A Russian physician, now living in the United States, recounts that as a medical student in 1982, she became ill and jaundiced during a work assignment at a rural collective on the Aral Sea, where sanitary conditions were poor. After returning to her home in the capital of Kazakhstan, she was admitted to an infectious disease hospital with a diagnosis of viral hepatitis; serologic diagnostics to determine the specific etiology were not available.

Her care followed a protocol for hepatitis promulgated by central health authorities in Moscow that was adhered to throughout the Soviet Union. During the first few days of the prescribed 21 days of hospitalization, the patient received IV glucose and vitamin C. Meanwhile, a team of public health workers went to her home to fumigate with chloramine, a mixture of ammonia and bleach. All clothes and bedding were washed in hot water and ironed on both sides. At the recommendation of her doctors, family members brought in carrot juice, honey, and cheese curds—to clean the biliary tract of toxins. A tea made from corn silk was also given to help this process. She did not receive Liv52, a scarce and expensive “hepatoprotective” enzyme drug from India or China, available on the black market and thought at the time to cure hepatitis, although it is now thought to be carcinogenic. She did not receive steroids, which were reserved for more serious cases of hepatitis. The patient’s mother, a scientist, brought her a louse. A louse eaten with bread was a folk remedy for hepatitis. She elected not to eat the louse, but several patients on her ward did eat lice. After the standard hospitalization, the patient was allowed to return to light work and followed a strict low-fat, no-spice, no-alcohol diet for months, recovering with no residual effects.

This case, which would be handled in a similar manner today, illustrates many cultural facets of health care in the former Soviet Union (FSU): the role of the family, the blend of standard and folk medicine, and the impact of health service policy. The net result of these factors is that the health care experience of persons from the FSU has been significantly different from that of persons in the West.1

This article is a review of published materials on health care in the Soviet Union and the FSU. The article also integrates information I gathered while working as a Peace Corps medical officer for 21/2 years in Kazakhstan, a former Soviet republic. During my work there from 1995 to 1997, I gathered information from sources that included lay persons and health professionals (Kazakh and foreign), some of whom participated in a monthly medical journal club and readily shared accounts of their practices and theories of

From the US Embassy, Abidjan, Cote d’Ivoire.
medicine. Other sources included professionals at local health care facilities and reports of Peace Corps volunteers who lived in cities throughout Kazakhstan and whose acquaintances regularly urged local treatments and folk remedies on them. Ukrainians, Estonians, Russians, and members of other FSU ethnic groups in the United States have since corroborated the beliefs and types of practice described here. The ethnomedical framework is used to develop and report information.

With the breakup of the FSU, increasing numbers of immigrants from this region are coming to Western countries, including the United States. An understanding of the background experience and mind-set of this population will enable health care professionals to better meet the health needs of these immigrants in the context of US culture. The intent of this analysis is not to generalize specific beliefs to all persons from the FSU but to provide a window into the thinking and behavior of these patients and their families, all of whom shared a common experience during most of the 20th century.

Background

Immigrants from the FSU are often lumped together as “Russians,” but in fact, the Soviet Union was composed of 15 republics, many of which have unique ethnic identities and indigenous languages. Nevertheless, most immigrants from the FSU speak Russian, and all will have a shared experience of Soviet medicine. The centrally planned economy of the Soviet Union meant that there was only one “school” of health care, and there was, therefore, more uniformity in the administration of health care among these republics than is seen in the United States.

The Soviet Union was a powerful nation, but its people endured hardships throughout this century as a result of the devastation of war and harsh economic and political circumstances. For much of the century, the country was fairly isolated from the West, while it struggled at mass industrialization, agricultural collectivization, and efforts to build a classless society. A high level of education, free health care, housing, employment, and a pension were assured to all. Public health efforts brought under control the epidemics that had historically ravaged the country.

It is widely known that Soviet health care was provided under poor conditions with exceedingly scarce resources. Knaus, in the most comprehensive work on Soviet medicine, described a grim system with no disposable equipment, erratic drug and equipment supplies, authoritarian physicians, and little access to international medical developments. Health care was also stratified, with high Communist Party officials able to obtain a higher standard of care. Conditions became increasingly constrained in the decades before the Soviet collapse; by 1990, basic medicines such as aspirin and penicillin became difficult to obtain, and infant mortality in some areas was 10 times greater than in Western European countries.

Health care has deteriorated further since independence in many of the former Soviet states. If one simply examines the budgets of the Ministries of Health in the FSU republics, it can be seen that the current funded annual per capita health expenditure in these countries ranges from less than $3 in Tajikistan to $30 in Russia, compared with $3,925 in 1997 for the United States. Such sums can only purchase the most basic of health care. Infectious diseases, including diphtheria, typhoid, syphilis, and malaria, held in abeyance in better times, have recently caused epidemics. As the countries of the FSU have tried to switch to a market-based economy, antibiotics and other drugs have become available without prescription and are even sold commonly at sidewalk markets. Malnutrition is rising, and depression is widespread but often unrecognized and untreated. Smoking and alcoholism are rampant and are major causes of premature death, especially in men. The life expectancy of men in the Russian Federation is only 57.6 years, compared with 64 years in other developing countries.

Concepts of Causality

Western health practitioners who work in the FSU quickly realize that significant differences exist between Western and Soviet explanations of illness and rationales for therapeutics. The epistemology of Soviet medicine is as distinct from Western-style medicine as are Chinese and Ayurvedic medicine, according to Michael Borowitz, MD, a US physician and economist who has worked in the FSU for several years, assisting some of the new governments to develop their first health insurance programs. Health problems are generally regarded as physiologic in origin, but many treatments are based on reasoning inferred from theory and physiologic principles rather than from clinical trial research. Whereas the United States uses a biomedical model, distinguishing mainstream from alternative forms of care, Soviet medical care is a mix of standard Western medicine with natural cures and spa treatments.

Different Illnesses

Some illnesses to which Russian and Central Asian physicians commonly refer have no Western equivalent, illustrating how concepts of disease are changeable or culture bound. For example, a syndrome of “intracranial hypertension” is thought to be present in about one in every three babies and children. Although lacking a precise case definition, this syndrome is said to be characterized by large head circumference and bulging fontanels. According to Elena Melyakova, a Kazakhstani internist of Siberian ancestry, children with this syndrome are irritable, have problems in school,
and do not play normally or engage in many out-of-school activities. Nausea and vomiting may be present. Aspects of the condition may be mild or severe, and children suffering from it have intermittent crises. Although there are no long-term sequelae, the condition is treated with vitamins, mild diuretics, and sedatives. The condition is overdiagnosed, according to neurologist Gulbanu Altynebaeva, also from Kazakhstan, who reports that it is used for children who are irritable with no apparent cause.

Another frequently described condition with no firm Western equivalent is “dysbacteriosis.” This is a syndrome of abdominal pain, poor appetite, and diarrhea; it may follow excessive treatment with antibiotics. Children with this condition are pale and inactive. The condition is diagnosed by the presence of “atypical bacteria” in the stool. It is treated with diet change and lactobacillus and bifidum bacillus cultures, taken diluted in warm water between meals. The symptomatology bears some resemblance to pseudomembranous colitis, but vancomycin was not available in the FSU. Diarrhea that is refractory to treatment may as a last resort be treated with injectable streptomycin, diluted and taken orally; this was thought not to be absorbed but to act locally on the gastrointestinal tract. Another common condition, “avitaminosis,” is manifested by lethargy and is most frequently observed in early spring.

In the FSU, popular beliefs about the causes of illness tend to be naturalistic, which means that illness is explained in impersonal, systemic terms. It is widely believed that cold drinks cause sore throats. Sitting on stone or dressing with inadequate leg covering is believed locally on the gastrointestinal tract. Another common condition, “avitaminosis,” is manifested by lethargy and is most frequently observed in early spring.

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Superstitions

Superstitions are beliefs or practices that lack a scientific basis. Superstitions are often founded on fears of the supernatural. In the FSU, a number of superstitions are pervasive today, even among the most highly educated persons and are common among those transplanted to the United States. Some superstitions are not taken seriously, but others are rigorously respected. For example, the dreams of a pregnant woman are said to foretell a baby’s gender—a knife predicts a boy, and flowers indicate a girl. Good news or a compliment needs to be received by a feigned spitting over the shoulder three times to prevent bad luck. A long trip must be preceded by being seated for a short, quiet moment before the journey begins for good luck. Handing money directly to a friend at night will bring trouble—it must be placed on a table and then picked up by the other person. Returning to one’s home unexpectedly for a forgotten object requires casting a quick glance in the mirror to keep the mischievous house spirit (domovoi) from creating trouble.

Magic

Magical curing (znakharstvo), also ascribed to supernatural forces, is a type of primitive practice with an origin that predates the formation of the Soviet Union. Magical healing is the domain of znakarki or wise women, who use magic water and whispered charms to treat illness. These women claim to cure bedwetting, chronic pain, and other problems that respond poorly to ordinary medical care. Other healers who depend on supernatural forces include psychics, extrasentititives, and clairvoyants.

Magical curing has never been sanctioned by organized Soviet medicine, but it is still practiced. There has long been a tension between conventional and magical curing in the Russian-speaking world. As recently as the 1970s, a call for increased propaganda efforts was issued to stamp out magic practices. However, as the fabric of the Soviet Union began to unravel, there was a rise in magical curing. Interest in this and other occult phenomena remains widespread at present, pervading all levels of society, even the most highly educated scientific elite. David Remnick contends that periods of instability in Russian history have also fed an interest in the occult. Just prior to the Russian revolution, for example, the semiliterate healer Rasputin obtained great power in the court of the Tsar after he used hypnosis to cure a member of the royal family of hemophilia. Eighty years later, as the collapse of the Soviet Union approached, there was a dramatic rise in magical healing activities, including government-sanctioned, mass healing events on television.

Nature and Role of Therapists

Primary care in the FSU is conducted at specialized polyclinics by general practitioners and, occasionally, specialists, whose armamentarium principally includes a stethoscope and sphygmomanometer. Physicians tend to make rapid diagnoses and base treatment, sick leave, or hospitalization on clinical impressions. Because medical care in the FSU was not constrained by the efficiencies of cost containment, common problems such as hypertension might require numerous referrals for basic physical assessment and diagnostic workup. This has been reflected in a high number of health care contacts for persons of all ages (18 per year). X rays and basic laboratory work require a trip to the hospital and frequently a hospital stay.

Conditions that would be handled routinely on an outpatient basis (ie, gastritis or pneumonia) in the West are managed by specialists in a hospital and entail an official minimum length of stay. “Hospital” has a different meaning in the FSU. It is a place to rest or queue up for tests or treatments. In the Soviet past, there
was no motivation to discharge patients from the hospital, because remuneration of hospitals and physicians was correlated with patient census. The incentive was to admit more patients and strive for longer lengths of stay.\textsuperscript{15} Nor was there any motivation on the patient’s part to leave the hospital, for there was no loss of salary due to absenteeism from work. As a result, the Soviet Union had triple the number of hospital beds and double the number of doctors per capita as the United States, with three times the average length of hospital stay.\textsuperscript{1}

**Forms of Therapy**

**Conventional Treatments**

Some medical treatments used in the FSU are similar to those used in the West. For example, a patient with hypertension is likely to receive diuretics and beta blockers. Infections, in general, are treated with the same classes of antibiotics. However, the preference of physicians and patients alike is for medication by injection. In Soviet times, children routinely received vitamin injections in school, and, in the first year of life, babies in the Central Asian republics routinely received between 200 and 400 injections, in spite of a lack of disposable syringes.\textsuperscript{4}

Lifestyle modification as a first-line treatment for diabetes and hypertension is unknown. Exercise is not typically recommended, and there is no widespread exercise culture, such as jogging or even walking, except on a limited basis in a few urban areas. Diets tend to be high in salt and fat.

The quality of preventive health screening and follow-up in the FSU is reported to be poor.\textsuperscript{16} A recent study of Russian and Ukrainian immigrants in Virginia demonstrated limited past screening for cholesterol, blood pressure, and cervical or breast cancer.\textsuperscript{17}

Some medical treatments are changing. For example, abortion was the principal method of contraception until recently, but birth control pills are now becoming available. Similarly, while Freudian psychology was banned for part of the Soviet years as undermining societal transformation, this field is now opening up to change. Rather than the indiscriminate use of the schizophrenic diagnosis for dissidents,\textsuperscript{18} psychiatric diagnosis is becoming more rational.

**Balneotherapy**

In the FSU, routine medical treatment of disease includes balneotherapy (therapeutic use of mineral springs bathing) and physiotherapy, which has a different meaning from physical therapy. Balneotherapy does not actually entail much rehabilitation medicine but, rather, embraces the therapeutic use of natural resources: water, air, minerals, and sun.\textsuperscript{19} In countries that have mineral springs, as do the FSU republics and several European countries, balneotherapy is integrated into standard medical care, and therapies recommended for various ailments depend on the chemical content of water or mud in the region.\textsuperscript{20} Simpkins\textsuperscript{19} reported the use of mud and peat baths for circulatory problems, neurosis, and hypertension. Dry carbon gas baths treated radiculitis. Sulfurated hydrogen baths were indicated for pelvic inflammatory disease, skin disorders, myocardial infarction, and other cardiovascular diseases. Vaginal and rectal mud packs were used for prolapse.\textsuperscript{19} Mud baths with a low content of radon are still considered particularly good for the immune system. The rationale for the use of salt, sand, peat, cupping glasses, and mustard plasters is to irritate the skin, thereby stimulating the flow of blood that is rich in oxygen, nutrients, and antibodies to an ill spot.\textsuperscript{21} Many of these practices were in use in 1996 when I visited a physiotherapy department in a top-flight urban hospital formerly catering exclusively to high government officials.

Month-long spa visits were a normal part of healthful living for adults and children in the Soviet era, as saunas, steam baths, and massage are. Two years ago, in a Russian school in Kazakhstan, my children received 10 massages in the spring and 10 in the fall (to stimulate the immune system) as a part of the curriculum. The scene in public baths today, with massage and washing occurring in a large open room, is virtually unchanged from ancient times.\textsuperscript{22}

**Folk and Home Remedies**

Folk medicine and home remedies abound in the FSU. These have many regional variations, with origins in Arabic, Persian, and Chinese medicine; scientific Soviet medicine included the use of plants (and less frequently, animal and mineral materials) in its pharmacopeia.\textsuperscript{21} Folk remedies are tolerated by and sometimes prescribed by physicians.\textsuperscript{1,22} Urine, especially that of a baby, is popularly used for wrapping painful arthritic joints. Animal bile, which is sold in pharmacies, is used in the same way. “Urinotherapy,” or drinking one’s own urine, was in vogue recently to improve well-being or as a last resort in severe illness. Drinking kerosene was reported to me as a last-resort treatment for cancer. In Kazakhstan, examples of home treatments include the application of horse fat for burns, skin wounds, and low-back pain and the wrapping of one’s back in dog hide as a treatment for back pain.

Vodka is said to have an enormous range of beneficial effects. It is rubbed on cold feet or on the chest in case of cough or taken orally with pepper for an upper respiratory tract infection or stomach complaints. It is said to reduce illnesses from radiation and heavy metal exposure. A woman with an undesired pregnancy might try a folk remedy, such as drinking vodka, followed by the sauna.
**Foods and Herbs**

Certain foods and herbs are considered to have specific therapeutic value. Butter ingestion is thought to improve vision. Dill is used to reduce heartburn, while ulcers might be treated with chamomile tea. Anise and honey is a treatment for gas, while raspberry tea is preferred for fever. A cabbage leaf might be used to wrap the head in case of headache or placed against the breast for mastitis. Shredded black radish is applied topically in a paste for back pain. Strong tea directly instilled into the eye is said to be good for conjunctivitis. In case of cystitis, a woman may place a red-hot brick in a bucket of water and squat over the steam. Grated beets placed up the nostrils are thought to help cold symptoms. Folk remedies such as these will vary some in different regions but are an important part of everyday life throughout the FSU.

Helman suggests that food habits are among the last cultural behaviors to be lost when people emigrate, because drinking and eating practices assure cultural continuity at a time of cultural stress. So, too, may folk health practices persist after emigration and influence the patient’s willingness to follow the medical plan.

**Other Professional Medical Treatments**

Treatments discussed freely and considered common by physicians in our medical journal club included intramuscular injection of autologous venous blood as a treatment for acne, use of a 10-day course of aloe vera injections for pelvic inflammatory disease, and laser treatments to the gums for gingivitis or through a subclavian catheter for myocardial infarction. Direct ultraviolet radiation is used for prevention and treatment of tonsillitis, gingivitis, and other types of inflammation.

Infection and consequent target organ damage are diagnosed by computer by placing electrodes at acupressure points on the fingers; then, water in a jar, charged externally with antibiotics, is ingested as a treatment. According to one dentist, a common treatment for gingivitis or preventive measure against cavities is to place gauze saturated with an antibiotic solution on the gums of patients, who then receive a small electrical charge via electrodes placed over the gauze. Electromagnetic stimulation of the thyroid is used for ulcer treatment and adrenal gland stimulation for lupus and rheumatoid arthritis. Electroanalgesia, the passing of current through the body via electrodes on the head, is used for childbirth.

Enemas are prescribed to help with weight control for obese persons. Leeches were still used in the 1970s and cupping (the use of heated jars to create suction on the skin) is still used in clinics and hospitals for respiratory ailments. Several times, I observed the circular bruises left by the cups on bare-chested children in the summer heat.

**Summary**

Patients from the FSU may present to the US health care practitioner with significantly different past health care experiences from US patients. Patients from the FSU may be superstitious and use herbal and other home remedies or have different conceptions of illness and health. They may be poorly informed about primary prevention and current US attitudes regarding diet and exercise. Patients may also be surprised at the easy-going, informal demeanor of US physicians and nurses and by the quantity of information and choices made available in health encounters. Many FSU patients will value these features of the clinician-patient relationship and may even expect unrealistic “cures” from an idealized system. But, many will be disappointed by facets of Western medicine, such as the preferences for oral over injected medications and for outpatient care over hospitalization.

**Implications for Practice**

Many immigrants have to deal simultaneously with adjusting to a new culture and with grieving for the familiar life they have left behind. While FSU immigrants may embrace their new lives in the West, many have to deal with the psychological burden and guilt of having left behind relatives and friends who still live under dire conditions. The stress of illness may accentuate the stress of living in a different culture and cause patients to engage in manipulative behaviors that had served them well as patients in the FSU.

Besides being aware of the ethnicity of FSU immigrants beyond simply a “Russian” identity and using interpreters as necessary, the practitioner needs to understand the patients’ past experiences of health care and be sensitive to their different attitudes to health. Family physicians need to take a proactive approach to this interaction and must be prepared to educate regarding health concepts and the health care process in the United States. A sympathetic understanding of the strains of adjustment will help establish a successful rapport.

FSU immigrants are generally educated and resilient and have had to be resourceful enough to survive in the FSU and start life in a new country. Clear communication and an attempt to understand the patient’s perspective will promote the patient’s ability to cope, adjust, and live healthfully in a new world.

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