
Clinically Applied Anthropology: Concepts for the Family Physician

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The incorporation of the sociobehavioral sciences into the teaching and practice of medicine has been a hallmark of family practice. The strong ecological orientation that family medicine shares with anthropology provides a unifying framework for incorporating anthropological concepts and techniques into clinical family practice. This paper presents an ecologically oriented framework for organizing and integrating individual, family (primary group), neighborhood (community), and societal level variables. Core anthropological concepts are presented within the context of this framework. The application of this approach is illustrated using case material derived from a five-year multidisciplinary experience in teaching these concepts to family practice residents.

The incorporation of the behavioral and social sciences into the teaching and practice of medicine has been a hallmark of family practice in its development as a medical specialty. Both the accreditation standards provided by the Accreditation Council on Graduate Medical Education for training in family practice¹ and the recommendations of the Residency Assistance Program of the American Academy of Family Physicians for the development of high-quality family practice residency programs² include education in the behavioral sciences as a necessary component of the training of family physicians. Anthropology, sociology, and psychology are the cornerstones of sociobehavioral sciences. Of this triad, sociology and psychology have been included in teaching about the family in family practice^{3,4} and in the physician-patient communication process.⁵ Only recently have anthropological concepts and methods been incorporated into the clinical practice of

medicine.⁶ The purpose of this paper is to outline an ecological framework for incorporating relevant anthropological concepts and techniques into family practice. This paper reflects a five-year interdisciplinary experience in teaching these concepts to residents and in applying them within an urban family practice center.

CLINICALLY APPLIED ANTHROPOLOGY

Sickness, health, and healing are themes that have been explored by anthropologists in many cultures and environments. In a recent discussion, Chrisman and Maretzki listed seven examples of themes that have been explored in anthropology in health care settings.⁷ These seven areas included (1) defining cross-cultural norms for behavior, (2) understanding cultural models related to biomedical diagnostic groupings, (3) using ethnographic or naturalistic data collection methods to develop understanding of sickness and health, (4) exploring the connection between ethnicity and the cultural experience and meaning of illness, (5) examining the complexity of human relationships and com-

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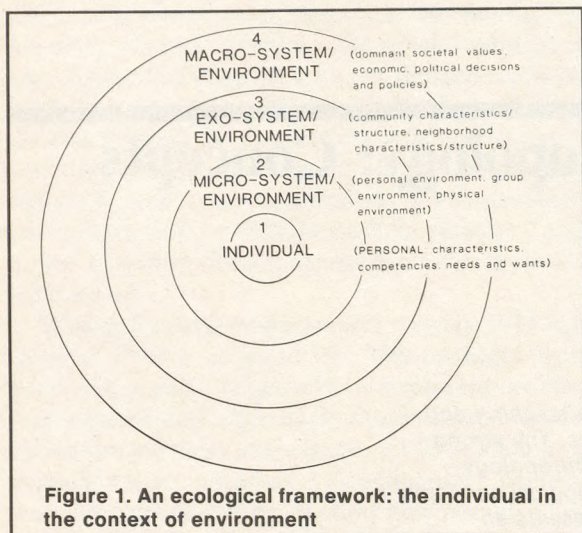


Figure 1. An ecological framework: the individual in the context of environment

munication, (6) studying the interrelationship among “change,” culture, and health practices, and (7) applying anthropological approaches to the epidemiology of mental illness. Although not exhaustive, this listing suggests the breadth of medical anthropology.

Clinically applied anthropology is a relatively new focus within medical anthropology. Clinically applied anthropology can be defined as the application of anthropological knowledge and methodology in the clinical setting. It directly involves the application of these techniques to the clinical context: the physician-patient interaction, the clinical practice, and the community.

AN ECOLOGICAL FRAMEWORK FOR INTEGRATING CLINICAL ANTHROPOLOGY

Ecological models and frameworks are well known to the teaching and practice of family medicine.^{8,9} Ecological approaches are also central to anthropology and underlie much of the research in medical anthropology.¹⁰ The basic orientation for developing an ecological framework for integrating anthropological concepts and methodologies into clinical practice and teaching is de-

rived from such theorists as Engel,⁸ Janzen,¹¹ and Bronfenbrenner,¹² among others. In short, the ecological model views the individual as nested in multiple interrelated environmental systems (Figure 1). This framework expands and refines the biopsychosocial framework of Engel in its consideration of the external environment as it affects the individual. The basic premise of this framework is that a person’s behaviors, as well as mental and physical health states, can be understood only with knowledge of individuals as individuals rooted in social, cultural, and environmental settings.¹³ This factor makes the ecological framework extremely useful in organizing a clinically relevant teaching program and in its application to daily practice, since the physician’s perspective of the clinical problem is broadened by adding the dimension of environmental context.

The framework used by the authors has four major levels, each with its own unique characteristics. The terminology used to define three of these levels uses “system” in order to emphasize the interactive effects of each upon the other. The first level is that of the *individual*. The clinical relevance of this level is the easiest to understand, as it represents the patient in terms of his or her biomedical, intellectual, and emotional self, basic sensorimotor functioning, cognitive skills, and ego strength in relationship to the clinical encounter. Anthropological concepts and skills at this level include explanatory models of illness,¹⁴ elicitation of patients’ requests,¹⁵⁻¹⁸ physician-patient negotiation,¹⁹ and the impact of ethnicity on the physician-patient relationship and health or illness behavior.²⁰

The second level of the framework involves the *microsystem*, the immediate social and physical environmental context in which an individual functions. The social environment consists of the significant people in the life of the subject, such as parents, spouse, friends, and fellow employees. The individual also experiences social pressure as a result of group membership. Included here are such phenomena as group pressure and social norms active in the individual’s immediate life environments. Examples include work life or religious life.

In addition to the social environment, the *microsystem* contains the physical environment that includes both the natural or built environment. The social and physical dimensions of the micro-

system can affect an individual's health-related beliefs and behaviors.

The third level, the *exosystem*, encompasses the local community or neighborhood. The concept of community can be understood from at least three separate but unrelated vantage points: (1) as an area of bounded territory, (2) as a collection of institutions with physical, personal, and social components that provide life-supporting and life-enriching services to individuals, (3) as a psychological sense of belonging or "we feeling."²¹

The neighborhood or community environment is of critical importance to the health of the individual. It may be the source of basic resources and services, physical security or threat, social interaction or entertainment, and many other factors related to human needs, wants, and pressures.

The global context of the ecological framework, the *macrosystem*, is concerned with the political processes, economic and social forces and events that operate within a particular politico-economic system to "socialize disease and illness."²² As Young²² suggests, factors operating at this level directly or indirectly influence almost every aspect and sphere of life. These factors help to determine (1) which people get which sicknesses, what practitioners and interventions, and (2) how individuals with the same set of signs are allocated with different sicknesses, ie, how different biophysiological signs can lead to different illnesses and different cures according to the sufferer's particular economic and social position.

CONTENT WITHIN THE ECOLOGICAL FRAMEWORK

An ecological framework facilitates the integration of anthropological principles and methods into clinical practice. The remainder of this paper will consider specific principles particular to each level of this framework and their usefulness to the primary care physician.

THE INDIVIDUAL

Explanatory Models, Patient Requests, and Negotiation

The level of the individual includes the interrelationship of patient's requests, patient's explanatory models, and the negotiated approach

to the patient's management.

Explanatory models are the perceptions and beliefs that an individual holds about a disease or dysfunction.¹⁴ In essence, these beliefs contain elements of cause, pathophysiology, prognosis, and the patient's perceptions of effective therapeutic approaches. A patient's explanatory model reflects concern for his or her illness and is a mixture of popular, biomedical, and folk notions. A patient's explanatory models can be elicited in an interview and may be an important element in developing an evaluation and management strategy for a patient's problems.

Lazare et al¹⁵ have conceptualized the clinical encounter between a physician and a patient as beginning with a patient's "request" for specific services. Expanding upon this idea, Good and Good¹⁶ have categorized patients' requests in ambulatory primary care settings into three major groups reflecting (1) biomedical requests, (2) psychosocial requests, and (3) requests specifically related to the interaction between clinician and patient. Specifically, patient requests include medical information, psychosocial assistance, therapeutic listening, biomedical treatment, and ventilation-legitimation.^{17,18}

Eliciting patient requests focuses upon the patient's needs and desires in the clinical interaction. Understanding a patient's requests can be extremely useful in the process of negotiation between provider and patient over expectations and outcomes in the clinical encounter. The physician can elicit requests from the patient by asking a few specific questions. These questions are of necessity open-ended and responses require clarification during the process of the interview. Questions such as "What can I help you with today?" "What do you hope I will be able to do for you today?" "Is there some specific thing that you would like help with?" "When you leave today, what do you hope will have occurred?" are helpful in eliciting requests, though it is not unusual for requests to be expressed throughout the interview. The classic example is the patient who raises a question or problem just as the physician is about to leave the room at the end of an office visit (the so-called "hand on the door phenomenon").

Elicitation of a patient's explanatory models and requests in the clinical encounter are initial steps in allowing the clinician to note differences

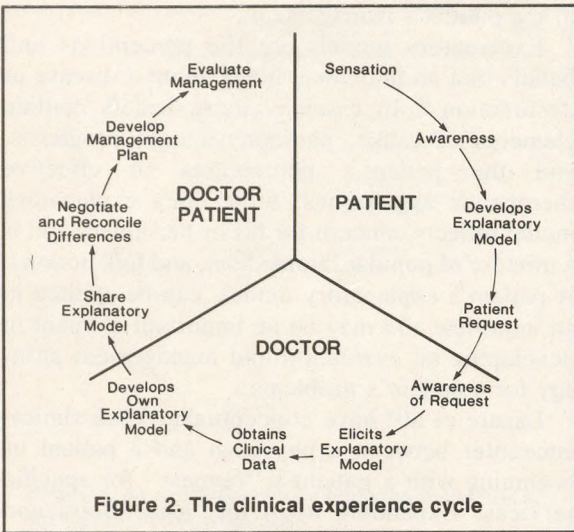


Figure 2. The clinical experience cycle

between his or her biomedical explanatory models and the lay models and requests of patients. Understanding similarities and differences in perspective is the first step in beginning the process of reconciling these differences. Elicitation of patient explanatory models and requests sets the stage for a mutually satisfying interaction between patient and physician. Negotiation involves clarifying the patient's explanatory model and requests and noting areas of similarity and difference with those of the physician. Once similarities and differences are noted and discussed, a mutually agreeable plan for management of the presenting and related problems can be developed. Figure 2 illustrates the interrelationship between explanatory models, patient requests, and the process of negotiation.

MICROSYSTEM

The microsystem consists of an individual's immediate social and physical environment. The immediate social environment is a source of instrumental resources, ie, goods and services, and affective resources such as emotional support. The primary social group provides the immediate social context for the individual, and the physical context is provided by the environment.

The Primary Social Group

An individual's primary social group can be de-

defined as "a small group marked by personal interaction between its members."²³ The primary social group consists of family and nonfamily members with whom there is personal interaction. Composed of those individuals who contribute to the individual's physical and emotional functioning, the primary social group may include an extensive kin network or may consist entirely of non-family members.

The primary social group fits with the concept of a "social support network" defined by Walker and colleagues²⁴ as "the set of contacts with relatives, friends, neighbors, etc., through which individuals maintain a social identity and receive emotional support, material aid, services and information, and develop new social contacts." The primary group exerts positive and negative pressures upon the individual. The positive and negative pressures exerted upon the individual by the primary social group become important clinically in understanding the "fit" between an individual and his or her social environment. Kahana²⁵ has suggested that individual behavior can be understood as a function of the relationship between personal needs and environmental pressure and resources to meet those needs. In the process of clinical negotiation, obtaining additional data about the primary group can aid in the clarification of differences between the patient's and physician's explanatory models and can help the physician understand the patient's illness-related behavior. The negotiation process leads to developing alternative strategies for the management of the clinical problem.

The Physical Environment

The immediate physical environment for the individual is the home. The home environment can be defined as the bounded geographic territory inhabited by an individual or family. In the same way that social environment may act as a resource or a stressor on the individual, so does the physical environment. For example, the physical environment may be a source of shelter and safety but also may pose health risks. The pressure or stressor may be direct, such as lack of heat in the winter, or indirect, ie, limited access and egress for a functionally immobile elderly couple living in a second-floor apartment. The physical environment may also determine interaction patterns of primary group

members residing within the home. A home visit serves the physician as a means of data collection about the microsystem environment by providing an opportunity for direct observation of the physical environment and primary social group interactions. Teaching about the microsystem of a patient and his or her help-seeking behavior patterns can occur through faculty-supervised home visiting and the inclusion of this data in clinical problem solving.

EXOSYSTEM

The exosystem comprises the local community or neighborhood. Three themes continually appear in the literature on community: the idea of territory or space, the idea of group membership or "we feeling," and the idea of social organization or structure.²¹ Each theme can be viewed from the point of view of the outsider or the insider. Thus, community may be defined by the physician as the place where his or her patients reside.

Alternatively, community can be defined from the perspective of those who live within it. In geographic terms, community is termed *neighborhood*; it can be a street, a cluster of houses, or a named locale. Community as "we feeling" engenders the sense of group identity and cohesion. This view focuses attention on cultural or subcultural factors such as shared ethnic background, social status, or language, all factors that cause a group of people to interact with each other in overlapping social networks.

Finally, community can be defined as a collection of institutions with physical, personal, and social components. These institutions are key elements in the social structure and organization of an area. From the outsider's view, major community institutions may include hospitals, schools, churches, and police. The perspective of the insider might be quite different from that of the outsider's, and in the area of health care, for example, might include the hospital as well as several community practices and folk or religious healers. The process of understanding community can be defined as community assessment. Its value lies in discovering health risks and resources as well as the needs that exist within a population group. Such factors have a major effect on the design of services for an office practice developing special clinical services for a given community. Several

writers^{26,27} have suggested that exosystem assessment can be used to design practice services as well as specific individual patient interventions in the family practice office.

MACROSYSTEM

The macrosystem consists of the global political processes and economic and social forces that affect the individual patient. These forces provide the structural constraints or bounds that define the patient's options in maintaining health and in healing sickness. Included in this system are such factors as macroeconomics, employment, and health care organization, which can directly or indirectly affect patients and families as well as health care practitioners. For example, in an urban county hospital practice with a large population dependent upon the welfare system, the rate of cancellations and no-shows the first three days of the month is double the rate for the rest of the month because of the requirement that individuals receiving financial assistance visit the county welfare agency at the beginning of each month. Concerns of health care professionals regarding nuclear war or changes in reimbursement systems are additional examples of macrosystem variables affecting the delivery and use of health-related resources.

CLINICAL VIGNETTE

The following clinical case, organized using the ecological framework, illustrates how anthropological concepts can help the physician in understanding health and illness problems.

INDIVIDUAL

Shortly after the discharge of an 18-month-old boy from a hospitalization for the diagnosis and management of new onset insulin-dependent diabetes mellitus, his mother contacted her family physician stating that she was depressed and angry and that she and her husband were having difficulty managing their son's insulin dosage in spite of the physician's advice. Since the child's age prohibited eliciting his explanatory model, and since the parents were central to the management of his problem,

a home visit was used as a vehicle for understanding their explanatory models and requests as well as elements of the microsystem and exosystem that were important to the problem.

Illustrating the close connection between levels in the ecological framework, there were several competing explanatory models (an individual level concept) held by members in the family (a microsystem concept). The child's father and mother believed that their son's illness was God's punishment for the father's unfaithfulness, as he had been diagnosed as having a venereal disease one week prior to the development of his son's symptoms. The paternal grandmother believed that the child's illness was due to excessive "sweets" and poor child care because his mother worked and the grandmother disapproved. In general, the family shared the belief that the child would not outgrow his condition and that he would be dependent upon insulin injections for the rest of his life. In addition, the father felt that sunlight and exercise were bad for his son's health and became very angry whenever his wife would let their son play in the yard.

In the course of the home visit, several requests were made by the child's father and mother. First and foremost, they made a request for biomedical treatment to adjust their son's insulin to avoid reactions. Second, the mother felt that her husband's obsession with "controlling" his son's disease caused him to be overly critical of the care given by others. This increased the tension in their relationship. The mother felt that communication within the marriage was impaired. They no longer socialized, and she felt trapped in the house and isolated from others. Her requests for help with this problem is an example of a request for psychosocial assistance. Finally, the father's understanding of the relationship between exercise and diabetes led the physician to postulate a request for medical information.

MICROSYSTEM

The home visit led to a better understanding of the microsystem environment as it affected and was affected by this child's illness. For the child, the primary group, composed entirely of family members including the father, mother, mother's sister, and paternal grandmother, was highly influential in the behavioral system that was organized around

this child's illness. As individual explanatory models of the child's illness were elicited from family members, it became evident that while the system provided emotional and instrumental support, it also perpetuated feelings of guilt, fear, and anger.

The physical environment of the home contributed to the behavioral patterns of family members. The home was a two-story duplex. The couple and their son lived on the second floor; the son's aunt, her husband, and their two children lived on the first floor. As a result, in part, of their close proximity, the two sisters were confidantes. The child's father felt that his wife's attitude toward him was being negatively affected by her sister.

Finally, the child's room was located at the other end of the apartment from their own room. His parents were concerned that should their son have an "attack" during the night, they would be too distant to be aware. Thus, their bedroom was the only place for him to sleep, leading to sleep problems for the parents and limiting their privacy.

EXOSYSTEM

This child resided in a mixed racial, working-class neighborhood located adjacent to the downtown commercial district. Although the parents mentioned concerns related to safety and theft, the support of a high proportion of other Puerto Rican families in the neighborhood created a general sense of community and belonging. The family practice center was located nearby, as were grocery stores and a pharmacy.

MACROSYSTEM

The elements of the macrosystem may seem less immediate to this child's problems, yet, they were central to this family's help-seeking behavior. Macrosystem variables determined the family's choice of living arrangements, their use of this specific family practice center, and their cultural belief systems regarding illness as it influenced the development of their explanatory models. For example, in traditional Puerto Rican culture "attacks" or "ataques" usually refer to a sudden partial loss of consciousness, jerking movements, and foaming at the mouth lasting minutes to days. These attacks may be culturally appropriate as a sign of grief or may occur idiosyncratically as a spiritual disturbance.²⁰ In this

case, knowledge of "ataque" was important in prompting the physician to clarify how the parents were using the word "attack" when referring to their child's illness. Knowledge of this cultural syndrome led to a discussion of hypoglycemia as a physiological dysfunction vs a spiritual disorder.

For this family, the interaction of individual, microsystem, exosystem, and macrosystem variables contributed to the medical problem presented to the physician. Understanding the full extent of the parents' requests and their explanatory models and obtaining data about the primary group and the physical and social environments provided a basis for a negotiated management plan.

CONCLUSION

In any discussion of anthropology, it is natural to teach about ethnicity. This topic is covered at each of the levels of the ecological model and thus does not require special designation or status. However, it is important to remember that ethnic groups have different cultural norms and values that influence each level of the framework. Finally, the concepts presented in this paper are not necessarily relevant to each patient and problem seen by the physician. It is helpful for the clinician to develop a familiarity with these concepts so that he or she may selectively apply them with any given patient. As Katon and Kleinman suggest,¹⁹ clinical practice requires the clinician to shift paradigms as appropriate to the presenting problem. Biomedical, biopsychosocial, inductive, and deductive approaches all have their place in clinical practice.

References

1. Special requirements for residency training in family practice. In *Directory of Residency Training Programs*. Chicago, American Medical Association, 1984-1985, pp 23-29
2. Family Practice Residency Training Program Criteria. Kansas City, Mo, Residency Assistance Program Project Board, 1979
3. Doherty WJ, Baird MA: *Family Therapy and Family Medicine*. New York, The Guilford Press, 1983
4. Medalie JH (ed): *Family Medicine—Principles and Applications*. Baltimore, Williams & Wilkins, 1978
5. Froelich R, Bishop F: *Clinical Interviewing Skills: A Programmed Manual for Data Gathering Evaluation and Management*. St. Louis, CV Mosby, 1977
6. Chrisman NJ, Maretzki TW (eds): *Clinically Applied Anthropology: Anthropologists in Health Science Settings*. Dordrecht, Netherlands, D Reidel, 1982
7. Chrisman MJ, Maretzki TW: Anthropology in health science settings. In Chrisman MK, Maretzki TW (eds): *Clinically Applied Anthropology: Anthropologists in Health Science Settings*. Dordrecht, Netherlands, D Reidel, 1982
8. Engel GL: The need for a new medical model: A challenge for biomedicine. *Science* 1977; 196:129-136
9. Medalie JK, Kitson GC, Zyzanski SJ: A family epidemiological model: A practice and research concept for family medicine. *J Fam Pract* 1981; 12:79-87
10. Moore LG, Van Arsdale PW, Glittenberg JE, Alsrich RA: *The Biocultural Basis of Health*. St. Louis, CV Mosby, 1980
11. Janzen JM: The comparative study of medical systems as changing social systems. *Soc Sci Med* 1978; 12:121-129
12. Bronfenbrenner U: *The Ecology of Human Development*. Cambridge, Harvard University Press, 1979
13. Lewin K: *Field Theory in Social Science*. New York, Harper & Row, 1951
14. Kleinman A: *Patients and Healers in the Context of Culture: An Exploration of the Borderland Between Anthropology, Medicine and Psychiatry*. Berkeley, University of California Press, 1980
15. Lazare A, Eisenthal S, Wasserman L, Hartford TC: Patient requests in a walk-in clinic. *Compr Psych* 1975; 16:467-477
16. Good MD, Good BJ: Patient requests in primary care clinics. In Chrisman NJ, Maretzki TW (eds): *Clinically Applied Anthropology: Anthropologists in Health Science Settings*. Dordrecht, Netherlands, D Reidel, 1982
17. Good MD, Good BJ, Nassi AJ: Patient requests in primary health care settings: Development and validation of a research instrument. *J Behav Med* 1983; 6:151-168
18. Like R: *Patient request in family practice: A negotiated approach to clinical care*, thesis. Cleveland, Case Western Reserve University, 1984
19. Katon W, Kleinman A: Doctor-patient negotiation and other social science strategies in patient care. In Eisenberg L, Kleinman A (eds): *The Relevance of Social Science for Medicine*. Dordrecht, Netherlands, D Reidel, 1981
20. Harwood A: *Ethnicity and Medical Care*. Boston, Harvard University Press, 1981
21. Keith-Ross J: *Old People, New Lives*. Chicago, University of Chicago Press, 1977
22. Young A: The anthropologies of illness and sickness. In Siegel BJ (ed): *Annual Review of Anthropology*. Palo Alto, Calif, Annual Reviews, Inc, 1982
23. Keesing RM: *Cultural Anthropology*. New York, Holt, Rinehart & Winston, 1976
24. Walker NK, MacBride A, Vachon MLS: Social support networks and the crisis of bereavement. *Soc Sci Med* 1977; 11:35-41
25. Kahana EA: A congruence model of person environment interaction. In Lawton MP, Windley PG, Byerts TE (eds): *Aging and the Environment: Directions and Perspectives*. New York, Garland STPM Press, 1980
26. Galazka SS, Lundeen PB: An approach to locating a family practice office in a metropolitan area. *J Fam Pract* 1979; 8:333-336
27. Galazka SS, Rodriguez GA: Integrating community medicine in a family practice center: An approach to urban lead toxicity. *J Fam Pract* 1982; 14:333-338