Introduction

The purpose of this book is to describe the indigenous healing practices, health situation, and environmental and cultural origins of perceptions of disease among the Bedouin tribes during the twentieth century. In addition, it discusses access to state health services among the Bedouin, and examines their beliefs and attitudes towards healers and Western medicine.

In order to understand Bedouin medicine in the twentieth century, one must first gain an understanding of ancient Arabic medicine in the pre- and early Islamic periods. The Bedouin of Arabia in the pre-Islamic period were influenced by many cultures and civilizations, among them their neighbors and kindred: the Nabateans, Palmyrens, Ghassanids, Lakhmids, and the Byzantine and Persian cultures. Areas of contact between the Arabs and other civilizations included commerce and trade as well as political, military, religious, and intellectual fields (Judaism and Christianity) (Amin 1969: 1–35; Hitti 1951: 23–25; al-Najjar 1994: 2–53). Beyond these realms, the influence of neighboring cultures was felt in the practice of medicine, health, and hygiene.

Ancient Arabic medicine was also influenced by Greece and Rome. The Greco-Roman system of medicine developed based primarily on the writing of Hippocrates (460–360 BC), Dioscorides (circa AD 54 to 68), and Galen (AD 130–201). Alexandria, Rome, Constantinople, Antioch, Edessa, Amida, and Gundishapur flourished as centers of scientific and medical activity (Mursi 1966; Savage-Smith 1996). A combination of political and religious events caused many Greek and Syriac-speaking scholars to move eastward to Persia and establish a center of learning, including a medical school, in the city of Gundishapur in the sixth century AD (Murad 1966; al-Said 1997; Savage-Smith 1996: 907–8; al-Shatti 1970).

The Arab medical system grew out of the works of physicians who were contemporaries of the Prophet Muhammad (AD 571–632), including

al-Harith b. Kilda[1] and Ibn Abi Rimtha (Hawting 1989). The sayings (hadith) of the Prophet Muhammad on health and illness were systemized and became known as Medicine of the Prophet (*al-Tibb al-Nabawi*) (Hawting 1989; Savage-Smith 1996). In the early period of Islam, a number physicians or traditional healers practiced, among them al-Nader b. al-Harith (the son of al-Harith b. Kalada), Zuhayr b. Janab al-Himyari, Zaynab al-Awadiya from Bani Awd, al-Shamardal b. Qibab al-Ka'bi al-Najrani, Ibn Hudhaym from Tim al-Ribab, Hammad b. Tha'labah al-Azadi, Abd al-Malik Abjar al-Kinani, Um 'Attyya al-Ansariyya, and Rafidah (al-Labadi 1992: 80–81).

Ancient medical works began to be translated during the Umayyad rule (661–750 in the East).[2] Over the course of the following five centuries (750–1258), the Abbasids dominated the sociopolitical life of the greater part of the Muslim world. The ten caliphs of the period were generous in their promotion of knowledge and medicine, and medical translations and writings flourished under the Abbasids. Particularly notable in this regard were al-Mansur (754–775), Harun al-Rashid (786–802), and al-Ma'mun (813–833). A hospital was built and became the cradle of the Baghdad School of Medicine. Countless manuscripts, particularly those written in Greek, were collected and stored in Bayt al-Hikmah (House of Wisdom, established in Baghdad in 830, by Caliph al-Ma'mun),[3] where scholars labored at translating them into Arabic. One of the early translators was the Nestorian Christian Yuhanna b. Masawayh (d. 857), a pupil of Jibril b. Bakhtishu' and a teacher of Hunayn b. Ishaq. Al-Ma'mun appointed him superintendent of his library/academy and he was responsible for all scientific translation into Arabic (Hitti 1951: 310–16). One of his pupils was Hunayn b. Ishaq[4] (810–877), physician of the caliph al-Mutawakkil. His treatise *al-Masa'il fi al-tibb li-lmuta'allimin* (Questions on Medicine for Students) was extremely influential, as was his *Kitab al-'Ashr Maqalat fi al-'Ayn* (Ten Treatises on the Eye). Another translator was Thabit b. Qurra (d. 901).[5] 'Ali b. Sahl Rabban al-Tabari,[6] a physician, translator, and author, dedicated his book *Firdaws al-Hikma* (Paradise of Wisdom) to the caliph al-Mutawakkil in 850. Qusta b. Luqa al-Ba'albaki (d. 912) a physician and translator, wrote on various topics, including blood, phlegm, yellow bile, and black bile.[7]

It was during this period, too, that the philosopher Ya'qub b. Ishaq al-Kindi (d. 873) authored several works on medicine. (His *Formulary* of compound medicines was translated from Arabic to English by Martin Levey in 1966.) Another scholar, Abu 'Abd Allah b. Sa'id Al-Tamimi (d. 980), from Jerusalem, went to Egypt to work as physician for the Vizier Ya'qub ibn Killis. He wrote a guide on foods and medicines and a book about plague, *Maddat al-baqa' bi-islah fasad al-hawa'*. Ishaq ibn Sulayman al-

Isra'ili (855–950) was both a physician and a philosopher. He first worked as an oculist in Cairo, and later emigrated to Kairouan in Tunisia, where he studied medicine under Ishaq b. 'Imran and became court physician to Ziyadat Allah III (reg. 903–909), the last emir of the Aghlabid dynasty. His finest work was *Kitab al-Hummayat* (The Book of Fever). One of the most highly regarded ophthalmological manuals was *Kitab Tadhkirat al-Kahhalin* (The Oculist's Notebook), by Sharaf al-Din 'Ali b. 'Isa al-Kahhal (d. 1010), who practiced as an oculist and physician in Baghdad. This text covered 130 eye ailments.

Within a century of the birth of Islam, Muslim physicians and scientists were making original contributions to medical and botanical knowledge. One of the greatest and most well-known Islamic doctors was Ibn Sina (Avicenna, 980–1037),[8] who compiled the *Kitab al-Qanun fi al-Tibb* (Canon of Medicine) (Foster and Anderson 1978: 58; Gruner 1930; al-Shatti 1970). Another leading Arabic philosopher/physician was al-Razi (Rhazes, 865–923),[9] who compiled the *Kitab al-Hawi fi al-Tibb* (Comprehensive Book on Medicine).[10] It should be noted that the works of Ibn Sina and al-Razi were later translated into Latin, and continued to influence medical practice until as late as the nineteenth century (al-Said 1997; Johnstone 1998; Murad 1966; al-Shatti 1970). Most physicians in Andalusia were herbalists, and most herbalists served as healers. The *al-Jami' li-Mufradat al-Adwiya wa'l-Aghdhiya* (Compendium of Simple Drugs and Food), by Ibn al-Baytar (1197–1248), describes more than 1,400 medicinal drugs, including 300 not previously described. This is probably the best known of all Arabic herbal books (Johnstone 1998: xxxi–xxxii).

The medicinal use of plants was a popular topic in Arab medical writings. Among the well-known physicians who wrote on the uses of plants was Sulayman b. al-Hasan b. Juljul (d. 994), who worked at the court of 'Abd al-Rahman III and assisted in the translation of Dioscorides' herbal into Arabic. He was the author of *Tabaqat al-Atibba' wa-l-Hukama'* (History of Medicine and Physicians) (Johnstone 1998: xxxi). Hamid Ibn Samajun (d. 1010) compiled a large volume on herbs, *al-Kitab al-Jami' li-Aqwal al-Qudama' wa'l-Mutahaddithin min al-Atibba' wa'l-Mutafalsifin fi'l-Adwiya al-Mufrada* (The Comprehensive Book of Sayings of Ancient and Modern Physicians and Philosophers Concerning Simple Drugs) (Johnstone 1998: xxxi). Abu Ja'far Ahmad b. Muhammad al-Ghafiqi (d. 1135), originally from Ghafiq, near Cordoba, compiled a large text on herbs and drugs *Kitab al-Adwiya al-Mufrada* (Book of Simple Drugs) (Johnstone 1998: xxxi). 'Abd al-Malik b. Zuhr (Avenzoar 1113–1162) was the first of a five-generation family of prominent Andalusian physicians. A native of Seville, he achieved widespread fame as a physician in Spain and North Africa. He wrote *Kitab al-Aghdhiya* (The Nutrition Book), but his best-known book

was *Kitab al-Taysir fi'l Mudawat wa'l-Tadbir* (Facilitation of Treatment in Therapy and Diet) (al-Said 1997: 697; Johnstone 1998: xxxii; Savage-Smith 1996: 925–26).

Significant contributions to medical science were also made by Al-Zahrawi [Abu al-Qasim Khalaf b. 'Abbas al-Zahrawi] (Abulcasis or Albucasis, 936–1013), born in Zahra, near Cordoba, who laid the foundations of modern surgery. He authored three books that remained standard textbooks for nearly a thousand years. The most famous one of these was *Kitab al-Tasrif li-man 'Ajiza 'an al-Ta'lif* (Manual for Medical Practitioners/The Arrangement of Medical Knowledge for One Who Is Not Able to Compile a Book by Himself). Its primary contribution to the field of medicine is that it contained 278 illustrations of equipment used for surgery.

During this fruitful period of medical writing, Ibn al-Jazzar (d. 980), an Arab physician and member of a distinguished medical family in Qayrawan, the mediaeval capital of Tunisia, authored several works that added much to the medical knowledge of the time. His writing earned him renown in medieval Western Europe. Some of his books were translated into Greek, Latin, and Hebrew: *Kitab al-Adwiya* (Treatise on Simple Drugs), *Tibb al-Fuqara' wa-al-Masakin* (Medicine for the Poor), *Risala fi al-Nisyan wa 'ilajihi* (On Forgetfulness and Its Treatment), *Kitab Siyasat al-Sibyan wa-Tadbirihim* (On the Education and Regimen of Children), *Kitab fi al-Ma'idah wa-Amradiha wa-Mudawatiha* (On the Stomach, Its Diseases, and Treatment). His *Zad al-Musafir wa-qut al-Hadir* (Provision for the Traveler and Nourishment for the Sedentary) is, contrary to what its title suggests, an excellent medical text on sexual diseases and their treatment. This book was translated into Greek, Latin, and Hebrew, and featured among the standard texts for medical instruction at Salerno, Montpellier, Bologna, Paris, and Oxford (Abu-Rabia 2000: 224–29; Bos 1997: 1–18). Another significant contributor to medical sciences was Muhammad b. Ahmad b. Rushd (Averroes 1126–1198), born in Cordoba, whose main medical work is *Kitab al-Kulliyyat* (lat. Colliget).

The influence of Arabic medicine, which is so interwoven with the Greco-Latin legacy, has proved to be of critical importance to Western medicine. The Arabic texts became available mainly through two successive waves of translations into Latin. The first of these became available in southern Italy in the second half of the eleventh century, while the second became available in Spain about a hundred years later. In the middle of the thirteenth century, the three great medical faculties of Paris, Montpellier, and Bologna gradually integrated the fundamental works of Ibn Sina and al-Razi and the surgical part of the *al-Tasrif* of al-Zahrawi (Jacquart 1996: 963–71).

During the Fatimid rule (909–1160), Cairo became a center of learning, attracting physicians such as Musa ibn Maymon (Maimonides, born in Cordoba, 1135–1204), who served as a personal physician for Salah ad-Din's son al-Malik al-Afdal Nur ad-Din 'Ali in Egypt. His most famous work is *Kitab al-Fusul* (Aphorisms). Other famous physicians included Abd al-Latif al-Baghdadi (1162–1231) and Muhadhdhab al-Din 'Abd al-Rahim ibn 'Ali, known as al-Dakhwar. Ibn al-Nafis (Ali abi al-Hazm al-Qurashi, d. 1288), born in Damascus, was a physician-surgeon. His most famous writings are *Kitab al-Mujiz* of the Canon of Ibn Sina, and a large commentary on the Canon, in which he developed his theory of pulmonary circulation, the first to accurately explain the minor circulation of the blood (Ullmann 1978: 48) before the Spaniard Michael Servetus (Miguel Servede, 1509–1553) (al-Najjar 1994: 148; Khan 1986: 19; Nasr 1968: 213).

Among Arab physicians, music was a prominent mode of healing. Music is a means of communication and can be a powerful therapeutic tool. The idea of using music as a healing technique, or as the background for the healing process, is prevalent in many cultures. The basic objective of the healer is to establish communication with the spirits through music. One of the well-known Arab doctors who used music for healing was Abu-Nasr al-Farabi,[11] who lived in the tenth century. Al-Farabi invented a musical instrument on which he played melodies that strongly affected people, causing them to laugh or cry, wake up, or fall asleep (al-Farabi 1967; al-Shatti 1970; Shiloah 2001: 81–95).

In the early eight century, Muslims established hospitals and hospices[12] that were free of charge regardless of the gender, social status, or age of the patient. These Islamic hospitals provided patients with systematic treatments based upon humoral medicine (*al-akhlat*). These included exercises, baths, dietary regimens, and a comprehensive materia medica, in addition to bone-setting, cauterizing, venesection, and eye surgery (Reynolds and Tanner 1995: 249–50). While Islamic medicine was supported and sponsored by the courts, mystical medicine served urbanites in large towns, and healing systems associated with the Zanj[13] movement catered to slaves, peasants, and some artisans (Baer, Singer, and Susser 1997: 208).

At the dawn of Islam, hospitals were built for old people and the mentally ill (Melling and Forsythe 1999).[14] Caretakers would wash patients, dress them in clean clothes, help them pray, and have special chanters with pleasant voices read them verses from the Quran. Sometimes the *Mu'adhdhin* (the announcer who calls the faithful to prayer in the minaret of the mosque) would recite prayers and supplications (*ibtihalat*) before sunrise to relieve patients of their insomnia and pain. The custom of reading verses from the Quran for healing was practiced by the Prophet as

part of the healing process for sick people who appealed to him for help. In addition to the daily provision of song and instrumental music in the hospital, it was also customary to invite groups of dancers, singers, and entertainers to perform for the patients. The healing atmosphere was further enhanced by the burning of incense (*bakhkhur*). Sometimes the floors of the hospital were strewn with branches of pomegranate (*rumman*), the mastic tree (*mustaka*), balsam of Mecca (*balsam Makka*), henna (*hinna*), and pleasant-smelling spice trees (al-Shatti 1970).

The main achievements of medieval Arabic-Islamic medicine lay in five areas: systematization, hospitals, pharmacology, surgery, and ophthalmology. The development of Arabic medical literature can be described as a constant reshaping and rearranging of the Greek heritage by shortening, expanding, commenting on, and systematizing ancient source material. Ibn-Sina combined the legacy of Greek medical knowledge with the Arab contribution in his massive Canon of Medicine, which is the masterpiece of Arab systematization. The basis of pharmacology, the *Materia Medica* of Dioscorides, was enlarged by numerous Arab authors, who added some 500 names of simple and compound drugs to the ancient stock (Burgel 1976: 44–62; Haddad 1975; Meyerhof 1931: 311–55; al-Shatti 1970).

Beliefs and Therapies

The Arabs in the pre-Islamic period practiced preventive and curative medicine that some of them learned from neighbors and nations with whom they came into contact. Some ancient Arab medical practices depended on amulets, charms, sorcery, and witchcraft (Amin 1969: 1–35; Mursi 1966; al-Najjar 1994: 2–53; al-Said 1997; Murad 1966; al-Shatti 1970). Among the methods of treatment were divination (*sihr*), magic (*sha'wadha*), talismans (*talsim*), and astrology (*tanjim*). They believed, for example, that the blood of a king or prince was an effective antidote against rabies, and a few drops mixed with water were administered to a person bitten by a rabid dog. They treated a man crazed by love for a woman by cauterizing his buttocks. A boy who developed pustules on his lips was made to carry a sieve (*munkhul*) on his head and go from house to house asking for food; women would throw pieces of bread, dates, and meat into the sieve, which the boy fed to dogs. They believed that this act would cure the pustules, and that another dog/human eating the scraps would be similarly afflicted. When a Bedouin entered a town he would bray ten times at the gate like a donkey to make the epidemic diseases[15] think he was an animal and not human, in the hope of being spared from disease (al-Shatti 1970: 5–10; Ullmann 1970: 185–89; 1978: 1–6). When the Arabs believed that dis-

ease was caused by evil spirits, they would put a bird in a cage for several days and note whether it flew to the left (a bad omen) or the right (a good omen) when it was freed.

Medical treatments in pre-Islamic times were administered either by people themselves, who used herbal drugs and drinks prepared from plants and minerals, or by diviners and fortune tellers whose armamentarium included cauterizing (*kayy, kaii*), cupping (*hijama*), and bleeding (*fasd*). They believed, for example, that squinting could be cured by staring at revolving grindstones. They treated mad people by hanging unclean objects, such as the bones of a dead person taken from a cemetery, around them, or by making them wear the ankle bone of a rabbit (al-Najjar 1994: 52–53). Jewelry and bells were hung on victims of stings or bites to keep them awake, based on the belief that venom spreads through the body of a sleeping person and kills him (al-Shatti 1970). They tied small bags of wheat, barley, and dates on toy clay camels, and placed them at the opening of a westward-facing burrow hole just before sunset. Finding the food undisturbed the next morning meant that their payment for the sick person had not been accepted. Finding the food disturbed signified that their payment had been accepted and the sick person would be healed (Sharif 1970: 3–30).[16] Arabs used gems, crystals, beads, and stones as medicine. They believed that precious stones were useful to wear as ring-stones, since they bore magic powers for healing, preventing diseases, and bringing omens (al-Najjar 1994: 52–53; al-Shatti 1970).[17] Bedouin medicine also made a major contribution to Islamic medicine through the *Sahih* of al-Bukhari, the most famous of the collections recording the Prophet's sunna and sayings on all spheres of daily life, including illness, health, and healing. One of the rules in al-Bukhari's cover chapter on healing originated in Bedouin folklore and advances the basic theory of Bedouin pathology that all diseases are ultimately caused by a disorder of the stomach, by improper nutrition, or by indigestion (Burgel 1976; Elgood 1962: 33–192).

The Islamic medical tradition, established by the *al-Tibb al-Nabawi* (Medicine of the Prophet) in the seventh century, was molded in the tenth century, developed in the eleventh and twelfth centuries, reached its peak in the thirteenth to sixteenth centuries, and later declined in the seventeenth to nineteenth centuries (Hamarneh 1991; Lev 2002: 177; Mursi 1966: 2–39). Medical literature and healing methods that had been the focus of traditional medicine for over a thousand years were marginalized in the nineteenth and twentieth centuries by the advent of Western medicine, becoming the exclusive domain of traditional medicine and folk healers (Abu-Rabia 2005f: 404-407; Lev 2002: 167–79; Lev and Amar 2000: 191–205). Folk healers continued to consult medical texts originally written in the Middle Ages (Lev 2002: 178). Medicine came to be practiced mainly

FIGURE 0.1 Kuhl container; Bedouin women prepare *kuhl* for medical and cosmetic purposes.

by folk healers. Professional healers wandered from place to place pulling teeth, operating on kidney stones, and treating cataracts. Some barbers practiced surgery using methods that included cupping and bleeding, while other healers used cauterizing, medicinal herbs, written charms, and amulets. Among them were healers who also dealt with sorcery and witchcraft (*sihr*) (Abu-Rabia 1983; 1998).

Bedouin Medicine in the Twentieth Century

The use of traditional medicine, particularly herbal medicine, was widespread throughout the Middle East in the twentieth century (Abu-Rabia 1999a; Ali-Shtayeh, Yaniv, and Mahajna 2000; Bailey and Danin 1981; Krispil 2000; Palevitch and Yaniv 2000; Pillsbury 1978: 1–25; Tal 1981: 15–17). The philosophy of traditional Bedouin medicine draws its strength from the belief in fate, the conviction that all things that happen to man, both good and evil, are the will of Allah. It follows that man must accept his fate with strong faith, courage, and patience. According to the Bedouin, both health and illness are caused by Allah, with the help of natural

and supernatural powers created by Him. These powers are the source of healing. Most illnesses are a direct punishment by Allah for our sins[18] or for the transgression of Bedouin moral or religious codes. Allah acts through the mediation of man, and therefore cures illness by means of a doctor or folk healer. Health-preserving principles include the practice of the basic rules of hygiene, public health education, and religious behavior and devotion. These include abstinence from carrion, spoiled food, and contaminated water sources, and the avoidance of places where there are dangers and diseases such as plague and cholera. The maintenance of proper relationships, good neighborliness, and regular observance of the rules and commandments of tribal codes of behavior all form part of the healthy basis of human society as perceived by the Bedouin (Abu-Rabia 1983; Bailey 1982: 65–88). In general, studies have shown that the older and the more traditional the Bedouin, the more likely he is to attribute illness to the supernatural and the greater his tendency to view illness in this manner, and the higher the rate of appeal to folk healers and the lower to Western medicine. Moreover, as the rate of reported successes by folk healers rises, the rate of reported healings by Western medicine drops. If, however, the Bedouin is not satisfied with folk medicine, he may turn to Western medicine. In some cases he may appeal to both simultaneously (Abu-Rabia 1979; Ben-Assa 1974: 73–76). Bedouin patients used to refer first to home remedies and traditional medicine, but now they often rely upon Western medicine initially or first after home medicine; if these fail, they finally resort to traditional healers, including religious healers.

Bedouin healers use a range of techniques and medications in their work. Illnesses are cured by means of remedies taken from vegetables, minerals, and animals. Various plant parts are used, including flowers, fruits, leaves, juices, roots, seeds, bulbs, tubers, and pulps. One of the most famous medicines in use among the Bedouin in the Middle East is the *arba'yn*, which consists of a mixture of forty different types of plants and is considered to be a cure for all aches and pains. In traditional and folk medicine, the Bedouin appeal not only to the herbalist, but also to the dervish, the *khatib,* the amulet writer, the cauterizer; the *mujabbir* (for setting broken or fractured bones); midwives; the *'Attar* or local pharmacologist and vendor of medicinal spices; holy tombs (of ancestors or prophets); the sea, rivers, holy springs; and so on. In addition, Bedouin healers use techniques that stimulate physiological processes, including bathing, sweat-bathing, massage, cupping, emetics, burning/cauterizing, incision, and bloodletting (Abu-Rabia 1999a, 2005).

Traditional Bedouin healers are familiar with the conditions of the Bedouin's life, his way of thinking, and his fears. With such healers, a Bedouin is likely to feel free and at ease, because the treatment they offer is simple

and accords with his worldview. Furthermore, the traditional Bedouin healer does not charge a fixed fee; the patient pays whatever he or she can. In most cases, the cost of the treatment is whatever the patient wishes to leave, whether money or gifts (sugar, coffee beans, lambs, or sheep). There are healers who refuse to take money, saying: "This is [my profession as a healer] a gift, a *baraka*[19] from God, I cannot be paid for it."

There are Bedouin healers who cooperate with modern medicine by sending patients to a particular physician who, they assure him, will bring them relief. In many cases, this is a good combination, since the patient has complete faith in it, takes his medicine and the advice given with absolute seriousness, and often quickly recovers. Many traditional healers insist that the patient's desire to recover is as important as the healer's desire to cure him. Treatment by traditional healers has established a relationship of psychological-therapeutic dependence on the part of the Bedouin with regard to the healers. This dependence is deeply rooted in their psyches and reinforced and legitimized by Bedouin culture (Abu-Rabia 1999a: 17–25).

Most Bedouin healers learn from their fathers or mothers during their practice of a healing trade. There is no time limit for acquiring the profession, but it is not uncommon for famous healers to have apprenticed for ten years or more. Most healers work in other professions in the tribe, but usually when they become old or very famous and the people of the tribe appeal to them, they devote most of their time only to healing. In the Middle East, the healer's role is perceived as a religious skill related to proximity to saints, which enables the healer to fight the forces of evil that cause illness. Proximity to saints can be more easily attained within a family blessed with many religious healers—dervishes—who treat mental and physical illnesses using a variety of religious and cultural rituals. Men and women usually become dervishes by virtue of having received a *baraka*—a blessing gift from God (al-Krenawi and Graham 1997: 213) or by virtue of birthright (from father/mother), through family members renowned as wise or righteous people, or purported to have special visionary powers, and so forth.

Illness is said to be ultimately determined by the will of Allah. Illness is defined holistically as a deviation from states of normal health, manifested by changes in social, psychological, and physical states. Traditional therapies are not only means for curing sickness, but also means by which specified types of illness are defined and given culturally recognizable forms. While in Western medicine the criteria of proof demand more than plausibility, in traditional medicine the condition of plausibility seems to be sufficient. When healing fails, a patient remains with his disease until he discovers the correct cure from another healer. Healers and patients ex-

plain that this is the will of Allah. For the patient, a failed therapy may be considered important because it offers diagnostic information that points to a more appropriate type of healer. That is, some spirits are more powerful than others, just as some healers may be more familiar with and effective in treating a particular problem than others.

Illness is ascribed to the invasion of the body by excessive heat or cold, and the saying *al-bard sabab kul 'illih*, meaning "cold is the main reason for illness or body disorder," is widespread. Cold enters the body under many circumstances, causing common colds and other illnesses. But this illness, which was caused by cold, may lead to increased heat in the afflicted person. For example, drinking cold water may cause toothache, and continuous toothaches may cause headaches and raise the heat of the body.

Bedouin healers examine the facial expression and the eye color of the patient as part of their attempt to diagnose the disease and prescribe treatment. Their reputations as good healers result from of their attitudes toward patients; healers are always warm, friendly, and supportive, and offer good hospitality to those that they treat. Usually their treatments are successful, and patients recover from a majority of their illnesses. Recovering from illnesses regardless of the treatment is well known among the Bedouin in the Negev (Ben-Assa 1974: 73–76) and in other traditional societies (Clark 1959: 208).

Generally, treatments are based on knowledge and on approaches such as causality, classification, and diagnosis of the illness.[20] Actually, the traditional healer functions as a botanist, pharmacist, psychologist, and tribe or group leader in his treatment of various illnesses. Dervishes (*darwish*, pl. *darawish*) in particular are good psychologists, imbuing patients with confidence and having a positive effect on those who believe in them. There are cases in which the dervish hosts the patient for several days in his own (the dervish's) home, where he has a supportive atmosphere filled with expectation, faith, and hope that impart the willpower to get well (Ben-Assa 1974: 75). In general, traditional Bedouin medicine can be divided into two types: preventive and therapeutic medicine (Abu-Rabia 1983).

The aim of preventive medicine is to deter the causes of illness by hanging amulets or talismans on a person, making vows, visiting the tombs of saints, or using stratagems to mislead the sources of the disease, such as the evil eye. The influence of the evil eye is counteracted by devices designed to distract its attention and annul its power through the practice of magic. The concept of the evil eye appears to be a psychological idiom for the fear of misfortune. It may relate to fear of outsiders and their envy (Abu-Rabia 2005b: 241–54). Adhering to the rules of social ethics, religion, and hygiene can also help to prevent illness.

Therapeutic medicine commences with the onset of illness, that is, when a person feels ill or when his family feels he is ill. Since the physical or mental well-being of the person was undermined by another person, who employed some means to make him sick, therapeutic medicine employs traditional methods to remove the harmful agent from the sick person's body so that he may function again as previously. Curative medicine deals with methods used when illness, either physical or mental, has already struck (Abu-Rabia 1983). The sources of the preternatural forces that cause illness are in man's evil impulses, covetousness, jealousy, and the like.

When a Bedouin is ill, or wants to take protective measures for himself, his children, or his property, he beseeches Allah to help him through His saints. Ceremonies surrounding visits to saints' tombs and the traditional rites related to ancestors and the making of pledges engender a psychological-therapeutic dependency of the Bedouin on the saints. This dependency is deeply rooted in faith, and augmented and legitimized in Bedouin culture. Interestingly, belief in saints and the tradition of pilgrimage to the tombs of saints is prevalent among Bedouin even in the areas of the southern Sinai that are isolated from the rest of the peninsula. A Bedouin will not just appeal to one saint. Just as a sick person in modern society will seek several medical opinions, so too the Bedouin will appeal to different saints, each of which has a certain degree of specialization. Among the Bedouin of the southern Sinai, such a pilgrimage can foster any of three kinds of rites: those between members of the tribe, those between the tribes of southern Sinai, and those between members of all the tribes and Islam (Marx 1977: 14–22). Notably, the Bedouin of Jabaliya near St. Catherine's Monastery (Sinai) have developed a unique form of folk medicine, designed to overcome the diseases and mishaps that typify their desert environment (Ben-David 1981: 107–28).

Attitudes towards Doctors and Western Medicine and the Effects of Modern Life

The Bedouin view the Western doctor and Western medicine as intermediaries between the patient and Allah. Therefore, the doctor's attitude towards the patient during the examination and his interest in the patient's general health are of the utmost importance for the success of the treatment. A Bedouin always prefers an injection to pills when visiting a Western doctor; an injection, he believes, is quicker and more efficacious. The Bedouin believe that medical equipment such as X-ray machines,

stethoscopes, and blood pressure gauges help to diagnose illness and cure it. That is why they always allow themselves to be examined by them.

Blood tests are a different matter, however. The Bedouin loathe, and often refuse to undergo, such tests. Ben-Assa (1964: 451) notes that the Negev Bedouin usually refuse to give blood for a sedimentation test or even for a hemoglobin test; and when they do agree to such a test they complain about weakness and pain in the area of the puncture for years. The Bedouin claim that the doctor or nurse is taking more blood than necessary. In order to understand this attitude, one must bear in mind that blood is viewed as a special value related to faith. Not only does the Bedouin refuse to take blood tests, he refuses to donate blood, even to relatives. He prefers to buy blood when necessary. This view derives from the belief that the blood [21] that leaves him will never return, and is something for which he may never be recompensed.

The Bedouin are terrified of hospitalization, because in their view a hospital is a place for those on the brink of death.[22] When hospitalized, they experience anxiety and disappointment. Relatives and friends will come to visit, despite long travel distances, to make them feel better and boost their morale. For this reason, visiting the sick is a social and religious mandate. One of the most frightening things to a hospitalized Bedouin is the need to undergo surgery. Anesthesia is viewed as a kind of temporary death, as non-inclusion in this world. They are also frightened by the idea of a postmortem. There are also cases of family members at the bedside of a dying person disconnecting him from intravenous lines and taking him home, so he can die there. In this way, they can grant the deceased the respect due him and ask forgiveness (*samah*). Each family member and relative approaches the dying person in turn and says, "I forgive you and ask your forgiveness." To which the dying person replies, "I forgive you and ask your forgiveness." This ceremony is extremely important to the Bedouin, and is perceived as the purification of sins before death (Abu-Rabia 1992: 8–19; Ben-David 1981: 119–21).

According to Ben-Assa (1974: 73–76), the transition from traditional to modern patterns of life and coming face to face with modern society have influenced life among the Negev Bedouin. Some of the young people have gone to work in kibbutzim and moshavim, in factories, and in construction. Changes in eating habits (e.g., foods rich in cholesterol) and changes in the way the modern Bedouin acts in his adaptation to the rhythm of the high-pressured Israeli workplace have led to a high incidence of heart attacks. While the incidence of traditional diseases has declined, Bedouin have begun to suffer from ailments they had not suffered from in the past, such as diabetes, high blood pressure, asthma, ulcers, and breathing difficulties (dyspnea). Despite this fact, certain aspects of

desert life are salubrious; walking long distances develops muscles and proper breathing.[23]

Traditional medical practices and social life were described by Arab scholars as well as Western scholars and travelers during the nineteenth century and early twentieth century. Among these scholars were Bertram Thomas, Anne Blunt, John Burckhardt, Tewfik Canaan, Harold Richard Dickson, Charles Doughty, Hilma Granqvist, Jibrail Jabour, Edward William Lane, Thomas Edward Lawrence, George William Murray, Alois Musil, Edward Henry Palmer, John Philpy, Amin Rihani, Na'um Shuqayr, Robertson Smith, Wilfred Thesiger, Karl Raswan, as well as others. God bless all of them.

Notes

1. Al-Harith b. Kalada (Kilda) (d. 634) traveled to Jundishapur in Persia and studied medicine prior to the advent of Islam. He returned to Ta'if (in Arabia), where his medicine became renowned among the Arabs. He is said to have been a relative of the Prophet Muhammad. The Prophet would send sick people to consult al-Harith. One of these was Sa'd b. Abi Waqqss (Hawting 1989: 127–37). Al-Harith was very familiar with the doctrine of the four humors (*al-Akhlat*) (Ibn Abi Usaybi'ah 1965: 13–17).
2. The first Umayyad caliph, Mu'awiya b. Abi Sufyan (r. 661–680), employed the physician Ibn Uthal. The grandson of Mu'awiya, Prince Khalid b. Yazid (d. 704) had a passion for medicine. He instructed a group of Greek scholars in Egypt to translate Greco-Egyptian medical literature into Arabic. The physician of Caliph 'Umar b. 'Abd al-'Aziz (r. 717–720) was 'Abd al-Malik b. Abjar al-Kinani, a convert to Islam who had studied at the surviving medical school in Alexandria (Savage-Smith 1996: 909).
3. Many physicians were brought to Baghdad. One of these was Jurjis b. Jibra'il b. Bakhtishu'. For eight generations, well into the second half of the eleventh century AD, twelve members of the Bakhtishu' family of Nestorian Christians would serve the caliphs as physicians and advisors, sponsor the translation of texts, and compose their own original treatises (al-Najjar 1994; Hitti 1951: 311–12; Savage-Smith 1996: 910).
4. A Nestorian Christian, originally from al-Hira in southern Iraq.
5. He was a member of Sabian sect of Harran in northern Mesopotamia.
6. He came from Marw, south of the Caspian Sea, and was the son of a Christian scholar. Later he converted from Christianity to Islam.
7. Thus, by the end of the ninth century, the humoral system of pathology as outlined by the Greco-Roman physician Galen in the second century AD had been completely accepted and integrated into the learned medical thinking of the day (Hitti 1951: 311–12; Savage-Smith 1996: 912; Ullmann 1978: 7–40). This system was based upon the notion of four humors: blood, phlegm, yellow bile,

and black bile, derived from the earlier Hippocratic writings. Parallels were drawn with the four elements (air, water, fire, and earth), while the four qualities were aligned in pairs with the humors in the following manner: blood is hot and moist; phlegm is cold and moist; yellow bile is hot and dry; black bile is cold and dry. The four seasons of the year were important, and climatic and geographical conditions were also considered significant (al-Azraq 1948: 2–7; Khan 1986: 37–50; Ullmann 1978: 55–62). Hippocrates, Galen, and the Arab physicians, particularly Avicenna, were the principal authorities for medical theory and practice (Foster and Anderson 1978: 59) at the time.

8. He was born near Bukhara in Central Asia into a family devoted to learning. Known as the Prince of Physicians, he combined the legacy of Greek medical knowledge with the Arab contribution in his *Canon of Medicine,* which is the epitome of Islamic medicine and the culmination of Arab systematization. It was translated into Latin and taught for centuries in Western universities, becoming one of the most frequently printed scientific texts in the Renaissance. In several medical faculties, it was a textbook until 1650. The Canon focused Greek and Islamic medical knowledge, which included medicine, anatomy, physiology, pathology, and pharmacopoeia (al-Said 1997: 695–98).
9. Born in Rayy, Persia, he studied in Baghdad, lectured, and practiced medicines. His most celebrated work was *Kitab fi al-Jadari wa al-Hasba* (On Smallpox and Measles), which was translated into Latin and later into other languages, including English. Another famous book is the *Kitab al-Tibb al-Mansuri* (Book of Medicine), a short general textbook of medicine of considerable influence, dedicated by al-Razi in 903 to the Samanid prince Abu Salih al-Mansur b. Ishaq, governor of Rayy.
10. The material in al-Hawi is arranged under the headings of different diseases, with separate sections on pharmacological topics. This book (24 volumes) was one of only nine books used in the Medical Faculty of the University of Paris.
11. Abu-Nasr al-Farabi, d. 950 (Alpharabius Avenassar), philosopher and musician.
12. The first hospitals were established during the reign of al-Walid ibn ‘Abd al-Malik (705–715) in Damascus (al-Shatti 1970).
13. Zanj (also transliterated as Zenj or Zinj, in Arabic “Land of the Blacks”) was a name used by medieval Arab geographers to refer to both a certain portion of the East African coast and its inhabitants and is the origin of the place name “Zanzibar.”
14. See also Dols (1987: 367–90).
15. The Greeks believed in the divine origin of epidemic diseases.
16. For more comparative details about this topic among the Indians and the Maya see Salazar 1992: 44.
17. For more details about uses of beads among the Arabs in different centuries, see Tifashi 1977; Kunz 1915: 131–33, 281–324, 360–78; Ibn Zuhr 1992 (*Kitab al-Aghdhiya*).
18. This belief exists in other societies. Foster and Anderson note that “illness is attributed to sin, taboo violations, and other forms of wrongdoing. In the Judeo-Christian tradition illness historically has been explained as God’s pun-

ishment of man for his moral lapses, for his sins. Individual illness represented personal transgressions, while great epidemics signified major social moral failures. In either case, repentance and adherence to God's law was the way to recovery and the avoidance of future affliction" (1978: 43). Roemer states that "God has revealed his law. Whoever follows it piously will be blessed in this world. Whoever breaks the law will be punished. Every disease is a punishment. Every suffering is a suffering for sin—for the sins of the individual himself, for those of his parents, or for those of his relatives" (Roemer 1960: 14).

19. *Baraka* is divine goodness, blessings bestowed on a man/woman by God (Abu-Rabia 1999a: 20–24, 75–76); *baraka* is the divine blessing bestowed on man/woman by virtue of his/her birth and origin, and it is made manifest in the good works of its possessors (Peters 1990: 279).
20. In anthropological terms, "[t]o name an illness is important for two reasons. First, since the known is less threatening than the unknown, it is easier to live with a named than an unnamed illness. And second, naming an illness determines its etiology, its cause, which in turn provides the doctor with the information he needs to carry out treatment" (Foster and Anderson 1978: 158). Among populations in the Middle East, "the healer, when summoned to the bedside of the patient, identifies the illness. To do this is to immediately define it, circumscribe it, tame it, weaken it. The diagnosis provides the patient with a sense of relief that the unknown pain has been mastered and provides the practitioner with a medical treatment" (Shiloh 1961: 277–88).
21. It is worth comparing this point with Jehovah's Witnesses' views on blood and blood products: they refuse blood products because it is their religious conviction that God (Jehovah) will turn his back on anyone receives a blood transfusion. Rather than risk eternal damnation, Jehovah's Witnesses avoid transfusions for themselves and their children (Jehovah's Witness case 1964; Koenig 2002: 81; Miller 1984: 174–88; Rosen 1998: 69–73).
22. The Bedouin patient is never left alone at home or in hospital. It is important to note that "sometimes people resist hospitalization, not only because hospitals have been perceived historically as places people go to die, but because hospital practices often conflict with traditional patient care" (Foster and Anderson 1978: 229). Foster and Anderson note that "[t]he number of well-wishers pressing into the room varies directly with the gravity of the patient's condition to the point where, to an outsider, it seems a miracle that a dying man's departing soul can fight its way clear of the press of humanity" (1978: 117). This is much like the situation among the Navaho, where the presence of family and friends is assuring to the patient, who feels they are all working to restore his health (Adair et al. 1969: 83–110). Similarly, in lower Zaire, the patient is likely to be supported by a therapy managing group—a set of kinfolk, friends, acquaintances, and community members who confer with the traditional healer and representatives of his/her support structure in the healing process (Janzen 1978).
23. For more on this topic see Chapter 1.