

Medical Anthropology

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Medical anthropology is the study of human health and disease, health care systems, and biocultural adaptation. The discipline draws upon the four fields of anthropology to analyse and compare the health of regional populations and of ethnic and cultural enclaves, both prehistoric and contemporary. Collaboration among paleopathologists, human biologists, ethnologists, and linguists has created a field that is autonomous from any single subdiscipline, with strong potential for integration of physical and Cultural anthropology. The field is also highly interdisciplinary, linking anthropology to sociology, economics, and geography, as well as to medicine, nursing, public health, and other health professions.

Since the mid-1960s, medical anthropology has developed three major orientations. Medical ecology views populations as biological as well as cultural units and studies interactions among ecological systems, health, and human evolution. Ethnomedical analysis focuses on cultural systems of healing and the cognitive parameters of illness. Applied medical anthropology deals with intervention, prevention, and policy issues and analyses the socioeconomic forces and power differentials that influence access to care. In this triad, cultural anthropology is most closely allied with ethnomedicine. In the formative years, some anthropologists favoured identifying the field as "ethnomedicine," while others preferred "anthropology of health." The term "medical anthropology" prevailed, however, coming to represent a diversified range of orientations.

History

George M. Foster and Barbara Gallatin Anderson (1978) trace the development of medical anthropology to four distinct sources: the interest of early physical

anthropologists in human evolution and adaptation, ethnographic interest in primitive medicine, studies of psychiatric phenomena in the culture and personality school, and anthropological work in international health. William H. R. Rivers (1924), a physician, is considered the first ethnologist of non-Western medical practices. Early theoretical work by Forrest E. Clements (1932) and Erwin H. Ackerknecht (1942, 1946) also attempted to systematize primitive medical beliefs and practices. Paralleling theory development were early applications of anthropological principles to health problems. Since the 1940s anthropologists have helped health care providers understand cultural differences in health behaviours, as shown in Benjamin D. Paufs edited volume *Health, Culture and Community: Case Studies of Public Reactions to Health Programs* (1955), one of the first medical anthropology texts.

William Caudill (1953) was the first to identify the field, followed by review articles by Steven Polgar (1962) and by Norman Scotch (1963). Academics, applied scientists, and clinicians enthusiastically worked in the 1960s to organize the emerging social science in medicine movement at national meetings of the American Anthropological Association (AAA) and the Society for Applied Anthropology (SfAA). Caudill, Polgar, and Scotch were among the most active, as were Hazel Weidman, Arthur Rubel, Dorothea Leighton, Clifford Barnett, Marvin Opler, Marion Pearsall, Donald Kennedy, Benjamin Paul, and Charles Leslie.

The Group for Medical Anthropology (GMA), established in 1967 with Weidman as chair, affiliated with the SFAA in 1969. As the Society for Medical Anthropology (SMA), the organization became a formal section of the AAA in 1972, with Dorothea Leighton, a psychiatrist-anthropologist, serving as its first president. Membership grew from 657 in 1972 to 1,523 in 1993, including a few hundred Canadian and other international members, primarily Europeans. Next to North America, Great Britain has the largest number of medical anthropologists. Most of them are concerned more with political economy and clinical issues than with biocultural perspectives. Increasing numbers of medical anthropologists work in Australia, Latin America, the Philippines, and India.

Theoretical orientation I: Medical Ecology

Anthropologists using an ecological perspective to understand disease patterns view human populations as biological as well as cultural entities. Taking a systems approach in research, culture is seen as one resource for responding to environmental problems, but genetic and physiological processes carry equal weight. The evolution, demography, and epidemiology of humans are subject to ecological forces, as are other species.

A key concept in medical ecology is "adaptation," the changes, modifications, and variations that increase the chances of survival, reproductive success, and general well-being in an environment. Alexander Alland, Jr. (1970), was one of the first to apply the concept of adaptation to medical anthropology. Humans adapt through genetic change, physiological responses (short-term or developmental), cultural knowledge and practices, and individual coping mechanisms. A basic premise is that health is a measure of environmental adaptation, and disease indicates disequilibrium. A second premise is that the evolution of disease parallels human biological and cultural evolution. The risks faced by foraging peoples differ from those of agricultural groups and industrial societies, and the epidemiological profile of each subsistence type is a function of human relations with the environment and with other species in the ecosystem, especially food sources, domesticated animals, and pathogens.

Medical ecology, unlike other orientations, assumes that biomedical disease categories are universal. Disease rates can be measured, compared through time and across geographic space, and correlated with changes in settlement patterns and subsistence. The frequencies of hemoglobin types can be measured and mapped geographically in relation to the incidence of infectious diseases such as malaria. The impact of diseases of contact, such as malaria, smallpox, and tuberculosis, on the native populations of the New World can be studied historically.

In the field, medical ecologists study subsistence patterns and nutrition; children's growth and development; pregnancy and birth rates; population size, density, and mobility; chronic and infectious disease; hazards and injury patterns; and demographic change over time. Research on prehistoric populations analyses skeletal remains, house sites, settlement patterns, and ecology. Medical ecology has usually studied isolated populations living in rigorous environments, such as high-altitude regions, the arctic, and tropical forests, such as the classic work of Napoleon A. Chagnon (1992) and James V. Neel (1977) on the Yanomamo, the work of A. T. Steegmann, Jr. (1983), on cold adaptation, and the long-term research in high-altitude regions of South America by Paul T. Baker and Michael A. Little (1976) and by R. Brooke Thomas (1973) and their respective colleagues and students.

Increased attention has been given since the 1980s by human biologists and medical ecologists to seasonality and health in agricultural populations, environmental and cultural regulation of fertility, migration and change in health status, and to work productivity in chronically undernourished and infected populations. The urban ecology of health is a new focus as well, and there is increasing dialogue with political economy theorists with respect to developing a "political ecology of health."

Theoretical orientation II: Ethnomedicine

The ethnomedical perspective focuses on health beliefs and practices, cultural values, and social roles. Originally limited to study of primitive or folk medicine, ethnomedicine has come to mean the health maintenance system of any society. Health ethnographies encompass beliefs, knowledge, and values of specialists and lay people; the roles of healers, patients or clients, and family members; the implements, techniques, and pharmacopoeias of specialists; legal and economic aspects of health practices; and symbolic and interpersonal components of the experience of illness.

Pluralistic societies often encompass several ethnomedical systems. Among these are cosmopolitan medicine, a dominant system in North America and in urban centers

elsewhere, which emphasizes empirical research, naturalistic explanations, technology and surgery, use of extraordinary intervention to preserve life, and hierarchical roles. Humoral medicine, derived from ancient Greek medicine, emphasizes that health reflects balance among bodily humors and their intrinsic qualities. Disequilibrium derives from ingestion of inappropriate food and other substances, from change of climate, and from exposure to natural elements like air and water. Therapy involves restoring equilibrium through applying or ingesting remedies opposite to the state of the body. Humoral medicine coexists with other systems in Latin America, the Middle East, Malaysia, Indonesia, and the Philippines. Ayurvedic medicine in India and Chinese traditional medicine meld humoral elements with elements of other systems.

A key concept in ethnomedicine is "explanatory model," introduced by Arthur Kleinman (1980). Explanatory models (EMs) are notions about the causes of illness, diagnostic criteria, and treatment options. In a clinical encounter, the EMs held by practitioners, patients, and family often differ. The ensuing communication and negotiation of decisions for managing illness lead to the cultural "construction" of illness. To the extent that disparity among EMs continues because of cultural, ethnic, or class differences, communication remains problematic.

The disease-illness distinction is important conceptually in the study of ethnomedicine. Disease, defined clinically as deviation from medical norms, is considered to be a Western biomedical category and not universal. Biomedical terms such as "hypertension" or "diabetes" may not correspond to diagnostic categories of a given ethnomedical system. Illness, in contrast, is the experience of impairment or distress, as culturally defined and constructed. Cause of the illness may also be located in social and spiritual realms, so that ethnomedical aetiology may include sorcery, soul loss, and spirit intrusion.

In addition to negotiation of the meaning of illness, management of illness and disability also occur in a social and cognitive matrix. Healing is often mediated by symbols and practices that induce conditioned neurophysiological and immune system responses. The

placebo effect of the healer's behaviour and symbols to induce healing or to reduce stress is of central interest in ethnomedical studies.

Cultural psychiatry is closely allied with ethnomedicine. Many folk illnesses or "culture-bound syndromes" (such as *susto*, arctic hysteria, or *amok*) appear to be psychogenic, although environmental stressors play a role in their onset. These folk illnesses do not fit easily into Western diagnostic categories.

Ethnographic methods are primary in this orientation, and researchers usually do participant-observation, sometimes becoming apprentices of healers and midwives. Some elicit ethnosemantic data on disease categories, causes, and decision models in order to study underlying cognition. Interviews and life histories allow in-depth analysis of the lives of healers and patients, and medical discourse analysis is a specialized linguistic technique that studies the negotiation of meaning and power. Some specialists collect and analyze pharmacologic items; others study the history of medical practices. Although traditionally researchers have worked in folk societies, increasing numbers are studying pluralistic societies, such as Margaret Lock (1980). Attention has been given since the mid-1980s to integrating ethnomedicine and ethnoecology, as in studies of indigenous people's knowledge of medicinal plants. There is also strong interest in clinical applications of ethnomedical treatments

Theoretical orientation III: Applied Medical Anthropology

Theories of the cultural patterning of health behaviour can be applied in any arena. Following the pioneering examples set by Margaret Clark, George Foster, and Perttl Pelto, anthropologists work, for example, in clinics serving multicultural populations, in maternal and child health programs, on surveys of community responses to environmental hazards, on program planning and evaluation in psychiatric hospitals, on AIDS prevention projects, and on the reintegration of people with traumatic brain injury to community life. The populations served are often people on the margins of mainstream society—refugees, native peoples, rural elderly, drug addicts, people with disabilities,

ethnic minorities. The difference between basic and applied research is that applied medical anthropologists deliberately become advocates for the community and attempt to do research that is useful and ethical.

While some applied research is a theoretical, others employ explicit theoretical frameworks. One notable framework is the political economy of health, also called critical medical anthropology. Influenced by Marxist theory and dependency theory, this approach analyses the impact of global economic systems, particularly capitalism, on local and national health. Political economists such as Soheir Morsy, Hans Baer, Lynn Morgan, and Merrill Singer argue that change programs should not be attempted unless one also studies the social production of illness and poverty within the larger dynamics of class interactions, colonialism, or world economic systems.

Critical clinical medical anthropology is an adjunct of political economy. This approach analyses biomedical practice and the differentials in power and authoritative knowledge of practitioner and patient. Clinical anthropology has been influenced by Michel Foucault's writings on the historical production of medical knowledge and the notion that the body can become an arena in which social control issues are played out. Usually focused on medical communication, the approach has been used particularly in relation to women's reproductive health and has developed a controversial literature on the lexicalisation of women's bodies through the work of Brigitte Jordan, Emily Martin, Rayna Rapp, and others.

Applied anthropology methods are eclectic, ranging from qualitative to highly quantitative. Ethnographers have developed rapid assessment techniques to document community health needs during brief field trips. Others trained in public health, epidemiology, nursing, or medicine may do clinical or laboratory procedures or work with vital statistics. In quantitative approaches, rigorous attention is paid to sampling issues and sophisticated statistical analysis, and informed consent procedures are followed. As Carole E. Hill (1991) points out, many medical anthropologists are now

working outside academia and combining standard anthropological skills with technical planning and evaluation skills.

Employment and Training

Employment has been plentiful in medical anthropology. Especially from 1967 through the 1980s, departments of preventive medicine, social psychiatry, paediatrics, nursing, schools of public health, and the U. S. Public Health Service were employing social scientists, and training programs were also being established. The University of California at San Francisco, the University of North Carolina at Chapel Hill, Case Western Reserve University, the University of South Florida, and Michigan State University are among the North American institutions with the longest established training programs in medical anthropology. In the mid-1990s students often were pursuing joint degrees, such as a doctorate in anthropology and a master's of public health, to prepare for work in a wide array of academic, clinical, government, and nongovernment positions.

Publications

Social Science and Medicine, established in 1966, was the original outlet for medical anthropology in Great Britain and Europe as well as in North America and continues as one of four major periodicals in the field. In 1968 the Medical Anthropology Newsletter was established with Weidman as the first editor. The newsletter played a central role in communication, featuring employment and training announcements, book reviews, sample course syllabi and bibliographies, and later original articles. From 1982 to 1986 Medical Anthropology Quarterly (MAQ) continued as the SMA newsletter and in 1987 was transformed into a scholarly journal, with Alan Harwood of the United States as the first editor and Ronald Frankenberg of Great Britain as the first international editor. The other primary journals are Medical Anthropology and Culture, Medicine, and Psychiatry, both established in 1976.

Relatively few texts and readers in medical anthropology have been published. Landys collection (1977), although out of print, is considered by many to be the most authoritative source. Other notable readers include Logan and Hunt (1978), Romanucci-Ross et al.(1983), and Johnson and Sargent (1990). Foster and Anderson's text (1978) emphasizes applied medical anthropology, while texts by McElroy and Townsend (1989) and by Moore et al. (1980) use ecological and biocultural approaches.

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