

Sudanese Refugees in a Minnesota Family Practice Clinic

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Background and Objectives: *During the 1990s, African refugees from the southern Sudan were resettled in Minnesota. This research characterizes the health care utilization of a small sample of these recently arrived refugees and describes their health histories.* **Methods:** *Data were abstracted from the medical charts of all identified Sudanese patients in an urban, Midwestern family practice residency unit.* **Results:** *A small sample of Sudanese refugees were found to have high rates of prior infectious illness and experienced communication difficulties in accessing health care.* **Conclusions:** *Information about this sample's demographic variables, health behavior, health histories, and communication difficulties are documented. Some descriptors of the Nuer ethnic group are provided, and issues are raised that may help health care workers provide more culturally competent care to this Sudanese refugee population.*

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An emerging challenge for urban, suburban, and even rural physicians is providing care for persons from places about which physicians have little prior knowledge. This is an issue of increasing concern in many regions previously considered relatively ethnically homogeneous. Minnesota, like other Midwestern states, has experienced a significant change in the ethnic makeup of the population since the mid-1980s.¹

At our medical school, both medical students and family practice residents receive special instruction on becoming culturally competent. By cultural competence, we mean that health care providers, and the systems in which they operate, acknowledge the effect of culture on patients' health outcomes and respond respectfully and effectively to people of all cultures.² Polednak points out that "the first step toward alleviation of . . . disparities in health status between immigrants or minority groups and the majority or dominant group is their documentation through descriptive epidemiologic studies."³ Our descriptive study was undertaken to better understand and document the health care received by culturally different, newly arrived Sudanese refugees. We describe health

care utilization by Sudanese patients at our family practice clinic and document their health histories. The results provide a first look, albeit of a small sample, at the health care utilization of this unique African group.

Methods

This study was submitted to our Institutional Review Board. The Human Subjects Committee designated the research as exempt from review under federal guidelines 45 CFR Part 46.101(b) cat. 4.

Setting and Subjects

Our residency clinic serves a predominantly lower-income, disadvantaged neighborhood in urban Minneapolis. African-Americans are heavily represented among clinic patients. Since the late 1970s, many immigrants have been clinic patients, but few of them were from Africa.

From 1992 to 1997, Sudanese refugees were resettled in Minnesota and in other states. As they adapted to a radically different environment from their native Sudan (Figure 1) or other African host country, such as Kenya, where they may have lived in a refugee camp for a number of years, they brought unique parts of their social background with them. Official figures currently place the total number of Sudanese refugees in Minnesota at around 500, of

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Figure 1

Sudan: Home of Study Subjects
Now Resettled in Minnesota



which approximately 400 are thought to reside in the greater Minneapolis-St Paul area. As such, they represent a much smaller minority population than other refugee groups resettled in the Midwest, such as the Hmong or Vietnamese. Access to formal education in the Sudan is poor; therefore, the educational levels of this population tend to be low. The predominant ethnic group among the Sudanese in Minnesota is the Nuer. As a southern Sudanese ethnic group, the Nuer have been caught up in the ongoing civil war between the northern Sudanese Muslims and the southern Christians.⁴ The Nuer typically are Christian, hold indigenous religious beliefs, or follow a combination of these two belief systems. Within the discipline of anthropology, the Nuer were the subject of a series of classic, ethnographic studies in the 1930s.⁵⁻⁷

Subject Identification

There is no direct identifier for Sudanese ethnicity encoded in our computerized clinic data system. Therefore, to identify Sudanese patients, we surveyed all staff working in the clinic, including a total of 35 faculty and residents and 10 non-physician staff. These individuals were asked whether they had cared for any patient known to be from the Sudan or any patient of unknown African origin who could be Sudanese. They were asked to recall any identifying

demographic information about this patient. Through tracking of the information provided and then cross-checking with medical charts, we identified 15 active charts of patients who were confirmed to be Sudanese refugees. It is not possible with existing record systems to know if this number represents all of the Sudanese patients seen in this clinic, but it is thought to represent most.

Data Collection

One investigator reviewed the medical records of these patients and abstracted relevant data from all parts of the medical record, including the dictated progress notes, laboratory results, correspondence, insurance information, and a self-completed patient history form given to all patients at their first visit. Additionally, in some charts, there were informal handwritten comments by clinic staff that were considered relevant and were collected. Although patient confidentiality was maintained by using numeric patient identifiers, the form of the names was studied and documented. Data were abstracted concerning patient demographics, language skills, past medical history, presenting complaints, laboratory results, and health care utilization.

Results

Demographics

All 15 medical charts were reviewed. Table 1 shows the patients' demographic characteristics. Most patients had not completed the descriptors for employment type and, apart from four of the adult males, the achieved educational level was not described in the records. The records of patients documented some type of medical insurance, most commonly a capitated form of Medicaid. All patients had a home telephone number at the time of registration. The birth date of two patients was listed as January 1, and the surnames differed across members of the same family. In six records, the patients had identified themselves as Sudanese or Nuer, in two records as African or black, and in six records as African-American.

Health Services Utilization

The young adult males had been clinic patients for periods of time ranging from 8–18 months. Only one male was receiving long-term medication (for peptic ulcer disease). The women had been attending our clinic from 3–13 months; two women were receiving depo-progesterone contraceptive injections, and one was prescribed an antituberculous medication. One of the children was an adolescent female who attended the clinic by herself for birth control and immunizations. The referral rate for this group, in general, was low except for one male who received five referrals, either to subspecialists or to have procedures performed outside of the clinic. In addition, one 3-year-old child

was referred to an otolaryngologist multiple times for evaluation of speech and language delay but apparently did not keep six such appointments. The no-show rate was highest for the group of adult male patients (25%).

Health Status

Prior to entry into the United States, each refugee was required to have a physical and mental health examination under the visa provisions of the Immigrant and Nationality Act.⁸ A copy of this examination was included in the charts of some patients, but most charts included no previous medical records. No complete physical examinations had been performed in our clinic on any of the adult patients, and, apart from one woman who had five prenatal visits, all adult visits were for acute care. There-

Table 1
Demographics of Study Subjects

	Number	Completed Education	Married	Ages (years)
Adult male	5	Grades 4, 10, 11, 12	2	22, 23, 25, 30, 32
Adult female	3	Not recorded	2 and 1 widow	27, 27, 44
Child	7 (3 male, 4 female)	Not recorded	—	1, 1, 2, 3, 3, 3, 15

fore, the available documentation concerning previous illness was sketchy. Table 2 summarizes the past medical histories, immunization status, and personal habits of the patients, based on the information recorded in the medical records.

Of those who presented with abdominal pain, examination of feces for ova and parasites was positive for some organism in all but one patient. Identified

Table 2
Study Subjects' Past Medical History, Immunization Status, and Personal Habits

	Adult Males (n=5)	Adult Females (n=3)	Children (n=7)
Immunization	1 Td, 1 Td and MMR, 3 n/r	1 "in Africa," 2 n/r	5 up to date, 1 delayed, 1 n/r
Nicotine use	3 yes (1 chewing), 1 no, 1 n/r	1 no, 2 n/r	—
Alcohol use	2 yes, 2 no, 1 n/r	2 no, 1 n/r	—
Illegal drug use	1 yes, 2 no, 2 n/r	1 no, 2 n/r	—
History of tuberculosis	3 (+) PPD with INH treatment, 1 (-) PPD	1 (+) PPD with no INH treatment, 1 (-) CXR noted, 1 (+) CXR*	1 (+) PPD with INH treatment**, 1 PPD unread
Hepatitis A	4 (+)	n/r	1 (+)***
Hepatitis B	3 (+)	1 (-) prenatally	—
Hepatitis C	1 (+)	n/r	—
Laboratory-identified intestinal parasites	3 (+), 1 (-)	1 (+)	1 (+)
Most-frequently presented symptoms	Abdominal pain 4, sex problem 3, anorexia 2, depression 2, suicide gesture 1	Birth control 2, abdominal pain 1, depression 1, sex problem 1	Well-child exam 5
Other illness	Syphilis 1	Syphilis 1	Speech delay 1, requested herbs 1

Td—tetanus, diptheria

MMR—measles, mumps, rubella

n/r—not recorded

PPD—tuberculin test

INH—isoniazid treatment

CXR—chest X ray

* "History of abnormal chest X ray" was documented in this female patient's chart without further elaboration

** This child was documented as having previously received the BCG vaccine

*** This child's record noted a "past history of hepatitis."

(+) = condition present

(-) = condition absent

organisms included *Giardia lamblia* and *trichuris trichuria*. Three of the seven children were above the 95th percentile for both height and weight. Height was not documented for most adults, but one male was recorded as being 6 ft 4 in tall and weighing 138 lbs.

Language and Communication

A language problem was explicitly noted in many of the dictated progress notes of clinic visits. Language problems were found in four of the seven children's records, in all three adult female charts, and in two of the five adult male's charts. Only one of the adult female's records indicated that an interpreter who was not a family member was present during the visit. With the two males with language difficulties, unsuccessful attempts were made to use an interpreter service provided by a national phone company.

Discussion

The degree to which this sample is representative of the larger population of Sudanese refugees in Minnesota, or in the United States, is unknown. The sample population studied here is small. This sample may be biased, because we had to rely on physician recall to identify subjects. It was difficult to identify the charts of Sudanese patients in our clinic. The variability in family surname compounds the difficulty in establishing a medical records system that accurately codes for uncommon minority populations, such as the Sudanese.

However, this sample does not appear to differ in any substantial way from the general picture that service providers hold of Sudanese refugees in Minnesota. One characteristic that distinguishes the Sudanese from other refugee populations in Minnesota is that it is a young population. The one 44-year-old patient in our sample would actually be considered an elder in the Sudanese refugee community.

As has been noted, one of the principal obstacles in providing health care to Sudanese refugees in the United States is difficulty with language.⁹ Self-reported education levels for the male adults in this population ranged from fourth grade to 12th grade. However, education level does not necessarily predict for English language literacy because the medium of instruction in Sudan is most often Arabic. Some patients may have achieved a certain degree of spoken English proficiency while living in a refugee camp but may not be able to read or write in English. The unsuccessful attempts to use a phone interpreter service and the infrequency with which a non-family member interpreter was present may reflect the difficulty of providing adequate interpretation services for a small, recently arrived minority population. The use of a trained interpreter in health care settings is con-

sidered one of the necessary elements of cultural competence.²

Adding to problems associated with literacy and English proficiency is confusion about birth dates and naming practices. As is common among populations without a strong history of written documentation, the "default" birth date is January 1. This was the case for two members of this sample. Naming is a complex process among the Sudanese.¹⁰ Members of one conjugal family typically do not share the same surname. This is commonly the case for husbands and wives, but it often occurs for children as well. A simplification of this process is that the child's first name is selected by the father. The middle name is the father's first name and the last name is the paternal grandfather's first name. For example, a man named James Deng could, hypothetically, name his child Thomas James Kuoth. Variations on this theme may also include members of the mother's family names. This practice was seen widely in this study sample population and appeared to have generated confusion among the medical records staff.

In 1992, the Minnesota State Department of Health indicated that "the most significant health problems of refugee populations [are] TB, hepatitis B, intestinal parasites, anemia, leprosy, and mental health needs" and recommended that initial screening tests for TB, hepatitis B, and intestinal parasites be performed on all refugees.⁸ Our sample reflected the prevalence of prior or current infectious illnesses in this population.

There is little available literature on the health care of resettled Sudanese refugees in the United States. One article describes southern Sudanese refugees as "generally tall, thin, and extremely dark-skinned, many Nuer have long cauterized scars running horizontally across their foreheads and other decorative scars on their cheeks, marks made during a traditional coming-of-age ceremony."⁹ Another article uses a family as a case study and details some of their struggles to adapt to life in the United States.¹¹

There is more literature available on the health care of the Sudanese in Africa, either in Sudan or as refugees in other African countries. A study of 2,233 southern Sudanese in refugee camps, including approximately 44% from the Nuer tribe, concluded that "the [Nuer] have slender bodies and are among the tallest in the world and may attain greater height if privileged with favorable environmental conditions during early childhood and adolescence, allowing full expression of the genetic material."¹² Our sample recorded one male with a very low BMI and three children who appeared considerably larger than the average American of the same age, which may predict for future large size.

Another study performed in the Sudan indicated that 66% of the population studied harbored intestinal parasites.¹³ Intestinal parasites appeared to be common in our sample, although only those who presented to us with abdominal pain had fecal samples tested for ova and parasites. Some of the identified parasites were considered benign and did not require treatment. A survey of 500 Sudanese in a major city in the Sudan, where more than half of the subjects were prostitutes and their male clients, documented that 17% of the entire sample had serological markers for syphilis and 68% for hepatitis, with no cases of HIV infection.¹⁴ Serology indicating some form of prior hepatitis infection was found among all those tested in our sample except for one pregnant female who tested negative for hepatitis B infection during prenatal care.

Finally, it had been noted elsewhere⁹ that Sudanese patients are a difficult population to care for because they frequently arrive late for or miss appointments. This was not confirmed in our sample; children missed few appointments, and the highest no-show rate of 25% in adult males was still below the clinic average for all patients.

Conclusions

This study has reviewed the demographic variables, health utilization, health status, and communication difficulties documented in the medical records of a family practice residency unit of a small sample of newly arrived Sudanese refugees to Minnesota. The results confirm high rates of prior infectious disease in this group and suggest that this group does experience difficulties in accessing health care, notably related to communication barriers. Some descriptors of the Nuer ethnic group are provided, and issues are raised that may assist health care workers provide more culturally competent care to this Sudanese refugee population.

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