content of cultural models, but there is variability in an individual's ability to discuss those models because of difference in verbal ability, self-assurance, and previous experience thinking about or discussing the topic (Young 1981b:322).

Knowledge used to solve problems is more available for introspection and is more readily put into words than other more routine knowledge (Quinn and Holland 1987:8). Illness is a problem, and knowledge about illness appears to be easily accessible. According to Price, because the task of coping with illness falls heavily on women, they have a need for knowledge about how to respond to different illnesses (1987:313). Conversations about illness are an important source of the raw material from which women construct their models (Price 1985:56). Women have most of these conversations, and the stories they tell have a problem-solving value because they transmit useful technical knowledge about remedies and healers and encode information about causation and appropriate behavior when someone is ill (Price 1987:313-14).

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Models of common illness may be especially accessible because they are dealt with more frequently. Young notes that though spectacular illnesses have received more anthropo-logical interest, meaningful statements about choice are more likely from more mundane illnesses (1981a:5). Nichter points out that those who are at risk of illness due to constitutional vulnerability, or to temporary states of illness and physiological processes, "reproduce cultural knowledge for the populace through public displays and public discourse..."(1987:378). Those at risk due to temporary illness or physiological processes--small children, pregnant and lactating women--present a very common array of illnesses and physiological states that need to be dealt with frequently. Models about these illnesses and physiological states would be more accessible than models for less-common illnesses.

This differential accessibility to different models may account for the underreporting of certain self-care activities, such as dietary and lifestyle modifications noted by Parker et al. (1979) in Nepal and of home remedies noted by Price in Ecuador. Price states that one explanation could be that home remedies were less valued than remedies from specialists and so received less attention (1987:340). Another explanation is that as

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routinized day-to-day activities, information about them is carried in the practical consciousness and is not easily accessible for discussion (Giddens 1984:xxiii).

Cultural models are widely shared, so that a good deal of information related to the model does not have to be made explicit to other members of the culture. They do not explicitly think about or refer to many facets of their models (Price 1985:51). This is because once learned, cultural models become something one "sees with, but seldom what one sees" (Hutchins 1980:12). Much of of the knowledge that makes up cultural models remains in the practical consciousness (Giddens 1984:4).

Outsiders must infer much about a cultural model because nowhere is it fully stated (Price 1985:51). Models presented to them are incomplete and fragmentary. And it is probably beyond the ability of the average layperson to give a full picture of this intersubjectively shared knowledge. Young states that the analytical thought that this description would require is not a characteristic of what he describes as "everyday" thinking. Problem-solving rather than consistency of thought is the aim of "everyday" thinkers (1976:9).

Thus, much of the cultural knowledge that people share is unscrutinized and often takes the form of "common sense knowledge and customary behavior for which there

seem to be no reasonable alternatives" (Young 1981b:324). Cultural models embed ideas about "what is" and "what it means," so that interpretations based on these models seem "wholly natural--a matter of course" (Quinn and Holland 1987:11) or obvious (D'Andrade 1987:113). This lack of conscious reflection leads to models that are not globally consistent in the way that expert models strive to be (Kay 1987:76).

According to Giddens, commonsense knowledge is formulated in a "fragmentary, dislocated way." Much of the day-to-day talk among lay members of all societies is based on knowledge that is "disparate or left unexamined" (1984:92). Cultural models based on this commonsense knowledge are "probabilistic and partial" (Keesing 1987:378), "incomplete, and not entirely internally consistent" (Lutz 1987:302).

These tacit, fragmentary, unexamined cultural models allow flexibility in how the elements contained within are used. "The individual has considerable freedom to disassociate, recombine, invoke, or ignore particular elements from occasion to occasion" (Young 1981b:326). Cultural models "hold sway in a realm in which exceptions prove rules and contradictions live happily together" (Keesing 1987:374). This flexibility and tolerance for contradiction has a major impact on health-seeking behavior.

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Health Seeking

It is important to recall two important things about cultural models and health-seeking activities: cultural models do not translate directly into action nor are they its only determinant. In general, health-seeking activities are flexible and pragmatic (Worsley 1982:333). Decisions are aimed at cure, not at validating a medical theory (Kleinman 1980:103; Gould 1957:515; Madan 1969:1481). However, instrumental efficacy, Comaroff cautions, is also not the only reason for choice of therapy (1978:249). Nichter suggests that affirming ties to tradition is one reason educated and urban Indians make use of traditional cures (1978:42). Popular models of illness contain information on perceived severity, cause, and likelihood of cure that shapes health-seeking behavior. The flexibility of those models allows for a variety of medical choices. But real world conditions also act to direct and restrict those choices.

The flexibility of popular models allows people to draw on medical knowledge from a variety of sources to form their own personal synthesis (Morinis and Brilliant 1981:355). The resulting blend may seem bizarre to a biomedically trained physician, but it offers a number of treatment options for the layperson (Kleinman 1980:93). It allows for the situation in India where popular medicine:

combines the humoral concepts of hot and cold foods with concepts of vitamins; traditional physiological concepts with germ theory of disease....It utilizes patent medicines and drugs from modern chemotherapy, along with industrially prepared Ayurvedic, Yunani, and homeopathic medications (Leslie 1976:359).

While contradictions can exist happily in popular models, laypeople can and do recognize ambiguities and contradictions. But this does not undermine popular models, because laypeople are more concerned with assimilation of information than competition between medical systems(Young 1976:10). One reason for this, according to Beals, is that lay people believe the contradictions they perceive result from their own imperfect knowledge rather than from imperfections in the body of knowledge itself. Since the layperson lacks knowledge, possessing "just a few pieces in an enormous jigsaw puzzle," he cannot attempt to resolve conflicting theories (1976:185).

The concern with contradiction pales before the utility that multiple therapeutic options provide. An illness that has multiple causes requires the use of multiple therapies, often drawn from different medical resources, to deal with all aspects of the illness (Morinis and Brilliant 1981: 355-59; Topley 1976). Morinis and Brilliant discuss the example of smallpox, which is thought by inhabitants of Uttar Pradesh, a

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province in North India, to have a number of causes including a virus, the environment, ritual pollution, and divine possession. To cure smallpox, a number of different therapies, from inoculation to religious observances, can be required (1981:355-59).

Perceived severity of the illness is the major determinant of therapy, according to studies done in Taiwan, North India, and Mexico. In Taiwan, severe illnesses are more likely than minor illnesses to be treated outside the home (Kleinman 1980:184). Severity determined the kind of treatment chosen by North Indians: allopathic medicine was used for acute conditions and traditional medicine for chronic conditions (Gould 1957:508; Bhardwaj 1975:609). The ideal course of therapy was ordered by severity in the Mexican village studied by Young. For grave illnesses, the therapeutic alternatives were ordered by likelihood of cure, but for minor illnesses, cost became the major factor in deciding choice (1981b:502).

Perceived cause or causes also determine choice of therapy. Beals reports that therapy fits the cause: when problems are attributed to dietary imbalance, dietary modifications are made. Likewise, supernaturally caused illnesses were likely to require supernatural intervention (1976:189-94). On occasion, perceived cause can supersede

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severity as a determinant of therapy. In Punjab, India, severe childhood diseases are initially treated by traditional healers. The supernatural causes take precedence over the severity in determining the choice of a supernatural remedy (Kakar, Srinivas-Murthy, and Parker 1972:287-88).

Perceived efficacy is also an important factor in the choice of a therapeutic option. If there is thought to be a good fit between the type of illness and the type of therapy used to treat it, then the therapeutic intervention will be positively evaluated (Kleinman 1980:80-81). This good fit refers not only symptom relief but to ordering and explaining the illness experience and treating the social and personal problems engendered by illness (Ibid.:360).

Allopathic medicines are often used for symptom relief. Indian villagers in the north and south have willingly accepted new forms of medical treatment (Bhardwaj 1975; Gould 1957; Beals 1976). But the acceptance of allopathic medicines has only supplemented, not replaced, traditional treatments. They are perceived to be more effective at uprooting the ultimate cause of illness than are allopathic medicines. Both are valued for their own particular strengths (Nichter 1978:40).

The identification and classification of an illness point to the proper course of treatment, but the adoption of that course is constrained, in large part, by economic considerations. Cost restricts both the kind of treatment available and the number of treatment options. Young's analysis of medical choices in a Mexican village found that people could not always follow the effective alternative because it was also the most expensive. When resources were limited, even if the illness was severe, therapies were chosen on the basis of cost rather than perceived efficacy (1981a:167; 1981b:502-3). In Taiwan, Kleinman found that cost reduced the number of options available. Lower-class families were forced to rely on home treatment alone, but among upper middle class families, illnesses were treated by western-style practitioners. He concluded that "financial resources are the ultimate determinant of the quality and availability of care...." (1980:202).

In addition to cost, other factors restrict access to health care. The chosen healer may not be nearby and travel to him would be time-consuming and expensive. Western-style services are often far away and difficult to get to. In India and Pakistan, health services were concentrated in the cities and provided quality care for the urban elite; the urban poor and the rural populations

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are still underserved (Taylor et al. 1976: 132-36; Banerji 1981:112). Even when accessible, the quality of services was often poor. Long waits, lack of medicines, rude staff, and discrimination against the poor are some of the charges leveled against government health facilities in India and Pakistan (Banerji 1973:2273; Beals 1976:191,198; Qadeer 1983:219).

Orientations

The model for this study came from Janzen (1978). An attempt was made here to combine both micro- and macro-analysis, however, this study is weighted toward micro-analysis. I collected specific data on women's beliefs about illness and their evaluation of various types of healers and therapies. Macro-analysis, in this case, is not a critique of medical solutions and the relations of power that have bred poverty. Instead, it includes a description of the city in which the women live as well as an analysis of the health problems that confront them and the medical resources available to deal with those problems. More in-depth macro-analysis must wait for future study. But it must be studied, because as will be noted below, the solutions for some of Pakistan's most widespread problems are social rather than medical.

Unlike Good (1977) and Kleinman (1980) who dealt with more psychologically oriented illnesses, I have focused in this study on some of the most common diseases in Pakistan and the women's illness perception of them. As noted earlier, women's models of common illnesses are probably more accessible than models for less frequently occurring events. Commonly reported diseases were chosen because they are some of the major health problems in Pakistan. Understanding how they are perceived and dealt with may have widespread benefits.

The first criterion for choosing the diseases to study was their frequency but there were other criteria as well. Both acute and chronic diseases were chosen because literature on India had indicated that severity was a major factor in the choice of treatment. Diseases that struck at different times in life were included in the list because literature indicated that children's diseases were treated differently than adult diseases. The final list included diarrhea and dysentery, measles, and malaria. Diarrheal diseases were chosen because they are relatively acute and affect all ages. Measles was chosen because it is a childhood disease that is associated with disease goddesses in India. It was thought that perhaps in Pakistan as well there could be supernatural elements in its treatment. Malaria was chosen because it is so

widespread; it is the second leading cause of morbidity in Pakistan. It affects everyone and is a chronic illness with acute phases.

Methodology

Research was conducted in 1980-81 under the auspices of the American Institute of Pakistan Studies. During the course of the year, I collected data on three topics: popular health beliefs, Unani, and government health policies. All three aspects of the research were necessary to give a more complete picture of popular health beliefs and behaviors in the context of contemporary, urban Pakistan.

Most of the research was conducted in Lahore, especially that pertaining to popular health care and Unani. Lahore was chosen for a number of reasons. First, I was familiar with Lahore; I had studied Urdu there in 1974-75 with the Berkeley Urdu Program in Pakistan. Second, it is a center for the study of Unani, the great tradition humoral medical system that forms the basis of lay health beliefs. The oldest Unani medical school in Pakistan is in Lahore, and many famous hakims (Unani practitioners) lived there.

Within Lahore, the field site in the neighborhood of Ichra was chosen for many of the same reasons as the city itself: because it was familiar and because it was

fairly representative of Lahore as a whole. Neither excessively poor and unstable nor wealthy and westernized, Ichra received a "two" in Lahore's three-way neighborhood classification scheme. The highest classification, a "one," was reserved for exclusive neighborhoods. "Three" was given to shanties and other temporary dwellings without city services. Ichra, along with much of Lahore, received middle rank because it is a permanent neighborhood with city services like electricity and water.

Sixteen women living on Iqbal Street, the pseudonym for the actual field site, were questioned about their health beliefs. Data were collected with the use of a structured but open-ended questionnaire (Appendix I). It was administered in either Punjabi or Urdu by Shaheen Malik, my research assistant, who herself was a resident of the street. The women were asked about their general health beliefs and their beliefs about the cause, symptoms, and proper course of treatment for a number of illnesses. They were also asked to evaluate the strengths and weaknesses of the major types of healers.

I was a frequent visitor to Iqbal Street. In the months before the interviews were conducted, Shaheen and I spent many afternoons at her house working on translations

of articles from Unani magazines. During that time we visited with some of the women, so that by the time the interviews began, I was a familiar figure.

My lack of fluency in Punjabi probabaly was a blessing in disguise. Shaheen conducted the interviews while I made sure that the tape recorder was working properly. The interview was a structured conversation between Shaheen and a neighbor. They spoke to each other and maintained eye contact with each other. I was off to the side. I think that this helped the women relax and respond frankly to the questions that Shaheen asked. I usually entered the conversation only to answer any questions the women had about me, my family's health problems, or about beliefs in the U.S.

During the first interview, the women mentioned a number of foods and food categories, such as garam (hot) or Thand (cold). Shaheen and I went back to ten of the women to find out more about how the women classified food. This information was used to analyze the dietary therapies that are discussed in later chapters.

Some of the women expressed interest in having pictures taken of them and their children. Copies of these pictures were distributed to them. In addition, candy was given to each of the participating women as appreciation for their time and assistance.

To learn more about the context in which the women's beliefs were found, I used a mix of interviews, library research and observation. I used interviews with officials of the Ministry of Health and Social Welfare and the national professional Unani association to find out more about the political factors that have shaped government health policies and programs. I interviewed several well-known Hakims about their struggle for official recognition and about the theoretical basis of Unani.

To learn more about government health policy and Unani theory, I used library research. This provided information about the historical background of Pakistan and the medical systems that are found there today. Observation carried out in hakims' and doctors' offices and in government clinics, helped to identify some of the commonly reported problems and gave insights into the way that patients were treated.

Outline of the Chapters

This chapter has been an introduction to popular health care, its ubiquity, functions, and the factors that shape lay use of medical resources. In the next two chapters, the medical and social environment will be presented. Chapter II contains a description of

Pakistan's health problems and an analysis of the social and historic forces that have shaped the content of popular health beliefs and the current mix of medical resources. Chapter III focuses on the history of Lahore and the field site of Ichra. It introduces the residents of Iqbal Street.

Micro-analysis begins in Chapter IV, which deals with the women's general beliefs about causes of illness and ways to stay healthy. Chapters V through VII describe and analyze the women's beliefs about and therapeutic strategies for three of Pakistan's major health problems. Chapter VIII deals with their evaluation and use of medical resources. Chapter IX summarizes the findings and discusses them in the context of current health needs and medical resources.

CHAPTER II

THE MEDICAL SETTING

Medical Profile

Pakistan has been described as "one of the lowest health-status societies" (Punjab Health Department 1979:5) and has one of the lowest per capita expenditures on health, or about 1.0% of the GNP (Planning Commission 1978b:1). Many of the most commonly reported health problems are caused by lack of safe water, inadequate sewerage systems, and inadequate vector control. This is reflected in morbidity and mortality rates.

According to hospital statistics, about 30% of morbidity is due to gastrointestinal disorders, one-half to three-fourths of which are dysenteries and diarrhea. The incidence of malaria is 13% and tuberculosis 7.5 (Planning Commission 1978a:6). About two-thirds of deaths are due to infectious and parasitic diseases, 10% to malaria, 7.4% to congenital abnormalities and birth injury, and 5.5% to disease, accidents, violence, tumors, complications of pregnancy and childbirth, and unknown causes (Planning Commission 1978b:94).

Pakistan has a high birth rate, around 45/1000, and a comparatively low death rate, 14/1000, resulting in a rapid increase in population size. Infant mortality is still quite high, 105/1000. The major causes of infant mortality are quite similar to those of overall mortality: infectious and parasitic diseases, congenital abnormalities and birth injury, malaria, tuberculosis, and dysentery (Planning Commission 1978a:6,36).

A number of medical traditions coexist in Pakistan. This coexistence is not peaceful at the professional level, but for the people, this pluralistic situation provides a variety of health resources. An amalgam of Unani and Ayurvedic (traditional Hindu medicine) humoral theories form popular ideas about health maintenance and illness. Dietary manipulation, many home remedies, and the use of medications are based on humoral ideas. Allopathic medicines are becoming widespread, but allopathic concepts, such as germs, are not yet widely accepted. Many people believe that illness can result from interpersonal harm or spiritual invasion. These basic concepts shape much lay health behavior.

Medical Resources

Unani

Unani is not indigenous to South Asia; the name means Ionian, or Greek. The core of Unani medical theory is based on the classical Greek medical theories of Hippocrates and Galen. Many classical medical texts were lost, but those that survived into the late Hellenistic period were translated, first into Syriac and later into Arabic (Rosenthal 1975:10).

The locus of these translations was Jundishapur, a medical school southeast of Baghdad. Jundishapur is so important that it has been called the "true starting point of Islamic medicine" (Campbell [1926] 1973:46). Syriac translations of Greek medical texts were brought to Jundishapur late in the fifth century A.D. When the Arabs invaded Persia in the seventh century A.D., they were interested in the medical texts stored in the medical library at Jundishapur. They had the Syriac texts translated into Arabic in the eighth and ninth centuries A.D., and these translations served as the foundation for Islamic medicine (Elgood 1951:46-49; Campbell [1926] 1973:46; Browne [1921] 1962:23).

Over the next few centuries, Arab physicians reworked and expanded the Greek texts. The best known of these Arabic physicians was ibn-Sina, or Avicenna. His

greatest work, the Canon, was considered to be the most authoritative text on Unani. Even today in India and Pakistan, the Canon is accepted as the major textbook on Unani and is required reading for students of Unani (Siddiqi 1968:163; Beer 1980:6-7).

According to Avicenna, all things, including the human body, are made up of a mixture of the four basic elements (arkan): earth, air, fire, and water. Each of these possesses a unique combination of primary qualities (quwa): heat, cold, dryness, and moisture. Accordingly, earth is cold and dry, water is cold and wet, air is hot and moist, and fire is hot and dry (Gruner 1930:34-38; Verma and Keswani 1974b:146).

The equilibrium that exists after mixing the four elements is called mizaj, or temperament. Perfect balance exists only in theory. As it is used in medicine, balance refers to that balance that is optimal for the species, race, individual, and organ (Gruner 1930:59; Shah 1966:25-26; Beer 1980:13-15).

Mizaj varies with age, gender, and habitat. Women are thought to be colder than men and children warmer and moister than old people, who are characterized as cold and dry. People living in cold climates have more cold in their makeup. Those living in moderate climates have more moderate or balanced temperaments (Shah 1966:31-35).

The body contains four biological fluids or humors (axlat): blood (xun), phlegm (balGam), yellow bile (safra'), and black bile (sauda). These humors have the same qualities as air, water, fire, and earth, respectively. Humors are formed during the process of digestion. Upon reaching the stomach and intestines, food is digested and forms a thick fluid called "chyle." This is absorbed into the liver, where it is digested again. It forms the four humors, which are distributed to the various parts of the body where they form the raw material from which the body is built (Verma and Keswani 1974:159; Shah 1966:43-44; Beer 1980:20-21).

Because mizaj is never absolutely balanced, there can never be an absolute balance of humors. One humor will predominate, and mizaj is often identified by that predominant humor. A person who has an excess of cold and moisture in his body would also have more phlegm and would be said to have a phlegmatic temperament (balGami mizaj). The dominant humor determines body type, personality, and susceptibility to certain kinds of illness. Someone with a phlegmatic temperament is expected to be prone to obesity, be mild tempered--even dull--and is prone to cold illnesses (Shah 1966:219-28; Verma and Keswani 1974b:152).

Of all living things, humans are closest to being in absolute balance. Because plants and animals have less balanced temperaments, plant and animal substances can be

used to manipulate the humoral balance of humans. The effect of a food or a medicine is not absolute; it varies with the person eating it. Since no two people have the exact same temperament, the same food or medicine has different effects on different people (Shah 1966:25-28; Gruner 1930:62-63).

Humoral balance is basically innate, but it can be affected by climate, physical activity, emotional state, and diet. Since most illnesses are due to humoral imbalance, treatment usually consists of correcting the imbalance. Because humors are formed from food, they are quite sensitive to dietary changes. Dietary manipulation then becomes a useful strategy to prevent and treat illness (Gruner 1930:156-216, 394-408; Shah 1966:182-83, 311-12).

Unani was brought to the subcontinent by early waves of Muslim invaders, perhaps as early as the tenth century A.D., certainly by the eleventh. As the invaders spread out over the land, so did their medical beliefs. Unani received court patronage in the form of support for medical schools, libraries and hospitals. Prominent hakims, were given high positions in the rulers' court (Hume 1977a: 18-21; Siddiqi 1968:164).

Some of the Muslim rulers were also hakims, and they supported the development of Unani. Under the Tughlaqs, in the fourteenth century, many hospitals were

built and staffed: in Delhi alone there were over 70 hospitals (Verma and Keswani 1974a:129). Under the Mughals, from 1526-1761, the dominance of Unani in northern India was solidified. "The advent of the Mughals added largely to the popularity, progress and glory of Unani Tibb in India" (Siddiqi 1968:165). Like the Tughlaqs, the Mughals supported hospitals, and under their rule, free hospitals were established in the larger cities (Verma and Keswani 1974a:136).

Amalgamation with Ayurveda

Even though Unani received court patronage, its success did not lead to the disappearance of indigenous ideas. This was due to continuing official interest in Ayurveda--classical, indigenous Indian medicine. Indian medical theories had long been known in Greece and western Asia. Ayurvedic drugs were mentioned in the materia medica of Dioscorides in the first century A.D.. Physicians were brought from India to Persia, where they taught and practiced at Jundishapur. One of the first original Arabic medical texts, Firdausul-Hikmat, contained a summary of Indian medicine (Verma and Keswani 1974a:127; Elgood 1951:54; Siddiqi 1968:162).

After the Muslims reached India, interest in Ayurveda continued to grow. Hakims recognized that Ayurvedic remedies could be beneficial. It was also

recognized that since the climate and people of India were so different from those of Greece and Arabia, pure Unani medicines might not be suited to the new conditions. Many items needed to make Unani medications were hard to find in India. Over the next centuries, royal hakims translated, summarized, and analyzed a number of Ayurvedic texts, especially those concerned with pharmacology (Verma and Keswani 1974a:128; Siddiqi 1968:162; Basham 1976:40).

During this time, there was close cooperation between hakims and vaids (practitioners of Ayurveda). They practiced together in royal hospitals, discussed common problems, and collaborated in writing medical texts (Basham 1976:40). Some contend that this close cooperation led not only to Ayurvedic influence on Unani in the Indian subcontinent, but to a "hybrid amalgam of Greco-Arabic and Ayurvedic medical practice" (Verma and Keswani 1974b:145).

This amalgamation was possible because Ayurveda and Unani have many similar concepts. As in Unani, balance is a central concept. In Ayurveda, a balanced life was thought to be essential for health. To achieve a balanced life, social, economic, and moral codes had to be followed (Basham 1976:23). In Ayurvedic theory, health was thought to result from proper balance of the three dosas elemental principles. The dosas are vayu (wind), kapha

(phlegm), and pitta (bile). Illness was due to imbalance among them, and treatment, as in Unani, was aimed at controlling that imbalance (Obeyesekere 1978:256-57; Zimmer 1948:134-47).

Each individual is thought to have her own unique proportion of dosas that determines susceptibility to certain diseases and reactions to certain foods. Since all things--foods, medicines, and climate--have a unique proportion of dosas, they can be used to restore human dosas to optimal balance (Sharma 1975:213-17).

While this amalgamation is easy to document at the specialist level, it is more difficult to document at the popular level. There is little information on rural medical practices and beliefs during Muslim rule. Europeans who traveled in the Punjab in the nineteenth century seldom mentioned anything about Ayurveda. They did report though that hakims could be found even in the villages. These hakims probably were not well trained in classic Unani, since they lacked both texts and the language skills necessary to study them (Hume 1977a:23-25).

Both systems must have been available in the rural areas during Muslim rule. At a popular level, the systems appeared to have merged. The finer points of difference overlooked, a general humoral approach to medicine was

formed (Freed and Freed 1979:314). One historical factor that increased the blending of Unani and Ayurvedic beliefs was the large-scale conversion of lower-caste Hindus to Islam. As a result, Muslims and Hindus in the subcontinent shared many beliefs about life and health. But now each group looked to different religious and medical specialists for information regarding the correct way to live and stay healthy (Ahmad 1970:163-64).

Allopathic Medicine

Muslim control of the Punjab ended in 1739, and until the end of the eighteenth century, the Punjab was under Sikh control. Even under the Sikhs, Unani continued to receive royal patronage (Hume 1977a:23). But after the death of Ranjit Singh in 1839, the Punjab became politically unstable. Alarmed by this, the British annexed the Punjab and allopathic medicine supplanted Unani as the officially sanctioned medical system (Hume 1977b:214).

Like Unani and Ayurveda, allopathic medicine equates balance with health. The allopathic model of medicine assumes that disease can be accounted for by deviations and malfunctions of the body's chemical and physiological systems (Fabrega 1975:971). Much of allopathic medicine is aimed at restoring the body to a

balanced state. Homeostasis, rephrased in modern terms, still has relevance for understanding health and illness (Engel 1977:130; Totman 1979:25-29; Mechanic 1978:28).

Allopathic medicine has the same roots as Unani. Based on Latin translations of Unani texts, humoral medicine was the dominant medical theory in Europe from the twelfth to the sixteenth century A.D. (Sigerist 1970:54; Sigerist 1960:125-26). But by the sixteenth century, the authority of humoral medicine was being undermined. New discoveries in anatomy and physiology caused physicians to question and ultimately to disprove Galenic medical theories (Sigerist 1970:166-168).

By the end of the nineteenth century, when allopathic medicine was introduced into the Punjab, humoral ideas had largely been rejected by allopathic practitioners. But at that time, no one medical tradition could claim to be more effective. Some of the treatments employed by allopathic physicians, such as strong emetics, purgatives, cupping, and bleeding, were quite debilitating to the patient. It was argued that Unani or Ayurveda was more beneficial than allopathic medicine because the treatments interfered less with the body's recuperative power (Hume 1977a:30-31).

Discoveries in the nineteenth and twentieth centuries increased the ability of allopathic medicine to fight disease. Once the cause of infectious disease was

discovered, the germ theory was developed. But it was not until the twentieth century that drugs were developed that would kill the pathogen without killing the host. Antibiotics proved effective against most bacterial diseases, and immunizations proved useful against viral diseases (Ackerknecht 1968:158-234). Aseptic surgical techniques and anesthesia enabled surgery to become more common and relatively safe (Sigerist 1970:170-76).

Prophetic Medicine

Concepts of balance can also apply to Prophetic medicine, although in a broader sense. Widespread in Pakistan, Prophetic medicine is concerned with imbalances in the spiritual universe rather than the physical one. By following social rules regarding correct behavior, people believe that they can reduce the incidence of misfortune or illness caused by human envy or spirit intrusion.

The sayings of the Prophet regarding medicine, diet, and hygiene were collected, and systematized, and later came to be known as Prophetic Medicine or Tibb-al-Nabi. These sayings serve as guideposts for behavior and have shaped many Muslim health beliefs and practices, including beliefs in spirits, the evil eye, and sorcery as agents of illness and misfortune (Nasr 1968:192-93; Greenwood 1981:219).

Pakistanis believe that illness can be caused by actual spirits, such as jinns (spirits, elves, demons created from fire)_or bhut (ghosts), or by spiritual forces that come from within humans. Living humans possess spirits or souls (ruh) that can affect other people. The manner and degree of effect depends on the intent and spiritual power of the individual from whom the ruh is emanating. The most direct effect from a human is nazar, or evil eye. Humans can also manipulate the spiritual world to practice kala 'ilm, or black magic. One common form of kala 'ilm is Tuna, where one's misfortune is transferred to another, or where another's good fortune--sons for example--is transferred to oneself. These spells are said to be effective ruhani tor pur, or spiritually (Ewing 1980:38-43).

Ordinary humans do not possess the spiritual power to deal with jinn, nazar, and Tuna. Humans need someone or something with sufficient spiritual power to influence the spiritual world. Baraka (divine grace) is the means through which cure occurs. Baraka is found in pirs (holy men) and in the words of the Quran (Greenwood 1981:220). Pirs radiate baraka and provide their followers with a sense of peace in a world filled with negative spiritual forces. In addition, they can provide their followers with concrete solutions for family problems and remedies

for both spiritual and physical ills (Ewing 1980:39,48). Quranic verses are also endowed with special abilities to heal and are used by pirs and laypeople as part of healing activities.

Some authors have suggested that belief in magic, evil eye, and spirits are survivals of Hindu "superstitions" grafted onto Islam as a result of large scale Hindu conversions (Ahmad 1970:163; Sharif 1972:7). But belief in these things has been a part of the Islamic folk tradition from the very start and in fact predate Islam (Spooner 1976:77; Christopher 1972:14). Witches and jinns were mentioned directly in the Quran, and in one verse, the evil eye is mentioned indirectly:

Say: I seek refuge in the Lord of Daybreak from the mischief of His creation; from the mischief of the night when she spreads her darkness; from the mischief of conjuring witches; from the mischief of the envier when he envies (Dawood 1974:23).

The Prophet is quoted as saying, "The Evil Eye is real. If anything existed before Time, then it is the Evil Eye" (Elgood 1962:153). He permitted the recitation of Quranic verses and amulets against the evil eye. The use of magical rituals based on the Quran, known as nuri 'ilm, or luminous knowledge, and the use of tawiz, or amulets, is widespread in Islam. Tawiz often contain divine names of Allah or angels, magic squares, and Quranic verses such as the one quoted above. Nuri 'ilm is

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permitted for protection against kala 'ilm, but the practice of kala 'ilm is forbidden (Burgel 1976:58; Gibb and Kramers 1953:128-29; Elgood 1962:153-54; Ozturk 1964:360).

Other Folk Specialists

Pirs are the most frequently consulted religious healers, but there are other religious specialists as well. Sayyids (descendants of the Prophet) possess inherited baraka. Sanyasis (wandering mendicants) and mandrois (specialists in verses used to neutralize insect and snake poisons) are also consulted (Plunkett 1976:7).

There are other, secular folk specialists as well. The dai (midwife) is quite important to Pakistani women. She delivers babies, treats minor gynecological ailments, performs abortions, and provides a number of other services for both mother and child (Ibid.). A universal feature in rural life, dais continue to be popular in the urban areas as well (Osborn and Ameen 1975:662). In villages, nais (barbers) do minor surgery, cupping, and prepare skin ointments. Pehelwans (wrestlers) set broken bones (Plunkett 1976:7).

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Government Health Policies

Throughout South Asian history, the ruling power has determined which medical tradition received official support. This has not been restricted to the British colonial powers or the westernized Pakistani elite. Recall that the newly arrived Muslims supplanted indigenous Indian medicine with Unani. So too did the newly arrived British supplant Unani with allopathic medicine.

In Pakistan, the westernized elite continues to control medical resources. Government policies meet the needs of the powerful ruling class rather than the needs of the rural and urban poor. Such policies have resulted in official support for allopathic medicine. Government health programs are largely curative, and there is an urban bias in the distribution of medical resources (Zaidi: 1985).

From the time that the British annexed the Punjab until the present--through the Nationalist movement, Independence itself, and a succession of military and civilian governments--official support for Unani has varied. What has remained constant is the hakims' struggle for recognition and the doctors' opposition to it.

When the British first annexed the Punjab, officials in the Punjab government wanted to provide health services for both the rural and urban areas. Since they were faced with a shortage of doctors, they began to use hakims in rural areas to treat disease, distribute simple medicines, and act as vaccinators and sanitary inspectors. Doctors opposed the scheme, and they passed on increasingly critical comments to the central government. The central government suggested that the Punjab government discontinue the use of hakims. The new rules regarding employment of hakims were so restrictive that it became almost impossible for hakims to work for the government (Hume 1977b:214-231).

During the early twentieth century, nationalist sentiment was expressed by supporting indigenous medicine. Practitioners of Ayurveda and Unani took the untraditional step of organizing into professional groups to fight for government support. The All-India Ayurvedic Congress was founded in 1907, and the All Indian Unani Vedic Conference was founded in 1910 (Croizier 1970:279; Mujalla Tib 1978).

In the early days of the Nationalist movement, both Ayurveda and Unani received support from the nationalists. Later, as symbols of Independence increasingly became Hindu symbols, Unani received less support. This was partly because Unani received blame for the downfall of

Ayurveda and partly because Unani was not indigenous to India and so had little symbolic potential for the Nationalist movement (Leslie 1976:362-63; Croizier 1970:276).

During this time, the government convened a number of inquiry committees to determine how hakims and vaidas might best be utilized. These committees came to different conclusions about the role that traditional practitioners would play in health programs. The National Planning Committee resolved that traditional practitioners should be given training in scientific methods and integrated into government programs, while the Bhoré Committee described Unani as archaic and of little use. The government chose to follow the Bhoré Committee proposals. But political pressure from proponents of traditional medicine led to the Chopra Committee, which was convened in 1946. This committee recommended that Unani and Ayurveda be integrated with allopathy and that traditional practitioners be absorbed into the rural health programs (Ministry of Health and Social Welfare 1975:16; Jeffery 1982:1837).

When Pakistan gained independence, hakims expected the new Pakistani government to support Unani. But this was not the case. The newly formed Pakistan Medical Association (PMA), the association of allopathic

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physicians, objected and demanded that Unani be banned. Hakims fought back with pamphlets and newspaper articles. They were not banned, but neither were they integrated into government health programs (Mujalla Tib 1978).

During the next few years, there was slow progress toward official recognition of Unani. In 1950 a registration act was introduced to parliament. But because of political unrest, parliament was dissolved, and the act was not passed until 1958. Then there was a military takeover, and the act was scrapped. It was not until 1965 that the Unani, Ayurvedic, and Homeopathic Practitioners Act came into effect. Boards were set up to oversee registration and determine the curricula of colleges teaching traditional medicine (Qarshi n.d.:unpaginated; Qarshi 1981).

The curricula in the colleges were anything but traditional. Support had been given to integrating allopathic medicine and basic sciences into the curricula. The official definition of Unani and Ayurvedic Systems of Medicine is "the Unani Tib and Ayurveda (including Siddha) system of medicine, whether supplemented or not by such modern advances as the Board may, from time to time, determine" (Unani, Ayurvedic and Homeopathic Practitioners Act 1965:2-8).

The PMA opposed the registration act on the grounds that it would lead to a breakdown and disruption of the health structure of the country and open the way for unlimited quackery (Ministry of Health and Social Welfare 1968:107). In 1972, the PMA also objected to the training and use of traditional healers and midwives in rural health programs (Ministry of Health, Social Welfare and Population 1972:v-vi).

In 1975, the Indigenous Medical Commission report was completed. The commission resolved that traditional practitioners should be utilized wherever feasible and that, if they had proper training, these hakims and vaidu could work in government rural health centers (Ministry of Health and Social Welfare 1975:19-21). But there was no mention of the report or its resolutions in the annual Director General's report on health in 1976-77. The PMA, as a matter of policy, repeated its opposition to the amalgamation of allopathic medicine with "the so called 'indigenous system'" (Ministry of Health, Social Welfare and Population 1977:108).

The situation appeared to change when Zia ul-Haq seized power in 1977. He embarked on an Islamization program to better solidify popular support. As part of this program, he publicly declared his support for Unani and appointed a hakim as his advisor on traditional

medicine. The federal Five Year Plan for 1978-1983 called for upgrading Unani education and using hakims in rural health programs (Mahmud:1981). Punjab provincial health plans called for the recognition of "non-scientific healers" such as midwives, hakims, and faith healers as part of the private sector. No mention was made about including them in public sector programs (Punjab Health Department 1979:19-20).

Hakims were quick to recognize the advantage of the government's policy on Islamization. Many respected hakims began to refer to Unani as Islami Tibb or Islamic Medicine. The name was officially changed to Islami Tibb at an international conference held in 1981. At this same conference, a new Islamic code of ethics replaced the old Hippocratic Oath (Medical Times 1981:51).

Hakims began to request more government support. They wanted to work in government health programs, to upgrade education, and to do research on the efficacy of Unani medications. They bolstered their requests with the claims that they represented Islamic medicine and that they were in line with the goals of WHO's "Health for All by the Year 2000" program (Mujalla Tib 1979:4-6; Said 1981).

But despite its public recognition and support of Unani, the government still officially sponsored only allopathy. In the early 1980s, according the Secretary of

Health and Social Welfare, the basic health policy of Zia's government was that it "does and can afford to support only one system of medicine, scientific, allopathic. It does encourage other systems such as Unani Tib, Homeopathy, and Ayurveda." According to the Secretary, there is "free for all" competition in the private sector. But in the public sector, hakims are not allowed to practice autonomously (Hasan: 1981).

Government health programs are based on a chain of vertical referrals. It is feared that hakims would prove to be a weak link in that chain. Instead of referring the patient up to the next level, "the patient would be sent home with a tawiz and a sherbet. It has to be all one system, a chain, and that system is allopathy" (Ibid.)

The current government of Benazir Bhutto continues to support Unani. According to Dr. Sher Afghani, Federal Minister for Parliamentary Affairs, a directorate for traditional medicine has been established (1989). In this, as in the previous regime, government support for Islamization may assist the hakims' struggle for recognition.

Summary

Pakistan has one of the lowest per capita expenditures on health. Much of the morbidity and mortality in Pakistan is due to infectious and parasitic

diseases. A number of medical traditions coexist in Pakistan, and each offers a distinct explanation for illness and distinct therapies for cure. Humoral ideas, which form the basis of popular knowledge about health and illness, are a simplified amalgam of Ayurvedic and Unani theory. Humoral ideology directs much of lay health behavior. Allopathic medicines are popular among laypeople, and allopathy is the foundation upon which the government health programs are based. Government health programs are curative and are concentrated in urban areas. Belief in nazar, Tuna, and jinns is quite common, and people resort to pirs for treatment of illnesses thought to be due to spirit invasion or interpersonal harm. Advice and guidance about daily life is also sought from pirs.

In general, these are the major medical resources available to Pakistanis. How lay belief shapes the utilization of these medical resources will be the subject of many of the following chapters. There are, of course, other healers and other traditions, such as naturopathy and homeopathy, but they do not have the same impact on the health beliefs and behaviors that the humoral, Prophetic, and allopathic traditions have.

CHAPTER III

CITY AND NEIGHBORHOOD

Introduction

Research was conducted on Iqbal Street in the neighborhood of Ichra, one of the southern suburbs in the city of Lahore, Pakistan. This chapter narrows the focus from the whole of Pakistan to the city and neighborhood where the women of Iqbal Street live. History, the physical layout of the city, and public services available to the city inhabitants will be described in this chapter. The "dualization" of services, including medical services, into high quality for the elite and poor quality for the rest will also be discussed. Finally, the women of Iqbal Street will be introduced.

Lahore

Lahore is the provincial capital of the Punjab. Located on the banks of the Ravi River, Lahore covers 160 square miles, and in 1981 had a population of 3.1 to 3.6 million. Since 1950, the population has increased five times (Qadeer 1983:76,105).

At times, Lahore's existence was in jeopardy, but the city survived and is today the cultural and

intellectual center of Pakistan (Johnson 1979:196). Although myths about Lahore date back to the time of the Ramayana, little is known about its early history. Archaeological evidence suggests that the original site was near what is now the northwest corner of Lahore. In early centuries, the town never amounted to much and received scant mention from historians and travelers (Housing and Physical Planning Department 1973:1; Rudduck 1961:100-103).

But this all changed in the ninth century A.D. when the Punjab became the scene of incessant warfare between the kingdoms in the West and those in the north and central parts of India. From the tenth to the sixteenth centuries, Lahore gained prominence as a provincial capital, first for the Ghaznivads and later for the rulers of the Delhi sultanate. Lahore's position as a frontier outpost made it vulnerable to repeated sacking and looting. And sacked it was; local wars raged around the area for years, until Lahore was virtually reduced to ruins (Rudduck 1961:104-6).

The population of Lahore began to grow only after Akbar established Lahore as a royal residence in the sixteenth century and began construction of gardens and palaces. Akbar was also responsible for enclosing the area of greatest population concentration within a

protective wall. Outside the wall lay gardens, burial grounds, and a scattering of villages such as Ichra (Ibid.:106-9).

Under Akbar, Lahore reached its peak of glory and grew to be one of the largest cities in India. Its growth was due not only to its position as the administrative headquarters for the Moghuls but also to its position along the major trade route to Europe. But in the early seventeenth century, a combination of the plague and a decrease in traffic along the trade route led to a severe reduction in Lahore's population. Although the city fell into ruin, later Moghul rulers continued to extend patronage to Lahore and continued to build more gardens and palaces. But they were unable to restore the city to its former glory (Ibid.:109-114).

With the fall of the Moghul empire after the death of Arungzeb in 1707, political insecurity in the Punjab increased. Afghans and Sikhs battled in the Punjab, and Lahore became like "a carcass fought for by two wild beasts" (Ibid.:115). The Sikhs conquered Lahore and ruled there from 1767-1840, when they were dislodged by the British. Under the British, Lahore regained much of its earlier prominence. The city served as the cultural leader of the Northwest provinces until 1912, when Delhi became the imperial capital (Johnson 1979:195).

The British improved sanitation somewhat and built great buildings, a cantonment, and sprawling suburbs. New roads were built, and rail links with Karachi and Delhi once again connected the city to the major trade routes. The completion of the irrigation canal that cuts through the southern section of the city was another factor in the development of Lahore. The canal marked an upswing in the economy of the Punjab and caused a population explosion in the city (Rudduck 1961:115-24).

In 1947, the partition of India and Pakistan had disastrous effects on Lahore and its inhabitants. Houses were burnt. Rubble was piled high in the narrow city lanes. Industry was abandoned by Hindu owners and financiers. Lahore became a city of "murders and fire." Since Lahore was so close to the unstable Indian border, it was not considered for the capital of Pakistan, and the focus of development in the Punjab shifted farther away from the border (Ibid.:124).

Lahore's historical legacy, especially the colonial legacy, is reflected in both the physical layout of the city and the lifestyles to be found there. The layout of the walled city remains much as it was in the sixteenth century when the wall was built. Within the walled city, each house plot is tiny, but each house can be as tall as four stories. Population density in the walled city has

been estimated at 786 people per acre. Sanitation and other municipal services are rudimentary in places (Johnson 1979:196-97).

An "intermediate zone" lies south and southeast of the walled city. It was here that the British established their administrative offices and built great buildings. Punjab University's old campus and the post office are also located in this zone, as are busy markets and small industries. The cantonment in the southeast quadrant of the city was developed by the British in the 1850s to house British officers. The nationality of the cantonment inhabitants changed after Independence, but in large part, the westernized lifestyle continues in the spacious bungalows (Ibid: 197-99).

The suburban zones contain a variety of residential areas, which vary in density and socio-economic status. Crowded neighborhoods with unpaved roads and open drains are found to the north and northeast of the walled city. There is a greater variety of neighborhoods in the southern suburbs. In some places like Gulberg and Model Town, individual houses are set on generous plots. In other places like Ichra, the area sometimes resembles the old city. As in the old city, population density in Ichra is quite high; it has been estimated at 663 people per acre (Housing and Physical Planning Department 1973:167; Johnson 1979:199).

Industrial growth has followed the major highways leading out of Lahore. These industrial ribbons can be found to the north and south of the city. Between these major roads, further out from the city, villages typical of Punjabi rural settlement can still be found (Johnson 1979:199).

Another historical legacy is the "dual life style" that is found in Lahore (Qadeer 1983:29). In his study of the internal dynamics of Lahore, Qadeer identifies two distinct lifestyles: "modern-western" and "indigenous" (Ibid:101). This, he states, is a result of colonialism and subsequent modernization. In Pakistan, as in many Third World countries, modernization has favored a small minority at the cost of the well-being of the rest of the people (Ibid.:29). This dual lifestyle has had a number of effects on the lives of Lahore's residents. Neighborhoods have such different physical and social characteristics that it appears as if Lahore is comprised of a number of separate towns, each with its own character (Ibid.:101).

Since Pakistan has limited resources, there is often little left over for the majority of the people after the needs of the elite are met. The rich are supplied with water, phones, and enough electricity for

air-conditioners. Poor neighborhoods, which often lie just across the road from wealthier ones, may have neither water nor electricity (Ibid.:165).

Medical Services in Lahore

Concern for elite needs has led to investment in urban areas, often at the expense of the rural and urban poor (Zaidi 1985; 473-74; Frankenberg 1980:198). Less than a third of Pakistan's population lives in cities, yet far more than one-third of medical resources are found there. More than 90% of all hospital beds are in cities (Zaidi 1985:479). Just under 90% of all doctors practice in urban areas (Ibid.:476).

Despite the stated goal of redressing the imbalance between rural and urban areas (Ibid.:7), government health programs appear to be doing just the opposite. During the fifth Five Year Plan, 1978-1983, the percentage of hospital beds in urban areas rose 12%. During the sixth Five Year Plan, the government planned to add almost 12,000 hospital beds, 70% of which will be in urban areas (Zaidi 1985:479).

Since Independence, medical facilities in Lahore have been increasing. The number of doctors increased from 1,014 in 1948 to 19,922 in 1977. In 1948, there were

fourteen hospitals, and in 1979 there were seventeen. The increase in the number of public dispensaries, maintained by the Punjab government for those too poor to afford private practitioners, has been more dramatic, up from fourteen in 1948 to ninety-eight in 1979 (Qadeer 1983:64,98).

While resources are clustered in the city, this does not mean that all urban residents enjoy a high standard of health. Even within the city, unequal access to health resources occurs. It is the urban poor, and even the urban lower middle class, who suffer (Zaidi 1985:474).

The standard of health in Lahore is declining. The quality of health facilities deteriorated even as the quantity increased. According to Qadeer, when the hospitals and dispensaries served only a small clientele, they functioned well, but as more people began to use allopathic services, the quality declined. In the 1950s, hospitals provided essential medicines, clean beds, and reasonable care. In the 1960s, emergency services like ambulances and blood transfusions were available. This was not the case in the 1980s. Now, both medicines and blood have to be purchased from the market. Specialists will see patients only in private clinics, and to insure quality care in "free" hospitals, family members stay with

the patient. Instead of leading to an overall upgrading of services, increasing popular interest in allopathic medicine has lead to the dualization of medical services into private clinics for the elite and public hospitals for the masses (Ibid.: 219).

Ichra

Ichra lies in the southern part of the Lahore Municipal Corporation area, some miles from the walled city. Not far from the canal, Ichra is bounded on the east by Ferozpur Road, on the west by the suburb of Samnabad, on the north by Shama Road and on the south by the suburb of Rehmanpura.

Ichra has been described as an area "overcrowded with buildings, and buildings overcrowded with people" (Shah 1975:164). The narrow streets are lined with rows of houses sharing common walls. With the houses so close and the streets so narrow, little air reaches the inside of the houses. The sanitation system has been described as "primitive" (Ibid.:164). Open drains parallel the streets, and garbage is heaped outside the houses. What garbage bins exist are often full to overflowing and are visited more often by flies than by municipal employees.

Mosquitoes and flies are common, especially during the rainy season, when they are quite bothersome. Besides being a source of annoyance, they are also a source of

disease. In a study of one 200-family census block in Ichra, it was found that, in 1974, 53% of the inhabitants reported that they or their family members had suffered from dysentery, and 31.5% reported cases of malaria (Ibid.:162). Vector-borne disease might peak during the rainy season, but poor food sanitation allows for disease at other times as well. In the bazaars, both cooked and raw foods are displayed in the open with no screening against flies (Ibid.:168).

Ichra is not a slum. For the most part, the area looks stable and permanent. While the houses in Ichra may be small and crowded, they are pukka (permanent, strong) houses made with fired brick or cement. Sewage drains may be open on some streets, but they are covered on others. And the fact remains that there are sewage drains. Piped water is also available, even though there may be shortages in the summer.

In many ways, Ichra is similar to the walled city; Qadeer has described it as a "lower order replica" of the walled city (1983:180). Like the walled city, Ichra is representative of the indigenous lifestyle. With its narrow streets, bazaars and markets, and mohallas (quarters), it is representative of an Islamic city as well. Both Ichra and the walled city are considered to be generally lower middle class neighborhoods (Ibid.:176-77).

Iqbal Street

Iqbal Street is the pseudonym for the mohalla where I did my research. To reach Iqbal Street, turn off Ferozpur Road onto a side road. Once paved, this road is now full of potholes and almost too narrow for two rickshaws to pass. During the rainy season it often floods, and the flooded potholes make passage dangerous. In any weather, bouncing over the potholes makes for an uncomfortable ride. If one were ill or injured, getting out of Ichra by this road would be difficult indeed.

The road jogs to the left past an unlicensed allopathic medical college. At this point, relatively large houses line the street. These houses, two stories high with enclosed compounds, are larger than the houses on Iqbal Street. The road leads to Jinnah Market, the main market in the area. Shops selling paan (a masticant made from betel leaves, acacia nut, and lime), sweet shops, fruit and vegetable shops, butcher shops, dyers, and tailor shops all line the road. Food is displayed in open-air shops; few precautions are taken to protect the food from flies. And flies are ever-present. Flies cluster about lamb heads arranged neatly in a row at the butcher's shop. Flies land on the cut fruit waiting to be sold. For much of the year, a drain pipe was being

repaired just at the crossroads in Jinnah Market. The organic slush and mud made the crossroads an obstacle course and provided a source for fly-borne contamination.

Past Jinnah Market, down a side street, the character of the neighborhood changes. The houses are no longer separate. Here the houses are all attached, sharing common walls, to make a continuous line of dwellings. The street, lined with open gutters, has narrowed to one lane. This street continues on past a small commercial district with factories and merchants selling sundries and soft drinks.

Turn down a side street; a residential area can be seen. On this side street children can be seen playing cricket, flying kites, and setting off firecrackers. Vendors of shaved ice balls and other sweets squat alongside the road next to open gutters, hoping to make a sale. In dry weather, this road is dusty. During the monsoon, it is muddy and slippery. Garbage and refuse are heaped outside the homes. Chickens wander along the street, eating from the garbage heaps and the sewer sludge that overflows onto the street. The chickens leave behind sludgy tracks in the dust.

Turn again into a street so narrow that the houses shut out the sun. This is Iqbal Street. A large multi-storied house blocks one end of the street. Most other

houses on Iqbal Street are not so grand. The houses on Iqbal Street are all attached to each other, and they all open directly to the street. All of the houses involved in this survey have running water, electricity, and are connected to the sewerage system. The drains running alongside the street were covered. Although all the houses had access to basic utilities, the women and their households varied greatly.

The Households

Iqbal Street is a composite. Twelve of the sixteen interviews were conducted on Iqbal Street itself. Some of the women living on the street refused to be interviewed, one because some of her household members had recently been accused of Tuna, one because of illness, another because of a mild feud between her and my field assistant.

To make up for this, three additional households were contacted, two at the head of Iqbal Street and one on a parallel street. All of the women interviewed knew and liked my assistant Shaheen, who was herself a resident of Iqbal Street. In all, twelve households were contacted for a total of sixteen interviews. All of the respondents were married women. Some were the senior women in their homes, others were established daughters-in-law; one,

recently married, was still wearing bridal mehndi (henna) on her hands. In some homes, more than one married woman was interviewed.

There is a great variety among the respondents and their households regarding wealth, lifestyle, education, and acceptance of allopathic medical ideas. Some of this variety can be seen in Table 1. To briefly summarize, respondents' household size ranged from two to eighteen, but household size between five and eight was more common. Half of the households were this size. Complexity of household depended on size: all households with six or fewer members were either a nuclear family or a fragment of one. All households with eleven or more members were compound families.

Most of the respondents were housewives without paid employment, but three of the women did have home-based part-time jobs, one as a tutor, one as a seamstress, and one as a charpoi (string bed) maker. The husbands held a variety of jobs. Six held various skilled jobs: hairdresser, radio operator, potter, builder, electrician and laborer. Four had civil service or office jobs, three were businessmen, one was a shopkeeper, and one was retired.

Three-fourths of the women completed eight or fewer years of education. Of the rest, two had ten years of schooling and two more had twelve. In all but two cases, the husbands had as much or more education than their wives.

Some of the women admitted that they did not have a good idea of the household income and were only guessing. But, if the incomes reported by the women were accurate, then all but one of the households are above the monthly median household income in Lahore of Rs.700 (Qadeer 1983:161). Reported household income ranged from Rs.400 per month to Rs.6,000 per month (in 1980-81, the exchange rate was ten Rupees to one U.S. dollar). Seven of the twelve households reported an income of Rs.1,500 or less.

There seemed to be some discrepancies between reported income and lifestyle. Zubada reported an income of Rs.4,000, yet her lifestyle was far more spartan than that of her neighbors who reported far less monthly income. Khalida and Shanaz reported that their household income was between Rs.3,000 and Rs.6,000. Yet their lifestyle was by far the most elegant.

While it is not possible to select one household to represent the "average" household on Iqbal Street, it is possible to compare two quite different households to show

Table 1. The Women of Iqbal Street

ID #	Age	Years of Education	Occupation	Household Income/Mo	Relation to head of household
1	38*	12	tutor	Rs400	self
2	52	12	home	Rs4,900	wife
3	26	10	home	Rs1,200**	wife
4	20	10	home	Rs2,900-4,600	daughter-in-law
5	25	8	seamstress	Rs1,500**	daughter-in-law
6	22	8	home	Rs2,000	wife
7	40*	8	home	Rs1,200	wife
8	25	8	home	Rs1,500	daughter-in-law
9	42	6	home	Rs1,500	wife
10	53	5	home	Rs2,900-4,600	wife
11	40*	5	home	Rs3,000**	sister-in-law
12	40*	5	home	Rs5,000-6,000	wife
13	34	5 and Quran	makes charpois	Rs4,000	wife
14	40*	Quran	home	Rs1,500	wife
15	44*	Quran	home	Rs1,500**	wife
16	45*	none	home	Rs3,000	wife

* Age estimate made by research assistant.

** Income estimates made by the women.

the variety of lifestyles on the street. The two households--Zubada's and the one shared by Khalida and Shanaz--are located directly across the street from each other.

Zubada lived in what appeared to be the poorest household. She, her husband, and their seven children all lived in one room and a courtyard. The room was filled with charpois and tin trunks holding the family's possessions. The room had a central fan and one window; still it was dark and stuffy. The small courtyard was also confining, with high brick walls blocking out the sun. Charpois for family use were leaned against the wall. The charpoi that Zubada was making took up about one-third of the courtyard.

There was no separate kitchen. All of the cooking was done over a one-burner propane stove located in the corner of the courtyard. The day that she was interviewed, lunch consisted of chapatis (unleavened whole wheat bread) and daal (boiled, spiced pulses).

Not more than six feet away from her front door was the house where Shanaz and Khalida lived. Theirs was a two-storied house with a large airy courtyard. The household was obviously well off. The courtyard was paved with terrazzo, and just inside the courtyard was an electric washing machine.

There was a separate kitchen, and each of the married couples had their own bedroom. Both of the women were interviewed in the combination dining and living room. Both rooms were full of western-style furniture such as china cabinets, coffee tables, and a black vinyl couch. A tinted photograph of the family's pir was displayed on the built-in bookcase.

During their interviews, both Khalida and Shanaz sent out for soft drinks from the bazaar. One time, they offered my assistant and me a lunch consisting of fresh oven-baked bread from the bazaar, yogurt from their own buffalo, and a dish made of clarified butter, bitter gourd, and mutton testicles. (My assistant advised me of the ingredients only later.)

Within six feet of each other two households displayed quite different lifestyles. One lived in cramped quarters, apparently able to afford only staples. The other had a number of rooms and expensive furniture. This household had access to highly valued food items such as pure dairy products and meat. This contrast reflects the variety among the Iqbal Street households.

Summary

Fieldwork was conducted on Iqbal Street in Lahore, Pakistan. The purpose of this chapter was to describe the environment of Lahore and Iqbal Street, and to introduce

the women who live there. The dualization of public services, including medical services, was also discussed. This dualization is a result of colonialism and modernization. It has led to high quality medical care for the elite and poorer quality care for the rest. Most medical services are curative, and prevention is largely ignored. An unfortunate outcome of this is continuing health problems, such as dysenteries and parasitic diseases, that arise from poor environmental conditions.

These same kinds of health problems persist among the inhabitants of Ichra. Ichra is a very densely populated area and is considered to be generally a lower middle class neighborhood. The area around Iqbal Street is crowded but is not a slum, and it is provided with basic services such as water and electricity. Sixteen women living on Iqbal Street were interviewed about their health beliefs and behaviors. Variety among the respondents regarding education and wealth was noted. The women's beliefs about some of Pakistan's major health problems and the medical resources to treat them will be discussed in the next few chapters.

CHAPTER IV

STAYING HEALTHY

Introduction

Like the Malays studied by Colson (1971), the Iqbal Street women show an active concern with maintaining health and preventing illness. The women are aware of the benefits of the strategies described below. Even the beneficial effect of worship on physical health is recognized. The value of these preventive behaviors is manifest, not latent as Hughes (1963) suggested. To understand these popular models of health and illness, one must look beyond a narrowly defined "medical system." As described in Chapter I, these models are incorporated into larger frameworks of thought. Ideology from other domains, such as religion and nutrition, must be considered. Islam has shaped many of the precautions taken on Iqbal Street.

In this and other chapters, dichotomous terms, such as spiritual and physical or sacred and secular, are used. These terms are an artifact of western dualistic thought rather than the women's beliefs. Their beliefs are characterized by continuums, not dichotomies, but I have

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no words to describe this. I have only dichotomous terms. Be aware that these terms are points on a continuum, not diametric opposites.

Iqbal Street Data

Causation

The women all agreed that health and illness ultimately come from Allah. All things, even the laws of nature, life, and death are controlled by him. According to one respondent, "nothing is in the hands of humans...if it were, no Badshah [king] would ever die." Sickness is seen as an excuse for Allah's will. If he so wishes, Allah will put the power to cure in the medicine.

Allah's power permeates all aspects of the universe. The will of God is often perceived by humans as the work of natural forces. The term qudrati provides insights to this relationship. The noun qudrat means "divine power," "authority," "omnipotence," "the universe," and "nature." The phrase qudrati asbaab means "natural causes", as in death from natural causes (Ferozson's 1975:541). This one word is used for what are seen in the West as distinct spheres. Illness may be from natural causes such as the environment, but it is Allah who controls nature. "The apparent causal regularity of events reflects no irrevocable law but the Lord's habitual

procedure" (Grunebaum 1969:7). As Allah shapes and controls nature and natural forces, so does he control the causes, both environmental and spiritual, of illness. He decides who lives and dies, but the women did not speak about his power in terms of wrath directed at an individual as retribution.

The fact that Allah is the ultimate cause of illness and health does not mean that the women are passive or fatalistic in the face of illness. As one woman said, "We pray to God and we take medicine from the doctor. We get some benefit from the doctor and some from our prayers to God." Responsibility for the health of oneself and one's family was a major theme in the women's responses to questions about the causes of illness and the best ways to prevent them. One woman stated that, "If someone's health is spoiled, it is their own fault."

Allah may be the final arbiter of health and illness, but when asked to list common causes of illness, most of the women mentioned more immediate causes such as diet, weather, poverty, and worry. No one spontaneously mentioned nazar, Tuna, or possession by jinns. All but two of the women thought that an improper diet was a major cause of ill health. "Improper" was defined in a number of ways: too much, too little, poor quality, dirty, greasy, one that lacks vitamins, or one that disagrees

with the person's temperament or with the season. Grief or worry was thought by a few women to cause illness. More felt that conditions resulting from poverty, such as dirt, poor quality, or inadequate quantity of food, could lead to illness. About half of the women attributed illness to the weather. The hot, dry weather of late spring and early summer was thought to be particularly dangerous.

When asked directly, about half of the women said they believed that children could suffer from the effects of nazar. This usually occurred if the child was beautiful or well dressed. Only three women admitted to belief in Tuna. From their statements, it appears that knowledge and practice of Tuna is forbidden in Islam. As one woman stated, "Magic is real, but the man who practices it is an infidel. May my hands burn if I ever do Tuna!" Although only three of the women admitted belief, eleven of them described cases that happened to them, their families, or their neighbors. As in nazar, the target of Tuna was commonly infants and children. About half of the women described jinn possession.

Prevention

Many of the preventive strategies were directly related to the perceived causes of illness. Precautions were considered to be the cornerstone of the women's

attempts to stay healthy. To stay healthy, one needed "one part medicine and two parts precaution." Dietary precautions were mentioned most, by all but three of the women. A third of the women mentioned the importance of cleanliness. Other strategies included maintaining a good attitude, exercising, and performing religious rituals. Much of this could be summed up as living a proper life. As will be discussed below, many of these preventive strategies are encoded in religious ideology about how to be a good Muslim. Most of the women also made use of allopathy, either medicines or vaccinations, to stay healthy. For all of their precautions, some of the women remarked that they still got ill. Humans may take responsibility for health, but Allah decides who lives and dies.

Primacy of Diet

Diet figures predominantly in the causation and prevention of illness, and as is clear from subsequent chapters, in treatment as well. A good digestion is a sign of health; "Look to the man who is healthy. He can chew channas [chickpeas] of iron. He can digest them and not get ill." The importance of diet in the prevention of illness is summarized by one of the women who stated, "We

should take a good diet whether we are sick or healthy. A good diet can't affect a sick man like it can a healthy one."

Two-thirds of the women stated that a saf (clean as in not dirty, as opposed to pak or pure) or nutritious diet was essential for good health. Clean, uncontaminated, real foods were valued. Some women mentioned that food obtained from the bazaars was dirty. They stated that homemade foods were best. The ideal, according to one of the wealthiest women, was to have one's own supply of good wheat and one's own buffalo for dairy products. The wheat and milk available on the market was considered to be inferior and adulterated. It was seen as a potential source of illness. This woman also blamed illness on the cheaper vegetable oil now used as a substitute for ghi (clarified butter). In this household they could afford to buy ghi.

Some of the women used the term Giza. This term is defined as "sustenance" or "nourishment." Its adjective, Gizai, means "nutritious" (Ferozsons 1975:514). Other women listed foods that they considered to be necessary for health. These foods are quite varied. Fruit and milk were the most valued, mentioned by two-thirds of the women, followed by meat, eggs, vegetables, fish, chicken, yogurt and ghi. Two women described a nutritious diet as one that contains vitamins, minerals, or protein.

The diet given to children was somewhat different from that given to adults, but again, clean, nutritious foods were important. The major difference was that children were given more easily digestible foods and foods that had more concentrated tagat (power or energy). Children were also given more milk and boiled water than adults.

Many of the foods thought suitable for children were those classified as naram (soft) or halka (light). These foods are thought to be easily digestible. Milk was most often mentioned. Other foods included fruit, various puddings made of cracked wheat or tapioca, and commercial baby foods. In addition, gripe water was fed to babies. This commercial product is used to relieve gut pain. Because children are thought to be kaccha (raw, unfinished), they are thought to be more fragile than adults and their digestive powers weaker. It was believed that if the children were given hard-to-digest food like roTi (unleavened, whole wheat bread), they would be plagued with digestive problems.

Because children's stomachs are smaller, they eat less food. To make up for any lack of quality or quantity this may cause, some of the women gave their children diets that were classified as tagatwar (powerful). These

are foods such as meat, eggs, nuts, dried fruit, and seeds. Vitamin syrups and tonics are also given for this reason.

Some of the women mentioned that low income can affect diet. Income can determine if a family can afford real, pure food. It can determine if the children will eat fruit and milk, and it can determine if there is enough food for the whole family. Retirement of the husband can mean a reduction in the quality of food a household can purchase. "In the old days, my husband brought good things like wheat or ghi. I gave good food to my children. Now, God forgive me, we can't give such a good diet." One woman explained just how income level constrained food choices.

There should be protein, calcium, vitamins, vegetables, milk fish, fruit and vegetable juices. These are part of a healthy diet. But not everyone can afford these things. Middle class people can not afford to buy eggs and fish for their children. They take chickpea flour, toast it, and add ghi and sugar to make a sweet dish. If poor people can't [get] eggs and vegetables, they will take lemon juice [in water with sugar and salt], and if they can't afford these things, they will boil chickpeas and drink the water. Chickpeas have all the vitamins.

For preserving health, more women were concerned with eating clean nutritious foods than they were with manipulating hot and cold foods according to season or temperament. Only one-third of the women specified that diet should vary with the season or the individual's

temperament. The women believed that certain foods increased the amount of internal heat, cold, dampness, or dryness. This alone could predispose one to illness, but, if exacerbated by the weather, was almost certain to do so. For instance, if a cold food like yogurt was eaten in winter, excess cold and dampness would be created in the body and result in such symptoms of excess cold as excess phlegm and coughing. Eating hot foods like eggs in the summer is thought to lead to hot illnesses such as dust (diarrhea).

Eating foods that do not agree with one's temperament was also thought to predispose one to illness. Since, theoretically, no human has a balanced temperament, imbalances in heat, cold, etc. exist in all people. Eating hot or cold foods in excess could cause further imbalance and lead to illness. In addition, the women said that foods which do not suit the temperament can lead to indigestion, and this in turn can lead to illnesses like typhoid and pechish (dysentery) that are centered in the stomach and intestines. Eating too much food can have this same effect, which is why many women withhold food during illnesses, especially those with diarrhea as a symptom.

The manipulation of hot and cold is more marked in the treatment of illness than it is in prevention. But in the treatment of the illnesses analyzed in this

dissertation, it is not the only or the most important consideration. The digestibility of foods, and in the case of malaria, their taste were important considerations in the dietary modifications employed as part of treatment.

Living a Proper Life

A number of preventive strategies are discussed together because they appeared to me to be part of what might be described as a good or proper way to live. These include exercise and rest, following a routine, keeping a good attitude, staying clean, and following religious rituals. Living a proper life benefits both body and soul.

Two of the women specified that exercise, such as a morning walk, helped to maintain health. However, another woman said that rest was the key. "We should rest. We should sit the whole day or say prayers," was her response to the question of how to stay healthy. When asked what should be done to keep her younger brothers and sisters healthy, she replied, "Only that they should rest." When asked if she followed her own advice, she said, "We want to, but we can't." This woman was a new bride and new to her mother-in-law's home. She perhaps got very few chances to rest.

For another woman, following a set routine was more important for maintaining health. "The major reason we get sick is that we do not follow a routine. We don't care about our diet. If we sleep on time and eat on time, our health will never be spoiled."

Grief or worry was thought to cause illness, and a good attitude was thought necessary by three of the women to maintain health. One woman explained how thoughts could lead to illness. "If we worry, we lose our appetite, and we become weak. Then we go to the doctor, and he says, 'Take injections.'" Another woman said:

We should stay happy; that is the biggest thing. Other than this, nothing can make us healthy. If a man stays happy, illness goes quickly. A man who notes little things, his health will begin to fail.

Cleanliness was valued by over a third of the women. Cleanliness of oneself, and one's children, clothing, house, food, and spirit was thought to be an important preventive strategy. "The best way to stay healthy is to keep the surroundings clean." This woman went on to explain that a clean house and diet were essential for health. Two other women gave more details on what needed to be kept clean. One said, "We say you should keep your teeth and nails clean. You should keep your clothes clean." The other added, "We should clean our teeth and nose. We should clean our clothing....We should clean every part of the body."

A few of the women noted that the Quran stressed the importance of cleanliness. One woman explained that

The Quran stresses that we should keep our surroundings clean if we want to stay healthy. Everyone should clean his body, avoid dirt, keep his spirit clean, have clean surroundings, and a clean, pure diet.

Many of the women said that performing religious duties, such as reading the Quran, praying, and fasting were important ways to stay healthy.

One woman stated:

These things are in the Quran, "Read. Pray." You should worship God. You should take his name and no illness or worry will come...This is the blessing of the Quran. These are the sayings of Allah.

Prayer has many physical and spiritual benefits.

When God gave the order to pray, he said we should do wazoo [ablution] before praying. He also said our clothing and bodies should be clean. When we stand for prayer, our spirit becomes pure, and our bodies get exercise.

Prayer, reading the Quran, and cleanliness were important for prevention and verses from the Quran were used in healing. One woman put it this way, "No medicine has an effect like the Quran." Various verses and chapters were specified as having special powers: suras (chapters) Yasin, Rahman, TaGabul, and Muzzammil. One woman used a verse from the second chapter of the Quran called Ayat-ul-Kursi. It gives a clear picture of the awesome powers that Allah commands:

Allah: there is no god but Him, the Living, the Eternal One. Neither slumber nor sleep overtakes Him. His is what the heavens and the earth contain. Who can intercede with Him except by His permission? He knows what is before and behind men. They can grasp only that part of His knowledge which He wills. His throne is as vast as the heavens and the earth, and the preservation of both does not weary Him. He is the Exalted, the Immense One (Dawood 1974:360-61).

The use of these verses is not restricted to illnesses caused by nazar, Tuna, or jinn possession. No one volunteered information on these things as a cause of illness, nor did the women specifically mention breaking social and religious rules as a cause of illness. However, one woman's statement certainly seems to imply a connection between conduct and sin. "If we make a mistake, we pray for forgiveness and say, 'Forgive us God. Forgive us and make us healthy.' If God wants to forgive us, he will."

Breaking rules appears to be one of the root causes for possession by jinns. Jinns are said to possess those who "do faulty things. They don't come to normal people. They catch those who committed errors or who look pretty." Looking pretty can be seen as a faulty thing since it violates the Islamic injunction that requires female modesty in public. One young woman described how her schoolmate was possessed because she was pretty and wore perfume. Other errors that led to possession were having sex during Ramzan, the month of fasting when such things are prohibited, and killing a bird.

Allopathic Medicine

Many of the women made use of allopathic medicine or healers to prevent illness. Three-fourths of the women said that vaccinations were useful. A few women went to doctors for vitamins or medicines. But even allopathic medicines are subject to the will of Allah. "We get medicine according to the education and wisdom of the doctor. He gives what is proper, and then God gives power to those medicines."

Islam as Preventive Medicine

"Islam places greater emphasis upon preventive medicine than on remedy. Islam stresses the permissible; but even more so emphasizes abstinence from the prohibited" (Said 1976:32). So declares Hakim Said, one of Pakistan's most noted hakims. The influence of food and drink on both body and soul was recognized and codified in the list of permitted and prohibited foods; well-known examples of the latter are alcohol and pork. Hygiene and purity were also stressed; Islam "enjoined" that the body, clothing, home, and environment be kept clean. Many hygienic acts were described in detail and became part of religious law. Others, such as ablution, are part of the act of worship (Said 1976:30-36). The

essence of disease was described as the conflict between body and soul. Unity of body and soul is preserved by following religious edicts. Violation of religious law is, "like poison, harmful to the body"(Ibid.:36).

Dietetic theory is strong in the Islamic tradition. Early Bedouin theories of sickness held that all diseases were ultimately caused by stomach disorders. The best prophylactic against falling ill was thought to be reasonable nutrition. As one important phrase from the Quran stated, "Eat and drink, but avoid excess. He does not love the intemperate." (Dawood 1974:248). Unani ideals of symmetry were reflected in dietary beliefs as well. Proper diet is determined by age, season, and physiological state, and is manipulated to maintain humoral balance. Excesses that cause imbalances are avoided (Gruner 1930:156-216; Shah 1966:311-12).

The effect of food goes beyond maintaining humoral balance and physical illness. In Islam, it is believed that food and drink can affect behavior as well. Through their effect on the humoral balance of the body, foods affect the ability of the soul to govern the body. If the body is unbalanced, the soul can not properly govern. If the soul is not in control, this can lead to disharmony between body and soul, which causes illness (Said 1976:37-38; Beer 1980:75).

Ideology about the social causes of illness provides guidelines for preserving health through ethical conduct or by defining punishments for misconduct. The relationship between ethical behavior and health is also recognized in both Unani and Prophetic medicine. In Unani the magic word was symmetria; the way to protect health was by maintaining symmetry in all aspects of life. In addition to being a healer, a physician in the Unani tradition was expected to be an ethical instructor, teaching his patients how to restore and maintain symmetry in their lives (Burgel 1976:48).

In Prophetic medicine, where matters of the soul were of utmost importance, the relationship between health and conduct was of great concern. The body and soul were thought to be very closely connected or, according to some schools of thought, even inseparable. Behavior affected health; disease was thought to be due to ethical misconduct. Physical health affected spiritual health; without health it is impossible to perform religious obligations or to worship properly (Said 1976:16; Elgood 1962:40-51).

Harmony between soul and body was crucial. Revolt against the will of Allah brought about disharmony, which in turn caused illness. Faith is necessary to maintain and restore harmony between soul and body. Following

religious edicts was also necessary, for as burdensome as they might seem, they were considered to be "our remedies prescribed by the Creator" (Said 1976:31-32).

It is not always possible to follow all religious edicts and social laws. People break rules, they have disputes, and they covet others' good fortune. One consequence of this is illness, and common mechanisms of illness in such cases are nazar, Tuna, and jinn possession.

It is not always immediately apparent that an illness has been caused by one of these spiritual forces. Initial symptoms are often those of physical illness. In many cases, only after other treatments fail do the victim and his family suspect spiritual forces and seek assistance from a pir (Ewing 1980:85). Pirs operate in both the physical and spiritual worlds to treat both physical and spiritual problems. Even the most mundane illness could have been caused by Tuna or nazar. Possession by jinn need not only involve madness; it can also cause wasting disease or chronic ailments. Spiritual distress can be experienced as physical ailments (Ewing 1980:85).

Discussion

Essential Unity of Belief

The "amalgam of concepts and practices" combining humoral dietary beliefs with belief in vitamins, humoral physiology with germ theory, and religion with secular medicine that Leslie described as popular medicine in India (1976:359) also describes the popular models of the Iqbal Street women. This amalgam combines elements from a variety of metamedical domains to form a unified whole. The commonly used dichotomies such as natural and supernatural, sacred and secular do not adequately explain the organization of these models.

For the women of Iqbal Street, there is no sharp division between mind and body, or between physical and spiritual. Their central belief is the primacy of Allah's will. His is the final authority, and he controls and permeates all aspects of the universe. As such there can be no separation of divinity from nature. Many of the women's beliefs reflect this essential unity. Diet and cleanliness are important for both body and soul. The act of worship, with its required cleanliness and its postures that exercise the body, benefits both body and soul.

While most of the causes of illness were thought to occur in the environment, inappropriate behavior was thought to result in spiritual illnesses. But there is a

continuum, not a dichotomy, between illnesses that come from the environment and those that come from spirits. Some spiritually caused illnesses are first manifested through physical symptoms. A pir is usually consulted only after other treatments fail. The power of the Quran is used to treat these illnesses, but Quranic verses are also used to heal ailments thought to stem from the physical environment.

Allopathic Medicine

Even the use of allopathic medicine fits into this unified model of health and illness. Allopathic concepts do not appear to have replaced humoral beliefs about health and illness. Instead, these concepts are fitted into existing schemes of thought. Even those women who said they knew that measles could be prevented by a vaccination still thought that measles was caused by internal heat, not by a virus. Those who spoke of vitamins also stressed the importance of varying foods with the season and the age or physical state of the individual. This incorporation appears to be an example of what Singer defined as "cultural metabolism." He describes it as the process that "digests foreign bodies, and eventually builds them into indigenous cultural protoplasm" (1972:385).

Among allopathic concepts, knowledge about vaccination was most widespread: three-fourths either used vaccinations or stated that they were useful. One-third of the women mentioned vitamins, and one-fourth mentioned germs. It appears that education has had an effect on the knowledge of things such as germs and vitamins. None of the women whose education consisted solely of Quran studies mentioned any of these concepts. All of the women who had ten or more years of education mentioned vitamins, and two of them mentioned germs as well. The effect of education is not so strong for vaccinations, since any woman with children would be exposed to this concept at a government health center.

Knowledge about a concept does not always mean that the women's beliefs about it are in concordance with those accepted in biomedicine. According to one woman, a vaccination was used for malaria. Another said that the reason Pakistanis have a shortage of iron in their diet is that they eat too much meat. She said that it is vegetables that are rich in iron. A third woman said that colds are caused by germs (jaraasim) and that antibiotics were needed to kill these germs and end the cold. The more severe the cold, the more potent the antibiotic used to treat it. She cautioned that potent antibiotics

destroyed red blood cells and this would lead to weakness or paralysis. To correct this, she said that B-complex vitamins should be given.

Summary

This brief introduction to the women's beliefs about staying healthy introduces and anticipates themes that will be dealt with in later chapters. The women believe that health and illness come from Allah, but this does not preclude action on their part to maintain health and prevent illness through moderate dietary habits and cleanliness. Belief in spiritually caused illness still exists but appears to be far less pervasive than the belief that illness is caused by diet, weather, worry, or dirt.

Responsibility for health is a very strong theme running throughout the women's responses. The women were not passive when it came to maintaining their own health and the health of their families. Dietary precautions are central to many preventive and, as will be discussed in subsequent chapters, therapeutic strategies.

Perhaps this sense of responsibility arises from the belief that humans have some control over the common causes of illness. Although poverty limits the control people have, they can, to some extent, take responsibility

for their diet, and they can attempt to keep their environment clean. Humans may not be able to change the weather, but they can try to keep their children out of the hot sun. Even spiritually caused illness can be avoided if one lives a proper life. As good Muslims, they would perform the daily religious rituals that strengthen both body and soul against illness.

Diet is an important part of the women's preventive strategies. A clean, nutritious, easily digestible diet is considered necessary for health. For treating illness, the manipulation of hot and cold becomes more important, but not to the extent suggested by literature on North India and Pakistan. Nor is it the most important dietary modification. As will be discussed in later chapters, other food characteristics are more important.

The Quran is seen by almost all of the women as a guide for living a proper, healthy life and as a source of cure for both physical and spiritual ills. Beliefs about health and illness cannot be disconnected from religious ideology, which teaches the essential unity of the body and soul. Religious rituals such as ablution before prayer and prayer itself result in a clean, limber body and a purified spirit.

Many women have accepted vaccinations and other allopathic medicines. But the way in which these medicines are used shows the continuing influence of

humoral ideology on the women's health-care models. The manipulation of allopathic medicine according to humoral concepts will be described in the illness chapters.

Allopathic concepts such as vitamins and germs are not widely known. The women with the most education are most familiar with these concepts.

CHAPTER V

KHASARA

Introduction

This chapter, the first of three to do so, will present a discussion of some of the meaning that a specific illness--in this case khasara--has for the women of Iqbal Street, as well as the way that the women use the medical resources available to them. Khasara is of interest for a variety of reasons. First, it is such a common problem in Pakistan. It is one of the most frequent childhood illnesses there and causes much suffering and death (Anwar and Naeem 1980:51). Because they are so common, popular models of khasara, including statements about choice, could be expected to be easily discussed.

Comparing Pakistani beliefs about khasara with North Indian Hindu beliefs is also revealing. One, the comparison helps to determine if Hindu beliefs about divine etiology and supernatural cure are present, as are many other Hindu elements, in Pakistan. Two, the comparison reveals the major determinant of therapy, severity as noted by Gould (1957) and Bhardwaj (1975), or

cause as noted by Kakar, Srinivas-Murthy, and Parker (1972). Khasara typifies a humorally hot illness and so offers insight on how foods and remedies are used to manipulate body heat. There is also a very close correspondence between khasara and the disease measles. This allows for a more concrete evaluation of the treatment options.

The women's beliefs about khasara, characterized by them as a hot illness accompanied by fever, swollen eyes, a rash, and coughing, will be compared to North Indian Hindu lay beliefs, classical Unani theory, and allopathic theory. Khasara has been defined by both hakims and Urdu dictionaries as measles (Ferozsons 1975:598). Measles, as described in allopathic medical literature, fits closely the descriptions given by the Iqbal Street women. It cannot be assumed, however, that "khasara" and "measles" mean the same thing to the patient and the practitioner. How these meanings differ and what effect they have on therapy will be discussed later in this chapter.

In many ways, the Iqbal Street women have beliefs that are closer to those found among North Indian Hindus than to information found in classical Unani texts. The major difference is that, while in Hindu lay beliefs the ultimate cause is a disease goddess, in Muslim lay belief it is not. Still, many of the home remedies and dietary

manipulations used by the Iqbal Street women appear to reflect a remnant of belief in divine causation. This persistence of belief over national and religious boundaries points to the endurance of lay beliefs--an endurance reinforced by the connection medical beliefs have to other aspects of culture.

Iqbal Street Data

The women were asked a number of open-ended questions about khasara: causal factors, temperament, symptoms, distribution, prevention, and choice of treatment. The list of questions is given in Appendix A. Each of the following sections deals with one of the questions posed to the women.

Causal Factors

The women gave a variety of reasons (Table 2) for the cause of khasara. Many of the responses can be grouped under the category of "God given or natural [qudrati]." This concept was described more fully in the preceding chapter. Some of the women believed that khasara is customary, that it comes without cause, and that nobody really knows why. Others believed that khasara came from heat, specifically heat that is inside the child's body. This heat is thought to be born or created inside the

child's body and is thought to occur there naturally. Khasara was also thought to be due to the weather or connected with a season; it comes with the weather change at the beginning of winter and when the weather is neither very hot nor very cold.

Three of the women said that they did not know anything about khasara. Two of them explained that they did not know anything because they did not yet have children, thus they did not have firsthand experience treating it. All three women did know about the other illnesses discussed during the interview, but those are illnesses that an adult personally experiences. It could be that the women's recollection of their own childhood experience of khasara, or that of their young siblings, was vague. They may relearn about khasara (and perhaps other childhood illnesses) when their own children fall ill. If this is the case, then their mothers-in-law, with whom Pakistani brides have traditionally lived, would be an important source of this medical knowledge. Another possibility for their hesitancy to speak could be the fear of childlessness. Perhaps they feared that if they spoke about khasara, the disease entity might be angered and retaliate against them. This will be explained more fully below.

To a large extent, the Tables included in these chapters are visual shortcuts, included to free the text from a welter of fractions and percentages. While some interesting differences among the women began to emerge from these Tables, there was not enough data to come to any statistical conclusions about intragroup variation. In a more informal way, such variation will be addressed briefly in the last chapter.

Most of the Tables in this dissertation follow the same format. Since the questions were open-ended, many of the women gave more than one answer. Those answers are displayed along the left side of the Tables in descending order of frequency. The sixteen respondents are arranged along the bottom axis.

Rather than give a lengthy list of individual foods in the Food Prescription and Food Proscription Tables, the major attributes of the food were listed instead. These attributes, such as hot, soft, light, etc., were determined from the women's direct statements such as "Eat hot foods" and the list of example foods that accompanied such statements. When a list was given without an identifying attribute, the foods in the list were compared with foods that were already known to be classified as hot, hard, windy, etc., and classified accordingly. If a food was especially noted, it was listed separately.

Table 2. Causal Factors: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No special cause		X	X	X							X				X	
Infectious		X	X	X						X						
Season	X									X	X	X				
Do not know					X	X		X								
Heat									X					X		
Internal heat													X			X
Natural		X														
Qudrati									X							
Compulsory							X									
Customary												X				

The Sixteen Respondents

Temperament

Recall that temperament is made up of a mixture of the qualities of heat, cold, wetness, and dryness, and that in nature a perfect balance seldom, if ever, exists. Food, human personality and physiological makeup, and even illnesses have a temperament dominated, and thus characterized, by one of these qualities. In the case of khasara, heat predominates; the thirteen women who answered this question classified khasara as a hot illness. They said that it was extremely hot and that it burned like fire. The three women who did not have children also did not know the temperament of khasara.

Symptoms

According to the women, early symptoms (Table 3) of khasara resemble those of nazlah (catarrh): the child coughs, sneezes, and has a runny nose. It is not until the eyes swell and the rash appears that they define the condition as khasara. Some of the women described the rash as very tiny and very red danne (pimples). One woman distinguished the rash of chechek (smallpox) and mata (defined by my research assistant as chickenpox but as smallpox by Ferozsons [1975:658]) from the rash of khasara. The rash of chechek is characterized by small

Table 3. Symptoms: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fever	X	X	X	X			X		X		X	X	X		X	
Rash	X		X				X		X			X				
Swollen eyes	X	X										X		X	X	X
Sneezing		X					X		X	X					X	X
Runny nose	X		X							X						
Do not know					X	X		X								
Watery eyes	X		X						X							
Red face or body										X			X	X		
Cough		X														X
Irritability									X							
Unconsciousness							X									
Appetite loss												X				
Itchy eyes												X				
Body pain											X					

The Sixteen Respondents

blisters and that of mata by large blisters. The danne of khasara are very small, "like poppyseeds," and are not fluid filled.

Distribution

According to all but one of the respondents, khasara predominantly attacks children. The women gave a number of reasons that children are thought to be more susceptible. Children are thought to be kaccha, and therefore weaker than adults and, in turn, more susceptible. Children are less likely to observe precautions; they will go play at the house where there is khasara. They do not take care regarding hot and cold and are more likely to play in the sun and absorb too much heat. The internal heat that exists naturally in children was also mentioned as a reason.

Prevention

Of the women answering the question about how to prevent khasara, two-thirds said that it was a very contagious disease. Three of the women said that khasara had a strong fragrance and that this fragrance was responsible for its spread. An equal number mentioned jaraasim. This has been defined as bacteria by an Urdu dictionary (Ferozsons 1975:256), but the impression is

that jaraasim is used by the Iqbal Street women in a more general manner, similar to the way "germs" is used by laypeople in the West.

Since khasara was believed to be contagious, strategies to prevent it (Table 4) are aimed largely at avoiding contact with those who are sick. "I will not allow them [kids] to go to that house [where there is khasara]. If a kid comes [from that house], we say 'Please go back.'" Avoidance is sometimes difficult because the houses are so close, and because there are so many children who..."drink each other's water." Children are thought to be contagious until they are bathed after the rash fades. Up to that time, it is thought that the jaraasim of khasara are still present.

One woman gave this eerie description.

In those days when mata and khasara come, we hear different kinds of voices...sometimes like a cat, sometimes like a dog. Those voices come when illness comes....They know that khasara is coming and they say xatum darud [reading of the entire Quran] before the arrival of khasara. If it comes to one neighborhood, people try to push it back by saying xatum darud.

This was the only mention of an Islamic ritual connected with khasara.

Half of the women thought that a vaccination could prevent khasara. One of them said that it was best to vaccinate the child when he is small because "there are

jaraasim. It they increase, they will harm the child as he grows up. When the child is small and he gets a vaccination, his jaraasim will die." However, other women felt that, even with a vaccination, khasara could still strike and that there was no way to prevent it. One of the wealthiest women was the only one to mention the cost of a vaccination. The Rs 35 cost was seen by her to be prohibitive, so her children were not vaccinated.

Therapeutic Strategies

Diet

Prescriptions

The women believed that if the internal heat causing khasara is not totally expelled, the child might suffer complications like pneumonia (this word was used by some of the women) or sarsaam (defined by my research assistant as brain fever). Since the quality of heat is thought to be able to drive things out of the body, the women give concentrated sources of heat (Table 5). The heat from the foods, herbs, and spices combines with the internal heat to completely expel the rash of khasara. Foods such as currants, dry dates, eggs, nuts, and hot tea were often recommended. These are all classified as hot by the women.

Table 4. Prevention: Khasara
N=15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Avoidance	X		X	X			X	X		X		X		X	X	
Vaccination		X	X	X	X		X		X		X		X			
Do not know					X	X										

The Sixteen Respondents

Table 5. Food Prescriptions: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hot foods		X	X	X			X		X	X	X	X	X	X		X
Sweet foods								X				X	X		X	
Soft foods	X						X		X							
Cold foods									X					X		
Do not know					X	X										
Balanced foods	X															

The Sixteen Respondents

Giving hot foods is not the only dietary strategy; sweet foods like guRwali rice (rice with crude brown sugar), daliya and seviya halwas (cracked wheat and vermicelli puddings, respectively), other halwas, and rusk were also recommended. Sweet foods were also thought to make the rash erupt sooner. So as not to impair the victim's weakened digestion, foods classified as soft, like tapioca, daliya, milky tea, leavened bread, and rusk were given; it was thought that the rash was in the gut as much as it was on the skin. Cold foods were also given, but these foods, milk, lassi (buttermilk or yogurt drink), and yogurt, were eaten only after the rash had erupted. Once the excess heat of the body has been expelled through the rash, it was thought safe to administer cold foods to help bring the body back into balance. Balanced foods are those that are thought to be neither hot nor cold.

Proscriptions

There are a number of dietary proscriptions (Table 6), but the major one is to avoid cold foods like sherbet, lassi, snow cones, ice cream, and plain rice until the rash erupted. The reason given is that cold foods might drive the rash back into the body and cause complications. Khasara cannot tolerate cold in any form, according to the women; cold rooms and drafts are avoided as well as cold foods.

Table 6. Food Proscriptions: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cold foods	X	X	X	X			X			X	X	X				
Salt, pepper, and chilies								X	X				X		X	
Solid foods	X		X													
Meat														X	X	
Greasy foods								X								X
Hot foods	X								X							
Do not know					X	X										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

Salty or spicy foods, like pepper and chilies, were avoided because they were thought to make the rash itch wherever it was, in the gut or on the skin. Other proscriptions were mentioned as well: do not eat hot foods; do not eat a hard, solid diet, like roTi, since this would wound the gut; do not eat meat, especially beef; do not eat greasy foods like ghi and milk since they can cause coughing.

A few women avoided hot foods. The apparent contradiction between the prescription to eat hot foods and the proscription against them needs to be explained. Before the rash erupts, hot foods are given to drive the rash out, but after the rash does erupt, khasara is treated like other hot illnesses. Hot foods are then avoided since the strategy has become to restore the body to balance.

Home Treatment

The term "home-treatment" is used here to refer to those home based practices that include rituals and simple remedies. It is distinguished from dietary manipulation even though foods are often used. Home remedies, as defined here, make use of foods in ways that are different from the way they are used in the diet. Increasing or decreasing the amount of a food normally eaten as part of

the daily diet is defined here as dietary manipulation. Combining a number of food items in a manner not commonly used, for instance, the dried fruit tea, is defined as a home remedy. These remedies also include the use of nondietary items like seeds, leaves, or metals. The distinction between dietary manipulation and home remedies is not consistently made by the women. Their responses to questions about home treatment often included a summary of dietary manipulation in addition to other interventions. The distinction used here reflects the way the data were collected rather than distinct categories held by the women.

The practice of home treatment has a long history in Pakistan and is still widespread today. One hakim described a book written "long ago" entitled Ilaj-ul-Guraba, or Medicine of the Poor. This book, which he claimed used to be a feature in all literate homes, was a collection of simple remedies. The remedies that proved effective were shared with neighbors, so he said, and handed down to become part of the family's store of cures (Khaliq 1980). Another hakim spoke about knowledge of home remedies as Tibb-ul-Ajuza, or Women's Medicine, consisting of the use of herbs and spices (Qarshi 1980).

The women mentioned a number of home remedies for khasara (Table 7), which I have divided into two broad categories: remedies given internally and remedies

applied externally. The internal strategy most commonly mentioned by the women was to give fruits such as dried dates, raisins, currants, unab (Zizyphus vulgaris), and khubkala (Sisymbrium irio), and nuts. They were eaten plain or, more commonly, made into a tea. This tea and other liquids were given to quench the terrible thirst that the women said accompanied khasara. The other liquids included keora (Pandanus odoratissimus), gaozaban (Caccinia glauca), and even ground gold mixed with water or milk.

The other major strategy was to use things externally rather than administer them internally. The first substrategy involves spreading the seeds of khubkala or leaves, perhaps neem leaves (Melia azadirachta), on the bed of the patient. Khubkala, "4 annas worth," were spread on the bed. They are thought to be very hot and therefore able to expel the rash of measles. These seeds are also called danne because they are small, round, and hard, and so resemble the rash of khasara.

The second substrategy is to keep healing substances on the patient's body. Gold is worn as a ring or a locket and is thought to protect the victim from evil spirits, please Khasara, and entice it out of the body. "Khasara becomes very happy from gold...and it is attracted to gold. If we keep gold [on the patient], then

Khasara will come out by itself." One woman said that jasmine garlands hung around the neck of the patient will cause Khasara to come out quickly and fully because it is attracted to the smell of the flowers.

Khasara was often personified. Whereas most of the women did not identify it as a specific entity, one woman said that it was one brother among seven sisters. Some women gave reasons such as "Khasara will be happy," to explain some of their treatment strategies. For example, by making sure that Khasara was not "abused," some women thought that the virulence of the attack could be lessened. "Sometimes people say to Khasara, 'What trouble you are,' others say you should not abuse Khasara. If you do not give abuse, then the child will not be irritable." Another woman said, "The more we hate Khasara, the worse it is. We should not hate it." This personification of khasara will be discussed below in connection with North Indian data.

Chosen Treatment

The women were about equally divided between those who neither treated khasara with medicine nor went to professional healers and those who did (Table 8). About half of the women said either that there is no treatment for khasara and that they gave no medicine or that they

Table 7. Home Treatment: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Dried fruits, nuts, and seeds	X	X	X	X						X	X	X			X	X
Khubkala	X						X							X		
Gold							X			X	X					
Do not know					X	X		X								
Jasmine											X			X		
None									X				X			
Leaves															X	

The Sixteen Respondents

Table 8. Chosen Treatment: Khasara
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Home treatment ^a				X			X		X				X	X		X
Allopathic		X	X								X	X			X	
None	X							X								
Do not know					X	X										
Unani										X						

The Sixteen Respondents

^aTwo of the women who preferred home treatment said that they got the ingredients from a hakim.

gave only home remedies. Among these women, home treatments like the administration of dried fruit tea were not considered the same as giving medicine. So while the women say there was no treatment, this does not mean that they did not change the diet in some way or follow special procedures. As one woman said:

Home treatment is best. We never go to doctors. If we find out that someone has khasara we stop taking doctor's medicine. The doctor himself says, "Brother, the khasara is coming out, you should not take medicine."

The other women said they would go to a healer if khasara struck. Most of them preferred doctors, but some preferred hakims because they were the source of ingredients for home remedies. The reason for going to these healers is the same; in either case, the women thought that the medicines given by these professional sector healers are effective in causing the rash of khasara to erupt sooner or more completely. One woman said that while she would not get medicine to treat khasara, she would go to a doctor to get a penicillin injection for her children so they would not get pneumonia or sarsaam. No one said that a pir could help treat khasara. In fact, some women scoffed at the idea.

Popular Beliefs in North India

In South Asia, measles is closely identified with smallpox, which has received much ethnographic and medical interest. It appears that in North India, all pox diseases are dealt with by laypeople in much the same manner (Freed and Freed 1979:328-29; Kakar, Srinivas-Murthy, and Parker 1972:287). Since there is more information on smallpox, that is what will be, in large part, reviewed here.

In the literature reviewed here and in subsequent chapters, the assumption is made that studies done in North India are based on Hindu informants and those from Pakistan on Muslim informants. Some of the authors did not specify the religion of their informants, although they made mention of caste as a criterion for selecting their samples. I assume these North Indian informants are Hindu. A few authors did specify the religious makeup of the communities they studied: Lyon (1986) interviewed Muslims and Christians, Mull and Mull (1988) had one Hindu among their Muslim Pakistani informants, and Kolenda stated that her data on smallpox were gathered among a sweeper caste. In any case, if there are any differences between Hindu and Muslim informants, they were not analyzed separately by the authors of these studies.

Literature on beliefs and treatments for measles and smallpox from North India were reviewed: Kakar, Srinivas-Murthy, and Parker's (1972) study of perceptions about illness and health care in Ludhiana District, Punjab; Kolenda's (1982) study of the smallpox goddess in Khalapur, a village in western Uttar Pradesh; Freed and Freed's (1979) ongoing analysis of the effects of urbanization on Shanti Nagar, a village just outside Delhi, India; Marriott's (1955) report on western medicine in Kishan Garhi, a village in Uttar Pradesh; and Morinis and Brilliant's (1981) analysis of smallpox beliefs conducted in seven villages and three urban areas in Uttar Pradesh. There were some common themes running through these studies.

Disease goddesses are thought to be the major cause of smallpox and measles (Kolenda 1982; Morinis and Brilliant 1981; Freed and Freed 1979). In Uttar Pradesh, where Morinis and Brilliant did their research, smallpox is known as Sitala Mata, chickenpox as Khari Mata, and measles as Hasti-Khelti Mata. Mata (mother), points to the association of these diseases with the Mother goddesses. Sitala is one of seven siblings, usually sisters. Included in this sib group are a number of common childhood diseases: chickenpox, measles, mumps, scabies, itch, fever, cholera, plague, and dropsy (Morinis and Brilliant 1981:343-44).

Other causes for smallpox have also been mentioned, such as food, flies, and contact with someone who has it (Freed and Freed 1979:328). Morinis and Brilliant describe bodily heat imbalances as a major cause. They found that because their informants considered smallpox to be a childhood illness, beliefs about causation often focused on conditions specific to that age group. The excessive heat of the womb, from which a child had recently emerged, was thought to pollute the child's blood. This pollution requires release and purification. Their informants considered smallpox to be a form of cleansing, as a way to shed pollution. In fact, those children who did not get smallpox or other disease with a rash or fever were thought to be at risk because they had yet to be purged of the heat and impurities resulting from birth (1981:346).

Improper diet can also cause heat imbalance. An impure diet by Brahminical standards, one containing meat, fish, eggs and poultry, can cause a dangerous buildup of heat. Climatic factors also cause a heat buildup. Extreme environmental heat can cause smallpox, as can the mixing of hot and cold that occurs in spring when the incidence of smallpox peaks (Ibid.:346-47).

Many of the preventive measures were aimed at avoiding the disease goddess or maintaining a balanced heat ratio in the body. Kolenda describes how pots

containing water, sugar candy, cloves, and paan leaves are placed on the rooftops. The women hoped that the goddess would cool herself there and move on without causing illness. Worship at shrines devoted to the goddess was also mentioned (1982:232). Morinis and Brilliant report that since bodily impurity is thought to cause smallpox, many measures were aimed at eliminating this impurity through worship or consuming the purifying products of the cow, such as ghi or milk. To balance body heat, a balanced diet was consumed (1981:349,363).

Two of the reports stated that the use of vaccination for smallpox was avoided for fear that this would anger the goddess and cause her to kill or maim her victim (Kolenda 1982:230; Marriott 1955:253). However, Morinis and Brilliant report that many of their informants recognized the value of vaccinations (1981:348). This could reflect a change in attitude toward vaccination since the time Kolenda's and Marriott's data were collected in the early to midfifties.

When smallpox strikes, it is thought that the disease goddess resides inside her victim. Therefore, the victim is treated like the image of the goddess, and the room or house where the patient resides is treated like her temple. People speak respectfully about the illness for fear that the goddess will take offense at complaints

and bring her wrath down on the patient. When she is defiled or insulted, the goddess can cause a severe, usually fatal, case of smallpox. In Khalapur, this is known as "the shadow" (Kolenda 1982:232-34).

Many of the treatments were aimed at cooling the unpredictable disease goddess or appeasing her wrath. Kolenda reports that the inhabitants of Khalapur put pots of water and offerings, such as sugar candy and paan leaves, on their roofs. The idea is that the goddess will reside in the pots, cool herself, and then move on without causing harm (1982:232). Cooking, especially frying, was avoided because this displeases the goddess. Meat and nonvegetarian foods were avoided for the same reason. Neem leaves were hung around the sickroom because they were considered to be intrinsically cooling (Morinis and Brilliant 1981:352). Special cool foods were given to the patient. Cooling the wrath of the goddess was thought to persuade the goddess to leave the body of her victim. One way she is lured out is with offerings of sweets and flowers. These are taken out of the sickroom and into the fields in the hope that she will follow (Kolenda 1982:236).

Concern with the goddess was not the only determinant of therapy. Ridding the body of excess internal heat was another major concern. Morinis and

Brilliant report that hot foods were given to fully expel internal heat (1981:363). Kakar, Srinivas-Murthy, and Parker also reported the use of indigenous remedies to drive out the rash (1972:287). Other remedies included giving light, easily digestible foods (Morinis and Brilliant 1981:351-52), and using neem leaves and other remedies to soothe the skin (Kakar, Srinivas-Murthy, and Parker 1972:287).

Morinis and Brilliant claim that the treatments that were reported to them shared one common characteristic: "they are not designed to suppress symptoms." Suppressing the fever and rash was thought to lead to a worse or fatal case. So, whatever the cause of the internal heat, making certain that the heat was expelled was of paramount importance (1981:354).

Within the themes of cooling the goddess's anger and expelling heat, there were local variations, but there was widespread agreement among the informants that the use of allopathic medicine was to be avoided. Like vaccination, these drugs were thought to anger the goddess (Kakar, Srinivas-Murthy, and Parker 1972:287; Marriott 1955:253; Morinis and Brilliant 1981:354). Neither Freed and Freed (1979) nor Kolenda (1982) mentioned the use of allopathic medicines.

Ayurvedic and Unani Descriptions

The only mention of measles I could find in translations of and commentaries on the Samhitas, ancient Hindu medical texts, was from Chakrabarty, an author who wrote an interpretation of Indian medicine in 1923. He, more than the other translators, made definitive links between diseases mentioned in ancient texts and those defined by biomedicine. He contends that measles and smallpox are two of the thirteen eruptive fevers identified in the Charaka Samhita as sannipata jvara, or as translated by Chakrabarty, typhoid fever. He also defines the term masurika as smallpox (1923:215-16).

Later texts that are less interpretive give a different picture. According to Ray, Gupta, and Roy, sannipata jvara is not an eruptive fever (1980:303). Neither are skin eruptions part of the definition given in Bhishagratna's translation of the Susruta Samhita (1963: vol.3:174-75). So the trace of eruptive fevers is lost. What remains is the term masurika, which Ray, Gupta, and Roy (1980:328) and Bhishagratna (1963:vol.2:9) identify with smallpox. But this term is described in chapters on minor ailments rather than fevers or life-threatening conditions. Its treatment is the same as kustha, skin eruptions or sannipataja visarpa, identified by Ray,

Gupta, and Roy as erysipelas (1980:410), a contagious skin disease caused by Streptococcus pyogens (Dorland's 1977:251).

Skin eruptions were thought to be due to injudicious behavior, unwholesome food, excessive use of lardacious foods like oil and ghi, and to sins performed in this or a previous life. Meat, fat, oil, milk, sweets, pulses, and indigestible foods were not given to those with skin eruptions. Treatment consisted of plasters of purifying drugs, bleeding, purgatives, and emetics (Bhishagratna 1963:vol.2:346-47; Ray, Gupta, and Roy 1980:323).

Razi, an eminent hakim who lived in the ninth century, is credited with first recognizing the difference between smallpox and measles. Measles is the term used in the English translation of his book and so will be used here. He attributes measles to "vehement ebullition of bile." Razi describes it as a hot, dry sickness, which usually comes to those who are lean and of a bilious temperament. The blood of someone with measles is likened to stagnant water, "which has long been putrid, and which, having lost its sweetness by the sun, has contracted a vicious acrimony" (Greenhill 1848:65).

He described two kinds of treatment, one specifically for measles, which is not based on the administration of hot substances to expel internal heat,

and another for pustular diseases in general, which makes use of hot substances. Specifically, the treatment for measles is aimed at ridding the body of excess bile.

The Measles are more to be dreaded than the Smallpox....You must, therefore, administer those things which draw off the bile with ease and without heating...if you find the patient after this medicine suffers uneasiness and anxiety, and perhaps fainting, then let them sip cold water, and sit in it for a short time, and rub his body, and cover him up, until his inquietude is assuaged, and the Measles come out to the surface of the body; after which you may have recourse again to such remedies as extinguish the fever (Greenhill 1848:92).

For pustular diseases in general, treatment was aimed at accelerating the eruptions of pustules and consists of making the patient sweat by putting bowls of boiling water beneath his robe. This softens the skin so the pustules can more easily erupt. A concoction of figs, raisins, and fennel, all of which are classified in Unani as hot substances, was also prescribed to hasten the eruptions (Ibid.).

A famous contemporary Pakistani hakim, Nayyer Wasti, gave a description of measles that is closer to lay beliefs than it is to classical theory. According to him, both smallpox and measles come from the dirty blood absorbed by the baby while in the womb. This dirt has to be expelled through the eruption of a rash, and hot substances are used to expel this dirt (Nayyer Wasti 1981).

Biomedical Description

Biomedical literature portrays measles as a common childhood disease in developing countries; 95% of children get it before the age of five (Brilliant 1983). In developed nations measles is a mild disease with a low mortality rate, but in Asia and Africa, measles is a severe disease that often leads to death. The severity of measles in developing countries is caused not by a different strain of virus nor by differential genetic susceptibility among populations but by socio-economic factors. Nutritional status before and after the attack probably plays the major role in determining the severity and outcome of the disease (Morley 1970:215-17).

Measles is an acute viral infection of the respiratory tract. It begins like a severe cold, accompanied by bronchitis, conjunctivitis, and fever. The fever rises until the fourth day, when the rash erupts, and then gradually subsides as the rash fades. Sores on the oral mucosa cause mouth pain and because of this, children may refuse to eat. In severe cases, diarrhea during and up to several weeks after measles is common. Bronchopneumonia is a common complication of severe measles. Other complications include conjunctivitis and, rarely, encephalitis (Ghosh 1985:168-69; Morley 1970:218).

Apparently, measles has a very distinctive clinical picture. It has been claimed that:

The experienced layman can diagnose typical measles. The querulous, bleary-eyed child, his face blotched and his nose crusted with exudate, presents a characteristic, if miserable, picture as he breathes open-mouthed between paroxysms of sneezing and coughing. The severity of the catarrhal symptoms distinguishes the disease from other eruptive fevers (Katz 1985:1708.)

Measles is a highly infectious disease and is spread via droplets sprayed from child to child through talking, coughing, or sneezing. Although isolation of the infected child is often recommended, this is almost impossible to do; isolation is difficult in crowded houses, and the maximum period of infectivity occurs early, when measles still resembles a cold (White 1974:110; Ghosh 1985:171). Because isolation is not feasible, the recommended preventive strategy is immunization (Ghosh 1985:171).

There is no cure for measles. Allopathic medical treatment is symptomatic and consists of medicine for fever, lotions to soothe the skin, cool sponging to lower the body temperature, and administration of liquids to prevent dehydration. Antibiotics play no role in treatment unless pneumonia or other respiratory tract infections occur (Ibid.:170).

Discussion

The women of Iqbal Street demonstrate knowledge drawn from a number of medical traditions--from remnants of Hindu goddess worship to the use of vaccinations. Diverse elements drawn from a number of traditions are used to make a personal synthesis. A diversity of belief does not necessarily mean conflict among those beliefs. Elements of apparently conflicting medical traditions are used to fulfill the diverse therapeutic requirements of the illness known to the women of Iqbal Street as khasara.

The Iqbal Street women's beliefs about khasara are closer to what is found in North India than they are to what is found in Unani texts. This should not be surprising. Syncretism between Ayurveda and Unani began even before Muslims arrived in India and has affected even popular beliefs. The lines between Ayurveda and Unani became blurred, and some (Freed and Freed 1979) have stated that a popular syncretic humoral tradition combining elements of both formal traditions resulted. Another reason is that so many Muslims now living in Pakistan were at one time Hindus. The large-scale local conversions brought many Hindu beliefs into South Asian Islam. Belief in supernatural cause of disease and the

occasional propitiation of Hindu deities are part of what Ahmad defines as "pragmatic religion" among South Asian Muslims (1970:7).

My analysis is divided into three parts. The first discusses the metaphor of heat and how it determines therapy. The second section deals with what appears to be a remnant of pox goddess worship among the Iqbal Street residents. The third section discusses the importance of home treatment.

To begin with, though, if khasara were the only illness studied, one would come away with the impression the the women were fatalistic. Statements like "Khasara comes by itself, it goes by itself" or "It comes to every child, [even] the children of the rich can't escape" attest to this feeling of inevitability. But this attitude is not found in the other illnesses studied. In those illnesses, human responsibility for health and taking proper precautions was strong. In dealing with and preventing the other illnesses, the women did not demonstrate this kind of fatalism. In future study, it would be interesting to find out if the women feel this way about other illnesses and, if so, whether those illnesses are perhaps the other childhood illnesses associated with the disease goddesses.

Throughout this chapter, it has been assumed that khasara compares to the biomedical disease called measles. But it should be made clear that the illness khasara is not the same thing as the disease measles. If a woman brought her child to a biomedical practitioner and said the child had khasara, the doctor would, in all likelihood, diagnose the condition as measles. But what the doctor and the mother understand about the child's condition are not the same. To the doctor, measles is a viral disease that begins when the pathogen infects the patient's body. Allopathic medicine has no cure, so treatment options include supportive treatment and avoidance of complications like pneumonia. For the mother, khasara is caused by excess heat and begins when itchy, swollen eyes and a distinctive rash distinguish it from nazlah (a broad term covering a variety of conditions characterized by excess phlegm). Most of the therapeutic strategies she uses are based on the manipulation of hot foods and medicines.

Heat

Understanding the properties of heat is essential for understanding the women's beliefs about the cause and treatment of khasara. In many ways, khasara provides the women with empirical support for their humoral beliefs

about the illness and the strategies they use to treat it. With its symptoms of fever and rash, it typifies a hot illness. And when the fever falls after the rash appears, support is given to the strategy of expelling heat through the use of heating substances.

The metaphor of heat is a common one in Pakistan and reflects descriptions found in humoral medicine. In humoral medicine, heat has the ability to drive things out of the body and is associated with blood, springtime, youth, and growth. Young people are hotter than old people just as growing things are hotter than those things that have stopped growing. If an individual's temperament is predominated by heat, she may have a sharp temper, she may suffer greatly in the summer, and she may need to avoid foods classified as hot.

In Urdu, the word for hot is *garam* and the word for heat is *garmi*. *Garmi* also means summer and is the name of an illness that occurs if there is too much heat in the body. *Garmi* can occur if someone takes hot allopathic medicine or eats hot foods in hot weather. Some people are predisposed to *garmi* either by their general temperament or because a temporary physiological state such as pregnancy causes extra heat. Symptoms of *garmi* include a bloody nose, loose stools, dizziness, a decrease

in urine output, and vomiting during the early months of pregnancy. A related term, garmidan, was translated by my research assistant as prickly heat.

There is an important connection between heat, female sexuality, and reproduction. A woman whose temperament is hot, who, as one of the women said, is made of "hot clay," will have heavier than normal menstrual periods and a greater than normal sexual appetite. A girl suffering from excess heat may be unruly and have fits. The common remedy is marriage.

Some of the women believed that babies are made from blood that otherwise would have been shed during menstruation. Each month a new allotment of blood goes to the baby. Others felt that the baby was formed from a small clot of blood and the nine month's worth of menstrual blood stored in the womb during pregnancy was released during birth and the forty days after. This menstrual blood is considered to be impure. From one woman's remarks, it appears that this impurity is part of the human condition. According to her, "God said, 'Why have you become proud before me. You were born from dirty blood and pus, and before birth you ate blood. Look at your position.'"

Birth is thought to carry with it great impurity for both mother and child. It is a time of great physical and spiritual danger, since impurity leaves both of them

open to spiritual attack from either nazar or evil spirits. Precautions are taken during the forty days after birth to keep both mother and child physically and spiritually safe.

Because hot foods can increase internal heat and because heat is thought to drive things out of the body, hot foods are avoided during pregnancy for fear of miscarriage. But just before birth, hot foods like eggs and oil are given to help induce labor and to clean out the gut so that giving birth will be easier. After birth, ghi and other hot foods are given to clean the body by expelling all the impure blood that still remains in the body. One woman explained that if hot foods were not eaten, this impure blood would remain inside, thickened and set like yogurt.

The belief that birth causes impurity is common to the North Indians studied and to the Iqbal Street women. So too are the beliefs that blood is the vehicle for that impurity and that excess heat must be purged. Fever and rash are believed to be the signs that this is happening. But unlike the North Indians, the Pakistanis did not directly connect birth impurity to the excess heat that leads to khasara. The inevitable nature of khasara was mentioned by more than a few women, but it seemed to be generally linked to the natural scheme of things rather

than the inevitable pollution of birth. Only one woman hinted at some factors common to all children; "There is a special reason why it comes to children. No child can escape khasara, so you can guess that special reason."

Elements of the Iqbal Street women's treatment choices also hint at a link between impurity and khasara. Some women believe khasara to be contagious until the child is bathed after the rash disappears. This may be a parallel to the belief that following birth, a woman is impure until she takes the final purificatory bath after her forty-day confinement, or chilla. One woman said that the victim should wear a gold locket to avoid evil spirits. This kind of precaution was not mentioned for the other illnesses studied, but it was part of the rituals described for the chilla to keep both mother and child from spiritual harm while they are impure and spiritually vulnerable. This seems to echo a connection with impurity just as the personification of Khasara seems to echo a belief in the disease goddess. Obviously, this is an area for more research.

In the way that the women of Iqbal Street make use of heat in the treatment of khasara, they are much closer to the North Indians than they are to the hakims of the classic Unani tradition. Like North Indian Hindus, the women of Iqbal Street use hot foods and medicines to expel

excess heat from the body, and like them, they believe that the troublesome humor is blood, not bile. According to Razi, excess bile is the cause of measles, and he avoids the use of heat in the treatment. His description of smallpox as due to an increased quantity of blood that must come out as eruptions is closer to the women's descriptions of khasara, as is the use of heat he prescribes for pox diseases (Greenhill 1848:65). The link with blood is evident in at least one of the home remedies the women used. The tea given to drive out the rash contains dried dates, currants, raisins, and unab. The last three ingredients in this list are classified in Unani as having the ability to purify blood (Dymock [1890] 1972:i:350,1:357).

It could be that the women's beliefs actually reflect Unani theory about smallpox rather than measles. At the popular level, the subtle distinctions between the pox diseases are confused. This could have resulted in the pox diseases being treated much the same. Their beliefs could also reflect the syncretic form of Unani found in South Asia rather than a more classical style. The Pakistani hakim's description of blood and womb pollution is a reflection of that syncretic form.

Heat was the main factor in the women's choice of healer. Those Iqbal Street women who went to a healer, whether a doctor or a hakim, went to get hot medicines.

Allopathic medicines were thought to be hotter than Unani medicines and so were thought to be especially useful to purge heat. In this case, the use of allopathic medicines reflects continuing belief in humoral etiology rather than a shift to allopathic ideas about causation. Hot allopathic medicines appear to have become an important tool in the humoral treatment of khasara.

Allopathic ideas do not appear to be widespread among the women. Only a few mentioned jaraasim, and the case has been made that familiarity with this concept reflects classic Unani theory rather than allopathic knowledge. Some scholars maintain that Avicenna made mention in his Canon of "evil bodies=microbes" as a cause of epidemics (Aziz 1973:171). Acceptance of immunization, however, does appear to reflect familiarity with allopathic ideas.

Khasara and the Disease Goddess

Appeasement of the entity Khasara was also part of the Iqbal Street women's repertoire of therapies; such strategies did not, however, play a large role in the treatment of khasara. This was the major difference between the Iqbal Street beliefs and those found in North India. Divine causation did not play a part in the Iqbal Street women's beliefs. While they believed that nature

is under the ultimate rule of Allah, khasara is not seen as divine retribution or visitation. This is reflected in the belief that pirs and religious rituals, for the most part, are useless for the treatment of khasara. Khasara is seen by the women to be a problem of excess heat; expel the heat and the problem is solved.

While the women do not profess belief in divine causation, some of their healing rituals, remedies, and therapeutic choices seem to reflect such a belief. A few of the Iqbal Street women personified Khasara and attributed emotions to it. A treatment or attitude could either make Khasara happy and lead to a quick resolution of the illness or anger it and make the case much worse. This idea is quite similar to Hindu ideas about Sitala and other pox goddesses.

The use of jasmine garlands by one of the women may be an example of a remnant of belief in disease goddesses. Part of the Hindu worship ceremony is the garlanding of the deities, often with garlands of jasmine. Sitala is also worshiped this way. By appeasing Sitala in this way, Hindu worshippers believe that they can persuade Sitala to withhold her wrath, thus sparing the life of the victim. Appeasement could also be behind the Pakistani custom of garlanding the victim. Both gold and jasmine were used to make Khasara happy and so lessen the severity of the illness.

Sweet foods, flowers, and gold were believed by a few of the women to be capable in enticing Khasara out from inside the body. This is similar to what Kolenda (1982) reported. A major difference is that instead of presenting the offerings to the goddess and then removing them to a distant place, the Iqbal Street women give these things to the victim. This could be another form of appeasement. One woman mentioned that the victim of Khasara should wear a gold locket to keep a "shadow" away. Whether this refers to evil spirits in general as the term is used in Pakistan or to the shadow of a disease goddess as Kolenda described is not absolutely clear. But vulnerability to shadows is linked to impurity in both North India and Pakistan.

Food proscriptions also echo this belief in Khasara as an entity, if not as a deity. The first is the proscription against eating meat, especially beef. This belief was not widely held by the Iqbal Street women, but it is very similar to Hindu avoidance of nonvegetarian foods during smallpox. The proscription against greasy foods is also interesting, since it too resembles the Hindu custom of avoiding fried foods during smallpox. The heat from cooking, and especially from frying, is thought to anger Sitala, the "cool one." But the reason given by the Pakistani women was that greasy foods caused coughing.

These proscriptions appear to have independent origins. Their form is the same--to avoid greasy foods--but the reasoning is different. Foods given to cool the goddess play no role in the treatments chosen by the Iqbal Street women. Only after the heat is expelled from the body will cool foods be given to help restore the body to balance. But they could also be a contemporary lay interpretation of treatments found long ago in the Samhitas. Perhaps the avoidance of meat and oil now attributed to cooling the anger of the disease goddess had its beginning in the Ayurvedic proscription of such foods during skin eruptions.

Remnants of belief in a disease goddess may account for the Iqbal Street women's reported avoidance of vaccinations and pharmaceuticals. But so too could the price of a vaccination. However, it should be noted that when the women do go to a healer, a secular healer is chosen. Supernatural healers are not thought by them to be effective against khasara.

Primacy of Home Remedies

Not all remedies were used to expel heat. Some were used to avoid complications and others to alleviate the symptoms of the illness. One main way to prevent complications was to provide an easily digestible diet.

If the patient were to suffer indigestion, it was believed that this could lead to more illness. To help lessen the itching of the rash, foods like salt, pepper, and chilies, which were thought to cause itching, were removed from the diet.

Many of the remedies can be effective at more than one level. Neem and jasmine are used in the rituals to placate the disease goddess, but they are also valuable for symptom relief. Neem, used in India to keep evil spirits away, is considered in both Unani and Ayurveda to be cold and dry. The leaves have been used as a poultice for skin eruption. In Unani, neem is thought capable of purifying blood (Dymock [1890] 1972:ii:322,547; Nadkarni 1954:779). Jasmine has been used for skin diseases and mouth ulcers (Dymock [1890] 1972:ii:378). The tea made from dried fruits is thought to drive out external heat, but at the same time it is used to quench thirst.

Only about a third of the women used allopathic medicines. This avoidance could be due to a residual belief in a disease goddess and may reflect the women's hesitation to use other than dietary or home remedies. But avoidance could be related to the women's belief that allopathic medicines, such as aspirin, which brings down fevers, might interfere with the complete expulsion of internal heat. Allopathic medicine may be seen as having

little to offer. Other than vaccination for prevention and antibiotics for complications, allopathic interventions are largely supportive, aimed at soothing the rash, preventing dehydration, or lowering the fever. Existing home remedies already do many of these things. The woman may avoid allopathic medicines because they are deemed unnecessary, not because echoes of belief in divine causation prevent their use.

In contrast to the list of allopathic medicines that the women gave for the other illnesses studied, only two women mentioned specific medicines for khasara. One mentioned tetracycline, an antibiotic that has no effect on measles but which may have been used for secondary infections. The other mentioned getting a penicillin shot to avoid pneumonia or sarsaam. This brings up the question of just which allopathic medicines the women are getting. If antibiotics are routinely given to prevent possible complications, then the women's perception of them as hot received empirical support from the diarrhea and stomach troubles that they often cause.

Still, the lack of specific allopathic medicines for khasara is puzzling. Could it be that since, as a class, allopathic medicine is thought to be hot, the specific medicine does not matter that much? Or, perhaps

out of courtesy to the foreign investigator, the women overreported their use of allopathic medicine. They may actually seldom, if ever, use it.

Summary

Beliefs and treatments from a variety of medical traditions have shaped the women's ideas and therapies for khasara. Humoral ideas about illness still shape the women's responses to this illness. But within the group there is also variation in how individual women deal with it. One may rely more on therapies that are reminiscent of those found in North India. Another may rely on vaccinations and antibiotics. They have selected from the pool of available knowledge to form individualized approaches to the treatment of khasara.

While individualized approaches are noted, the beliefs and therapeutic actions taken by the Iqbal Street women are predominantly shaped by concern over excess internal heat. The major strategy is to expel this heat through the use of concentrated heat sources. Hot foods, traditional home remedies, and allopathic medicines are all employed for this purpose. Other therapies are used to minimize the symptoms. These included giving light, soft foods to prevent indigestion and placating Khasara with gold and jasmine to prevent the illness from getting worse.

It appears that the women's beliefs are closer to those found in North India than they are to classic Unani theory. This is especially true in the belief that internal heat is a causal agent and in the use of hot foods and remedies to expel this internal heat. There even appears to be an echo of Hindu belief in pox goddesses in the Pakistani women's tendency to personify Khasara and maybe in their uncharacteristic fatalism and avoidance of professional sector healers. Allopathic medicines are evaluated and used according to their perceived hotness and their effectiveness at expelling internal heat. In this case, the use of allopathic medicine does not signify a shift toward allopathic ideology about cause and cure. Rather, it signifies the strength of humoral ideology and the women's flexibility in incorporating relatively new medicines into their model of humoral balance.

Even though khasara was described by some of the women as a severe illness, this did not lead to the use of allopathic medicines, as might have been expected from Gould's (1957) and Bhardwaj's (1975) studies. Instead, perceived cause directed the women's choice of therapy. In this case it led toward dietary manipulation and home remedies based on the use of hot substances. When outside treatment was sought, it was either to get the ingredients

for home remedies or for medicines that are considered to be hot. It appears that the perceived efficacy of the home remedies and dietary changes plays a larger part in the nonuse of allopathic medicine than do remnants of belief in a disease goddess.

CHAPTER VI

DUST AND PECHISH

Introduction

In this chapter, both dust and pechish will be discussed and compared. "Dust" has been defined by hakims and in Urdu dictionaries as diarrhea or evacuation (Ferozsons 1975:353). It would be best to keep a broad definition of diarrhea in mind when assessing the women's beliefs. The dust they speak of is not just the frequent, watery stools resulting from infection but includes loose stools resulting from a variety of causes, many of which are dietary, as well. "Pechish" has been defined by hakims and in Urdu dictionaries as dysentery (Ferozsons 1975:194). The word itself gives a graphic description of one of the major symptoms reported by the women; it means twisting or contortion and refers to the griping, colicky pain that so often accompanies this illness.

Unfortunately, like khasara, the sheer scope of the health problems caused by diarrhea and dysentery, the diseases identified as dust and pechish, make understanding of lay beliefs about them important. Both are very widespread in Pakistan and account for much of

the morbidity reported there (Ministry of Health, Social Welfare, and Population 1978:1). While they are often considered to be the classic "tropical" diseases, neither geography nor climate is the major factor in their occurrence. Instead, environmental factors such as poor sanitation, poverty, overcrowded housing, and contaminated food and water are the culprits (Young 1970:414).

Dust and pechish make for interesting analysis because, while they are perceived to be similar in many ways, the greater concern over heat in the latter adds another dimension to the treatment. Manipulation of hot and cold was not the only or, in the case of dust, the major dietary strategy. Analysis of the women's dietary strategies shows a complexity that is unexpected given the emphasis on hot and cold that is often found in the literature on lay humoral ideas.

Much of the treatment for these illnesses takes place at home and consists of dietary modifications and home remedies. One might, therefore, expect a well-developed set of home remedies. An analysis of these remedies offers more information about the logic behind their use. The treatment for these two illnesses demonstrates the women's belief that humans do have some responsibility for their own health. Although they occurred naturally, dust and pechish were not thought to

be "customary" or "compulsory" in the way khasara was. The cause, in most cases, was described as improper food and the fault was thought to lie with humans who, as some of the women's answers imply, should know better. Far from being fatalistic, the women emphasize that an individual can and should take an active part in maintaining health.

Iqbal Street Data

Causal Factors

The most common causes of dust are stomach problems (Table 9). Some of these problems are inherent, such as a weak stomach or weak constitution, but others, such as indigestion, are caused by improper type or quantity of food. The type of food most often mentioned as a cause of dust is hot food, followed by too much or too little food, dirty food, heavy or hard-to-digest food, like roTi, windy or flatulence-producing foods, like potatoes and cauliflower, food that does not suit the season or the individual's temperament, and food that contains germs. In this case dirty food refers to physical dirtiness rather than ritual pollution. Cooked food obtained from the bazaar is considered dirty because the people who cooked it are not thought to be clean. Furthermore, they allow flies to sit on the food and this too is thought to

make food dirty. Nonfood causes are also held responsible for dust. Children cutting teeth was the most commonly mentioned nonfood cause, followed by mosquitoes, a crooked uvula, and the weather.

Pechish is thought by some of the women to be an outcome of a previous stomach problem, such as indigestion or dust, that was not treated early enough or sufficiently (Table 10). But most of the women believe that heat is the culprit in causing the bloody stools that they define as one of the main symptoms of pechish. As one respondent explained, "Like boiling water in a full pot, the hot blood will overflow." As in dust, carelessness in diet was considered a cause for pechish. Eating dirty or spicy foods, eating the wrong amount of food, or eating at the wrong time were all mentioned. Foods that contained milk, which was considered to be windy and hard to digest, were also avoided. The same woman who mentioned germs as a cause of dust mentioned them as a cause for pechish as well.

Temperament

Both dust and pechish were classified by the majority of the women as hot illnesses. All but two of the women agreed that pechish was hot; these two women did not know the temperament. There was greater diversity

Table 9. Causal Factors: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Indigestion		X		X			X		X	X	X	X	X			X
Heat or hot food				X	X							X	X	X	X	X
Weak stomach or constitution	X				X				X			X			X	
Too much or too little food					X			X					X	X		X
Dirty food	X		X	X					X							
Cutting teeth		X		X			X								X	
Carelessness	X						X									
Windy food		X														X
Food does not suit the individual	X	X														
Mosquitos or flies			X					X								
Heavy or hard food						X										
Germy food		X														
Crooked uvula															X	
Weather												X				
Unsuitable food	X															

The Sixteen Respondents

Table 10. Causal Factors: Pechish
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Heat or hot food	X	X				X	X	X	X	X		X	X	X	X	X
Previous stomach problem			X	X	X				X			X			X	
Individual temperament		X					X									
Food quantity	X	X														
Germs		X														
Intestinal wounds		X														
Did not eat food on time	X															
Carelessness						X										
Dirty food										X						
Spicy food											X					
Not eating cold food											X					
Not eating milky food											X					
RoTi												X				

The Sixteen Respondents

of opinion regarding dust. Three of the women thought that it could be hot or cold, three others did not know, and two did not answer. One of the women explained that the temperament depended on the color of the stools. If they were white, the illness was thought to be cold, but if they were green, the illness was thought to be hot.

Symptoms

The symptoms of dust and pechish differ (Tables 11 and 12). The most frequently mentioned symptoms for dust were stomach pain and loose motions, followed by burping, nausea and rumbling in the gut. For pechish, maroR or pech (gut-twisting abdominal colic) and bloody stools were the two most common responses. Other symptoms include thick white pus in stools, loose stools, pain, pallor, and stomach trouble.

Distribution

Both children and adults are thought to fall victim to dust and pechish, and the women said that they did so for similar reasons. A weak stomach is one cause, but more women repeated that lack of dietary precautions was responsible. Babies are believed to suffer from dust when they cut teeth. One woman explained that the heat caused by cutting teeth was responsible for the loose motions.

Table 11. Symptoms: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stomach pain	X	X	X	X	X	X		X		X		X	X	X	X	
Frequent or loose stools		X	X	X		X	X			X	X	X	X	X		
Burping					X			X		X						
Nausea							X			X	X					
Rumbling in gut								X	X					X		
Urge to defecate	X															
Leg pain						X										
Weakness							X									
Crying													X			
Flatulence																X

The Sixteen Respondents

Table 12. Symptoms: Pechish
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MaroR or pech	X	X	X	X	X	X	X	X	X	X		X	X		X	X
Bloody stools	X	X	X		X				X		X	X	X	X		X
Phlegmy stools	X	X			X							X	X			X
Loose stools											X		X			
Pain											X			X		
Pallor								X								
Stomach trouble														X		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

Prevention

Given the importance the women accord to food as a cause of these illnesses, it is not surprising that food figures in prevention as well (Tables 13 and 14).

Avoiding foods known to cause dust or pechish is the major preventive strategy. These troublesome foods include those that are considered to be dirty, those considered to cause indigestion, and those that have a very hot or cold temperament.

The major difference between the strategies for dust and those for pechish concerns the recommendation to eat less or to fast for a day or two. This was one of the major strategies for dust, but no one mentioned it for pechish. Eating less appears to be both a preventive and a treatment strategy. It was described as a way to prevent dust in the first place and a way to treat dust so that it does not become pechish.

Therapeutic Strategies

Diet

Prescriptions

For dust, there is one major dietary strategy: to eat an easily digestible diet (Table 15). All of the respondents specifically mentioned light or soft diets or

Table 13. Prevention: Dust
N=12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Avoid problem food	X		X	X				X			X		X			
Eat less				X	X							X		X	X	
Eat on time	X															
Take precautions										X						
Avoid others								X								
Unavoidable							X									

The Sixteen Respondents

Table 14. Prevention: Pechish
N=11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Avoid problem food	X			X				X		X	X	X	X		X	
Take care when stomach is upset			X		X										X	
Boil water	X															
Stay at home								X								
Take precautions								X								
Unavoidable							X									

The Sixteen Respondents

else listed foods classified as light or soft. The reason they gave for this strategy was that, since dust had already weakened the stomach and intestines, a normal diet would cause further problems. A light, soft diet was thought to cause no further harm to the gut. Other foods, which had different useful qualities in addition to being soft, were also mentioned. Bananas, tea, yogurt and rice, and rice mixed with mung daal (the same bean used in China to make bean sprouts) were recommended since they were thought to be constipating.

For pechish there were two equally important strategies: eat an easily digestible diet and eat a cold diet (Table 16). Maintaining the balance of hot and cold is more important here than in dust. The reason given by the women for light diets was the same as that for dust, to avoid further harm to the gut. The prescription for a cold diet is connected to the women's belief that pechish comes from heat. This belief is reenforced by the women's observation that there is often blood in the stools. Cold foods are thought necessary to reduce the internal heat responsible for pechish and this blood. The ways that the women classify food is described further in the discussion section.

Table 15. Food Prescriptions: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Easily digestible food	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Constipating food						X				X			X	X		X
Boiled water	X															
Food with balanced temperament	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

Table 16. Food Prescriptions: Pechish
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Easily digestible food	X		X	X	X	X		X	X	X	X	X	X			
Cold food		X		X	X		X		X	X	X	X		X		X
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

Proscriptions

The major strategy given by the women for both dust and pechish is to avoid those foods that they classify as hard to digest and therefore harmful to the patient's weakened health (Tables 17 and 18). This category includes foods like roTi and meat that are classified as heavy or hard and foods like milk and cauliflower that are classified as windy. The avoidance of hot foods distinguishes dietary proscriptions for pechish from those for dust. Although the majority of the women described the temperament of both dust and pechish as hot, only in the case of pechish did the mitigation of heat become important. The bloody stools, so often described by the women as a symptom of pechish, could act as a cogent reminder that the body contains a detrimental amount of excess heat.

Home Treatment

When asked about home treatment for dust, three of the women said that if proper dietary precautions were observed, there would be no further need for treatment. But most of the women felt that some sort of treatment was required. Just over half of them mentioned allopathic medicines, but half of them, including some of those who

Table 17. Food Proscriptions: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hard-to-digest food	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Windy food	X						X			X						
Too much food		X		X												
Milk							X									
Spicy food											X					
Hot food											X					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

Table 18. Food Proscriptions: Pechish
N=15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hard-to-digest food	X	X	X	X	X	X		X	X	X	X	X	X	X		X
Hot food		X				X	X				X					
Spicy food		X									X					
Windy food	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

used allopathic medicine, described home remedies that they used (Table 19). There did not seem to be one favorite remedy. In fact, quite a variety of remedies were mentioned: drinking egg white and water, drinking chuna (lime, calcium carbonate) water, eating a mixture of ground cumin and anise, straightening the victim's uvula, or putting oil in the victim's ears. Eating isubGol (Plantago ovata) with yogurt or sherbet (flavored sugar syrup), drinking a tea of mint, anise and cardamom, and eating a mixture of ajawain (lovage, Trachyspermum ammi) and nashadar (ammonium chloride) were also mentioned. One woman, whose husband owned a soda shop mentioned the somewhat untraditional remedy of drinking 7-Up.

Most of the treatments appear to be relatively benign, but there is one, made specifically for children that seems harmful; a major component is murdasungh (lead oxide). It, along with other ingredients, majuphul (oak gall, Quercus infectoria), and zeher mohra ka batta (poison stone, bezoar) are scraped on a rock to make a thin paste and administered to children. The respondent claims that this is like giving mother's milk.

There appears to be greater use of and consistency of opinion regarding home remedies for pechish (Table 20). All but one woman described home remedies. Half of the women suggested eating isubGol mixed with some other

Table 19. Home Treatment: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Western medicines		X	X	X	X		X	X				X	X		X	
Ground spices	X						X				X	X	X			
Diet		X		X						X						
Spice tea							X								X	X
IsubGol				X		X										
Egg white, salt, and water	X															
Calcium water	X															
7-Up												X				
Unani medicine														X		
Lead oxide														X		
Oak gall														X		
Bezoar														X		
Straighten uvula															X	
Put oil in ears															X	

The Sixteen Respondents

Table 20. Home Treatment: Pechish

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IsubGol	X	X		X		X	X		X	X	X		X	X		X
Gond ka teera	X													X	X	
Ground spices							X					X				X
Hunjibeer												X		X		
Tuxum malaangaa					X									X		
Diet				X	X											
Rose water												X				
<u>Dil kath</u>											X					
<u>Bedaana</u> seed	X															
Yogurt and water											X					
Rice water			X													
Banana	X															
Western medicines		X														

The Sixteen Respondents

cooling substance like yogurt or sherbet. This mixture is classified as cold and is thought to reduce heat, make the stool more solid, and clean the intestines. Other indigenous treatment included ingesting substances, such as glue-like gond ka teera (Cochlospermum religiosum), tuxum malangaa (Lallematia royleana), a mixture of ground pomegranate seeds, anise, and sugar, hunjibeer (Polygonum bistorta), sherbet, and rice water.

Chosen Treatment

For both dust and pechish, half of the women restated their preference for dietary precautions or for home remedies (Tables 21 and 22). The major difference appeared when their preferences for Unani or allopathic medicine were compared. For dust, half of the women had a clear preference for allopathic medication and a quarter had a clear preference for Unani. For pechish, just over half of the women preferred Unani medications and a quarter preferred allopathic medications.

The reasons for their preferences are consistent with their earlier answers on diet and home remedies. For dust, fast, effective allopathic medications such as antibiotics, anti-amoebics, and anti-motility drugs were desired. But for pechish, the need to control excess internal heat was responsible for the women's stated preference for Unani medications.

Table 21. Chosen Treatment: Dust
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Allopathic		X	X	X				X	X	X		X				X
Diet/home remedy	X	X		X		X	X		X	X	X					
Unani	X										X		X	X		
Either allopathic or Unani					X		X								X	

The Sixteen Respondents

Table 22. Chosen Treatment: Pechish
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unani	X				X		X	X		X	X	X	X	X		
Diet/home remedy	X	X		X		X				X	X			X		X
Allopathic		X	X						X							X
Either allopathic or Unani		X													X	

The Sixteen Respondents

Some of the women felt that either a doctor or a hakim could be helpful for dust or pechish. Others remained firm in their belief that dietary precautions and simple home remedies are the best ways to deal with these problems. When asked directly, no one, however, said that they would go to a pir. One woman even quipped, "Pirs only give duwa [prayer] not dawa [medicine]." In answer to a later question about the strengths of various kinds of healers, two women did say that they would take children to a pir for diarrheal diseases.

Popular Beliefs in North India and Pakistan

Literature from a number of rural and urban areas in North India and Pakistan were reviewed: Lewis's (1958) ethnography of Rampur, a village near Delhi; Kakar, Srinivas-Murthy, and Parker's (1972) study of health beliefs in Ludhiana District, Punjab, India; Freed and Freed's (1979) study of the effects of urbanization on Shanti Nagar, a village near Delhi; Kumar's et al. (1985) study of how mothers in rural and urban areas in North India treat diarrheal diseases; Bentley's (1988) study of home-based management of diarrheal diseases in Haryana; and Mull and Mull's (1988) study of rural Sindhi mother's beliefs about diarrhea and its treatment. Aslam's (1979)

study of Pakistani immigrants in Britain and their use of traditional medicine was also included. Much of what the authors describe was also found on Iqbal Street.

Excessive heat and incompatible foods were the major reasons given for diarrhea and dysentery. Environmental temperatures or overheating could give rise to this heat (Lewis 1958: 280; Bentley 1988:77), as could excessively hot breast milk (Lewis 1958:280; Mull and Mull 1988:57; Bentley 1988:77). Breast milk could become hot if the mother works outside under the hot sun, becomes pregnant again, eats hot foods, drinks hot liquids, or takes hot medications. Heat directly affects the child as well through exposure to hot weather or from eating too many hot foods (Mull and Mull 1988:57).

While hot foods were often mentioned as a cause of diarrhea and dysentery (Mull and Mull 1988: 57; Lewis 1958: 280-84; Freed and Freed 1979:330; Aslam 1979:230; Bentley 1988:77), other types of food were also thought to cause problems. Incompatible combinations of foods like milk and daal, wind-producing foods (Kakar, Srinivas-Murthy, and Parker 1982:288-89), spicy, stale, or fatty foods (Lewis 1958:280-83), too much food (Kumar et al. 1985), and foods that can cause indigestion (Kakar, Srinivas-Murthy, and Parker 1972:287) were also thought

capable of causing these problems. Even cold foods (Aslam 1979:231; Freed and Freed 1979:330) and weather (Bentley 1988:77) were identified as causes.

Other nonfood causes include teething (Kumar et al. 1985:109; Bentley 1988:77), displaced navel nerve (Lewis 1958:282; Freed and Freed 1979:330), sutt or fallen fontanel, and evil eye (Mull and Mull 1988:59; Kakar, Srinivas-Murthy, and Parker 1972:288-89; Bentley 1988:77). Infection was not widely believed to be the cause of these illnesses. Kakar, Srinivas-Murthy, and Parker report that no one mentioned it (1972:287), Freed and Freed report that only the educated villagers were aware of the connection (1979:330). Kumar et al. report that just about 10% of their respondents mentioned infection as a cause (1985:109), and among Bentley's respondents, only 4% attributed diarrhea to dirty water or germs (1988:77).

In general, diarrheal disease is thought to be hot, but there are exceptions. In Pakistan one form of diarrhea is thought due to overcooling of breast milk by the mother's overexposure to cold (Mull and Mull 1988:57). Among the Pakistani immigrants that Aslam studied, diarrhea was thought to be caused predominantly by "cold in the stomach." Diarrhea could be hot or cold, but dysentery was definitely classified as hot (1979:230-31).

Dietary modifications vary. Foods thought to be cooling like yogurt, lime water, ispaghol, mint, cumin, and cardamom are eaten (Mull and Mull 1988:58), as are light, soft foods, like rice and daal mixes, yogurt, rice, banana, and isagbol (Bentley 1988:80). (IsubGol, ispaghol, isagbol are all Plantago ovata. According to Dymock [(1890) 1972:iii:126], ispaghul is the original Persian term.) Rice pudding and other foods that are thought to be constipating are also given (Freed and Freed 1979:330).

Bentley reports that "harmful" foods, such as chapati, potato, jaggery (gur or molasses), spices, and vegetables, are all withdrawn during diarrhea. Harmful foods are identified as those that would increase diarrhea, that are hot or are hard to digest (1988:79-80). Kumar et al. report that partial or total food restrictions were practiced among the North Indians they studied (1985:10).

Bentley found that 65% of her respondents felt that they should give less food. However, she notes that the picture is more complicated than simple withdrawal of food. What frequently occurs instead is a shifting from a regular diet, which can contain harmful foods, to one with soft, light foods (Bentley 1988:79). The incidence of withholding food did rise in protracted cases (Ibid.:84).

More alarming than reported withholding of food is that 65% of the people surveyed by Kumar et al. restricted fluid intake as well (1985:110). Mull and Mull did not find fluid restriction among their Sindhi informants (1988:62), nor did Bentley. She found that 84% of her respondents gave more water during bouts of diarrhea (1988:81).

According to Freed and Freed, when the majority of their informants had diarrhea they went to swamis, or Hindu holy men. But when they went to the swamis, they did not receive religious cure. Instead, they were reported to receive allopathic pharmaceuticals (1979: 317-18;330). Kakar, Srinivas-Murthy, and Parker (1972:288-89) found that 80% of their informants went to a variety of healers, qualified and unqualified, from both the Ayurvedic and allopathic traditions. Kumar et al. found that "modern medicine," especially injections, were preferred by most of their informants. Only about one-fifth of the women preferred home treatment, and fewer still used opium and purgatives (1985:110).

Broad use of antibiotics was one of Bentley's most striking findings. The use of these drugs is not required in nondysenteric diarrheas, and she found no correlation with use of antibiotics and blood in the stool. Herbal remedies appeared to be on the wane (1988:77). In

prolonged cases, the mothers frequently switched from doctor to doctor and used a variety of different antidiarrheal medicines, sometimes simultaneously (Ibid.:89).

Mull and Mull gave a more detailed description of the therapeutic options chosen by their Sindhi informants. As noted earlier, the Sindhi women thought that diarrhea could be due to excessive heat or incompatible foods. But they also believed that *sutt* and *nazar* were also associated with diarrhea. Mull and Mull noted though that when asked directly about the cause of diarrhea, the women did not mention either of these two illnesses. When neither *sutt* or *nazar* were determined to be the cause of diarrhea, the preferred healer was a doctor. Hakims were also consulted to get herbs to help relieve stomach upset. If diarrhea were attributed to *sutt*, a *dai* was consulted, and if *nazar* was thought to be the cause, a *pir* or a Muslim religious healer was consulted (1988:61).

Mull and Mull also noted that diarrhea was sometimes classified as a natural condition rather than an illness, especially when it was thought to be due to teething or hot breast milk. During teething, it was considered to be dangerous to stop the diarrhea since the trapped heat could cause fever. If breast milk is thought to be the cause, the mother simply stops eating the

offending foods. Only if accompanied by fever and vomiting was diarrhea considered to be life-threatening (Ibid.:62).

Kumar et al., Mull and Mull, and Bentley studied the use of ORT (Oral Rehydration Therapy). Kumar found that injections were preferred over fluid replacement therapy. Still among those women who used ORT, it was considered to be effective, and the women know how to prepare it. Mull and Mull found more problems and misuse among the women they studied. They found that despite government promotion of ORT, more than a quarter of their informants never heard of it. When it was used, it was often overdiluted or underdiluted or administered in too small a dose. The cost of the ORS (Oral Rehydration Salt) packets may have been prohibitive and this could have lead to the reported overdilution and underuse (1988:56).

In the study with which Bentley was associated, ORS packets were distributed in one of the three villages studied. In that experimental village, almost all of the respondents knew about ORT, and 65% of the mothers whose children had suffered from diarrhea during the previous year had used it. There was, however, a misunderstanding among some of the women about the function of ORT that reduced evaluations of its usefulness. The women frequently believed that it was meant to stop diarrhea

rather than replace body fluids. Among the mothers who did understand its function, ORT was believed to be useful (1988:82). Bentley states that social marketing and more education about fluid replacement would increase the use of ORT (Ibid.:82).

Ayurvedic and Unani Descriptions

This section will briefly describe theories about etiology and treatment of diarrhea and dysentery found in Ayurveda and Unani. To avoid a welter of Sanskrit, Greek, and Arabic terms, the terms diarrhea and dysentery will be used here. However, it cannot be assumed that the terms mean the same thing now as then. For one thing, the texts used are translations and bear the translators' interpretations. In addition, Siegel points out that the ancient Greek physicians did not define dysentery as an infectious disease. It referred to "painful attacks of the alimentary canal" as well as "diarrheic enteritis" (1976:198,201). Diarrhea, dysentery, and cholera were classified as a single group. Cases were diagnosed not by cause but by severity of symptoms, diarrhea being the mildest and cholera the most severe (Siegel 1968:288). Caveats aside, this information offers some insights into the beliefs held by the Iqbal Street women.

According to the Sushruta Samhita, one of the major Ayurvedic texts, diarrhea is caused by a variety of things, mostly related to diet. Some of the dietary indiscretions mentioned were eating too much heavy, hard-to-digest food, eating fatty, dry, hot, cold, or thick foods, eating incompatible foods or foods that could cause indigestion. Nondietary causes included grief, fright, overuse of purgatives and emetics, change of season, and parasites (Bhishagratna 1963:vol.3:212).

These things lead to the derangement or agitation of one or all three of the dosa: vayu, pitta, and kapha. The symptoms are a clue to which dosa is deranged. If it is vayu, there will be colic, flatulence, and rumbling in the gut. Pitta is associated with hot, yellow, or reddish stools, and a burning sensation. Agitated kapha is associated with white stools with mucus present and with constant straining (Ibid.:212-14).

Although specific treatments varied with the deranged humor, type of stool, or degree of appetite, there were some therapies that were common to all. At the onset of symptoms, fasting was prescribed. Gruels made from rice, wheat, or barley mixed with drugs were given. If, after fasting, colic and flatulence still persisted, vomiting was induced. After this, a light diet of soup and gruels mixed with mucus-ameliorating herbs were given.

Astringent remedies, draughts of butter mixed with sugar and licorice root, and enemas of oil or ghi mixed with drugs were also given (Ibid.: 216,218; Ray, Gupta, Roy 1980:268-69).

The Sushruta Samhita also identified two more conditions that Roy, Gupta, and Ray translate as mucous diarrhea and blood dysentery (1980:357-58). In the first condition, unwholesome food, especially that classified as dry, fatty, or fried, aggravates vayu, which causes it to carry mucus into the intestines. Tenesmus, painful, ineffectual straining, occurs when the stools are excreted. Blood dysentery is characterized by blood in the stools and griping pain. It is caused when the pitta of a person already suffering from pitta-caused diarrhea is further aggravated by pitta-generating foods (Ray, Gupta, Roy 1980:357-58, Bhishagratna 1963:vol.3:226-28).

In addition to the general therapies for other forms of diarrhea, milk products are an important part of therapy for these two conditions. Subduing vayu was the major treatment strategy for mucous diarrhea. Enemas of milk, oil, ghi, powdered licorice root, and astringent herbs were administered. Milk mixed with herbs and kapha-ameliorating astringent foods were consumed (Bhishagratna 1963:vol.3:229-30; Ray, Gupta, Roy 1980:202; Sharma 1971:63). For blood dysentery, milk was considered to be

one of the best treatments, due perhaps to its pitta ameliorating properties. Milk, mixed with the astringent fruit of the banyan tree (Ficus bengalensis), ghi, and sugar or honey was one treatment, a special diet of curds and ghi mixed with astringent and appetizing drugs was another (Bhishagratna 1963:vol.3:222-24; Ray, Gupta, and Roy 1980:221; Sharma 1971:61).

In Greek and Unani medicine, diarrhea and dysentery were thought due to a variety of causes as well. Indigestion, season, other illness, excess heat and cold, and teething were some of the causes mentioned by Hippocrates (Lloyd 1978), Galen (Siegel 1968;1976), Avicenna (Shah 1966), and Maimonides (Muntner 1963). In large part, it is the action of these things on black bile and phlegm that causes diarrhea and dysentery. Both of these humors are classified as cold.

Avicenna held that nothing is so dangerous as indigestion, since it can lead to those diseases associated with black bile and phlegm (Shah 1966:311). Both Hippocrates and Avicenna stated that diarrhea was more common in summer and dysentery in the fall (Lloyd 1978:215; Shah 1966:165-66). During the summer, the amount of bile is thought to increase in the body. By the start of autumn, heat will have dissipated the thin part of the bile, leaving the heavier black bile behind (Shah

1966:105). Excess phlegm, be it from disease or natural constitution, can flow down from the head and cause diarrhea and dysentery by making the intestines slippery (Lloyd 1978:149,157; Siegel 1968:291). Both excessive heat and excessive cold can produce sauda, a humor often identified as black bile (Shah 1966:45). Excessive heat can result in viscous and frothy stools (Ibid.:275).

Dysentery was thought to succeed diarrhea (Lloyd 1978:236), and diarrhea accompanied by tenesmus was thought to indicate dysentery (Shah 1966:349). Galen used dysentery to refer to the ulceration of the bowel caused by black bile. At first, black bile thoroughly cleanses the bowel, but after a while, it strips away part of the inner lining and causes ulceration. He believed that he could determine the location of the ulceration from the appearance of the tissue shreds that appeared in the stools mixed with blood (Siegel 1976:25-33).

Galen tailored his treatment to the perceived location of the ulcerations. If they were near the stomach, he believed they could best be treated with food and drink, but if they were nearer to the anus, medicines were injected into the rectum (Siegel 1976:32). Avicenna prescribed purgatives and emetics to relieve indigestion and bile-eliminating mixtures of ginger, pepper, and cardamom to treat coldness in the liver and stomach. To

stop the elimination, the elimination itself was assisted with mucilaginous substances that, by making the intestines slippery, help to expel the irritating matter held responsible for diarrhea and dysentery (Ibid.:410).

Maimonides appeared to put more faith in dietary modifications than in medicines for the treatment of diarrhea. He stated that for diarrhea of two or three days duration, food should be limited and common astringent foods like dates, raisins, and pomegranates be given (Muntner 1963:40). Sometimes, he stated, the normal conduct of life is sufficient and medicine is not needed to bring about cure. If an "obstructing" medicine were to be given, it could stop the diarrhea and restore the body to normal, but it could also suppress the urge to eliminate that which should be eliminated. He believed that medicine could thus thwart nature and lead to further problems (Ibid.: 75).

Biomedical Description

Diarrhea can be broadly defined as an increase in fecal frequency, volume, or liquid content (Buchin 1985:527). The major cause of diarrhea is an infection of the intestine by bacteria, viruses, protozoa, or worms. Acute diarrhea accompanies other infections such as measles and malaria, and can result from malnutrition as well (Cook 1985:102-103; Ortiz 1970:389-90).

A wide variety of other conditions can cause diarrhea: food allergy, food intolerance, food poisoning, high fiber foods, and excessive caffeine intake are all possible causes (Davis 1985:647; Neu 1985:440; Buchin 1985:527; Lewy 1985:302). Stress is a well-known cause (Buchin 1985:530), as are medications, especially antibiotics (Neu 1985:441). Loose stools are common among two year olds whose equilibrium is easily upset by teething and whose immature intestinal tract cannot well tolerate solid foods (Atwood 1985:218).

In the last few years there has been a shift in biomedical ideas about how to treat diarrheal diseases. Previously, it was thought that during diarrhea the stomach was so irritated that food and even water could trigger vomiting. At that time, it was recommended that food be withheld for the first twelve to forty-eight hours after symptoms began (Ortiz 1970:408). Now it is believed that vomiting results from electrolyte imbalance and that there is no physiological reason to rest the gut (Cook 1985:108).

It is now also recognized that many previously accepted medical interventions can be useless or even harmful. Antibiotics are overused, since viruses more commonly cause diarrhea than do bacteria. Constipating mixtures made from pectin or chalk have little effect and

can cause bowel obstructions in the newborn. Anti-motility drugs cause a retention of diarrheal fluid in the intestines, and this can lead to fatal toxemia (Elarabi 1986:11).

Currently, biomedical treatment of diarrhea consists of two main parts. The first and most crucial is rehydration. Dehydration is serious, especially for children, who can become severely dehydrated in a matter of hours. An Oral Rehydration Salt has been developed by UNICEF that, when reconstituted with water, provides the necessary water and electrolytes. For children, rehydration can make the difference between life and death (Cook 1985:106-07).

Preventing malnutrition is the second major part. During a bout of diarrhea, it is important to maintain or try to improve the victim's nutritional status. Breast-feeding or half-strength milk feeds are essential for infants. Older children and adults should eat high-energy foods, such as milk products, vegetables, eggs and meat. Potassium-rich foods, such as fruit juice and bananas, are also recommended. Foods that are high in fiber and other foods that are hard to digest should be avoided. Extra food, the equivalent of an additional meal a day, should be given to recovering children (Santosham and Reid 1986:8; Cook 1985:108).

Diarrhea is a very common symptom of dysentery, but dysentery has other symptoms as well. In dysentery, stools with blood and pus or mucus are common. Abdominal colic and tenesmus are also common (Cook 1980:374; Young 1970:413). There are two major forms of dysentery, Shigellosis, or bacillary dysentery, and amoebiasis, or amoebic dysentery. Shigellosis exemplifies classic dysentery. It is an acute, self-limiting disease characterized by severe diarrhea, fever, and stools with blood and pus. Prevention is aimed at avoiding fecal contamination of food and water and control of flies. Rehydration is the first priority in treatment. In a large study in Pakistan, Shigellae were found to be among the most common bacterial pathogens in children under two years of age. Ampicillin is used if Shigellae are identified as the offending pathogen (Cook 1980:374; Cook 1985:109).

Amoebic dysentery, caused by the protozoa Entameoba hystolytica, occurs most often in people between 20 and 50 years of age. Its severity is increased when it is associated with measles or malnutrition. Symptoms include intermittent diarrhea with blood and mucus, headache, chills, fever, nausea, and abdominal colic. Treatment usually consists of metronidazole, but tetracycline and chloroquine are sometimes needed (Cook 1980:382-91; Platov and Beaver 1970:429-31; Jelliffe and Jelliffe 1985:122).

Discussion

In this section, some of the basic therapeutic choices will be presented. Following a brief comparison between lay beliefs found in North India and Pakistan and medical theories of Ayurveda and Unani, four topics will be discussed. Personal responsibility for health is the first. The second is the importance of food qualities other than hot and cold in the treatment of dust and pechish. The logic behind some of the home remedies is the third topic, while the last deals with the outcome of women's therapeutic choices.

In general, it appears that lay beliefs represent a simplification of classic ideologies. The distinction made by the Sushruta Samhita between the various types of diarrhea caused by different deranged dosas is missing in reports of lay ideas about etiology. What the women of Iqbal Street and the other laypeople described seems closer to the diarrhea and dysentery caused by aggravated pitta. Concern over cold foods, cold humors, and dosas was much greater in the medical texts. Like the other laypeople surveyed, Iqbal Street women were more concerned with heat.

Concern with dietary indiscretion rather than infectious agents shaped much of lay therapeutic behavior, including that of the Iqbal Street women. The

amelioration of excess heat and prevention of indigestion by altering the diet is central to the North Indian and Pakistani lay beliefs, including those of the respondents. The Iqbal Street women predominantly use foods and oral remedies to treat these problems. They too give cold, easily digestible foods, however they do not restrict food or fluid intake to the degree that Kumar et al. describe (1985). The Iqbal Street women did not report the use of purgatives, emetics, or enemas.

Like the Sindhi women interviewed by Mull and Mull (1988), the Iqbal Street women believed that breast milk made hot or windy from the mother's diet was another cause of dust, as was breast-feeding during pregnancy. But neither of these reasons was given as a cause for dust and pechish when the women were asked directly. This information came later in response to questions about breast feeding. Nor when asked directly did the women mention going to pirs, but later in the interview, two women mentioned that they had taken their children to pirs for the treatment of dust or pechish. Perhaps, as Mull and Mull suggested (1988:60), the women were reluctant to discuss "nonbiomedical disease models," or perhaps the women attributed dust to illnesses like nazar only as a last resort, so spiritual causation does not immediately come to mind when causes are discussed.

What stands out most clearly in contrast to the North Indians and other Pakistanis surveyed is the distinction that the Iqbal Street women make between dust and pechish and the different modes of treatment that they use for each. Mull and Mull's (1988) survey of Sindhi women used the term dust, but what the women describe seems closer to the Iqbal Street women's description of pechish. It is the lessened concern with heat and the greater concern with indigestion that distinguish the Iqbal Street women's beliefs about dust. In this, their beliefs are closer to those described in the classic texts, especially the concern over heavy and light foods mentioned in the Sushruta Samhita (Bhishagratna 1963 vol.1:372-80).

Personal Responsibility

The women do not have a fatalistic acceptance of dust and pechish; both prevention and treatment demonstrate an active responsibility for health. Prevention, in the form of dietary precautions, is very important. According to the women, parents are responsible for overseeing the diet of their children, and adults are responsible for their own diet. Adults are expected to avoid those foods that they know, through experience, cause them trouble. The women believe that it

is those who are negligent about dietary precautions, such as children who eat bazaar food and adults who eat too much food, who will fall ill.

These illnesses are largely treated at home with dietary manipulation and home remedies. Dust is treated with light, easily digestible foods to keep it from becoming pechish. Cold foods and remedies like isubGol and yogurt are used to help mitigate excess heat thought to be present in pechish. Thus the responsibility for much of the prevention and treatment belongs to the women of the household. They learn which foods suit the temperament of their family members and they adjust, as far as they are able, accordingly. To them falls the task of teaching dietary responsibility to their children.

The women did not express the same sort of fatalistic acceptance for dust and pechish that some of them did for khasara. While all these illnesses are thought to occur from natural causes, the compulsoriness that marked khasara is missing here. Dust and pechish can be avoided. They don't "just come." They come usually because some human took insufficient dietary and behavioral precautions. And it is within human power to correct the problems.

Heavy-Light Qualities of Foods

An unexpected finding was that manipulation of hot and cold foods was not the major therapeutic strategy and that food was classified in a number of ways other than hot and cold. Throughout all of the interviews, a number of terms were used to describe food: *garam* (hot), *Thand* (cold), *motadil* (balanced), *xushk* (dry), *raswala* (juicy), *taqatwar* (tonic), *naram* (soft), *suxt* (hard), *baadi* (windy), *bhaara* (heavy), *halka* (light), *zood hazam* (easily digestible), *badhazmi* (hard to digest), *chickna* (greasy), *balGami* (phlegmy), and *khaTa* (sour). The contrast of heavy and light or hard and soft foods were more important in the treatment of dust and pechish than the contrast of hot and cold foods.

This is very similar to what is described in the *Charaka* and *Sushruta Samhitas*. According to the *Charaka Samhita*, of the many opposing qualities of foods, such as hot and cold, oily and dry, keen and mild, the most important are heavy and light. Their importance comes from the effect they are thought to have on digestion. Light foods enhance the digestion while heavy foods are unable to do so (Jaggi 1973:103).

According to the *Sushruta Samhita*, there are only two kinds of digestion, light and heavy. Those foods that are heavy are hard to digest and have the ability to move

the bowels. Heavy digestion can be inferred from the frequent passage of stool. Light foods help the process of digestion. Heavy substances are used as purgatives, and light substances, because of their ability to ascend, are used as emetics (Bhishagratna 1963: vol.1:372-80). The foods classified as heavy or light by the women may not be the same as those classified as such in the Samhitas, but the concern with heavy and light foods persists.

The foods that are prescribed and proscribed for dust and pechish are listed in Table 23. As noted before, most of the prescribed foods are soft or light and most of the proscribed foods are hard or heavy. The foods in Table 23 are quite similar to those noted by Bentley (1988:77,79-80). Some of the most commonly mentioned foods from her list of "soft and light" foods--rice and daal mixture, yogurt, and rice--are the most commonly recommended foods in Table 23. Unleavened bread tops both Bentley's list of "harmful" foods and this list of proscribed foods.

The most obvious contrast in the two lists is the position of bread and rice. RoTi, the thin unleavened bread that is the dietary staple, is the food most often proscribed by the women. The reason given was that roTi was a hard food and was hard to digest as well. But rice, or rice mixed with daal, was considered to be a light food

**Table 23. Food Prescriptions and Proscriptions for
Dust and Pechish
N=16**

Prescriptions		Proscriptions	
Food	Number of Responses	Food	Number of Responses
Rice and daal mixture	12	RoTi	13
Yogurt	9	Meat	7
Rice	8	Daal	6
Leavened bread	6	Milk	3
Rusk	5	Cauliflower	2
Tea	4	Potato	2
Tapioca pudding	3	Vegetables	1
Cracked wheat pudding	2	Salad	1
Buns	2	Fritters	1
Broth	2	Fish	1
Lemon juice	1	Rice pilaf	1
Bananas	1	Sweet rice	1
Fruit	1	Eggs	1
Gravy	1	Yogurt curry	1
Juice	1	Chili peppers	1

and easier to digest. This may account for the avoidance of roTi, but the avoidance may go beyond this. RoTi, as a staple, is the core of meals in Pakistan. Some women use the word khanna (food) to refer to the typical meal of bread and curry. RoTi is equated with the word khanna in a way that rice is not. Withholding or avoiding roTi could be a sign that the person's claim to be ill was accepted.

RoTi is classified differently from western-style breads. Those breads, like leavened white bread, called double roTi in Urdu, rusk (twice-toasted sweet bread), and buns are considered to be light foods. The light, airy texture of these leavened breads probably accounts for this classification. Carbonated beverages like bubbly 7-Up were also classified by some of the women as light. New foods are adopted, classified, and used according to traditional dietary concepts.

Home Remedies

In addition to dietary modification, the women made use of a number of home remedies. Many of the ingredients in these remedies have been used in Ayurveda, Unani, or both, and have been described as having attributes that make them useful for the treatment of diarrhea and dysentery. These attributes are related to the major

strategies of controlling indigestion and heat. There is some overlap in the remedies that the women used for dust and pechish; remedies for dust are cooling as well as digestive, and some remedies for pechish are digestive as well as cooling. Greater use of home remedies may be warranted when simple dietary modifications are not sufficient. In some cases of dust caused by indigestion, dietary modification may be all that is necessary, but for pechish, they would usually not be sufficient. Then, it seems, the next step is to use the home remedies prescribed for pechish.

The use of ground spices in mixtures or teas is more important for dust, but they are used for pechish as well. The women used cumin, anise, mint, pomegranate, cardamom, and ajawain. Cumin is thought, in India, to be cooling and is used to relieve flatulence. It has long been used in both medical traditions to treat chronic diarrhea (Dymock [1890] 1972:ii:114). Anise and mint are both identified in Unani as anti-spasmodics (Nadkarni 1954:789, 956). Pomegranate and cardamom are both thought to be cooling. In addition, cardamom is said to have the ability to expel wind and promote digestion (Nadkarni 1954: 495, 1033; Dymock [1890] 1972:ii:44) and pomegranate is defined as an astringent by Maimonides (Muntner 1963:40). Ajawain is described in Unani as being able to

expel flatulence and relieve gut spasms (Dymock [1890] 1972:ii:116; Nadkarni 1954:1028). In general, the spices help to improve digestion, dispel flatulence, and ease the tenesmus of pechish.

The minerals used to treat dust, calcium carbonate, ammonium chloride, and lead oxide, are generally classified in these medical systems as cooling astringents (Nadkarni 1954:M:11,86). However, lead oxide, according to a more contemporary authority, is poisonous and should never be taken internally (Ibid.:M:86). Oak gall, according to Unani, is also an astringent and is thought to coagulate blood in the gut and to act as a styptic (Dymock [1890] 1972:iii:360).

Straightening the uvula is related to beliefs about heat. Freed and Freed noted that, in Shanti Nagar, people believed that the uvula fell as the result of any kind of excess heat. They suggested that it was related to the ailment known among Latin American populations as fallen fontanel, which is caused by severe tissue dehydration resulting from diarrhea (1979:337). The Sindhi women interviewed by Mull and Mull also associate fallen fontanel with heat. Sutt, as it is referred to, is diagnosed when the baby has a fever, is fretful, and is too weak to suck. Diarrhea is an important feature of this illness. Mull and Mull's informants believed that if

the fontanel remained depressed, heat would be trapped inside the head and the baby would become dangerously overheated. Treatment was aimed at raising the fontanel by applying cool, astringent, sticky substances on top of the head or by pushing up on the palate with a finger (1988:58-60).

Mucilages and gums are more important in the treatment of pechish. This could be related to either Unani or Ayurvedic treatments. The Sushruta Samhita mentioned oily, "slimy" ingredients in the enemas used for diarrhea and dysentery (Bhishagratna 1963:vol.3:206-214,224). Avicenna stated that by making the intestines slippery with mucilaginous substances, the irritating matter causing diarrhea and dysentery would be eliminated more quickly (Shah 1966:410). The demulcent, stool-solidifying, and cooling properties of mucilages are also valued.

Both tuxum malangaa and isubGol form tasteless mucilages when mixed with liquid. The mucilage formed by the seed husk isubGol is described by a contemporary authority as being impervious to digestive enzymes, so it passes through the intestines unchanged. It coats the lesions caused by dysentery with a protective film and firms up the stool (Dymock [1890] 1972:iii:90, 126; Nadkarni 1954:981). An important quality of isubGol is

that while it firms up the stool, it does not cause constipation, so the elimination of irritating matter is not delayed. IsubGol is also used as a laxative. The gums formed by gond ka teera and tuxum malaanga also help to solidify the stool (Dymock [1890] 1972:iii:90; Nadkarni 1954:724).

Treatment Outcomes

A number of treatment options were described, from simple dietary modification to the use of antibiotics. The outcomes of the treatments depend to a great extent on the cause of a particular illness. As noted in the biomedical description, diarrhea has variety of noninfectious causes, including food intolerance, high-fiber foods, or stress. In these cases, dietary modifications would be sufficient. The problem would be resolved quickly and need no further treatment. In both local and biomedical terms, the outcome of dietary modifications would be success.

But for longer bouts of diarrhea caused by an infectious organism or for dysentery, some of the dietary modifications could be defined by biomedical practitioners as detrimental. Depending on how long or how rigidly they are followed, it is possible that the dietary modifications could exacerbate the nutrient losses that

accompany diarrhea. Avoidance of some of the proscribed foods, like meat and daal, could reduce the intake of protein, and the avoidance of fruits and vegetables could reduce intake of certain minerals and vitamins. However, if sufficient food was given, the prescribed foods, like rice and daal, yogurt, and leavened bread are good sources of carbohydrates and protein.

More serious than the kinds of food given or avoided is the belief that the amount of food should be restricted. Just over half of the women mentioned that too much food could cause or exacerbate diarrhea. Withholding foods and liquids from children with diarrhea can have disastrous health consequences. Both practices have been reported elsewhere in Pakistan and they are a cause of concern among health officials there (Planning and Development Division 1977:15; Planning and Development Division 1978:1).

There is some irony in the fact that allopathic practitioners until very recently have also advocated the withholding of food. Before the women's beliefs are criticized too severely, it should be remembered that it was not until the last decade that the biomedical position was changed. The women's ideas may have been passed down from mother-in-law to daughter-in-law, but until recently, these ideas would have been reinforced by contact with allopathic practitioners who believed the same thing.

From a biomedical viewpoint, the most important question about treatment was not asked. There was no specific question about whether or how much liquid was given. The women did not volunteer information about fluid restriction. They did, however, mention that liquid diets and liquids, such as milk, tea with milk, herb tea, broth, lemon juice, sherbet, juice, and 7-Up should be given, but they did not mention quantity. Judging from her concern over straightening the uvula, it appears that at least one of the women has had an experience with a severely dehydrated infant. None of the women mentioned anything about ORT; however, these data were collected before the government began promoting ORT in 1983 (Mull and Mull 1988:56).

Allopathic medicines, especially antibiotics, were frequently used by the women for dust. Like previous biomedical beliefs about resting the gut, biomedical beliefs about the use of medicines for the treatment of diarrheal diseases are changing. The women demonstrate acceptance of allopathic medicines at the same time these medicines have fallen into disfavor among many doctors. For example, antibiotics are now considered to be useless for many cases of diarrhea. In fact, they can cause diarrhea, and many doctors prescribe yogurt to correct the ecological imbalance they cause in the gut (Buchin 1985:527).

While the women have now accepted outmoded allopathic treatment, there may be some resistance to the current biomedical recommendations. While these recommendations call for giving extra food, the women would probably decrease the amount given. The foods recommended in current biomedical strategies include meat, eggs, vegetables, and milk, all of which have been proscribed by the women because they are hot or hard to digest. Current biomedical strategies, though dietary in nature, run counter to the women's basic beliefs about the proper treatment of dust and pechish. To accept these dietary recommendations would require a fundamental change in the way the women viewed food, food characteristics, and dietary therapy.

Perhaps getting the women to accept ORT would be easier. A number of liquid remedies were listed. There is already a preference among a few of the women for boiled, cooled, water since they believe it to be less windy than plain water. This could be used to make the ORT. Home-made versions of rehydration fluid could also be useful, such as nibu pani, a drink made from water, lemon juice, sugar, and salt. It is a cooling drink and already contains many of the components of oral rehydration solution.

The effect that the women's therapeutic choices have on health must be weighed against the effect that the lack of clean food and water has. In and around Iqbal Street, many of the environmental preconditions for diarrheal diseases exist. Many streets have uncovered drains running directly in front of the houses. Drains often overflow and cover the street with a thick vile sludge; children and animals play nearby. In the market, melon pieces are arranged attractively, attractive to both buyers and flies that swarm up from the sludge below. In conditions such as these, dust and pechish must seem inevitable, yet the women strive to prevent them.

The government too must try to prevent these illnesses by providing clean food and safe water supplies. Education is also needed to spread the word about rehydration therapy and nutritional support. But education and prevention have to coincide. Otherwise, if clean food and water are not available, the new therapies will fail and their potential value will never be recognized.

Summary

The women took an active role in preventing and treating dust and pechish. They did so by moderating diets and giving medications. The women felt that if the

proper dietary precautions were taken, dust and pechish were both preventable and treatable. Proper precautions for dust included avoiding indigestion and, in so doing, avoiding further complications like pechish. Light easily digestible foods were prescribed. Due to the presence of blood in the stool, pechish is considered to be hotter than dust and moderation of heat plays a more important part in its treatment.

The causes of dust and pechish are natural ones; no one mentioned intervention by spirit or human agency as a cause. Not one woman said that she went to a pir when asked about the best healer for dust and pechish. Choice of secular healer depended on the illness. For dust, the quick relief obtained from a doctor was valued, but for pechish, the hakim's cold medicines were preferred. Acceptance of allopathic remedies was not accompanied by acceptance of allopathic ideas about cause. Contamination of food was not an issue, but for the majority of the women, intrinsic food qualities were.



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THE WOMEN OF IQBAL STREET:
POPULAR MODELS OF HEALTH AND ILLNESS
Volume II

By

Janice Louise Eickmeier

A DISSERTATION

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CHAPTER VII

MALARIA

Introduction

The term malaria is used throughout the chapter, because this is the term, with a few exceptions, that local hakims and the women themselves used. Lyon found the same thing among her Lahori respondents (1986:147). Some of the Iqbal Street women also used the term malaria ka buxar (malaria's fever) or simply buxar.

Even in recent history, the Indo-Gangetic plain has been the scene of repeated regional epidemics of malaria. One reason is that Pakistan has the largest irrigation system in the world. Seepage from the canals has waterlogged the land, making an ideal environment for mosquitoes (Malik 1966:4-5; Naru, Rashid and Ahmad 1979:25). As late as 1966, malaria had the highest morbidity and mortality rate of all the major diseases in Pakistan (Malik 1966:10). A decade later it was still responsible for about 10% of reported deaths (Planning Commission 1978a:35).

Because of the serious nature of malaria, the Malaria Eradication Program was started in Pakistan in 1960 (Naru, Rashid, and Ahmad 1979: 2-3). Up until 1967,

the MEP had satisfactory results, but then a steady deterioration of the program began (Ministry of Health, Social Welfare and Population 1978:4), due in large part to vector resistance to DDT and the exclusion of cities from the plan. In the early 1970's there was a massive epidemic (Naru, Rashid, and Ahmad 1979:11; Ministry of Health, Social Welfare and Population 1978:4).

In 1975, the MEP was changed to the Malaria Control Program and was merged with other programs for the control of transmissible diseases (Naru, Rashid, and Ahmad 1979: 4-11). Execution of a Five Year Extension Plan from 1975-80 brought malaria incidence to a low level. In 1982, the sero positive rate was 1.43% (Akhtar 1984:282) as compared to 14.58% during the early 1970's epidemic (Irfan 1986:45). The eradication of malaria is, however, not foreseen in the near future (Akhtar 1984:282).

Iqbal Street Data

Causal Factors

Almost all of the women said that malaria was caused by mosquitoes (Table 24). Some of the women specified that symptoms began after someone was bitten by a mosquito, and explained that a person will get either poisons or germs from the bite. These germs and poisons cause fever. As one woman explained,

Table 24. Causal Factors: Malaria
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mosquitoes	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Germs from mosquitoes		X							X				X			
Poisons from mosquitoes					X					X						
Hot weather					X			X								
Weather change														X	X	
Germs		X														
Bad weather																X
Cold weather								X								
Cold							X									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

In these days malaria comes to so many people because we have poisonous mosquitoes....There are several kinds of mosquitoes and several kinds [of animals] like snakes, bitches, and lizards. If the mosquito will sit on these things then it will become poisonous. If it will sit on someone it will bite and leave poison. Then fever will come.

Weather was also linked to malaria, but whether as cause or co-occurrence was not ascertained. Although malaria is thought to be more common in the summer, it apparently can occur in any season. The women said that it came when the weather was changing, was bad, was hot, or was cold. One woman associated malaria with cold, but her response could either mean cold weather or the chills that are so common in malaria.

Temperament

Just under three-fourths of the women thought that malaria was a hot condition, listing its appearance in the summer and the fever that accompanies it as reasons for their classification. However, one woman said that it was cold because of the food proscriptions against cold foods during malaria. Another said that it was both hot and cold because the fever sometimes made people feel hot and sometimes cold. A third said that temperament was variable depending on the temperament of the victim. Two women did not know.

Symptoms

"Chills and fever" mentioned together was the most common description of malarial symptoms (Table 25). According to the women, first chills come and then fever, accompanied by body pain. The women define these symptoms as malaria especially if mosquito bites are present.

One woman described an attack of malaria as follows:

Malaria comes with chills and then temperature. We get thirsty for water. When someone has the chills he should cover up with two or three quilts, and then his temperature will rise. He will feel hot and then he will take off the quilts. Then the temperature will go down. After a few hours he will begin to sweat and the temperature will go down.

Distribution

The women were about equally divided in their opinion about who was most commonly the victim of malaria. Just under half believed that malaria occurred equally among children and adults. They believed that everyone is liable to be bitten by mosquitoes and everyone is equally exposed to weather conditions.

The rest felt that children were more susceptible. In general, children are thought to be weaker than adults and more prone to any illness. It was believed that a poor diet also renders a child more susceptible to

Table 25. Symptoms: Malaria
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Chills and fever	X	X	X			X	X		X	X	X	X	X	X	X	X
Body pain	X	X			X				X	X			X			
Mosquito bite				X								X	X		X	
Fever				X	X			X								
Back pain					X											
Ankle pain					X											
Thirst							X									
Headache		X														
Vomiting		X														
Convulsions										X						
Restlessness													X			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

The Sixteen Respondents

illness. But most of the reasons given for children's greater susceptibility to malaria dealt with the fact that children were less likely to observe proper precautions to avoid malaria. They were less likely to brush off mosquitoes or to keep covered with a sheet at night. And children are more likely to play in the sun and absorb excess heat, which is thought to cause malaria. This theme of excess heat was echoed in one woman's explanation that, because young people already had hotter blood than adults, they were more susceptible to fever. She stated that even among young people, some have hotter blood than others; those who "do not have hot blood do not get as much fever as those with hot blood."

Prevention

The women's main preventive strategy is based on one simple concept: avoid mosquitoes (Table 26). But, as a few of the women admitted, this is not easy to do. The major ways given to avoid mosquitoes included precautions like sleeping inside, sleeping with a sheet or net, rubbing on mustard oil, and using a fan to blow the mosquitoes away. Two women mentioned that environmental sanitation was also important. One used strong-smelling disinfectant oil to clean her bathroom, and the other mentioned that garbage should be sprayed and that standing

Table 26. Prevention: Malaria
N=12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Net				X						X			X	X		
Sleep with sheet											X	X	X			
Fan										X	X			X		
Oil on skin												X		X		
Sanitation	X										X					
No way to prevent					X											X
Disinfectant oil											X					
Allopathic medicine								X								
Medicine												X				
Injections							X									
Sleep inside			X													

The Sixteen Respondents

water should be drained. Only two women used allopathic intervention; one mentioned that an injection was useful, and the other said to go to the doctor. Chemoprophylaxis does not appear to be an important preventive measure among the women of Iqbal Street.

All but two of the women responding to this question mentioned some sort of precaution; the others felt that prevention was impossible because there were no effective remedies or because you could not tell in advance when it was going to occur. Others recognized that precautions are often not enough. "Our bride has a mosquito net. We should turn on a fan,...rub in...mustard oil. We use these but still the mosquitoes eat us."

Therapeutic Strategies

Diet

Prescriptions

Manipulation of hot and cold was not an important part of the dietary modifications for malaria. Only one woman prescribed cold foods, and she said that her doctor had recommended them. The major dietary strategy in malaria was the same as in many other illnesses: give a light, easily digestible diet (Table 27). Generally, it is thought that illness weakens digestion. One woman stated that,

Table 27. Food Prescriptions: Malaria
N=15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Soft or light food		X	X	X	X	X	X	X	X		X		X		X	X
Milk		X		X	X		X		X		X	X	X		X	X
Milk-soda			X		X				X		X					
MiTha	X				X				X	X						
Quinine	X				X				X							X
7-Up															X	
Cold food												X				
Fruit												X				
None	X															

The Sixteen Respondents

...when a man becomes sick, he will become weak, and his intestines will become weak too. And if they eat windy [which are often hard] foods, on one hand they will have malaria, and on the other their stomachs will be upset too.

So, in order to prevent this from happening, the women recommended foods thought to be soft or light. Such foods included bun, rusk, tea, rice and milk, and leavened bread. Other foods, like milk-soda, 7-Up and miTha (Citrus lemetta), were also mentioned. Only one woman explained why she took this milk-soda; she said her doctor told her to take it. The emphasis on soft, light foods may help explain the use of milk-soda as a remedy. Milk is considered to be a balanced or cool food; it is often considered to be light even though it is somewhat windy. When milk is mixed with the effervescence of soda, it would make a pleasant drink for someone with a fever. The women sometimes add tea leaves to milk to make it less windy, and perhaps the addition of soda to milk also accomplishes this. Carbonation and the lightness it implies could account for the use of 7-Up. But the lemon-lime flavor may also ally it with miTha and other cooling citrus fruits. A quarter of the women mentioned quinine under dietary modifications.

Bitterness was identified as the valued attribute of both quinine and miTha. Women made statements about quinine such as, "Quinine is very bitter, and the germs

very resistant. Only quinine can kill them, and quinine is very bitter." The peel of miTha, a sweet lemon, is very bitter, and it is thought that this bitterness will drive out the "poison" of malaria. One woman said that miTha contains quinine; my research assistant stated that many people believe this to be the case. One woman said to use miTha,

because the peel is very bitter. When that bitter thing goes inside, the malaria gets better. God forbid that someone get malaria in these days [May, before the monsoon], miTha are not on the market yet. MiTha comes on the market because so many people get malaria.

Bitter things are needed to rid the body of malaria. There are two ways that bitterness does this. Some of the women explained that, during an attack of malaria, there are poisons inside the body. Bitter substances are thought to cause sweating, which purges the body of the poisons. They come out when the victim sweats profusely as the fever breaks. Other women explained that the bitterness itself can kill the malaria germs inside the body.

Proscriptions

Because illness is thought to impair digestion, foods classified as hard to digest are avoided (Table 28). RoTi was especially avoided. Because it was so

Table 28. Food Proscriptions: Malaria
N=15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hard and heavy food		X	X	X	X	X	X	X			X	X	X		X	X
RoTi		X	X		X		X	X			X	X	X		X	X
Do not eat					X				X							
Cold food										X			X			
Windy food		X														
None	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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indigestible, eating roTi while ill was thought to lead to dysentery. In addition to being indigestible, roTi contains taqat. One woman explained that the taqat of roTi will stay inside the body and prevent the poisons of malaria from being purged through sweating. As in dust, concern for manipulating hot and cold food was secondary; only two women mentioned proscriptions against cold foods like ice, ice cream, and yogurt. They both said that cold foods could harm someone with a fever.

Home Treatment

Half of the women stated either that there were no home treatments or that they knew of none (Table 29). The diversity that marked home remedies for dust and pechish is missing for malaria. Only a few special foods and medicines, such as milk-soda, miTha, and quinine, were mentioned. These were mentioned early, along with dietary modifications. A possible explanation for this early mention of home remedies and allopathic medicine will be dealt with below in the discussion section.

Chosen Treatment

Quinine and other allopathic medicines were preferred by all but one of the women (Table 30). Three of the women said that they did not use anything but

Table 29. Home Treatment: Malaria
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Quinine	X	X			X		X		X							X
There is none				X				X			X	X		X		X
MiTha					X					X						
Milk-soda					X										X	
Do not know			X			X										
Green tea					X											
Anti-pyretic													X			
Allopathic medicine										X						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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Table 30. Chosen Treatment: Malaria
N=16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Allopathic medicine								X		X	X	X	X	X	X	X
Quinine	X	X	X	X	X		X		X							
MiTha	X			X												
Do not know						X										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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quinine. The terms used are interesting. While analysis of belief by educational level is not the goal of this study, the dichotomy in terms used in Table 30 is so striking that it will be addressed briefly. The women with more years of education used the term quinine, but the women with fewer years just said that they used doctor's medicine. They may not have known which medicines they were receiving. But then again neither did the more educated women. They were far more likely to be getting one of the newer synthetic drugs than quinine itself. Still, the familiarity with the term indicates a history of using quinine and related synthetic drugs for malaria.

As in measles and diarrheal illnesses, none of the women preferred a pir for treatment. However, one woman said that for fevers that occurred on alternate days, people sometimes went to a nearby shrine where there was the grave of a dog. They took a stone from the grave and hung it around the patient's neck. This was supposed to heal the patient. She, however, preferred doctor's medicine.

Popular Beliefs in North India and Pakistan

Literature from both North India and Pakistan bearing on this topic: Lewis' (1958) ethnography of Rampur, Freed and Freed's (1979) study of Shanti Nagar,

Malik's (1966) economic analysis of malaria in rural Pakistan, and Lyon's (1986) study of doctors and patients in Greentown, a section of Lahore, Pakistan. Mosquitoes are most commonly believed to be the cause of malaria (Lewis 1958:266; Freed and Freed 1979:332; Lyon 1986:147; Malik 1966:37). The Rampuris believed that mosquitoes "poured" out poisons when they bite and that this poison is picked up when the mosquito sits on some "dirty place" (Lewis 1958:266). One of Lyon's informants explained that it is germs that the mosquito puts into the body when it bites (1986:146). Other causes mentioned were temperature extremes (Lewis 1958:266; Malik 1966:37-38) and getting wet (Lewis 1958:266).

In Greentown, malaria is thought to occur in both hot and cold weather (Lyon 1986:146). The rainy season is when villagers in Rampur and Shanti Nagar believe it to occur. During this time, certain foods like yogurt and rice pudding were avoided, as it was believed that they could cause malaria (Lewis 1958:267; Freed and Freed 1979:332).

The living habits of Pakistanis bring them in contact with mosquitoes. Window screens are seldom used. People gather outside on porches or in open courtyards to catch cool evening breezes. In the hot season, they sleep outside (Malik 1966:4-5). Preventive strategies mentioned

by the Rampuris were aimed at reducing exposure to mosquitoes through the use of tents, sheets, and repellent oils. Precautions regarding troublesome foods and heat extremes were also followed (Lewis 1958:267-68). However, the people in Shanti Nagar, according to Freed and Freed, took few precautions to avoid mosquitoes. One man did wear an amulet on which was written a mantra (1979:332).

In Shanti Nagar when the attacks came, the people covered up with quilts and sweated out the fever (Freed and Freed 1979:332). The Rampuris did likewise. They believed that when the victim begins to perspire, he is relieved of heat. The heat of the fever "kills" internal heat so the fever comes down. Hot milk and sugar were thought to induce perspiration and help the fever subside (Lewis 1958:267-68).

In Rampur, other remedies such as neem paste and a tea of tulsi (basil, Ocimum sanctum) leaves, black pepper, and coconut sweets were consumed. This tea is also thought to cause perspiration. A local herb, sah dai (possibly Vernonia cinerea), which grows during malaria season, is ground into a paste and eaten (Ibid.).

Malik reports that the major sources of treatment were first, "Country medicine" (no further definition given), and second, "Western treatment" (1966:37-38). Quinine in its various forms was recognized as an

effective treatment in both Rampur and Shanti Nagar.

"Tablets" are also used in Shanti Nagar (Lewis 1958:268; Freed and Freed 1979:332).

In Greentown, which was the site of a malaria study, Lyon reports that her informants' information about malaria was influenced by the local primary health center. This could account for one informant's knowledge that chloroquine rather than quinine was prescribed. She noted that the Greentown residents accepted professional descriptions of disease and modified their ideas about illness in light of this (1986:148). Professional descriptions may not be what one might expect. One of the doctors from the clinic was quoted as saying:

There was a saint there, we call such people pirs. He lived in the sixteenth century....He was very good for fevers. He would tell people to go to the back of his house, to a certain tree, and eat bark from that tree. I went to that house, and I saw that tree, and that tree was quinine. That bark was quinine. We had malaria before we had cloroquine. God revealed things to us through his saints.

Ayurvedic and Unani Descriptions

The same problems discussed in the dust and pechish chapter of comparing diseases described in classical texts to modern diseases apply here. In translations of these texts, the assumption is made that tertiary and quartan fevers are malaria. But, as Siegel notes, other illness like typhoid and leukemia have similar periodic fevers

(1968:276). Some of the translators of the Sushruta Samhita were more hesitant than others to define a Sanskrit term as a contemporary disease. Ray, Gupta, and Roy (1980) attach English names to only a few diseases. Chakrabarty (1923) was very liberal in his use of English definitions. In most cases the English terms used in the text will be used here. But those from Chakrabarty are used with some skepticism.

According to the Sushruta Samhita, fevers are caused by such things as overfatigue, indigestion, the introduction of any extraneous poison matter into the system, season change, or a curse. One, two, or all three of the dosas could be effected. Fevers are marked by heat, pain in the body, numbness in the limbs and the cessation of sweating. Signs of remission include a desire for food, sneezing, and sweating (Bhishagratna 1963:vol.3:170-71,210).

Among the many types of fevers are tritiyaka, a fever that occurs every third day, and chathurthaka, a fever that occurs every fourth day. These are thought to be due to psychological causes, incorrect diet, or the presence of toxic or morbid substances in the body (Ray, Gupta, and Roy 1980:301,305). Deranged vayu and pitta are associated with these fevers (Bhishagratna 1963:vol.3:179). Symptoms last until the morbid matter is

consumed by the fever or eliminated from the system (Ray, Gupta, and Roy 1980:305). If even a small residue of the deranged dosa remains in the body after cure, relapses are apt to occur if the victim is injudicious in his behavior or diet (Bhishagratna 1963:vol.3:176).

Treatment for recurrent fevers follows the general guidelines for fevers. Fasting is considered to be the preeminent remedy, followed by light foods, such as barley gruel, rice, and meat soup. Milk was especially valued. Heavy foods were believed to aggravate the fever (Ray, Gupta, and Roy 1980: 301; Bhishagratna 1963:vol.3:189). In addition, emetics, purgatives, and medicated ghi were given to cleanse the system (Bhishagratna 1963:vol.3:196-97). Bitter and astringent-tasting tonics and fever-reducing medicines were also prescribed (Ray, Gupta, and Roy 1980:38,301).

For chills, pastes of heat-making drugs used as plasters, heating oils, and vayu-subduing drugs added to a tepid bath were all recommended. Another treatment for chills was the embrace of "Damsels...skilled in the sport of love, with...eye-brows moving in ardour of desire and with dreary foreheads throbbing with the gentle pulsations of love...." They should embrace the patient "like a forest-creeper" entwining a tree, and "keep off as soon as the patient would feel himself heated." (Bhishagratna 1963:vol.3:204-05).

Chakraberty claims that the Sushruta Samhita formed a vague relationship between malaria and mosquito bites (1923:205). In the Sushruta Samhita, mosquito bites are described as capable of causing fever, pain, and the derangement of the dosas. The bite of the "mountainous" mosquito, defined by Chakraberty as the *Anopheles* mosquito (1923:205), is said to resemble those of fatally venomous insects (Bhishagratna 1963:vol.2:747). This seems to be making too much from a single statement. What is interesting is that mosquito bites were thought to be poisonous and that they were dealt with in a treatise on toxicology (Ibid.:85,742).

A tea of bitter drugs was mentioned in the Sushruta Samhita as a remedy for fevers caused by pitta and poisons (Bhishagratna 1963:vol.3:184). Bitter substances are considered to be pitta-ameliorating factors (Sharma 1971:61). A similar treatment for pitta-caused fevers described in the Charaka Samhita is a decoction of bitter roots and bark. This is thought to be digestive, bring about the ripening of the humors, purify the blood, and cause sweating (1923:218).

In the Greek and Unani tradition, fevers are thought to be due to excessive accumulation of bile (Levine 1971:47). Galen believed that while bile was the morbid humor that caused fever, external factors, such as

motion, exposure to the sun, emotional upset, and breathing the "putrid exhalations" of swamps and stagnant water, could bring on fever as well (Siegel 1968:274,276-77). Hippocrates (Chadwick 1950:94) and Avicenna (Shah 1966:190-91) both connected stagnant water to symptoms now associated with malaria. They claimed that tertian fevers occurred in summer and quartan fevers in the autumn (Chadwick 1950:157; Shah 1966:165-66).

The different humors associated with tertian and quartan fevers gave rise to different treatment strategies. Tertian fever, caused by yellow bile, is considered to be the less serious of the two. According to Avicenna, it is a side effect of bile that temporarily has invaded the tissues. Once the offending humor is removed, the body returns to normal (Shah 1966:205-06). Liquid foods are prescribed on days when there is fever and laxative foods during the intervals. Purgatives, emetics, and venesection are also employed (Levine 1971:115; Shah 1966:392). The patient is covered to induce sweating, and after sweating, subsides, he is given barley gruel. The patient remains on a soft diet as long as the fever lasts (Levine 1971:115).

According to Hippocrates, the nature of black bile is responsible for the chronic character and difficult resolution of quartan fever. Black bile is the most

viscous humor and the one that remains the longest in the body (Chadwick 1950:213). In general, the treatment follows that of tertian fever, but more care is taken to include very soft foods in the diet, and there is greater emphasis on purgative drinks, baths, steam baths, emetic foods, sweating and venesection (Levine 1971:115; Shah 1966:392). These things were aimed at loosening and expelling this viscous humor from the body (Shah 1966:308; Duran-Reynolds 1946:8).

Biomedical Description

Malaria is an acute and chronic infection characterized by fever, chills, and sweats. It often has serious and even fatal complications (Miller 1985:1776). About 1% of all those who get malaria will die; with 100 million cases every year, this 1% translates into a very large number of deaths (Jones 1979:567).

Malaria is caused by protozoans of the genus *Plasmodium*. Since *P. vivax* and *P. falciparum* are the most troublesome in Pakistan (Nalin et al ND:2), discussion will be restricted to them. Malaria is spread through the bite of a female anopheline mosquito infected with the protozoa. When the mosquito bites a human, the protozoa enter the body, and they quickly migrate to the liver. From there they invade the red blood cells (Jelliffe and Jelliffe 1985:117; Young 1976:357-64).

The characteristics of the attack depend on the infecting organism. In P. vivax, the fever occurs every forty-eight hours. The onset is abrupt, initiated by chills. Then fever accompanied by a severe headache and a feeling of intense heat occurs. Nausea and vomiting can also occur. As the fever falls, the victim begins to sweat profusely. The victim sleeps, awakening exhausted but well (Young 1976:382; Miller 1985:1777).

In P. falciparum, the fever lasts longer and is not usually periodic. The onset is more insidious. At the start, it is similar to the flu: the patient feels cold but there are no chills. Next the fever begins, but there is no profuse sweating. Nausea and vomiting are frequent. In young children, loose stools also accompany malaria (Young 1976:383; Jelliffe and Jelliffe 1985:118).

In areas where malaria is endemic and the population is chemically unprotected, there is a high degree of immunity. Infants acquire a high degree of protection from their mother's blood while in the uterus. After about six months, this protection declines, and they often get a severe or even fatal case of malaria. If the child survives, he again has some immunity, and if not weakened by other illness or malnutrition, he has some protection against subsequent relapse even though he still carries parasites. Subsequent attacks are milder and do

not always present classic symptoms. When mosquitoes are present only part of the year and there is less chance of repeated infection, children and adults both get more severe cases (Jelliffe and Jelliffe 1985:118).

For the community, prevention includes draining breeding areas and using larvicides. For individuals, one obvious way is to avoid contact with mosquitoes. A number of preventive measures, such as using a mosquito net and repellents, are recommended. Drugs can also be used to prevent malaria, although there are serious problems with side effects (Stek 1980:126). In nonimmune children, routine use of drugs to which the local forms are sensitive is recommended. There is some question whether use of drugs will also prevent children from developing immunity. Fortnightly use of drugs such as chloroquine is one way to prevent the disease while at the same time allowing immunity to develop (Jelliffe and Jelliffe 1985:121).

The standard treatment for malaria up until World War II was quinine, a bitter alkaloid derived from the bark of the cinchona tree (Cinchona sp.). Since then, it has been partially replaced by synthetic drugs (Trease and Evans 1978:604-8). Chloroquine and amodiaquine are used to treat acute attacks of P. vivax. To prevent relapse caused by parasites in the liver, primaquine is also given

(Miller 1985:1779). Treatment for P. falciparum is more difficult, because in many places it is resistant to chloroquine. Where P. falciparum remains sensitive--Pakistan is such a place--chloroquine and amodiaquine can still be used. Where it is resistant, as in India, other drugs, including quinine sulfate, have to be used (Ibid.).

Discussion

Following a brief comparison of the women's beliefs with other lay beliefs and classical theories, four topics will be discussed. The first deals once more with the common theme of giving easily digestible diets. The second section will deal with purgation, sweating, and the therapeutic attributes of bitter-tasting foods and medicines. The third section is a discussion of facilitating factors in the acceptance of new medicines. The last topic is a discussion of why there seem to be so few home remedies for malaria.

Many of the ideas found in Rampur, Shanti Nagar, and Pakistan were found on Iqbal Street as well. Mosquitoes were seen as the primary cause of malaria in all these places. The belief that mosquitoes poured poisons into the body is found in the Sushruta Samhita, among the Rampuris, and the women of Iqbal Street. Like

the Rampuris and the recommendations of the Sushruta Samhita, the Iqbal street women used bitter substances to purge the body of these unhealthy poisons.

The concern with cold as a cause of malaria seemed more marked in North India and rural Pakistan than on Iqbal Street. Here, heat appeared to play a more important role. Chills were an important feature of what the women defined as malaria; indeed it was a crucial symptom in the identification of malaria. However, other than using quilts (rather than ardent young damsels) to deal with chills, few other aspects of the treatment dealt with them. One woman recommended drinking tea during the chills, but there was no evidence from the women's responses that there was a two-phase treatment, such as that used for khasara, where treatment varies with the severity of fever or stage of the illness. In general, much of the treatment for malaria is similar to that for other fevers.

The strategies used by the women to treat malaria can be divided into two basic approaches, those that apply to many diseases and those that apply specifically to malaria. The former deals with digestion, the latter with purgation. Concern for proper digestion and the avoidance of heavy foods is an important feature of treatment among Ayurvedic, Unani, and Prophetic medical texts and among

the women as well. The women did not demonstrate the concern with internal cleansing of the system through purges and emetics that the classical texts described. But they often gave milk, and they used bitter substances to purge the poisons of malaria through sweat; in these ways they are much closer to the therapies described in the Samhitas than to Greek and Unani texts.

Food as Friend to the Foe

The dietary strategy of reducing the digestive load is quite similar to that reported by Al-Suyuti, a fifteenth century chronicler of early Muslim medical sayings.

If a sick man has no desire for food..., then it is most improper at that time to give him food. For if the sick man is forced to take food, the functions of his nature are weakened by it and he is occupied in digesting food instead of resisting and repelling sickness. So the food actually does him harm, especially at the time of crisis (Elgood 1962:134).

Giving food to a sick person can be harmful not only because doing so can weaken the patient but also because it can strengthen the disease. Al-Suyuti reports that both Hippocrates and Avicenna said:

...Food is the friend of the Faculties from the point of view of being food, but it is their enemy from the point of view that it is also the friend of their foe (Elgood 1962:134).

Beliefs such as this could help explain why so many of the women said that roTi should be avoided during malaria, and indeed in many illnesses. Not only is roTi a hard food, and thus harmful to the intestines, it also contains taqat, or power. This taqat aids the foe of health, the poisons and germs of malaria. Consequently, the body cannot purge itself of this strong "poison."

Taqat was defined as power. A human can be powerful, or taqatwar, and so could food. Tonic is another definition for taqat. Foods that were considered to be especially taqatwar were given to children to compensate for the smaller amount that they eat.

It appears that taqat is widely distributed in food. Eleven of the women participated in a second interview to help identify the attributes, such as softness, heat, coldness, or digestibility, of all foods mentioned in the first interview. In most cases, the women were in total agreement on the attributes of only a few foods. But there was widespread total agreement about taqat; there is a long list of common foods that all eleven women say have taqat. This list includes cold foods like miTha, hot foods like dry fruit and nuts, soft foods like chicken, and hard foods like roTi. The few foods that only a few women thought had taqat were tea,

red pepper, leavened bread, boiled rice, and cauliflower. Perhaps a good gloss for tagat is nourishing; these tagatwar foods are nourishing.

Purgation and Bitterness

Purgation of malarial poisons is the major strategy of the women's attempts at treatment. The disease profile of an acute attack of malaria give empirical support to the efficacy of these treatments. This in turn reinforces the women's beliefs that their treatment strategies are correct. In malaria, especially those cases caused by P. vivax, drenching sweats occur after the fever breaks. This sweating marks the end of that particular attack, and the victim awakes feeling better. The partial immunity that children develop as they grow older also gives support to the women's beliefs. Since those people who have developed partial immunity have symptoms different from those defined as classic--chills, fever, and drenching sweats--it would appear that purgation of internal heat and poisons actually was effective in reducing the incidence of what is perceived to be malaria.

Purgation is a central concept in both Ayurvedic and Unani medicine. According to Hakim Nadvi, a contemporary hakim practicing in Lahore, Pakistan, the feature of Unani that makes it superior to allopathy is

nuzj and istifrag. He explained that all illness is due to some material cause in the body called maddah. The cure lies in expelling this matter. But sometimes this matter is solid or sticky and not easily expelled. Medicines and foods are used to soften and liquefy it--to prepare it to be expelled. This preparation of maddah for expulsion is what is known as nuzj. Istifrag is the actual expulsion. Emetics, purgatives, and sweating are all used to expel the maddah (Nadvi 1981).

The expulsion of deranged dosa is the cornerstone of Ayurvedic therapy, and the use of emetics and purgatives is quite common. As described in the Sushruta Samhita, this is a two-step process in Ayurveda as well as Unani. First, to loosen and dislodge the dosas, sneha, or the use of oleaginous foods, drinks, ghi, enemas, and unguents is carried out, followed by sveda, the application of heat. Sveda liquefies the dosas embedded in the body, which are then carried down into the bowels and eliminated. A copious flow of sweat is a sign that sveda has been used correctly. After sneha and sveda are used to dislodge the dosas, purgative and enemas are given; both are recommended for people with fevers (Bhishagratna 1963:vol.2:546,563-565,569-573).

Sweating is an important sign in the Ayurvedic descriptions of fevers; cessation marks the onset and reoccurrence the remission of fever. Heat of fever is

thought to consume the morbid dosas causing fever. Sweating appears to be a sign that internal toxins are indeed removed. Sveda, applied externally can accomplish this, but it appears that bitter remedies administered internally can also. There is a connection between the bitterness of a remedy and its ability to cause sweating. The bitter herb sah dai that was used in Rampur is used elsewhere in India to promote perspiration during fevers (Dymock [1890] 1972:ii:243). Two of the five herbs used in the tea for fevers due to pitta or toxins described in the Sushruta Samhita were used in ancient times to induce sweating (Ibid.:iii:552-554), and another was used by European physicians in India to do the same thing (Ibid.:iii:572). Diaphoresis was one of the outcomes of the prescription in the Charaka Samhita for a potion made of bitter herbs and leaves given for what Chakrabarty describes as malarial fever (1923:217).

This use of bitter medicines by the Iqbal Street women to cause purgation of malarial poisons through sweating harks back to Ayurvedic theory about taste and therapeutic efficacy. In Ayurveda, the rasa, or taste, of a substance is an important property. Each of the six tastes, sweet, acid, saline, pungent, bitter, and astringent, has a different physiological effect. The property of taste is primarily responsible for the

pacification of deranged humors and so dictates drug and diet therapy (Ray, Gupta, and Roy 1980:75; Jaggi 1973:103). Sweet, acid, and saline substances subdue vayu; bitter, sweet, and astringent do the same for pitta; and kapha is subdued by pungent, bitter, and astringent things. Bitter substances were described as having the ability to enhance digestion, purify the blood, and remove fever (Bhishagratna 1963:vol.1:383, 389; Ray, Gupta, and Roy 1980:77).

We have seen in the chapter on khasara how hot foods are used not to moderate heat but to increase it to hasten the expulsion of internal heat and rash. In dust and pechish, even though moderation of heat is a concern, therapy was focused on maintaining proper digestion through the use of light and soft foods. Here it is the bitter property of remedies that is used to expel and kill the offending poisons and germs. Obviously lay therapy is more complicated than simply balancing hot and cold foods and illnesses. It is certainly an area for more exploration.

Acceptance of New Medicines

Its bitterness may have been the facilitating factor that hastened the acceptance of cinchona bark in India as a remedy for malaria. Other members of the

Rubiaceae family, to which cinchona belongs, are native to India. The bitter bark from at least two species has been used since ancient times in India to treat fevers. Dymock states that a solution of bark from Anthocephalus cadamba, called kudumba in Ayurvedic texts, has the same odor as cinchona bark solution. While the smell of the solution is quite close, it lacks the alkaloids that are responsible for cinchona's antimalarial properties ([1890] 1972:ii:170-71).

Cinchona bark was first sent to India by the Jesuits soon after it was discovered in Peru. By 1770, mention of it was made in a text by Hakim Mir Muhammad Husain under the English name "bark." Its use spread rapidly (Ibid.:ii:175). Perhaps this was because cinchona bark was so similar to indigenous remedies; it was a bitter bark used to treat fevers. That a solution of cinchona bark resembled kudumba bark solution probably did not escape the notice of hakims and vaidas.

Quinine is one of the bitter alkaloids derived from cinchona. It was first used in India in 1826. Perhaps because the bark was already accepted and judged to be effective, the acceptance of quinine was rapid. Its bitter taste put it in the same category as other drugs used for fever.

Similarities that foreign drugs are thought to share with indigenous ones could facilitate their adoption. In the case of quinine, it was the preexisting connection of bitter remedies with fever relief. Antibiotics have been accepted and used for their perceived heat, which is deemed useful for purging internal heat. Of course, these shared properties are not the only factors. While bitter, aspirin may not be used if its antipyretic properties are seen to interfere with complete purgation of poisons and germs.

Paucity of Home Remedies

The perceived similarity with indigenous drugs could facilitate the acceptance of foreign drugs, but then so could perceived efficacy. The record of success for curative programs is better for malaria than for either measles or diarrheal diseases. Unlike measles and diarrheal diseases, where allopathic medicine is, in most cases, only supportive, allopathic medicine can offer a cure for malaria: quinine and the synthetic drugs that have largely replaced it. And these cures seem to have, to a large degree, been accepted. Where effective treatments are available, it appears that the women will accept them.

This specific cure for malaria could account for the relative paucity of home remedies. Only a few remedies were mentioned, such as 7-Up, milk-soda, quinine, and miTha. The belief in the efficacy of quinine and the belief that miTha contained quinine account for the latter two. There is little information on miTha in books on Indian materia medica. The lone mention refers to it as a refrigerant used like other citrus fruits in fevers and jaundice (Nadkarni 1954:346). No history was given about how long it has been used. It may have only become popular since cinchona and quinine were used because its bitter peel was thought to contain quinine.

The dependence on quinine and quinine-containing foods may explain why they were mentioned so early on the therapeutic process. The division of that process into diet, home treatment, and outside treatment admittedly put conceptual boundaries where none may exist. And it assumes a timeline--diet comes first and so on--that is not strictly adhered to by the women. But for this discussion, imagine these three treatment modes along such a timeline. In dust and pechish, dietary modification was the preferred therapeutic mode. It was mentioned first and continually stressed in each of the three categories even though the way the questions were asked might have discouraged this. To assert that diet was the best remedy

when being asked whether Unani or allopathic medicines were better took some force of will. It would have been easier to just answer the question.

Just about the opposite occurred in the responses for malaria. Here quinine and miTha invaded the domain of both home remedies and diet modifications. Quinine began as and continued to be the treatment of choice for many women. Home remedies other than those that promote proper digestion may not be judged to be effective. There was a niche open that was filled nicely by quinine and later synthetic drugs. The women can give supportive care but they cannot cure. In dust, especially, supportive care may be all that is required for cure. So for dust and pechish, home remedies are well developed and remain an integrated part of treatment. It would be interesting to investigate whether this sort of almost zero-sum relationship occurs between home cures and allopathic medicines in other illnesses. Will specificity of allopathic cure be associated with a paucity of home treatments other than supportive care?

Summary

Today in Pakistan, malaria is still a serious health threat. The government is trying to reduce the incidence through chemotherapy and spraying of breeding

grounds. On Iqbal Street, most of the women said that mosquitoes caused malaria, but weather was also seen as a cause. For the most part, malaria was seen as a hot disease. Chills, fever, and body pain, especially when accompanied by mosquito bites, are the symptoms recognized as malaria. Both adults and children are thought to fall victim to malaria.

Dietary strategies for malaria are simple. Light, soft foods are given so the body will not be taxed with the chore of digestion. This is similar to what is written in classic medical texts. Manipulation of hot and cold plays only a small part in the treatment of malaria.

Many of the beliefs about purgation and bitterness are quite similar to those found in Ayurvedic texts. Bitterness is the most valued attribute of the home remedies and allopathic medicines used by the Iqbal Street women. Quinine and other synthetic drugs used for malaria are bitter, as is miTha, the most commonly mentioned home remedy. Bitterness is thought to have the ability to promote sweating and thereby purge the body of poisons and internal heat. That both ancient remedies for fever and quinine, along with later synthetic version, share the rasa of bitterness may have contributed to the adoption of the latter.

But so could efficacy. Unlike measles and diarrheal diseases, where allopathic therapy is usually only supportive, there is a cure for malaria, and this cure seems to be widely accepted. It appears that the acceptance of quinine and similar drugs has led to a decline in the diversity of home remedies. However, this lack of diversity could simply signal consensus on effective home remedies. It would be interesting to see if this occurs in other illnesses. New remedies for malaria, including a vaccination, are being developed. It would be intriguing to see if the acceptance of these new remedies, even if the bitter taste is gone, will be facilitated by the previous acceptance of bitter quinine and quinine synthetics.

CHAPTER VIII

EVALUATION AND UTILIZATION

Introduction

This chapter deals with how the women of Iqbal Street evaluate and exploit the medical resources available to them. The assumption is made, a la Worsley that,

We are dealing then, not so much with medical systems as with medical resources which people use: with health seeking rather than health "delivery" (1982:333).

According to this description, the patient is an active agent engaged in problem-solving and manipulating available medical resources. She is neither a passive object of an active therapist nor "the determined occupant of a 'sick role'" (Ibid.:325). This active agency leads to what Nichter describes as "a client-dominated medical market characterized by low compliance" (1980:227). Patients and their families shop around the medical marketplace, searching for cures they judge to be effective and that fulfill the requirements of their often complex notions of etiology.

Iqbal Street Data

Evaluation

Healers

The term doctor is the term the women used to describe both qualified and unqualified healers who dispense allopathic medicine. Qualified doctors are those with a minimum of a M.B.B.S., or Bachelor of Medicine, Bachelor of Science, degree (Lyon 1986:15). Many M.B.B.S. doctors are women, known as Lady Doctors, who specialize in gynecology and obstetrics. (In some upper middle-class families, a daughter's M.B.B.S. is a guarantee of a good marriage. Apparently many of these Lady Doctors do not practice after marriage, because a common saying is that M.B.B.S. really means mian (husband), bivi (wife), bacche (children), and suseral (father-in-law's family).)

There are an estimated 40,000 unqualified and unregistered doctors in Pakistan. This group includes allopathic practitioners who have taken formal classes in medicine and pharmacology but who do not have a degree. An even larger group of practitioners has no formal training. A doctor working in a government hospital or for the army is required to have professional training, but anyone can set up private practice (Ibid.:84-85). Some of the "doctors" mentioned by the women are actually

unqualified doctors. The term also refers to compounders, or druggists, who while dispensing allopathic drugs, also appear to dispense diagnoses as well.

Doctors are valued for a number of reasons. Some of the women said that doctors are friendly and that they had a good attitude toward the patient. A good attitude is thought to help cure the patient. One woman described her doctor in this way, "Dr. Imtiaz enters the room with a smiling face. He will say 'You are praying for the death of your mother-in-law' and then everyone starts laughing." Doctors are thought to be well-educated and capable healers. Because of the technology available to them, they are thought to be able to examine the patient thoroughly and come up with a fast and accurate diagnosis.

Not all of the women had positive things to say about doctors; almost half of them mentioned that doctors were rude, callous, uncaring, or arrogant. They were described as xabis (impious) or as dogs. "Doctors who work in government hospitals jump at us like dogs; they jump to eat us." This woman added that doctors in private practice did not act like this because they needed to build their business.

Allopathic medicine is expensive, but for all the expense, "Doctors do not even smile when you give them money. They write a prescription and throw it at you."

Sexual immorality was also mentioned as a negative attribute of doctors. One woman voiced the almost universal complaint: doctors do not make house calls. The only "doctor" mentioned to do so was actually a compounder, or druggist. For the women of Iqbal Street, this lack of house calls is not just a minor inconvenience.

They cannot take this lady to the clinic because the roads are so bad. They do not have proper conveyance and there are ruts and holes in the road from when they put in the sewer. If she rides a motorcycle, she will be badly jolted.

Hakims were consulted because the women believed that they were able to effect a cure and give relief. Many positive things were said about hakims: they were valued for their good attitude toward the patient, their ability to diagnose well, and the good medicine that they gave. A hakim's good attitude was highly valued. They were thought to be polite, have good manners, and have a good moral character. All of this is considered to be important because, "a sweet tongue cures half of the patient's ills."

The ability to examine well and make a good diagnosis is another positive attribute of a hakim. In Unani, diagnosis is made on the basis of the pulse. Taking the pulse is thought to be an important part of the examination because, "the pulse tells everything. It

tells the last moment of a man's life." From the pulse, the hakim is able to determine both the individual's temperament and disease and, with this knowledge, is able to prescribe medicine that suits the individual's temperament.

Not all comments about hakims were positive. Some of the women had doubts about the hakim's education and his ability to cure. Some women complained that hakims did not examine well because they did not have available to them the diagnostic tools available to doctors.

While evaluations of doctors were mixed and evaluations of hakims were mostly positive, evaluations of pirs were largely negative. Many of the women said that pirs are frauds and cheats, or that they "did bad things with young girls." A few women gave examples of pirs taking women into back rooms for "treatment."

According to many women, few good pirs could be found today. Most were thought to be only after money and lacked the morals and religious character that marked a true pir. One woman stated that,

In my eyes he is a devil. Belief in pirs is a weakness of faith. For them he is a god. They ask him about life and death....He just makes a wild guess and if he guesses right then everything is fine.

Still, some women said that if a pir is a good pir, if he prescribes fasting and prayer, then he could help relieve illness and solve worldly troubles.

Treatments

Effectiveness and quick relief appear to be the most valued attributes of allopathic medicine. In contrast to the slow, lengthy treatment needed with Unani medicines, allopathic medicines give rapid relief of symptoms. But allopathic treatment could be expensive, and its powerful action could cause harm and side effects as easily as it could cure. Many of these side effects were attributed to the hot nature of the medicines.

One woman began to avoid doctors after she had a bad experience with some medicine she took for a cold. She explained that she has a hot temperament and that the additional heat from the medicine caused the problem. "I often get dizzy...my brain is heavy. Then there is wind in my stomach." Now if she has to see a "Lady Doctor" for gynecological or obstetrical reasons, she will take the prescribed medicines, but she will drink milk along with them to mitigate their negative effects.

Another problem is that while it relieves symptoms quickly, allopathic medicine does not totally remove the illness from the body, so it keeps returning. Medicine and injections for fever may make the fever go down,

but it stays inside the body and spoils the health. This is the cause of more illness. Illness increases because its root is not removed. Doctor's treatment is temporary.

Not all of the treatments prescribed by doctors were allopathic. Some of the women claim that their doctors told them to follow local remedies. One doctor suggested giving egg whites and calcium carbonate for diarrhea. Another woman was initially given allopathic medicine for diabetes, but when she suffered either a complication of the disease or a side effect of the medicine, her doctor (a qualified doctor) gave her a Unani prescription. The doctor's grandfather had been both a hakim and a pir and the prescription had been in the family since that time.

Hakims were most valued for the medicines they gave. For many of the women, Unani medicines suited their temperaments better than did allopathic medicines. The perceived coldness of Unani medicine is an important attribute because it is thought less likely to cause side effects or other harm. Even if it does not cure, Unani medicine is thought to do no harm either.

Most women thought that Unani medicine was effective. In part, this was because it is made from pure, natural ingredients. In part, its effectiveness is thought due to its ability to completely remove illness from the body. Although the treatment may be lengthy, it goes beyond mere symptom relief to totally uproot illness.

The effectiveness of the medicine was more important than its cost. Low cost was mentioned by only a few women. A few women said that treatment could be both lengthy and expensive.

There were also a few complaints about the medicine itself. One woman said that it was too cold to suit her already cold temperament. A couple of the women complained that it could cause harm. But most complaints were about the form of the medicine. PuRiya, or packets of ground medicines, often consist of spices, camphor, and other substances. Sometimes they are large, and the patient has to take more than one a day. These packets of medicine were said to taste bad and be hard to swallow.

In their discussion of doctors and hakims, the women separated attributes of the healer from those of the treatment, but that was not the case with pirs. The effectiveness of the cure appears to be dependent on the character of the pir, and those who considered that pirs had good character said that they got relief from them. The many women who thought that pirs were frauds thought that their cures were not effective. However, the religious rituals used by pirs in curing--praying, fasting, and reading the Quran--were highly valued, and their effectiveness was not questioned. Many of these

rituals could be done at home without the assistance of a pir. Stated avoidance of a pir does not mean that Islamic rituals were not used.

A few women asked the rhetorical question, "What can a pir do?" But others thought that it was possible to get relief from a pir, one woman specifying that pirs can cure Tuna and possession. The use of all three systems was described by one woman:

It is better if a pir treats. He prays and gives medicine both, and Allah quickly accepts these. The doctor is good for immediate relief, and the hakim removes illness forever.

Areas of Competence

The women gave a long list of illnesses that doctors were thought best able to cure (Table 31). A few had the confidence that a doctor could cure anything. Others were more specific and mentioned illnesses such as fever, diabetes, tuberculosis, heart trouble, and chest problems. The hotness of allopathic medicine did not appear to be as important as the coldness of Unani medicine; fewer women mentioned it. But the explanation that allopathic medicine was good for chest problems, often classified as cold because of the presence of phlegm, could explain, in part, why it was valued for coughs and tuberculosis as well. English equivalents of

new illness terms have been used in the Tables in this chapter to avoid a welter of Urdu terms, but familiar Urdu terms were used.

The women mentioned a number of illnesses that hakims are thought best able to treat (Table 32). Most notable are stomach disorders and jaundice. Other conditions included diabetes, boils, internal heat, and pregnancy. For many of the illnesses mentioned, the coldness of Unani medicine is central to treatment. Jaundice and many stomach complaints, dust and pechish, for instance, are considered to be hot and are thought best treated by cold medicines. During pregnancy, hot substances are avoided for fear that, through their ability to expel things from the body, they could cause a miscarriage.

Pirs were visited for a number of reasons, many of which were not directly connected to curing illness (Table 33). Just over half of the women mentioned illness as a reason for seeing a pir. The illnesses treated by pirs include jinn possession, Tuna and nazar, chronic illnesses, and those that have not been cured by a doctor or hakim.

Matters dealing with marriage and reproduction are also taken to pirs. If a woman's husband mistreats or ignores her, she can change his attitude with the help of

Table 31. Reasons People See Doctors
N=13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Everything			X				X	X	X				X			
Fever							X				X	X	X			
Respiratory problems											X	X	X			
Diabetes			X	X												
Tuberculosis				X						X						
Heart problems	X									X						
Cough or cold													X	X		
Blood pressure			X													
Skin problems			X													
Cancer				X												
Constipation				X												
Influenza							X									
Typhoid							X									
Malaria														X		
Kidney problems								X								
Vomiting											X					
Pain					X											
Rigidity	X															

The Sixteen Respondents

Table 32. Reasons People See Hakims
N=14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stomach problems								X	X			X	X			
Jaundice	X						X			X					X	
Dust					X						X	X				
Pechish							X					X				
Abscesses								X					X			
Pregnancy														X	X	
Fever					X							X				
Diabetes	X			X												
Everything			X		X											
Women's problems											X					
Tuberculosis	X															
Khasara	X															
Epilepsy				X												
Irregular heart-beat																X
Heat							X									
Children's problems												X				
Minor problems											X					
Kidney or bladder stones			X													

The Sixteen Respondents

Table 33. Reasons People See Pirs
N=14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Barrenness	X	X	X			X		X		X		X	X		X	
Tuna, nazar, jinns	X		X	X					X				X	X	X	
Tawiz			X						X	X	X	X			X	
Husband's behavior	X	X								X			X		X	
Worries	X					X	X				X					
Illness cure			X							X			X		X	
Major decisions			X	X								X				
Fright			X						X	X						
Mental illness				X				X					X			
Chronic illness		X											X			
Fulfill desires	X					X										
Guidance							X				X					
Fits	X			X												
Know sex of child			X													
Illness prognosis			X													
Harm others	X															
Ease labor										X						
For forgiveness							X									
Trouble breathing											X					
Arm and leg pain											X					

The Sixteen Respondents

tawiz. She will slip this into his food by washing the ink the charm is written with off into liquid. This liquid is added to food, usually a highly desirable food like rice pudding. Barrenness is another reason to see a pir. The pir can intercede on her behalf before Allah, and he can also give her a tawiz. Pirs can forecast the gender of the child, and, in the case of difficult labor, give a tawiz to ease the pain. Pirs are also consulted for advice about major decisions such as buying a house or accepting a proposal. They are seen as guides who can help solve the problems and soothe the worries of everyday life.

Utilization

Reported Use

The women's reported preference for allopathic medicine is paralleled by their reported use. Only two of the women said that they did not go to doctors. These were the same two women who previously said that allopathic medicines were unsuitable for their temperaments.

Hakims and pirs were each consulted by five of the women. Of these women, there was a core group of three women who went to both hakims and pirs. Hakims were consulted because their medicine was suitable, because

they gave relief, or because the problems were minor ones. Pirs were consulted in cases of suspected Tuna, when advice on important decisions was needed, or when a way to "fulfill desires" was sought.

By age, education, and income, the women who saw hakims or pirs were not obviously different from the other women. Both young and middle-aged women were included in this group. Like most of the other respondents, they had eight or less years of education. If anything, reported income in this group was higher than the median income of the respondents. The only obvious difference was among those who saw neither hakim or pir; all had ten or more years of schooling.

The women were asked about preferred treatment for a number of conditions, from a mild, widely distributed illness to an acute, childhood illness. The list included the three illnesses described in previous chapters, as well as nazlah (catarrh) and pregnancy.

Nazlah can affect everyone. It was thought to be caused by environmental cold or by eating too much cold food. It is considered to be a cold illness characterized by excess phlegm. Treatment included dietary therapy and home treatment aimed at drying up and expelling phlegm. The majority of the women preferred allopathic treatment. The main reasons given for this were that it was hot and it gave quick relief.

Khasara affects only children. It is a hot disease caused by excess internal heat. Treatment is aimed at expelling this internal heat through the rash. Hot foods and remedies are given so the heat will be totally driven out. In half the households, treatment was restricted to dietary changes and home remedies. In the other half, allopathic medicines were used most often because they were thought to be hot. Hakims were also used as a source of ingredients for home remedies.

Dust and pechish can affect anyone. They are thought to be caused by improper diet and excess heat caused by extremely hot weather or foods. Both are considered to be hot illnesses, but the role of heat is more important in pechish. For dust, the major strategy for diet and home treatment is to control indigestion, and for pechish, to control excess heat. These strategies are reflected in choice of outside treatment. Allopathic medicines were preferred for dust because they gave quick relief, but for pechish, Unani medicines were preferred because they were thought to be cold.

Malaria can affect anyone, but children are thought to be more at risk. It is thought to be caused by mosquito bites and weather conditions and is classified as a hot illness. Dietary modifications consist mainly of giving an easily digestible diet. Special home remedies

were less important for malaria than for the other illnesses. Quinine, an allopathic drug, was the drug of choice. Bitterness was its most valued attribute, and bitterness also appears to have determined the use of miTha, the most commonly used home remedy. Bitterness is thought to either purge the body of malarial poisons through sweat or to kill the "germs" of malaria.

The cause of pregnancy is well known (although there was some hesitancy on the part of the women to tell my research assistant and me, both unmarried women, exactly what it was. That was one of the dumber questions asked.), and it affects only women. Dais are still popular among the women, and "Lady Doctors" (female doctors) appear to be quite popular as well. Even the two women who said they never went to doctors said that they went to Lady Doctors for reproductive matters. Only two-thirds of the mothers in the sample were seen by some kind of healer during pregnancy, and among those that did, the dai was used twice as often as trained allopathic healers. The women were almost evenly divided in their preference for home or hospital birth. Some stated that home is best if there are no complications, but the hospital is best if there are.

Case Studies

To find out more about the actual use of medical resources and to determine patterns in the use of those resources, actual illness episodes were analyzed. Two sets of data were included in this analysis, the last case of illness experienced in each household and other illnesses that the women described in the course of their interview. This later set of data, which was chosen on the basis of first-hand experience and detailed retelling, was included to have a greater number of cases for analysis. The only cases of spiritually caused illnesses that were analyzed came from this second set of data; none of the last illnesses experienced were suspected of having spiritual causation. The inclusion of spiritually caused illness was deemed important because literature on therapeutic strategies suggests that they are treated differently from illnesses where spiritual or supernatural causation is not suspected. Thirty-nine cases were analyzed. These included fifteen last-illness episodes--two of the respondents who lived in the same household reported the same illness with the same course of treatment and outcome--and twenty-four other detailed descriptions taken from other sections of the women's interviews (Table 34).

In all of these cases, the respondent was personally involved in the treatment, either as the victim, a family member, or neighbor so that all the analyzed cases are first-hand reports. This criterion cut down the number of spiritual illness stories that could be used as cases for analysis. While there were a number of accounts of nazar, Tuna, and jinn possession, most of these were at best second-hand accounts and the actual details of treatment could not be ascertained. Therefore, they were not included in the analysis.

Table 34 is a summary of these cases, grouped by the initial problem experienced. In most cases the terms used in Table 34 are obvious, but some are not. A list of terms can be found at the end of the table. Each entry in Table 34 represents a single episode of illness. Each household is represented once by the last experienced illness episode. Some households have more than one illness episode analyzed. This is due simply to the respondents having been personally involved in the episode and then describing it in detail. The inclusion of specific illnesses in Table 34 is somewhat serendipitous, but a good variety of illnesses was included for analysis.

Most of the illnesses were initially attributed to natural causes; only three, possibly four, were initially attributed to spiritual intervention. For illnesses where

Table 34. Sequence of Resort

Problem	First	Second	Third	Fourth	Fifth
Headache	medicine*	doctor**			
Chronic jaw pain	medicine	doctors	hospital doctors	doctors	pir
Toothache	dentist				
Mouth blisters	home remedy	doctors	capable doctor		
Bleeding gums	tooth specialist				
Breathing trouble	many treatments	pir			
Irregular heartbeat	home remedy	doctor			
Backache	doctor				
Whooping cough	doctor	doctor	doctor		
Whooping cough	medicine	hakim	doctor		
Cough, fever	allop. medicine	doctor			
Cough	famous doctor	famous doctor	famous doctor	hakims	
Dust	many healers	dam***	pir		
Dust	pir	home remedy			
Dust	many healers	hakim	hakim		
Constipation in pregnancy	hakim	doctor	dai		

Table 34 (cont'd).

Problem	First	Second	Third	Fourth	Fifth
Stomach pain [appendicitis]	untrained doctor	hospital	brought home	doctor	massage
Stomach pain [cancer]	allop. & Un. med.	clinic	hospital	hospital	
Garmi/urine blocked	hakim	Lady Doc.	allop. med.		
Kidney stone	hospital	allop. med	Un. med		
Problems urinating	doctors	hospital	clinic		
Jaundice [cancer]	doctors & hakims	hospital	hospital	cancer specialist	hakim
Chronic fever	doctors	pirs			
Malaria	doctor	hakim			
Khasara	many doctors	Ichra doctor			
Lump under arm	doctors	hospital	doctor		
Abscessed injection	doctor	hakim	doctor		
Diabetes	doctor	diet	doctor	doctor	
Miscarriage	dai	hospital			
Weakness	doctor	doctor	doctor		
Worry/weakness	doctor				
Uncon- sciousness	doctor	many treatments	pir		
Weak nerves, mental illness	medicine	this doc. that doc.	better doctors	mental hospital	

Table 34 (cont'd).

Problem	First	Second	Third	Fourth	Fifth
Paranoia	many doctors	chaunki#	pir		
Fits	doctors	hospital	chaunki	chaunki	
Fits	doctor	alim##	alim	qalim###	
Tuna	pir to pir	doctors	pir	allop.med	
Nazar	circle chilis	Quranic verses			
Nazar	circle chilis	dam			

* Refers to medications already at home or purchased from a medical store. Does not imply that a healer was visited to get a prescription for this specific problem.

** Refers not only to qualified M.B.B.S. doctors but unqualified doctors and compounders as well.

*** Islamic ritual consisting of reading a Quranic verse and then blowing gently on the patient. The power of the Quran is thought to be transferred to the patient through that breath.

[] The subsequent diagnosis by a doctor of the initial problem.

A gathering held to summon jinns and diagnose jinn possession.

A religious scholar.

A "perfect" religious scholar.

spiritual cause was not mentioned, the preference for allopathic treatment was strong. In half of these cases, it was the initial choice. Other initial choices, in rank order, included home treatment, hakims, pirs, and dais. For illnesses where spiritual cause is suspected, Prophetic medicine played an important role.

Illnesses where allopathic medicine was initially preferred are varied, from a toothache to mental problems. Home care was also given for a number of illnesses, from colds and headaches to the initial, but undiagnosed, pain of cancer. For illnesses that centered in the stomach and intestines, such as dust, pechish, cholera, and constipation, it appears that doctors are not the preferred healers. Many healers may be consulted, especially hakims and pirs.

Home treatment was usually not sufficient. Quite often, those who first tried home remedies next tried doctors. The exception was a case of nazar where home treatment was followed by visit to a pir. In a few cases, seeing one healer was sufficient, but it was more common to go to more than one healer. In just over one-third of the cases, people stayed within the same system. The rest eventually shifted to a different system, some right away, others after staying in the first system for some time.

Most shifting occurred between the secular systems of allopathy and Unani. When a shift occurred, it was usually from allopathic medicine to Unani.

If relief was still not obtained, the search for cure continued. A few of the people who switched to hakims switched back to doctors. But more commonly, there was now a shift from secular medicine to Prophetic medicine. Most of the cases where the initial action was identified as "many healers," perhaps denoting a simultaneous use of healers born of grave concern, ended up being treated by a pir. Chronicity appeared to be the key. Chronic fever, breathing difficulty, facial pain, and mental illness, all of some months' duration, were taken to pirs. There were only two cases where there was a shift to secular medicine after initial treatment from a sacred healer failed. One occurred when a neighbor interceded in the treatment of a young girl after a pir forecast the girl's impending death. The neighbor took the girl home and gave her a home remedy for dust that the neighbor's doctor had provided. As illnesses progressed, there was a tendency for the women to seek what they considered to be increasingly capable healers. In allopathy there was a progression from compounders to hospital doctors to specialists. In Prophetic medicine, if the alim (religious scholar) fails, the galim ("perfect" religious scholar) is called.

It was not always possible to determine immediately if symptoms were caused by spiritual means. In these cases, secular treatments, either home remedies or doctors, were tried first. When they failed, spiritual causation was suspected. In the three cases of spirit possession, all were first taken to a doctor. In two of the cases, a chaunki (a gathering to summon jinns) was held to summon the jinn, which served to diagnose possession. Once possession was diagnosed, one of the victims was taken straight to a pir for treatment, while the other continued to go to such gatherings, where her jinn would speak and state its grievances. In the third case, the jinn, speaking through the victim, alerted the family to its presence. A religious healer was then called.

Sometimes, either through obvious symptoms or suspicious events, spiritual cause is immediately suspected. If this is the case, there appears to be a fixed strategy. For nazar, this consists of circling chilies around the child's head and doing dam (reading the Quran and then blowing on the patient) or reading Quranic verses. When the woman suspects Tuna, she turns first to a pir.

The summary of actions presented in Table 34 does not deal with some of the more interesting aspects of decision-making and use of healers. For instance, in the

case where stomach pain was diagnosed as appendicitis, the family was shocked to find out that the sufferer, the respondent's brother-in-law, had been taken to the hospital. They were confused that such a minor pain turned into something that required an operation. They did not want the operation and they did not want the bill, either. "We said to come back immediately. There is no need for an operation. We called him home. If he had that operation he would have been weak." Back at home, his side still hurts after he eats, and when it does, his wife massages it to make it feel better.

This family, clearly at odds with the diagnosis and plan of action, chose not to comply with treatment. Another woman, after suffering side effects from medicine given to her by a "famous doctor" and after being told by him that it was all her paranoia, switched to hakims. They gave her "ordinary puRiya" and she got better.

Three cases will be presented in detail to show some of the kinds of interactions between patients and healers. These three cases will point out some of the themes discussed earlier in this chapter. The first description of a respondent's case of diabetes gives an example of a doctor prescribing Unani medicine. Healing is not a new profession for this doctor's family, in various forms, they have been in the "business" for some

time. It also shows how important dietary modifications are in controlling diabetes and points out the importance of individual responsibility in health and illness.

Diabetes is a chronic illness that requires daily maintenance with either diet or medicine or both. According to the dichotomous divisions of illnesses and medical resources discussed in the literature, this chronic illness should have been treated with "traditional" medicine. Even though this woman's husband was a retired hakim, she resorted first to a trained doctor. Her husband only entered the picture to prepare the ingredients for the desi (local, native, indigenous) prescription given by the doctor.

I came to know [that I had Sugar] when my eyes were becoming bad and I felt itching in my special portion [genitals]. For eight to ten days I scratched my eyes and special portion....I was thirsty during that period. I'd drink water and go straight to the bathroom....I was very hungry. I couldn't tolerate hunger. If the food was not ready, my heart became anxious.

After eight to ten days, I thought I would go to the doctor. When I went, I told him everything. He said, "You have 2% sugar. You should take these medicines, and after eight to ten days, you should get your urine checked by Dr. Yakub. Bring that report to me."...I checked the urine and he gave me the report. Yakub's compounder was surprised. He said, "You had so much Sugar, but now you have controlled it." So he gave me the report and I gave him Rs 5....I took that report to Dr. Naseer. He said, "You are a lucky lady. You got the Sugar under control quickly. You took extreme precautions."

I took extreme precaution and I kept control of the Sugar. [What things did you not eat?] Potatoes, rice, bananas. When those things are put in front of me, I consider them to be poison. [What did you eat?] In breakfast, salan [curry], roTi, egg. When I found out I had Sugar, I only ate roTi-salan for breakfast, lunch, and dinner. No potatoes at all, no rice at all, no fruit, nothing....In that year, I had such hard control that everyone was surprised. The doctor was also surprised.

When I controlled my Sugar, the doctor gave me tablets....When I took those tablets, I got spots on my face again and again. I scratched. Then I went to the doctor....He said, "Send Hakim Sahib [respondent's husband, a retired hakim]"....He went and the doctor wrote a desi prescription. [Doctor] said, "You should get these things, grind and sift them and add sugar to it."

He has that prescription from the time of his grandfather. His grandfather was a hakim, and a pir. They have pir-murid [disciple] business so they had many prescriptions....When he gave it to me, you can say I was foolish to take risks, but actually, if you take that prescription continually, Sugar can not get worse....

Naseer stopped [the desi medicine] because my Sugar got worse....He examined the urine and said the Sugar had increased. He said, "You should take these tablets and stop desi. When you finish these tablets, I will again allow you to take desi."

This case illustrates two main points: personal responsibility for health and the flexible boundaries between the medical traditions in Pakistan. The "extreme precautions" that the patient took to control her illness through diet is another example of how important it is for a person to take responsibility for one's health. This is a common theme in both general statements about staying healthy and in the treatment of the illnesses discussed earlier.

The patient first sought assistance from a doctor, but she ultimately received both allopathic and desi medicines from him. The doctor's treatment reflected not only his allopathic training but his family's history as well. His grandfather had been a hakim and a pir both and had passed down the prescription for the desi medicine. This was not the only example of healers from one medical tradition using medicines, equipment, or techniques from other traditions. This borrowing will be discussed below.

This second case describes the trials of trying to get treatment for an adult male's urinary problems. He is the husband of a respondent. His is a story of callous doctors, high fees, expensive medicine, and side effects. It is a biomedical nightmare. Patient evaluations of biomedical healers is quite clear in this example. It is a clear example of both the economic and social costs involved in patient-doctor interactions. A point to note is that in Pakistan, there is a real shortage of nurses. Much of what is done here by nurses is done by family members in Pakistan. They bring food, stay with the patient for long stretches of time, and look out after his welfare.

My urine stopped....The doctors did not know what was wrong. They could not control my blood pressure; it was about 160-170. I went to Shad Bagh to see Dr. Habib Khan....He checked my blood pressure...He was a friend of Manzoor [pathologist son living in

Libya]....He said, "You should immediately go to the hospital. You shouldn't delay." At this time it was night. I said we would go in the morning.

In the morning when we went, the surgeon...made a hole in my kidney and put a tube it it so that the urine came out through that tube. Urine came out through that tube for eleven to twelve days....They took ten tests of my blood and urine. Each test cost about Rs 100 to Rs 200. The doctor...took an instrument like a crochet hook and put it in the urine place [urethra] and cleared out the obstruction.

They had put two collecting bags, one on the kidney and one on the place of urine. Then [doctor] closed the kidney bag so the the urine comes out of the proper place. For the first one or two days, the urine did not come. On the second day, the doctor tried and the urine came in the proper way. After sixteen hours, again the urine stopped.

In those days the doctors were on strike. Maqsood [son] was sitting near me and he said. "I have been sitting here since eight in the morning, and there is no more urine in the bag now than when I came." And they called the doctor. He stopped the urine from the urine place and started taking it from the kidneys....Then he took me to the operation room and put in a tube...and put on a bag. For eight to ten days, the urine came through that, and then he cut the bag. I was in the hospital for thirty-one days.

Two days after I came home, I said a prayer. I did sajda [knelt forward and put head on the floor], and my wounds opened up. Urine started coming out through the wound. We went to the doctors. All the doctors were on strike. Maqsood kept trying to get a doctor for three days. The doctors said, "I won't check you here. Come to my clinic." We went. We paid Rs 100 just for a checkup. And he said, "Come tomorrow and I will put on a bag."

Doctors are so xabis, people who use tricks to brainwash you. The doctor said, "Come tomorrow," but this meant "Come again and give me fees." He put me off until the next day. Next day was Friday. We went on Friday. I was told that the doctor was on leave. We went on Saturday; he took Rs 100. He put

a bag on the urine place and said to bandage it with Gensitill [Gentamicin?] cream. We came home because the doctors were on strike. After eleven days I went again and the urine came properly.

....The tablets that he gave me cost Rs 170 for 50 tablets and I had to take nine tablets every day. It was a big expense. Within a week Manzoor sent us 400 pills. The day before yesterday, the doctor stopped that medicine. I told him that if I urinated eight times daily, then I had at least six motions too...he gave me some different pills.

[Who finally cured you?] Dr. Esan Ullah who did the operation. I gave him Rs 100, Rs 100 and when he removed the bag I gave him Rs 100. It is a kindness that he gave me Rs 50 back....We gave him a lot of money so now when we go to the hospital, he deals with us properly. [How is your urine problem?] That's fine but now I have heart trouble....I thought, "That's it, it's finished." God wrote how many breaths I will take. It is in God's hands.

This episode clearly illustrates some of the barriers in dealing with allopathic medicine. There were complications in the treatment, the first operation was not successful, the patient was neglected, the doctors were rude and costly. Yet this is a family that is familiar with allopathic medicine. The patient had worked for the Railroad Department. As a government employee, he was entitled to medical benefits and government benefits were usually allopathic. His son is a pathologist, and he initially went to a doctor who was his son's friend. The family knew how to get good service--give doctors money--but even this did not work during the doctors' strike.

Imagine how confusing and demeaning this kind of situation would be for someone without sufficient social contacts, savvy, and money to have some influence.

The lack of influence that insufficient social contacts, knowledge, and money can cause may be especially frustrating in cases where operations are needed. During and immediately after an operation, the patient is in some ways held captive by the allopathic medical system. The patient has to stay in understaffed hospitals, dependent on the services of doctors who appear to require money before they will attend to him. There is little chance of getting out of this situation and switching to another healer until, at least, the patient recovers from the operation. Perhaps the family that refused the operation for suspected appendicitis and took the sufferer home knew what they would be getting into and actually chose the more prudent course of treatment.

The last example deals with trying to find a cure from a chronic problem. The respondent's daughter is the victim of fits of unconsciousness. Eventually, even though she did not believe in pirs, the mother allowed the use of a tawiz. As she said elsewhere as an explanation of why other people go to pirs, "Our belief [in Allah] is weak when we are worried. If [people] don't solve their worries, they think they should go to pirs." Spoken of others, in this case it described her own behavior.

My Rubada became sick. She would become unconscious. I took her to the doctor. They said she had heart trouble. She got an X-ray, but there was no difference. When she became unconscious, we would give her injections. We kept Coramine [Nikethamide injections (Ministry of Health and Social Welfare 1973:103)] near her. Sometimes she became unconscious at school, sometimes at home....For two or three months we got treatments. We got a lot of treatments for her, but there was no difference.

One day we were eating. My sister's husband's younger brother came, and she became unconscious. Her hands and feet were cold, and her eyes were open....We called the doctor.

He [sister's husband's younger brother] took her school uniform frock to a pir. He sent me a tawiz from here. I thought I should change her school, but he [brother? pir?] said, "Nothing is in the school, but on the way there is something heavy."....He said there is a street on her way where there is a factory. That place is heavy for her. When she reached there, she should stamp her feet and not get confused.

They gave me a tawiz to put around her neck and a tawiz to drink. In plain water, do wazoo and drink that water after wazoo....I gave her that water. It is as sweet as sherbet. He said, "When you put this tawiz around her neck, she will get worse. Do not become confused at that time. The thing that is on her will tease her." When we put the tawiz around her neck her condition got bad. We became confused. Then I read again the letter the pir had written. It was written there, "Do not become confused. She will become all right from this tawiz." The tawiz is around her neck.

One other point. It appears to me that the pir is a wise man. He diagnosed that a factory was "heavy" for the tall, shy, frail-looking girl. Many young girls are harassed quite fiercely on their way to school by men in

the street. Some girls are frightened enough by this to become ill at the thought of going to school. She too may have been harassed, and the pir's protection and his prescription to be courageous in the face of this heavy thing may have been just enough to help her face the factory and the men who work there. Biomedicine has no cure for that.

Ethnographic Background

Factors in Choice

Lay choice of healer is seen by social scientists as pragmatic (Gould 1957; Plunkett 1976) and reflects a concern for efficacy, cost, and social relations between patient and healer. A number of researchers claim that concern for efficacy is the major reason for the choice of healer and treatment and that it supersedes loyalty to a particular system (Madan 1969:1483; Bhardwaj 1975:606; Nichter 1980:225; Lyon 1986:140). But, since in many cases expectation of cure is related to the types of illness and the type of medicine used to treat it, a division of labor between the healers and their treatments is often reported. Some (Gould 1957; Bhardwaj 1975) have described this division as a dichotomy between acute and chronic illnesses. Others (Nichter 1978; Beals 1976; Kakar, Srinivas-Murthy, and Parker 1972; Plunkett 1976)

describe a more complex division. The pattern of resort that results from matching the healer with the illness will be described below.

Concern for perceived efficacy may determine the ideal choice of therapy, but cost may restrict choice to cheap remedies (Beals 1976:198). One reason that allopathic medicine is becoming so popular could be because its services are free, at least in government health centers. Studies in India and Pakistan found that free government services are very attractive (Madan 1969:1483; Plunkett 1976:9). Compounders and other "eclectic practitioners" were also often consulted in an attempt to avoid the fees charged by private practitioners (Nichter 1978:40-42). Plunkett reports that if relief is not obtained from free government services, then the rural women in her study would try either a hakim or a private doctor, both of whom charge, either for consultation or medicine (1976:9).

Lyon presents a somewhat different picture of patient preference in Greentown, a section of Lahore, Pakistan. Even though a free primary health-care clinic was located in the area, some people preferred to pay a private physician. The reason they gave for this was that the patient who pays is treated well (1986:164).

Social relations between the patient and healer have been described by Nichter as "a decisive factor" in the choice of healer among his South Indian respondents (1978: 47). Plunkett adds that in rural Pakistan, doctors and hakims are evaluated on the amount of concern they show for the patient. The individual healer's attitude toward the patient, as well as his fees and skill, are determinants of choice (1976:8). Bhardwaj reports that this is especially true for cases of chronic illness (1975:611).

Workers in Indian government health clinics were felt to be rude and condescending (Banerji 1973:2273; Beals (1976:198). Allopathic doctors in South India were thought to ignore the people's beliefs about their illness. The people were treated mechanically, and treatment consisted only of symptom relief. Social dimensions of illness were ignored, and the patients did not get the support and resolution of anxieties that they sought (Nichter 1978:47).

Traditional healers were thought to show more concern for their patients both in Pakistan and India. They also shared a common ideology with their patients and explained about illness in an idiom that was understood by the people (Nichter 1978:47; Nichter 1980:231; Kakar, Srinivas-Murthy, and Parker 1972:297; Jabeen 1974:48).

Lyon's data from Greentown concur with many of these findings on social relations between patient and doctor. Suspicion and distrust characterize many of the evaluations doctors and patients have of each other (1986:17). Doctors describe patients as dirty, ignorant, thieves. Equally complimentary, patients referred to doctors as greedy, rude, and self-serving (Ibid.:165). These medical stereotypes reflect common views that Pakistani rich and not rich hold of each other and are not inherent in the clinical interaction (Ibid.:14).

The people that Lyon interviewed did not receive much respect, but they did exercise much control over the medical interaction. In this they resemble the pragmatic shoppers in the medical market described by Nichter (1980). They rejected the free services offered at the local clinic. One reason was that the clinic did not offer medicines in the form that the people desired, IV drips and injections. Another reason was that they were less likely to be humiliated by a private practitioner.

Doctors in Lahore have far less control over patients than doctors in the U.S. do. Lyon asserts that this is due to the very different constraints that shape allopathic medical practice in Lahore. There are limited hospital and lab facilities, and there is a shortage of nurses. Doctors have little control over who practices

allopathic medicine and who distributes drugs. The doctor is in competition for patients with other trained doctors, untrained allopathic practitioners, hakims, and owners of medicine stores. This heavy competition affects the kind of treatment the patient is given (Ibid.:85). Treatment conforms to patient demands, (Ibid.:45) otherwise the patient could refuse treatment, go elsewhere, or not return for followup treatment (Ibid.:85).

Limited control over drugs has also affected treatment. Patients who believed that doctors overcharged for medicines or that the quality of medicine they received from a doctor has decreased can go straight to a medicine store (Ibid.:95). According to Lyon, only opium requires a prescription. Other drugs are available easily and cheaply at these stores (Ibid.:107). They go there and keep medicines at home rather than consulting a doctor (Ibid.:138). Some doctors take the precaution of not telling patients the name of the medicines they prescribe, because then all the patient has to do in the future is go to a store and buy it themselves (Ibid.:161).

Patterns of Resort

A number of studies from India and Pakistan report that allopathic medicine is the preferred system in both rural and urban areas (Bhardwaj 1975; Jabeen 1974; Jahan

1974; Banerji 1981). It has been described as "immensely popular" (Nichter 1978) and as the "overwhelming" choice (Madan 1969) of the people. All but two of Lyon's eighty-eight informants went to an allopathic practitioner for the last illness in their households (1986:138). But these studies also show that allopathic medicine is not the only kind that is used and that hakims, vaidas, and religious curers are still being utilized.

Earlier it was stated that Gould (1957) and others described a basic division of labor between "folk" and "scientific" medicine. Gould reported that in the North Indian village where he did research, "chronic nonincapacitating dysfunctions" were taken to folk healers and "critical incapacitating dysfunctions" were taken to scientific healers. Also in India, Nichter and Bhardwaj report that the type of illness and the cost of treatment intersected to determine choice. For acute illnesses, fast-acting allopathic medicines are used in an attempt to save a day's wages. For chronic illnesses, slower-acting but cheaper medicines are used in an attempt to save money (Nichter 1978:40-42; Bhardwaj 1975:610).

Since Gould's original study, scholars have been comparing their findings with his and have found many exceptions to his model. One of the first exceptions was reported by Kakar, Srinivas-Murthy, and Parker, who found

that, in Punjab, India, many childhood illnesses were taken to "folk specialists." This was because many of the illnesses, like smallpox, measles, and tetanus neonatorum, were thought to have a supernatural cause. So, even when the illness was a critical, incapacitating one, belief in supernatural causation determined the choice of healer (1972:288).

Nichter's (1978) study of a South Indian health district in Karnataka state found even more subtle criteria for choice. He noted a trend toward the use of allopathic medicine for critical illnesses and folk medicine for chronic ones, much as Gould had found. However, Nichter states, there are exceptions. These include acute childhood diseases, postnatal complaints, and cases of madness. These were initially taken to traditional practitioners. In these cases, notions of etiology and physiology were more important determinants of care than the relative cost of therapy (1978:44).

He also found that lay perceptions of medicines determined who took what kind of medicine. Allopathic medicine was seen as very powerful. It cured quickly but was thought to cause side effects and body weakness. Because it was so powerful, its use is restricted to those able to stand the "shock" it gives the body. For children, for women who are pregnant or who have just

delivered, and for those people with a chronic illness or constitutional weakness, allopathic medicines are given sparingly, if at all. Ayurvedic medicine is considered better in these situations (1980:228-29).

The same sort of division was found in Punjab, Pakistan, as well. Jabeen reports that allopathic medicine was valued for a quick cure, but the cure was seen as temporary and often accompanied by side effects. Cures obtained from hakims were thought to be permanent (1974:45-48).

Choice of healer is determined by criteria other than whether the illness is acute or chronic. Nichter's studies confirm that, among the people he studied, choice of treatment is not a simple matter of preferring one kind of medicine over another, but is based on ideas about etiology and the best use of the available medicines. This best use is determined not only by the type of illness but also by the age and physical condition of the patient. Plunkett reports that in Pakistan, rural women in the Punjab and NWFP go to many different healers. They went to male doctors on behalf of their children or for their own fairly serious but nongynecological problems. They went to Lady Doctors and other female allopathic personnel for gynecological matters. Trained dais were preferred over untrained dais, but even untrained dais

were thought by most of the women to be able to handle uncomplicated deliveries (Plunkett 1976:5-6). If an internal exam was not required, the women also went to hakims for gynecological matters.

Hakims were also seen for upper respiratory illnesses and fevers (Ibid.:6). Jahan's study of families in the NWFP found that Unani remedies are preferred for conditions that doctors are not thought capable of treating: chronic dysentery, indigestion, and colds (1974:72). Pirs, according to Plunkett, are consulted for a number of common childhood illnesses, as well as problems with infertility, hysteria, and headaches. Pirs were also consulted for dam and tawiz (1976:7).

So far, these descriptions have given a complex but rather static picture of how medical resources are used. Not all illnesses end quickly, and the search for cure may involve the use of more than one healer. Sometimes there is sequential use; other times simultaneous use. Banerji reports a number of ways that indigenous healers and home remedies were used: side by side with allopathic medicine, if allopathic medicines were not available or accessible, if the problem was minor, or if allopathic medicine had failed (1981:113). Kakar, Srinivas-Murthy, and Parker report that, with increasing length of illness, there is a slight shift from indigenous medical practitioners to doctors (1972:290).

In South India, Nichter found that patients commonly changed practitioners rather than systems when initial treatments failed. Individual healers were chosen for their ability to heal and to have rapport with their patient, regardless of the system. However, Nichter's respondents recognized that an illness could be made up of more than one problem. A patient's social anxieties can show up as physical symptoms. In that case, the people recognized that a number of therapeutic systems were needed for cure (1978:45).

Beals identified four basic patterns of resort in the South Indian community that he studied. For common, minor ailments, home treatment was preferred. The only decision was choice of remedies, and whether to try them serially or all at once. When home treatment was ruled out, the majority of complaints involved a fixed strategy. Typhoid was treated at the hospital, snakebite at the home of the village curer. When there was no fixed strategy, the most common recourse was to a progressive strategy ordered by cost. The cheapest was tried first, and if that failed, other strategies were tried. When the suggested alternatives failed, resort became more eclectic until either death or cure took place. Eclectic strategies were also used to deal with illnesses where supernatural cause was suspected. Identification of a

specific illness served to identify the appropriate strategy of resort, but cost, likelihood of cure, and rapidity of cure determined which strategy was actually used (1976:194-99).

Darling's (1929) description of how rural Punjabis used medical resources shows that change in these patterns of use has occurred. He noted that, unless educated, the cultivator first went to the person who sells charms. If charms fail, then hakims were consulted. If they fail to cure, the next step is the hospital, but by then, he states, it is often too late (1929:87). This pattern of resort is almost the opposite of what is found now on Iqbal Street.

Discussion

Lyon states that allopathic medicine in Lahore is a consumer item (1986:12). Much the same can be said about the other medical resources as well. The women use them to piece together effective therapies for their families. The Iqbal Street women demonstrate much the same complexity in evaluation and utilization described in India and Pakistan. This complexity cannot be explained by dichotomies such as acute and chronic or traditional and modern. For instance, the childhood illnesses studied appear to be treated differently. Many women do not seek

outside treatment for khasara. Though khasara is personified rather than deified, remnants of belief in divine causation may be the cause of this behavior. In response to questions of utilization, the women reported that childhood diarrheal illness is taken to many healers, especially hakims and pirs. Since children were the most common victims of Tuna and nazar, if symptoms and situation warrant it, help was sought immediately from a sacred healer. Here too, causation appears to be a more important determinant of choice than acuteness. Conversely, not all chronic illnesses are taken to pirs. In some cases of serious but long-term illnesses, increasingly specialized doctors were sought.

The distinction between traditional and modern medicine is blurring. There appears to be growing overlap between allopathic and Unani medicine. There is a growing acceptance of allopathic medicine for a variety of illnesses. Most illnesses start out with allopathic medicines or a visit to a doctor. As competition among allopathic practitioners increases, the way allopathic medicine is practiced in Lahore may change as Lyon (1986) suggests. More ideas and treatments that are palatable to the patient will be available, which may include explanations in local idiom and some indigenous remedies. At the same time, the curriculum of Unani colleges

includes courses on the use of allopathic drugs. It may be that at some point in the future, Unani may become sort of a subspecialty of the regional variation of allopathic medicine that is practiced in Lahore.

Prophetic medicine will probably not suffer this fate. There is less overlap between the services offered by doctors and hakims. The use of pirs cuts across the dichotomies of acute and chronic, spiritual and nonspiritual, and even medical and nonmedical. Illnesses, barrenness, worldly troubles, and requests for guidance are all taken to pirs. They are the first resort when spiritual cause is suspected and the last resort when other therapies fail.

Efficacy is reported to be the major reason for choice. But judgement of efficacy is not made along system lines. Individual therapies rather than medical systems are judged to be effective. Allopathic medicine is not thought to be the most effective medicine in every case. The women report that they go to the healer they believe will give them relief. They use medicines in a way they judge to be effective.

Allopathic medicines were thought to cure quickly but with some side effects, while Unani was thought to act more slowly but permanently. The value of a pir's cure lay in the baraka of the pir rather than the physical

material used. Beliefs about the humoral qualities of the medicines determined their use. Some individuals avoided them because the medicines did not suit their temperament. When hotness or coldness was an important aspect of the etiology of the illness, medicines, allopathic and Unani, were chosen to either balance the excess or exacerbate it. For hot illnesses and pregnancy, cold medicines were preferred. For cold illnesses such as tuberculosis or colds, hot medicines were used. The exception was khasara where, among those women who used outside treatment, hot, allopathic medicines were used to fully expel internal heat. Judgement of efficacy was based on ideas about the humoral attributes of medicine as well as its ability to cure rapidly or totally.

Important as belief in humoral ideology is, it does not determine all use of medical services. For instance, allopathic medicines may be avoided in pregnancy, but allopathic practitioners are not. The women of Iqbal Street more often used dais, but they valued the services of Lady Doctors for gynecological matters and used the hospital for pregnancy complications.

Cost of treatment, social costs of interacting with healers, and agreement with a healer's diagnosis also shape treatment. Payment of fees may buy respect as well as treatment, but the cost of that respect is high. There

were frequent complaints about the cost of allopathic medical services. But complaints were not restricted to doctors. Both allopathic and Unani medicines can be expensive. Both doctors and pirs can have a bad reputation. A doctor may be an impious dog, but a pir can be a fraud. One family disagreed with the diagnosis of a doctor and took the patient out of the hospital. Another women, after being told by pir after pir that her self-diagnosis of Tuna was incorrect, started visiting doctors.

It is more difficult to determine patterns of resort than it is to discuss evaluation of healers and therapies. There were too few cases and too great a variety among them. But, with information from the chapters on illnesses, patterns can at least be discussed. Simultaneous use of dietary modifications, indigenous remedies, and allopathic medicines was reported in malaria, dust, and pechish. Rituals and dietary modification were used simultaneously to treat khasara. Chronicity usually leads to shifting, from home treatment to outside treatment, from treatment within the same system to treatment outside of it. As the illness progressed, there was a trend toward consulting healers that were perceived to be increasingly capable.

Illnesses that were initially treated eclectically tended to end up being treated by hakims and pirs rather than doctors. Spiritual intervention was seldom initially

suspected. It is usually a diagnosis of last resort. The closest resemblance to a fixed strategy was when a child was thought to suffer from nazar.

To make a broad generalization, it appears, if a simplifying dichotomy is desired, that the women of Iqbal Street divide healers along secular and sacred lines rather than the other dichotomies discussed. There is similarity of use and an overlap of medicines and theory between the allopathic medicine and Unani. Prophetic medicine is used to treat quite different problems and the efficacy of its remedies and healers transcends pharmacology.

Analysis of both the women's beliefs and the literature reviewed points to possible directions for future research. Since children's illnesses seem to receive special treatment, and since infant mortality is so high, further investigations could focus more specifically on infant mortality and the effect that belief in spiritual cause has on treatment and its outcome. More attention could be paid to the kinds of treatments deemed appropriate during other stages of life as well, such as pregnancy and old age. Life stage may prove to be an important determinant of therapeutic choice.

It is a truism that the approach one takes in research determines what one finds. One of the assumptions made in this research was that the Iqbal Street women would display the pragmatic health seeking described by Gould, Worsley, and Nichter. That was found to be the case. Lay health beliefs and behaviors were the focus of this research, and mapping out how ideas are related to each other and to major organizing themes like humoral ideology was one goal. According to these data, beliefs about etiology and perceived efficacy shape therapeutic choices. Economic factors were not found to be that important. That is not because they are not important, but just because they were not studied. The few questions that were asked did not yield usable data.

More attention should have been paid to economic restraints. Without some dash of economic reality, one could assume that the shelves of the medical marketplace are full of equally available options and that control over the course of treatment would lead to better treatment and more effective cures. But they often do not. For some of the women, the shelves of the medical market are bare, and for others the choices over which they have control are few. When limited by economic restraints, even savvy medical consumers will have a hard time finding quality medical care. The conclusion that

can be drawn from this study is that beliefs about etiology are important determinants of therapy. It cannot be concluded that economic restraints are not.

Summary

The women of Iqbal Street are pragmatic users of the medical resources available to them. They are active seekers of care. Their search may take them to healers from many systems or to increasingly capable healers within the same system. They appear to be in control of many of health-care choices. They can choose noncompliance and they can switch to another healer. In this they are similar to the health seekers described by Worsley (1982) and the shoppers in the medical marketplace described by Nichter (1980). But this sort of control does not always lead to cure, as choices can be restricted by social and economic costs.

The use of doctors, including qualified doctors and Lady Doctors, as well as unqualified doctors and compounders, is quite widespread. Doctors are seen for a variety of reasons. Even though they were often considered to be rude and costly, their medicines were thought to be effective. One criterion of efficacy was the fast relief that allopathic medications afforded. Another was the humoral heat that the medicines were

thought to possess. This made them especially valuable when heat was thought necessary for cure, as in the case of khasara. Lady Doctors were valued for obstetrical and gynecological care, but dais also remained popular.

Hakims were also used, but from these data, it appears that they are used less commonly than doctors. But this could be due to the fact that many of the illnesses that were thought best treated by hakims were not included in this study. When they were, as in the case of dust and pechish, hakims and Unani medicines were used. Unani medicines are thought to totally eradicate illness, so while cure may be slow, it is complete. They are thought to be humorally cold and are used when cold is required, such as in pregnancy, when heat could cause a miscarriage, or in pechish, when bloody stools are a sign of excess heat.

Pirs are seen for a number of problems. Some are medical, such as chronic illnesses that have not been cured by a doctor or hakim or illnesses where spiritual causation is suspected. But many times the pir is seen for help with worldly troubles, and his advice and guidance are sought to make a husband behave better or to decide on a career move. While individual pirs may be thought to be a fraud, the type of healing they practice, based on the Quran and the sayings of the Prophet, is still highly valued.

Self-care and self-medication with drugs obtained from hakims and pharmacies is also widespread. Even when a hakim is not consulted for diagnosis, Unani medicines are purchased and brought home to make some of the home remedies. Allopathic medicines are also purchased and kept at home. The use of medicines was often the first thing women tried when illness struck.

Analysis by system is rather static. It does not show the complexity of resort, the various costs involved in using a healer, the shifting between systems, or the borrowing of one kind of medicine by a practitioner of another system. The three long case studies gave some insight into these areas.

The first case presented a woman suffering from diabetes. She preferred treatment from a doctor even though her husband was a hakim. But the qualified doctor she went to treated her with a combination of allopathic and Unani medicine. His family has included healers-- pirs, hakims, and doctors--for generations. She considered her own very strict dietary precautions to be a central element in controlling her illness. Personal responsibility for health was very strong in this case.

In the second case, the biomedical nightmare where the man had to go in for a kidney operation, the social and economic costs of dealing with allopathic medicine are

clear. Here is a family that knows about allopathic medicine and knows doctors personally. They know to give money to receive proper care, and they appear to have enough money to do this. Yet they did not seem to be successful: the patient was neglected and left to fend for himself during the doctors' strike. Even knowledge of how to use the allopathic medical services did not guarantee this man good care.

The third case is an example of system switching. The mother of the victim stated that she did not believe in pirs nor did she respect them. Yet when her own daughter fell ill and the injections she received did her no good, the mother followed instructions from a pir and allowed her daughter to wear a tawiz. The pir gave what seem to be commonsense instructions. Every day on her way to school, the girl had to pass a factory. Quite probably she was harassed by the men working there. The pir gave her a tawiz to wear and one to drink. He gave her sage advice as well--show courage at that frightening place. Armed externally and internally with tawiz and courage, the girl is able to face her fears and is now better.

In general, the women's evaluations and use of the medical resources are similar to those found in India and other parts of Pakistan. Allopathic medicine is generally preferred, but beliefs about humoral cause of illness and

humoral attributes of medicine still appear to be widely held and are important determinants of therapy. Belief in spiritual causation still exists, especially for childhood illnesses. Spiritual cause is not always immediately suspected, and most illness episodes are taken first to secular healers. However, if there are suspicious symptoms or circumstances, a sacred healer will be consulted. He will also be consulted after secular treatments have failed.

Commonly used dichotomies such as acute and chronic, referring to illness type, or folk and scientific, referring to medical options, fail to explain or predict the women's beliefs and behaviors. There is instead a complex set of criteria, including etiology and economic and social costs, used to evaluate medical options that cross cuts these dichotomies. There does appear to be a basic division between illnesses treated with secular medicine and those treated with sacred medicine. The line between these divisions is quite permeable. If secular treatments do not work, sacred healers are then consulted.

In this study, it was found that humoral ideology shapes evaluations of healers and their medicines, and has a major impact on reported utilization as well. This finding is an artifact of this study and the questions

that were asked. The focus was on beliefs and the connections between them. There was, however, a paucity of economic data. It is known that cost is a concern among the women, but how it shapes therapy is not known. More research needs to be done on this important factor to determine the relative weight of etiology versus economics in the final determination of therapeutic choice.

CHAPTER IX

SUMMARY AND CONCLUSIONS

Summary

In the World Health Organization's attempt to provide universally accessible primary health care, laypeople are being held increasingly responsible for their own health. But lay perceptions of health and illness have seldom been incorporated into the planning of primary health-care programs. The failure to do so may be one reason why many of these programs have not been successful. The importance of understanding health beliefs is obvious, since laypeople, especially women, provide the bulk of health care world-wide. Not only do these beliefs determine, in large part, if and how an illness is treated at home, but they also direct choice of therapy if outside treatment is necessary.

These beliefs must be understood in the context that shaped them. Social forces shape the illness profile, the kinds of medical services available, and the cost of those services. According to the literature reviewed, cost and accessibility also direct the choice of therapy. Although concern for efficacy appears to be most

important factor in choice of therapy, these choices are constrained by cost. Cost acts to constrain choice to cheaper, less effective alternatives.

This dissertation is an attempt to explore the lay perspective, specifically that of urban, middle-class Pakistani women living in Lahore, Pakistan. The focus is on women because they are responsible for maintaining the health of their families and for providing health care if someone falls ill. The ubiquity and content of popular health care was discussed. To understand the social distribution and organization of knowledge about health and illness, literature on cultural models was reviewed. Cultural models are fragmentary, based in large part on shared tacit knowledge, and loosely organized. They are flexible, incorporating elements from a number of domains. Some models, such as the hot and cold model, can be applied to other models so there is a thematic similarity across models in differing domains.

Knowledge is not evenly distributed. Some people are denied or have privileged access to information. Because women have more responsibility for health, they have first-hand experience dealing with sick family members. Women especially are repositories of information about health matters. But even among women, individual experience shapes an individual's models.

People continually monitor what they do. But they are unable to always explain why they do what they do. Discursive knowledge is only a small part of the practical consciousness needed to take part in social life. Even when a person is able to explain, giving a true explanation of one's ideas and goals may not be of prime importance. Statements can serve many functions, depending on the speaker's assessment of the situation. Hence, there is no one-to-one correspondence between what a person says and what he does.

Real world conditions as well as perceptions about the cause of illness shape therapeutic behavior. Popular knowledge about health and the options available to laypeople are part of, and are shaped by, the larger social, economic, and medical environment. Therefore, the beliefs and behaviors of the Iqbal Street women were analyzed within the setting of contemporary urban Pakistan.

The women live in a country with one of the lowest per capita expenditures on health. Much of the morbidity and mortality is due to infectious and parasitic diseases like dysentery and malaria. The women live in a country where the officially sanctioned medical system is allopathy, and where government policy supports curative, urban-based, allopathic medical services.

In the city where they live, there is a dual life-style that is the result of colonialism and modernization. This dualization assures that the elite have access to clean water, electricity, and good health care. Once elite needs are met, there is little left for the masses of urban poor and working-class people. They have to put up with poor environmental sanitation and contaminated water and food. Such conditions lead to the many infectious and parasitic illness that are so common. Increasing popular interest in allopathic health services has not led to upgrading those services. Instead, over the last twenty years, there has been a continuing deterioration of the services available to the majority of the people.

The focus of this dissertation has been on the more mundane aspects of health and illness: preventive behavior, such as diet, and common illnesses. These topics are often overlooked by anthropologists and underreported by informants. But in terms of eliciting information that could be used in formulating health programs, these everyday topics are crucial.

Allah was thought to be the cause of all illness, but this did not rule out preventive behavior; fatalism is not widespread among the Iqbal Street women. Improper diet, hot weather, worry, and dirt were identified as

causes of illness. Few women believed in germs. Khasara was recognized as a contagious illness but it was thought to spread through its fragrance, not through a virus. Heat and improper diet were seen more often as the cause of dust and pechish than were flies and contaminated food.

The women thought that health depended largely on precautions. Many precautions were concerned with appropriate diet and environmental cleanliness. In order to stay healthy, the women considered a good diet to be essential. A good diet was thought to be one that was easily digested and suited the season, the individual's temperament, and her state of health. Indigestion was thought to lead to a number of illnesses centered in the digestive organs. Eating hot or cold foods at inappropriate times could cause or exacerbate humoral imbalance. Concern over the manipulation of hot and cold foods was more marked in the treatment of illness than in its prevention.

When valued foods were listed, the list often included foods like milk, fruit, chicken, and meat. A variety of foods was mentioned, but most of these are quite expensive and beyond the means of the poorer respondents. Poverty was thought to constrain choice of foods, both in quantity and quality. Watered down, adulterated milk was what was on the market if one could

not afford to have a buffalo. And if funds were short, the milk and fruit considered important for children's health could not be bought. Even though most of the women were above poverty level, true good health may seem to them to be unattainable since the required foods are so hard to come by.

Many of the preventive behaviors received their legitimacy from the Quranic injunctions about health. The essential unity between the body and soul was recognized, and it was believed that the health of one was necessary for the health of the other. Good diet and cleanliness can lead to good health, but so too does leading an ethical life. In order to understand how these beliefs interact and reinforce each other, areas of culture other than those defined as "medical" must also be studied.

The women take what precautions they can, but they live in an environment that poses many threats to health, and ill health is common. Four major health problems were discussed: khasara (measles), dust (diarrhea) and pechish (dysentery), and malaria. According to biomedical descriptions of these problems, all are caused or made worse by socio-economic conditions such as poor nutrition and inadequate sanitation. Measles is a mild childhood illness in the developed nations, but in Asia it is a killer. Poor nutrition, worsened by parasitic infections

such as dysentery, is largely responsible for this severe outcome. Diarrhea and dysentery occur because of inadequate sanitation and subsequent contamination of water and food by fecal matter. Poor environmental conditions allow malaria-causing mosquitoes to breed, and poor nutrition increases susceptibility to infection.

Except for malaria, for which a cure exists, allopathic treatment of these problems is largely supportive. Prevention is the key to the elimination of these problems. For measles, vaccinations are useful, and the women are aware of the value they have. But in the other cases, nonmedical solutions, such as sanitation and nutrition, are more important.

Two features were common to all of the illnesses studied. First, the causes were thought to arise from the natural world, from things like improper diet or environmental hazards such as heat, dirt, or mosquitoes. Although some of the remedies for khasara seemed to be related to belief in a disease entity, spiritual cause and spiritual cures did not figure into the women's descriptions. Second, concern with good digestion was central to the diet manipulations employed to treat these illnesses.

In addition to the general strategy of giving soft, light, easily digestible foods, such as rice or leavened bread, there were also illness-specific strategies. For

khasara, the concern was to expel excess internal heat. Hot foods, home remedies, and medicines were used to drive out that heat through the rash that characterizes khasara. Khasara was entified but not deified. Still, it received respect similar to that given Hindu disease goddesses. Gold, jasmine, and sweet home remedies were given to appease and entice Khasara out of the body. Few women used allopathic medicine. One reason could be a remnant of belief in a disease goddess. Another could be the efficacy of home remedies; allopathic medicine has no cure for khasara.

To treat dust, the major strategy was to restore and maintain proper digestion. Light, soft foods were given, and some women reduced the amount of the food given. Many of the home remedies included digestive spices. Allopathic medicines were commonly used, but unfortunately antibiotics were the most commonly identified medicines. Antibiotics have little value for the treatment of dust.

The presence of blood in the stool and the twisting pain of tenesmus distinguished pechish from dust. When this occurred, concern shifted to cooling the body and mitigating the internal heat. Remedies were more often cooling than digestive, though there was overlap with

remedies used for dust. Cool Unani medicines were preferred over hot allopathic ones, since additional heat would worsen the problem.

Mosquitoes, which were believed to pour poisons and germs into the body when they bit, were the major cause given for malaria. The fever of malaria was thought to impair digestion, so here as in other illnesses, an easily digestible diet was given. There were, compared to dust and pechish, fewer home remedies. The bitter miTha was the most common. Almost all of the women said they relied on quinine or other allopathic medicines. It appears that quinine and later synthetic alternatives were so widely accepted because of their taste. In the Sushruta Samhita, bitterness is linked to the ability to cause sweating and, by so doing, purge the body of internal poisons. Bitter cinchona bark tasted, looked, and smelled like other bitter bark medicines used for fever.

The women of Iqbal Street pragmatically use the medical resources available to them. Medicine is a consumer item, and the women use therapies from different systems to piece together effective medical care for their families. While allopathic medicine is supported by the government, it is not the only medical system available and appears to have had minimal impact on the women's

beliefs about the cause of illness. Humoral ideas still form the base of the women's ideas about the best treatment for these illnesses.

The women evaluate on the basis of remedies and healers rather than by system. System boundaries appear to be blurring. Doctors prescribe indigenous medicines for illnesses they explain in local idiom. Meanwhile, hakims use stethoscopes and pirs prescribe shock therapy. The women's evaluation of doctors is mixed. They are thought to be capable, but common complaints about doctors are that they are rude and that their services are expensive. The social and economic costs of using allopathic medicine can be quite high. Even people who know doctors and know how to use allopathic medical services have problems. For the uninitiated, entrance into allopathic medicine can be frightening and demeaning. Hakims are evaluated more positively; they are thought to be courteous and have good morals. Some of the women believed that the examination of the pulse done by hakims was the best method to diagnose illness. Others, though, doubted this method. Pirs were evaluated more negatively than either doctors or hakims. The pirs that are in business today were thought to lack the good morals of a true pir.

In the case of pirs, evaluation of the healer affected the evaluation of the remedies. A pir's effectiveness depended on his character. A true pir could cure, a false one could not. Evaluation of Unani and allopathic medicine was more independent of healer evaluation. Allopathic medicines were thought to be effective and give quick relief. But they are expensive and often have side effects due to their hot nature. Unani medicines are seen as pure and natural. They are less likely to cause side effects. While they take time to work, they, unlike allopathic medicines, totally remove illness from the body.

Some of the women believed that doctors could cure anything. The most commonly mentioned examples of illness that doctors could treat were fevers and respiratory illnesses. Stomach problems, jaundice, and dust were the most commonly mentioned examples of illness that hakims were thought best able to treat. Pirs were consulted for worldly troubles as well as illnesses. The troubles most commonly taken to pirs were barrenness, nazar, Tuna, and jinn possession, and problems with husbands.

In the case studies analyzed, most of the illness episodes were initially attributed to natural causes. For a wide variety of illnesses, allopathic treatment or remedies were the first choices. Stomach and intestinal

problems were first taken to hakims. One step is seldom enough. It was more common to have more than one intervention and to see more than one healer. In those cases, it was more common to switch to a healer of a different system. Most switching was between allopaths and hakims. If an illness was not cured by a doctor or hakim, or if nazar or Tuna was suspected, pirs or Quranic healing rituals were used.

Childhood illnesses appear to be treated differently from illnesses that affect adults. For children, it appears that etiology and severity both determine therapy. In khasara, outside treatment was seldom sought. This parallels behavior reported in North India for smallpox. There, fear of divine retribution is at the base of their avoidance. Fear of Khasara's anger may be why some of the women avoided allopathic medicine. But khasara may be seen as something all children have to go through, a lifestage that does not require outside intervention rather than an illness that does. Some children were taken to hakims and pirs for stomach problems. Mull and Mull (1988) noted that, among their Sindhi informants, diarrhea was thought to be one of the signs of nazar. Nazar and Tuna, which usually affect children, are taken to pirs or are treated at home with Quranic rituals.

Economic data are needed to round out this picture of utilization. Perhaps because most of these women were wealthier than the average Lahori, cost did not appear as important as effectiveness of the medicines or attributes of the healers. However, cost was sometimes mentioned as a problem with both Unani and allopathic treatment. And the women did report that they went to compounders, who do not charge fees, and to free government clinics. More sensitive research needs to be done to determine the role of cost in the choice therapy.

Iqbal Street Models

The models of health and illness held by the Iqbal Street women are quite similar to those found among laypeople in North India and elsewhere in Pakistan. The large-scale conversions of Hindus to Islam and the amalgamation at both the popular and professional level of Unani and Ayurveda probably accounts for this. They share the general organizing model of hot and cold, which is used to classify a variety of things from foods and illnesses to personality and sexuality. But on Iqbal Street, other preventive and therapeutic strategies were used that dated back to classic Unani and Ayurvedic texts. One example is the importance of light, soft foods in maintaining health and preventing and treating illness.

Another example is the connection between bitterness, sweating, and purgation of internal poisons that dates back to the Sushruta Samhita.

It would be incorrect to define the women's models as strictly medical. It is impossible to separate medical knowledge from religious or ethical knowledge. The health of the soul influences the health of the body and vice versa. A clean environment, proper diet, worship, and a moral life result in both physical and spiritual health.

Incorporation rather than exclusion is a hallmark of these models. The description that Leslie (1976) gave of popular medicine in North India as an amalgam of elements drawn from a variety of traditions applies to the models of the Iqbal Street women. The women have incorporated the use of allopathic medicines even though their use is determined in large part by humoral ideology. Allopathic concepts like germs and vitamins are appearing in the models of a few of the women who had some years of nonreligious schooling.

Inconsistency among the elements of the models does not appear to be a major concern at the popular level. Women who speak of germs also speak in terms of humoral ideology. Problem-solving rather than consistency is important to laywomen, and complex, amalgamated models can offer many solutions to the problem of illness.

According to the literature on cultural models, there could be more than one reason that there was so little said about spiritual causation of illnesses. The most obvious is that for these mundane illness, spiritual causation was not immediately implicated, perhaps because they played only a small part in their etiology. But anthropologists who are used to dealing with spiritual matters and dramatic healing rituals may find that hard to accept. So other reasons must be sought.

It may be that the women were uncomfortable discussing such matters with an outsider, but I do not think that this was the case. They did discuss, sometimes with great relish, spiritual causation of illness in response to questions specifically on that topic and on questions about pregnancy and birth. They described experiences with nazar, Tuna, and jinn possession that had happened to them or their neighbors. In the case studies, they described pirs and Quranic healing rituals.

A better explanation would be the tacit fragmentary nature of models. The interviews captured just a fragment of the women's total knowledge. The answers to the questions are like points on a cognitive map, and the best I could do was to connect the points to give an outline or a rough sketch of the women's beliefs. So much of what they know is probably too obvious for them to mention.

The goal of this dissertation was to analyze and discuss the beliefs of women living on Iqbal Street. Individual statements were given as examples of overall trends in the data, but the focus was on the group rather than the individual. There were too few data to run statistical comparisons on intragroup variation, and to continually point out this variation was tedious and weakened any trends being discussed. But the individual variation is very interesting.

Age seemed to be an important variable, independent of the education that younger women can get now. Younger women knew less. At first I thought that this was a kind of intellectual purdah where knowledge was denied to women because they were too young to know about it. Regarding sexual matters, I still believe this to be true. A few of the women sent children and older girls out of the room when they discussed pregnancy. But I do not believe this to be the case for the bulk of information about health and illness. Now it seems that some of the tacit knowledge floating around in the practical consciousness becomes available for discourse after experience with the illness. For instance, some of the younger women were as yet childless. Some of them said they know nothing about khasara, a children's illness. They had not yet had the experience of treating a child with khasara. They may

vaguely remember their own or their sibling's bouts with khasara, but these memories are not detailed enough for discussion.

This lack of information is not limited to childless women. One young woman who had a daughter said, "Some things we know at certain ages, so some things I can't tell you about." This lack of information is not restricted to young women. One of the illnesses that I had planned to analyze is jaro ka dard, or joint pain, but only five of the women knew anything about it. Two of those had experienced it themselves; one was in her forties and the other was fifty-three. Two other women had an older relative who had suffered from it. The remaining woman, in her midforties, answered the questions but prefaced some of her answers with "I don't know." The perception among the five who answered the questions was that jaro ka dard was a problem of the middle-aged, the elderly, those over fifty or sixty years of age. One woman, who equated it to polio, said that children were common victims. Jaro ka dard could be an uncommon illness, but it also could be that, as a whole, this group of women was too young to know about it.

Education seems to have had an effect on the women's familiarity with specific beliefs. On one end of the scale, none of the women whose education consisted

solely of Quranic studies mentioned germs or vitamins. On the other end, the only women who said that they knew nothing about Quranic injunctions about health were those who had ten or more years of education. The effect of education is not absolute. All of the women with ten or more years of education mentioned vitamins. But so did women with fewer years of education. The level of education of women who mentioned vaccinations ranged from none to twelve years. Education about vaccination probably took place in allopathic clinics rather than government schools.

Current lifestage or experience influences the elements that are added to individual models. The harried new bride says that rest is crucial for health. The woman whose husband sells soda uses 7-Up as a home remedy. The wealthy women who state that clean, pure foods, like real ghi and unadulterated milk, are essential for health are describing their own diets.

Place of birth and individual personality also affect the content of these medical models. For example, one of the women was raised in Quetta and Rawalpindi, not Lahore. Some of the ingredients she used in home remedies were not mentioned by the other women, most of whom grew up in and near Lahore. This same woman appeared to stress

the importance of time more than the other women. For her, the key to health was routine: eat on time, drink on time, sleep on time.

One's individual temperament shapes beliefs and behavioral options. One of the women, nicknamed Hakimwali by her family because of her preference for hakims and Unani medicines, said that she preferred them because they suited her temperament better than allopathic medicines. An individual's temperament also determined food choices. What is hot for you may not be hot for me. A woman who gets skin rashes and loose stools after eating a mango would probably classify mangoes as hotter than a woman who did not experience these problems. With such variation possible among individuals, it is perhaps unrealistic to expect village and region-wide consistency in the classification of foods.

Implications

The data analyzed shows that the women have a basically flexible and pragmatic approach in their quests for therapy. The use of cultural models to describe the women's knowledge proved quite useful in pointing out the flexible, fragmentary, tacit, incorporative nature of the women's knowledge. The descriptions of Lahore, the health situation in Pakistan, and the medical resources available

there helped to situate the women and their beliefs in the wider social milieu. From the study of these data, it is clear that lay beliefs about etiology direct choice of therapeutic strategy and cannot be overlooked in any study of the utilization of health-care services. But it is not enough to just study health beliefs without also investigating the environmental and social forces that shaped the illness profile. Clearly, a combined approach is necessary to understand the health problems and medical options that laypeople have.

Understanding the lay perspective as it occurs in its socio-economic environment may be a necessary condition for the success of primary health-care programs, but it does not guarantee the success of those programs. Many of the major health problems in Pakistan result from socio-economic conditions, and prevention, not cure, is the key to their eradication. Many of the most useful preventive strategies do not fall within the "medical" realm. So as the proponents of the macro-analytical approach suggest, social change aimed at the redistribution of wealth and political power is necessary to better the health of much of the world's population. But, as they admit, this will be difficult.

WHO's Health for All program has been criticized by Navarro (1984) for overlooking the necessity of the redistribution of power. Instead of addressing more

fundamental social issues, the program relies on technical interventions and medical solutions. The program's usefulness is further weakened by its dependence on the goodwill and economic support of developed countries. It appears that there will be no "Northern fairy-godmothers rushing in to fill the gap." Unless alternate ways are found to fund the Health for All program, it may remain a dream (Abel-Smith 1986:2-3).

The Health for All program depends on laypeople, especially women, "for the performance of miracles in national health development" (WHO Chronicle 1983:135). Laypeople are now told that taking care of their own health is a duty. What was seldom ever a right is now, with a shift in policy, a responsibility. But people are given "responsibility" without being given the power needed to truly effect change.

There is even suspicion that the program is an attempt to candy-coat the bitter truth that nothing can or will be done to help solve this problem of ill health. The Somalian director of public health stated that the interest in self-care has sinister implications.

My pet theory is this: some of us have lately realized that for a large section of human society nothing worthwhile in the way of health care has been done and that it has little at its disposal to enable it to do something for itself. So out of a guilty conscience we have started to rationalize the pitiful position of this group. In effect, what we are

saying to these people is this: "You were and are expected to fend for yourselves, and whatever could have been done for you is a bonus!" We say this instead of telling them "Sorry, we cannot help you!" Thus the onus is put on them (Deria 1981:195).

It is unfortunate, but true, that there is no single, easy solution. But necessary criteria for that solution can be identified. A solution will be largely nonmedical and address problems of poverty, malnutrition, and environmental sanitation. It will focus more on prevention than cure. It will take into account existing lay knowledge and utilization of health resources. It will be responsive to the role that both belief and economics play in determining the choice of therapy. It will require a rethinking of health priorities and a redistribution of economic and political power. Without the political will to serve the interests of the poor, it probably will never occur.

Future Research

Even if the data in this dissertation do not solve world health problems, they point to interesting and valuable avenues for future research. The methodology at times seemed like the worst of two worlds. The open-ended questionnaire allowed discussion on a number of topics and yielded much rich data; too much for one dissertation.

In-depth discussions on fewer topics would have been useful. The current data are only a framework, and many details need to be added.

The utilization case studies would have benefited from a more systematic approach, like the one used by Nichter (1978). He studied twenty-five illnesses to determine utilization, and this allowed for more definite conclusions about type of illness and healer choice. My case studies ranged from a headache to cancer, but there were so few cases of the same illness that it was hard to do more than just note trends.

There are a number of topics that bear further research. Since etiology appeared to lead to illness-specific use of medical services, research on a wider variety of illnesses would prove interesting. The relation of age and life stage to choice of treatment would also be a good topic. This is especially true since spiritual causation is suspected more during infancy and the forty-day period just after birth.

More attention needs to be paid to an important real world constraint: money. An investigation of what is actually done to prevent illness and of the economic and time costs of preventive behavior would be worthwhile. The effect of an increased income could be explored. Will

more money lead to increased consumption of expensive but highly valued foods like fruit and milk, or will it lead to increased consumption of western, processed foods?

Future directions of government health policy is another topic for investigation. Will the new Bhutto government make any substantial changes in economic or health policy that will positively affect the health status of most of the country's population? Will the curative allopathic programs continue to get government support? What will be the future of hakims? Since it appears that there is a great overlap in what they and doctors are thought to be able to cure, they may lose in competition with free government health services. The fact that government services are free seems to be an attractive feature, and it will be interesting to study the role cost, as opposed to ideology, plays in determining initial and subsequent treatment.

Conclusions

The solution to world health problems is a complex one. It requires an appreciation for lay health beliefs because laypeople already provide the bulk of health care world-wide. They are active seekers of health. According to their beliefs about etiology and their economic standing, they use the medical options available to them

to keep their families healthy. But an appreciation of lay beliefs and health-seeking behavior is not enough; there must be a redistribution of power as well. If the people are to be responsible for their own health, then they need the power and tools to be able to effect change. Without a change in health policy and the political will to support the poor in their struggle for health, there will be no real improvement. Perhaps one role that anthropologists could play would be that of "Cassandra cum consultant," reminding health planners that poverty is the most serious pathogen.

GLOSSARY

Pronunciation:

G: voiced velar fricative
x: voiceless velar fricative
R: voiced alveolar or post-alveolar retroflex flap
T: voiceless alveolar or post-alveolar retroflex stop
' : glottal stop

Derivation:

(A): Arabic
(G): Greek
(H): Hindi
(P): Persian
(S): Sanskrit
(T): Tamil

ajawain (H): Trachyspermum ammi, lovage, used as a home remedy for dust.

alim (A): religious scholar.

arkan (A): in Unani, the basic elements of earth, air, fire, and water.

axlat (A): in Unani, the humors or biological fluids of blood, phlegm, yellow bile, and black bile.

ayat (A): a verse of the Quran.

ayurveda (S): indigenous Hindu medicine.

baadi (P): windy, flatulent.

bacche (P): children.

badhazmi (P): hard to digest.

badshah (P): king, ruler.

balGam (A): phlegm. One of the Unani humors.

balGami (A): phlegmy.

baraka (A): divine grace, found in pirs, descendants of the Prophet, and in the words of the Quran.

bedaana (?): used as a home remedy for pechish.

bhaara (H): heavy.

bhut (H): ghost.

bivi (H): wife.

buxar (A): fever.

channas (H): chickpeas.

chapatis (H): unleavened, whole wheat bread.

charpoi (P): string bed.

chathurthaka (S): a fever that occurs very fourth day.

chaunki (H): a gathering held to summon jinns and diagnose jinn possession.

chechek (H): smallpox.

chickna (H): greasy.

chilla (P): forty-day confinement of mother and child following birth. A time of great spiritual danger for both.

chuna (H): lime, calcium carbonate.

daal (H): boiled, spices lentils. Comes in many varieties.

dai (H): midwife

daliya (H): cracked wheat

dam (P): breath, spirit. An Islamic ritual where one reads verses from the Quran and then blows on the patient, transferring the power of the Quran to her.

danne (P): pimples, rash, pustules.

dawa (A): medicine.

desi (H): local, native, indigenous.

dil kath (?): used as a home remedy for pechish.

- dosas (S):** in Ayurveda, the elemental principles of wind, phlegm, and bile.
- dust (P):** an illness characterized by loose stools, burping, nausea, and rumbling in the gut. Used here as diarrhea.
- duwa (A):** prayer.
- gaozaban (P):** Caccinia glauca, used as a home remedy for khasara.
- garam (P):** hot. Refers to both temperature and humoral heat.
- garmi (P):** heat. Also means summer and an illness characterized by a bloody nose, loose stools, dizziness, and if pregnant, frequent vomiting during the early months.
- garmidan (P):** heat rash, prickly heat.
- ghi (H):** clarified butter.
- Giza (A):** sustenance or nourishment.
- Gizai (A):** nutritious.
- gond ka teera (H):** Cochlospermum religiosum, used as a home remedy for pechish.
- guR (H):** unrefined brown sugar.
- hakim (A):** a Unani practitioner.
- halka (H):** light, digestible.
- halwa (A):** sweet dish, pudding.
- hasti-khelti (H):** jesting, and easy task. The name of the disease goddess associated in North India with measles.
- hunjibeer (A):** Polygonum bistorta, a home remedy for pechish.
- Islami tibb (A):** Islamic medicine.
- istifraq (A):** expulsion of material from the body.
- isubGol (P):** (also ispaghol, isagbol, and ispaghul) Plantago ovata, fleaseed husk, used as a home remedy for dust and pechish.

- jaggery (English from Sanskrit sakar): unrefined brown sugar.
- jaraasim (A): germs, bacteria
- jaro ka dard (H): joint pain.
- jinn (A): spirits, demons, or elves, created from fire.
- kaccha (H): raw, temporary, unfinished.
- kala (H) 'ilm (A): black knowledge or black magic.
- kapha (S): phlegm. One of the Ayurvedic dosas.
- keora (H): Pandanus odoratissimus, used as a home remedy for khasara.
- khanna (H): food. Used to refer to a typical meal of unleavened bread and curry.
- khari (H): name of the disease goddess associated in North India with chickenpox.
- khasara (H): an illness characterized by fever, swollen eyes, rash, and coughing. Used here as measles.
- khaTa (H): sour.
- khubkala (H): Sisybrium irio, home remedy for khasara.
- kudumba (H): Anthocephalus cadamba, Ayurvedic remedy for fever.
- kustha (S): skin eruptions.
- lassi (H): a drink made from buttermilk or yogurt and water.
- maddah (A): matter, substance.
- majuphul (H): Quercus infectoria, oak gall, used as a home remedy for dust.
- mandroi (H/S?): a religious healer, a specialist in neutralizing insect and snake venom.
- maroR (H): twist, torsion, spasm, griping. Refers to the griping pain that is a symptom of pechish.
- masurika (S): smallpox. In the Susruta Samhita, the term is associated with minor ailments rather than life threatening conditions.

mata (H): mother. The term is used to refer to the Hindu disease goddesses. According to my research assistant, on Iqbal Street mata refers to chickenpox.

materia medica (G): pharmacology.

mehndi (H): henna.

mian (H): husband.

miTha (H): Citrus lemetta, sweet lemon, used as a home remedy for malaria.

mizaj (A): temperament.

mohalla (A): a neighborhood or quarter of a city.

motadil (A): balanced, moderate.

murdasungh (P): lead oxide, used as a home remedy for dust.

murid (A): a disciple of a pir.

nai (H): a barber. Also does minor surgery and cupping.

naram (P): soft.

nashadar (?): ammonium choloxide, used as a remedy for dust.

nazar (A): evil eye.

nazlah (A): catarrh, excessive phlegm.

neem (H): *Melia azadirachta*, used as home remedy for khasara.

nibu pani (H): essentially lemonade made from lemon juice, water, sugar, and salt.

nuri 'ilm (A): luminous knowledge, magical rituals based on the use of Quranic verses.

nuzj (A?): the preparation, softening, ripening of internal matter for expulsion.

paan (H): a masticant made of betel leaves, acreea nut, lime paste, and sweet spices.

pak (P): pure, as in a pure body and soul or in religiously ordained food items.

- pech (P): a twist, a screw, twisting.
- pechish (P): an illness characterized by griping, colicky pain, loose, bloody, mucus-strewn stools, pain, and pallor. Used here as dysentery.
- pehelwan (P): a westler, may also sets broken bones.
- pir (P): a holy man, spiritual guide, saint. They heal through baraka or divine grace.
- pitta (S): bile. One of the Ayurvedic dosas.
- pukka (H): ripe, permanent, substantial.
- purdah (P): seclusion and veiling of women.
- puRiya (H): packets of medicine.
- qalim (A): "perfect" religious scholar.
- qudrat (A): divine power, authority, the universe, nature.
- qudrati (A): God given or natural.
- qudrati asbaab (A): natural causes.
- quwa (A): in Unani, the primary qualities of heat, cold, dryness, moisture.
- rasa (S): essence or taste.
- raswala (H): juicy.
- roTi (H): unleavened, whole wheat bread.
- ruh (A): soul, spirit.
- saf (A): clean, as in dirt free.
- safra' (A): yellow bile. One of the Unani humors.
- sah dai (H): Veronia cinerea, used in North India as a remedy for malaria.
- sajda (A): kneeling forward with the head on the floor. A position in Islamic prayer.
- salan (H): food cooked in thin gravy or broth.
- sannipataja visarpa (S): possibly erysipelas, a contagious skin disease caused by Streptococcus pyogens.

- sannipata jvara (S):** eruptive fever.
- sanyasi (S):** a religious healer or wandering mendicant.
- sarsaam (P):** brain fever, possibly encephalitis.
- sauda (A):** black bile. One of the Unani humors.
- sayyid (A):** a descendant of the Prophet, he possesses baraka.
- seviya (H):** vermicelli.
- sherbet (A):** flavored sugar syrup.
- siddha (T):** Tamil-language variant of Ayurveda practiced in South India and Sri Lanka.
- sitala (H):** name of the Hindu disease goddess associated with smallpox.
- sneha (S):** the use of lubricating substances, such as oily foods, drinks, enemas, and unguents, to help loosen dosas and prepare them for expulsion.
- sura (A):** a chapter of the Quran.
- suseral (H):** father-in-law's family.
- sutt (Sindhi?):** Sindhi illness, which includes a fallen fontanel, that is associated with dust.
- suxt (P):** hard.
- sveda (S):** the use of heat to liquefy dosas and speed their elimination.
- swami (S):** a Hindu holy man.
- symmetria (G):** maintaining balance in all aspects of life in order to protect health.
- taqat (A):** power.
- taqatwar (A):** powerful.
- tawiz (A):** amulet, often worn as protection against nazar and kala 'ilm.
- Thand (H):** cold. Refers to both temperature and humoral coldness.
- tibb (A):** medicine, as in Unani tibb.

tibb-al-nabi (A): Prophetic medicine, a collection of the Prophet's saying on medicine, diet, and hygiene.

tritiyaka (S): a fever that occurs every third day.

tulsi (H): Ocimum sanctum, basil, used in North India as a remedy for malaria.

Tuna (H): transferring one's misfortune to another or another's good fortune to oneself.

tuxam malangaa (P): Lallematia royleana, used as a home remedy for pechish.

unab (A): Zizyphus vulgaris, used as a home remedy for khasara.

Unani (A): Greco-Arabic medicine.

vaid (S): an Ayurvedic practitioner.

vayu (S): wind. One of the Ayurvedic dosas.

wazoo (A): ablution required before prayers.

xabis (A): impious, wretched, malignant, miser.

xun (A): blood. One of the Unani humors.

xushk (P): dry.

xatum darud (A): recitation of the entire Quran.

Yunani (A): Unani.

zeher mohra ka batta (P): bezoar, a calculus found in the stomachs of ruminants. Thought to be an effective remedy for poison.

zood hazam (A): easily digestible.

APPENDIX

APPENDIX A

Questions Analyzed

- 1) Address
- 2) Number of people in household
- 3) Names and ages of household members
- 4) Respondent's: name, relation to head of household, level of education, monthly income, length of time she lived in Ichra, where she was raised.
- 5) Head of household's: name, level of education, monthly income, length of time he lived in Ichra, where he was raised.
- 6) Respondent's husband: relation to head of household, level of education, monthly income, length of time he lived in Ichra, where he was raised.
- 7) What are the signs of health?
- 8) What are the signs of illness?
- 9) Why do people get illness?
- 10) What causes illness?
- 11) Can you get ill from the nazar or Tuna?
- 12) Does Allah send illness and health?
- 13) What does the Quran say about staying healthy and avoiding illness?
- 14) What is the best way to stay healthy?
- 15) What do you do to keep your children healthy?
- 16) What is the best way to prevent illness?
- 17) What diet do you need to stay healthy?
- 18) How does diet differ for children and adults?
- 19) Why do people go to doctors?
- 20) Why do you and your family go to doctors?
- 21) What is it about doctors and their treatments that you especially like?
- 22) Dislike?
- 23) What kinds of illnesses can doctors especially treat and why?
- 24) Why do people go to hakims?
- 25) Why do you and your family go to hakims?
- 26) What is it about hakims and their treatments that you especially like?
- 27) Dislike?
- 28) What kinds of illnesses can hakims especially treat and why?
- 29) Why do people go to pirs?
- 30) Why do you and your family go to pirs?
- 31) What is it about pirs and their treatments that you especially like?

- 32) Dislike?
- 33) What kinds of illnesses can pirs especially treat and why?
- 34) Can a hakim or pir help you in some way that a doctor cannot?
- 35) Which is best, medicine from a doctor or from a hakim?
- 36) What is the cause, temperament, symptoms, most common victim, way to prevent, dietary prescriptions and proscriptions, home treatment, best healer and medicine for the following illnesses: khasara, dust, pechish, malaria?
- 37) Who was the last person in your house to be ill? Could you tell me the story of that illness? How was he treated? What medicine was given? How was he finally cured?

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