

Anthropological Midrange Theories in Mental Health Research: Selected Theory, Methods, and Systematic Approaches to At-Risk Populations

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Abstract *The application of midrange theory to ethnographically based mental health research has proven to be highly productive. This is especially the case in international and domestic cross-cultural contexts. Examples are given of the application of a variety of midrange theories in risk reduction and disease prevention programs.*

Recent advances in cultural theory provide a framework for conducting successful behavioral interventions that produce risk reduction and risk elimination in hard-to-reach populations in the United States and worldwide (cf. Hill 1991; Lambert et al. 1995; Needle et al. 1995).¹ These new ethnographic approaches utilize an integrated set of midrange anthropological theory to (1) describe the cultural models of health and illness that provide a framework for understanding individual and group-level knowledge and beliefs about health threats, transmission dynamics, and behavioral norms; (2) identify the key social contexts in which these beliefs and values are turned into action; (3) establish the intervening conditions that either allow for change (protective forces) or prevent change (barriers) in risk behaviors; (4) provide a theoretical framework for determining the decision making and sustainable actions of the group and identify the conditions that are necessary for sustained maintenance of behavioral change for individuals; and (5) identify the symbolic and communication conditions imposed by cultural systems that relate to health behavior and

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behavioral change. Each of these issues is informed by both "grand" ethnographic theory and midrange theories of cultural processes.

The past ten years have confirmed that anthropological theory is highly productive for identifying, testing, evaluating, and pragmatically accomplishing projects that have a direct positive impact on health care theories and practice, especially in international and domestic cross-cultural contexts (cf. Hill 1991). Despite the success of these paradigms there is an unfortunate amount of dissonance resulting from the fact that while anthropology and other ethnographically oriented disciplines have played a vital role in health care research over the past ten years, they appear to have received less attention and support than the other social sciences, at least from the perspective of the ethnographers. Ethnographic researchers have complained that they have been discriminated against in terms of competition for funding, during the same time period that ethnographic projects have greatly expanded the strength of qualitative research in health fields. Concurrently, there is a persistent view that ethnographers are peripheral to the "good old social scientist" network of researchers funded by federal agencies.

It is my contention that the disparity between the contributions that anthropological theories have made to understanding health and healing, compared with the lack of recognition of those contributions, results from the low status position of midrange theory and methodological development in anthropology. Ethnographers have been creative in exploring theory within cross-cultural contexts, but have given little attention to labeling their discoveries, categorizing them as theoretically important, and claiming them as their own. This unfortunate trend is primarily due to an epistemological difference between the ways that anthropology and the other social sciences create, assess, and describe theory. The other social science disciplines have been far better in co-opting midrange theories by labeling them with catchy and understandable or "meaningful" labels, and then garnering the resources necessary to test (or assess) them. Anthropology has spent a great deal of intellectual capital creating grand theoretical (holistic) schemes of cultural understanding. Anthropologists have done outstanding fieldwork to generate, critique, demolish, and regenerate those grand theoretical schemes. In the mean time, other social sciences have comparatively ignored the holistic in favor of identifying smaller units for theory generation; what Pelto and Pelto (1978) label "midrange theory." These fairly narrow constructions attempt to explain behavior within a bounded set of conditions. Once they are defined, labeled, and attached to standard social science research methods, they become highly attractive to funding agencies, especially health care research systems, attempting to understand the sociocultural reasons for current conditions. Thus there is an interesting irony that anthropologists

were among the first to discover the importance of labeling and of the cultural construction of belief systems (Kroeber 1953), but they are among the last to successfully label new midrange theories in a way that produces resources to test them

This article is an exploratory attempt to begin recapturing some of the advantages of labeling and testing midrange theories, attached to accompanying systematic research methods. The following sections briefly describe areas in which successful midrange theory is being tested in mental health research. If successfully diffused, this new and symbolically powerful approach should lead to successful competition for both intellectual and fiscal resources.

GRAND ETHNOGRAPHIC THEORY

There is a substantial volume of anthropological and other ethnographic theory that guides a coherent understanding of single cultures and cross-cultural similarities and differences. These are well established and well critiqued in the literature. For the purposes of this article, these theories can be classified into five cultural themes, consisting of multiple definitions and explications of these theories, and their accompanying critiques and dialectics. The themes include (1) evolutionary theories that focus on "change through time"; (2) cognitive theories that explore the relationships between conditions that exist primarily within human beings (thought processes, beliefs, emotions, knowledge, etc.) and their linkages to the observable behaviors that those same individuals exhibit (behaviors, actions, etc.); (3) theories about the organization of human behavior that exist beyond the individual level (kinship, social networks, associations); (4) theories of human manipulations of symbols (symbolic anthropology, communication theories, etc.); and (5) the theories that explore cultural-ecological relationships (biology and behavior interactions at multiple levels), including relationships of humans to the biological and physical environments surrounding them.

These theories have developed within the overall environment of consistently evolving ethnographic research methods (Bernard et al. 1986), including participant-observation and other multiple-method, multiple-technique approaches to ethnographic data collection. The recent past has been marked by an increasing sophistication in the definition, systematic conduct, and computer-assisted analysis of and application of these methods. Some of the seminal and current works that characterize modern approaches to classic ethnographic studies, as well as advanced ethnographic data collection techniques, include Bernard's (1988) *Research Methods in Cultural Anthropology*, the two-volume series by Werner and Schoepfle (1987) titled *Systematic Fieldwork*,

Strauss's (1985) *Qualitative Analysis for Social Scientists*, Weller and Romney's *Systematic Data Collection* (1988), Agar's (1986) *Speaking of Ethnography*, and Pelto and Pelto's (1978) *Anthropological Research: The Structure of Inquiry*. There have also been key advances in maintaining validity and reliability in ethnographic research, as well as ethnographic sampling designs. Johnson (1990) provides a thorough exploration of the similarities and differences between probabilistic sampling used in surveys and experimental designs, compared with the purposive sampling strategies necessary for successful qualitative research. This work is also valuable for models of mixed sampling designs that link qualitatively sampled data with probabilistic samples for surveys. The midrange theories described below all assume that the correct construction of qualitative sampling designs has occurred, that appropriate ethical standards have been applied, and that the special conditions for assuring reliability and validity in ethnographic research are in effect.

Change through Time

A significant body of mental health and public health research is focused on understanding change (both positive and negative) at the individual, small group, and large systems. Change through time turns out to be a metatheoretical issue in midrange theory development. Anthropological theories of evolution provide a grand theoretical framework to understand the changes in organisms and societies through time. However, ethnographic research on change and the complementary exploration of static conditions are also embedded in a multitude of midrange theories associated with the other four areas discussed in this article, rather than being separated into an exclusive set of midrange theories about change. Each of the other four themes (internal-external, social organization, ecological, and symbolic theories) have theoretical constructions that either necessitate the measurement or evaluation of change through time and/or the evaluation of the system "as is," at one particular moment in time. Some of these approaches include diffusion theories (cognitive paradigms, communications theories, symbolic systems), theories of community participation and power (social networks, kin systems, organizational theory), barriers to change theory (cultural ecological, political economy, cultural congruency research), and innovation theories (cultural ecological, symbolic, cognitive, etc.). Examples of specific projects and uses of methodologies that accommodate the analysis of change are provided in the following four sections.

At the same time, studies can be found that are directly tied to theories of cultural change. An interesting example of an ongoing model for this approach is the key informant network known as the Community Epidemiology Work Group (CEWG), coordinated by the U.S. National In-

stitute on Drug Abuse. The CEWG is a nationwide network of ethnographers who are involved with key informants at locations around the United States. They meet semiannually to discuss drug use patterns and trends in selected metropolitan communities in the United States and in other countries. The key informants report and discuss special emerging problems, risk factors, and negative health and social consequences in their own communities using both quantitative and qualitative sources (mainly survey data, indirect indicator data, and anecdotal information). An example of the epidemiological and behavioral monitoring uses of this technique was reported by the CEWG in a 12-city study conducted to understand an apparent inconsistency coming from statistical information on indicators of price, purity, and seizures of heroin. The available information suggested that an increase in the use of heroin was occurring, although there was no significant evidence of large groups of new users. Focus groups were conducted among known heroin users, and the discussions were directed at exploring changing patterns of use and hidden populations of new users. These discussions did identify some new groups of users, although they were limited. It became apparent, however, that it was former addicts who were responsible for the significant increase in heroin consumption, as a result of their concern over the Human Immunodeficiency Virus (HIV). Many of these addicts were changing their route of administration from injecting to snorting heroine, which necessitates higher levels of consumption of the drug (Kozel 1993). This is an example where midrange theories of cultural change are combined with epidemiology and policy development.

Internal-External Connections (Cognitive and Psychological Approaches)

The research on various aspects of the internal-external connections between thought and behavior have predominantly developed within the substantive areas of psychological anthropology and cognitive anthropology, although many other approaches have played a part in the development of these ideas. This area of investigation is informed by the theories of cultural models (cultural domain analysis, consensus theory modeling) and theories on the patterns of cognitive change (directive force—the tendency of beliefs to shape behavior or to shape beliefs about personal behavior), to name a few. The midrange theories that appear to be in the most common use include cultural models approaches, cultural beliefs systematics, and the theory of directed force. In addition, there is renewed interest in Bateson's (1972) theory of epistemological shifts, and in decision modeling (Gladwin 1989).

The cultural models theories include descriptive models of health beliefs, behaviors, and emic models of contagion or trauma (Kleinman 1980;

Quinn and Holland 1987). Some associated cultural congruency models (Trotter 1991) are based on establishing similarities and differences between lay models of health and healing, the barriers from those beliefs and those imposed by society, and dominant cultural systems for health care delivery. Bateson's theory of epistemological shifts provides a testable model of addictions and the subsequent changes in thought and behavior that are responsible for either sustained behavioral change or relapse.

Cognitive ethnography is one of the most productive areas in which anthropologists have produced a wide range of research methods that allow these midrange theories to be tested. There are a well-developed set of basic cognitive anthropology techniques that have been used in mental and other public health settings for several years. On the most qualitative end, the techniques developed by Kleinman (1980) and Quinn and Holland (1987), among others, provide an excellent starting point for cross-cultural, and for within culture, research on health definitions, models of disease processes, and for establishing the basic conditions that humans recognize for identifying, treating, and understanding the consequences of health problems. The methods associated with these research designs include systematically administered, semistructured, and open-ended (qualitative or ethnographic) interviews analyzed through hierarchical coding and pattern recognition of themes and conceptual linkages.

More-targeted systematic explorations of mental health and other illness domains can subsequently be pursued through the use of three interlocked cognitive anthropology methods. These are techniques for exploring the content and limit of cultural domains (e.g., freelistings, sentence-frame completion, contrast sets), techniques for establishing the structural and cognitive relationships of the elements of cultural domains (e.g., pilesorts, dyad and triad tests, Q sorting, matrix profile analysis), and techniques for establishing the cultural consensual framework for these knowledge and belief systems (Trotter 1991, 1995; Weller and Romney 1988).² These techniques are amenable to being used in a standard pretest/posttest design to analyze changes in cultural models or cognition over time. Many of these techniques provide an excellent format for systematic, ethnographic rapid assessment. They also provide a methodological basis for bridging between ethnographic and standard survey or experimental (quantitative) research designs, since they are typically analyzed using both qualitative (description of meaning) and quantitative (cluster analysis, multidimensional scaling, correspondence analysis) algorithms. As an example, Trotter and Potter (1993) conducted an HIV-risk pile sort with Navajo teenagers, using a list of risks that had been generated in focus groups and ethnographic interviews with Navajo cultural consultants. The project explored the ways that the teenagers related the risks in their lives (including alcohol, drug, and HIV-related

risks) to other risks (violence, school problems, sexuality). The results of the project demonstrated that the students were linking risks within bounded risk areas (e.g., drug risks, school risks, violence risks, etc.), and that the linkages between those areas were weakly associated. The models of risk for the teenagers were then valuable in constructing HIV and other risk-prevention programs. These methods significantly enhance our ability to confirm ethnographic and other social science findings from multiple directions; the process of triangulation that is essential in all qualitative research. These techniques permit ethnographers to produce greater analytical breadth and depth of detail and make rapid assessment ethnography feasible in ways that have not been possible before this time.

Consensus theory modeling provides a third area of exploration for this area of midrange theory development and testing. Consensus theory provides a method that allows an ethnographer to explore a consensual description of a cultural domain while simultaneously assessing individual informants' expertise in that domain (Romney et al. 1987; Weller and Romney 1988). Consensus theory models of culture are developed through a formalized set of questions about similarities and differences in shared experience and knowledge on the part of informants. The method for testing the theory melds ethnographic survey questions with a formal mathematical model based on approaches used by psychometricians in test construction, and influenced by signal detection theory and latent structural analysis procedures (Romney et al. 1986). One important attribute of consensus theory is that it is designed to work with a common condition in ethnography: the situation where we know the correct questions to ask, but do not know which are the correct, or the most nearly correct, cultural answers to those questions. At the present time, consensus modeling can be accomplished through the use of true-false, fill-in-the-blank, and multiple choice question formats, and is being tested for use with rank-order formats. Cultural knowledge that cannot be assessed through these formats cannot be tested using this process at this time. In the past year, a group has applied consensus theory modeling to HIV-related beliefs in four cultures: Mexican Americans in South Texas, rural Guatemalans, Puerto Ricans in Hartford, Connecticut, and a sample of individuals in central Mexico.³ The researchers have constructed a model of vulnerability, symptoms/manifestation, treatments, and prognosis for AIDS in a systematic cross-cultural comparison. It identified both intercultural and intracultural variation in the strength of AIDS knowledge and beliefs, based on personal and general public exposure to AIDS information. The test is demonstrating how differences in knowledge, beliefs, and awareness of AIDS in these four cultural groups can be used to determine the impact of social diffusion (broadcast media versus personal contact) of HIV awareness. The success of this method indicates that it can be advanta-

geously applied to consensus research on many other public health issues as well.

Social Organization and Structure: Cultural-Contexts Research

The bulk of health-related research has focused either on individuals and their attributes or on population samples collected through probabilistic sampling procedures. While this approach has a number of strengths, its weaknesses are twofold. First, the cultural context of health problems are all too often ignored by individually centered approaches. Second, people spend a significant portion of their lives within the context of small interactive groups, where their behavior may be impacted more strongly by the group than by any individual characteristic that they bring to the group. Anthropological midrange theory has been highly productive in establishing the importance of cultural contexts and the organization and structure of human systems.

Cultural-contexts research derives from theories of kinship and social network analysis and the impact of cultural structures on human behavior. The theoretical models include diffusion theory approaches to cultural change and innovation (often dependent on culture, the structure of the cultural system, and kinship impacts on social organization), theories of organizational control and behavior, and on the dynamics of social networks and the small world phenomenon. Other context-specific theoretical models come from community participation research, gender and race power analysis, theories of the adoption and adaptation of new technologies, diffusion of ideas, innovation theories, cultural resistance, and cross-cultural conflict models that focus on the structure and organization of human societies, as determined by cultural forces.

Social network theories have evolved over the past 40 years within a number of research contexts that are relevant to mental health research (Galaskiewicz and Wasserman 1993; Johnson 1994; Wasserman and Faust 1993). Some of the broader midrange theories that are associated with these approaches are personal networks theory, social network structural theory, social support theory, and viewpoint theory.

Three primary methods (or methodological sets) have been used in health-related research on social structure and organization. These include ethnographic network mapping, ego-centered network surveys, and full relational network analysis (Needle et al. 1995; Trotter et al. 1994). Examples of these approaches are described below, within the context of HIV and drug abuse prevention research targeted at social networks that maintain joint drug use in small towns.

Ethnographic network mapping is a process that allows an ethnographer to thoroughly describe the participants, the behaviors, the kinship and friendship ties, and the consequences of small "bounded groups" in a

community. It is accomplished through extensive qualitative interviewing at the community level. The composite ethnographic characteristics of the networks can be used to create a "drug network" typology or classification system, and can describe the individual and group context of drug use (such as crack houses, local manufacturing and distribution, etc.). Trotter and colleagues (Trotter et al. 1994; Trotter et al. 1995) have demonstrated that these type of data are extremely useful for targeting intervention and education activities for the highest risk groups, based on multiple risk criteria. The data can also provide important information about the sub-epidemics that are likely to be part of drug use in network groups.

Ego-centered or personal network analysis describes an index individual (ego) and all of the individuals that he or she recognizes as being connected in terms of specified social relationships. The data associated with ego networks (size, gender and ethnic composition, retrospective conditions, etc.) can be identified and described as a "typical" profile and can be associated with other psychosocial variables. A number of policy and research uses for this type of data collection are available (Needle et al. 1995). The types of key attributes that can be described for a population (or sample) include: the number of people each ego reported "spending time" with, the ethnic composition of personal networks, the risk factors assessed for ego and companions, sexual activity in the network, the types of drugs used and drug use locations for the network; and other risk factors that may be important clues to the local context of drug use and differences in drug use that vary by the type of personal networks of drug users.

The use of full (relational) network-analysis procedures (Knoke and Kuklinski 1982) requires the researcher to identify naturally occurring networks and to explore the relationships among all of the members of that network. This is accomplished by either observations or interviewing, or the two combined. In each case, it is important that the questions or the observations allow the researcher to explore the reciprocal actions that take place between each member of the network and each other member. All of the questions asked and observations conducted focus on relationship questions such as "who uses drugs with each other, and under what conditions?" "who attends social events with each other?" "Who trusts whom?" and "who shares drugs, paraphernalia, etc. with whom?" These types of investigations are in the early stages for drug-related issues; they appear, however, to be very valuable for drug research (Needle et al. 1995). Some of the issues that they allow researchers to explore include: determining the primary sources of influence and communication in drug networks, allowing better targeting of individuals for interventions that will influence the behavior of the remainder of the network, and using the

network itself to set group goals and reinforce or change group norms in relation to risk-taking behaviors.

Cultural Ecological Theories

The interface between human cultures and the environment have attracted a great deal of research addressed at identifying both individual and environmental barriers to health care delivery and compliance with therapeutic regimens. These efforts often identify social environmental barriers to health seeking and intervention conditions. The midrange theories that are currently being tested include barriers to change research (environmental factors research), cultural-congruency models (conflicts in belief and process), human-biological interactions research, comparative cultural models research, deconstructionist models, critical theory approaches, and studies of the political economy of health and illness (cf. Hill 1991; Lambert et al. 1995; Singer and Baer 1995)

Some of the developing midrange theory in health-related cultural ecology utilizes observational studies (direct observation of behaviors to determine the impact of the environment on behavior) as the primary methodology needed to accomplish the appropriate research goals. Some of these studies have targeted the results of prevention or behavioral change programs and culturally competent interventions in risk-taking behavior. One example of midrange theory combined with observational methods in a cultural ecological context is provided by a linked series of studies of needle sharing and needle hygiene practices supported by the National Institute on Drug Abuse. The studies focus on context-specific uses of injection equipment among drug users in the United States as part of HIV-risk reduction efforts for drug injectors. Early descriptions (e.g., Glatts 1994; Koester 1994; Singer et al. 1991) explore both the meaning and the processes of injection drug use, needle sharing, and the public health consequences of drug paraphernalia laws (laws that restrict the possession of syringes that might be used for drug abuse). Later studies (Bourgois 1995; Koester 1994; Needle et al. n.d.) explore the microenvironmental consequences of needle hygiene and needle sharing in-depth. One example of the latter approach is the Needle Hygiene Project, conducted by the National Institutes on Drug Abuse Cooperative Agreement Program (Koester 1994; Needle et al. n.d.). Direct observations of injection drug use were conducted at five sites around the United States. The behaviors being observed included needle-cleaning practices, sharing of injection equipment, and all of the processes associated with preparing drugs for injection. One of the important results of the study was the discovery that overall needle sharing has gone down among injection drug users, as a result of the HIV epidemic and intervention efforts. The study, however, also identified previously overlooked or de-emphasized sources

of potential HIV transmission in these groups. The new transmission vectors were identified as "indirect sharing processes" (sharing cottons, cookers, and rinse water during drug mixing, and transfer of drugs from one needle to another without common use of a single needle). These potential sources of HIV transmission were linked to sharing drugs among people who had to pool their resources to purchase drugs. The results of these studies have included a change in the recommended messages and training processes for HIV-risk reduction among injection drug users.

Symbolism, Language, and Communication

Symbolic anthropology (cf. Geertz 1973) is an important area of theory development, as are current anthropological linguistics research, some postmodernist approaches to health research (e.g., Bourgois 1994), critical medical anthropology (Singer and Baer 1995), and cross-cultural health communication research. A number of the midrange theories found in psychological anthropology depend on refinements of communication and symbolic interaction for both their expression and for associated research methods. Some of the current midrange theories from linguistic anthropology⁴ include (1) the theory that grammatical categories are the primary mechanism influencing culturally specific thought patterns (Lucy 1985); (2) the position that the creation of meaning is only emergent and negotiated in interaction and cannot be reduced to individual intent or to grammatical categories (Verschuere 1995); (3) the condition that meaning is constructed through a metalanguage structure ("mentalese") that is an evolutionary byproduct overshadowing the meanings constructed by any particular oral or written language that we might use (Pinker 1994); (4) the proposition that methods for "unpacking" the constituent "footings" or "voices" present in speakers' roles are critical to understanding communication in context, in opposition to the reduction of communication patterns to speaker/sender and receiver/hearer constructions (Trawick 1988); and (5) the theory that speech creates social context and cannot be separated from the notions of "context," "class," and "identity" sufficiently to justify reifying those notions as separate from speech (Goodwin and Duranti 1992).

Application of midrange theories often lags behind their development, and this is clearly the case with the five noted above, in relation to mental health research. There has been some limited experimentation on these propositions in cross-cultural research on HIV and drug risk reduction. For example, an analysis of the impact of public service announcements, testing social-diffusion theory, was conducted by Elwood and Ataabadi to determine the impact of broadcast media compared with individual influence at the local level (Elwood and Ataabadi 1996). Linguistic modeling was used by Finlinson and colleagues to determine the

appropriate content of HIV-information and intervention messages in order to produce culturally competent and locally motivated information for HIV prevention (Finlinson et al., in press). This Puerto Rican study analyzed the questions that individuals asked during HIV and drug intervention sessions (What we want to know about HIV and drugs) during a risk reduction program. In addition, one project was conducted to deliberately provide insights into cross-cultural communication and the symbolic aspects of language usage. The project produced a lexicon of local alcohol, drug, and social-context terms that can be applied to culturally appropriate instrument development, intervention program communication, and so on (Johnson 1994). Given the small number of these examples of midrange anthropological linguistic theory being tested, it is clear that this area of midrange development is underutilized and should be an area of deliberate expansion of the existing research paradigm (with potentially high payoff for the investment) in the near future.

CONCLUSION

This article is intended as a brief, selective, and preliminary overview of some of the areas in which midrange anthropological theory is being tested in risk reduction and disease prevention programs. It demonstrates that midrange anthropological theories are being constructed, labeled, and pragmatically used in a wide variety of mental health and other medical research programs. While the article is not intended as an exhaustive list of either the theories (others are being developed and applied) or the areas in which they are applied (which ranges through the entire spectrum of anthropology), it is obvious that this is a highly productive area for ethnographically based research; one that has a significant potential for garnering both intellectual and fiscal resources that allow these theories to be tested, assessed, evaluated, and critiqued. Thus the original proposition that aggressive labeling and promotion of midrange ethnographic theories as a model for the expansion of both theoretical and practical explorations of mental health issues appears to be a viable argument for expanding this area of development within the overall spectrum of anthropological theory.

NOTES

1. This article, by necessity, is a brief overview and a glaringly incomplete survey of midrange theory for health research in anthropology. The paper was originally constructed to present midrange theory in two of the five areas identified, as part of a workshop on ethnography and mental health at the National Institute on Mental Health, as noted in this volume. It is intended to encourage anthropologists to label and promote the excellent

midrange theories (and associated methods) that they are pursuing. It is not intended to offend anyone by omission of their excellent work. A large number of midrange theories were omitted arbitrarily, and unfortunately, due to a space limitation enforced for these essays, and due to the fact that the author is conducting research in only three out of the five areas. Therefore, I apologize to anyone who feels left out. This work will be expanded in the near future, and I would appreciate receiving bibliographies, reprints, and suggestions for expanding the existing catalog of midrange theories (labels, descriptions, and methods) from anyone who would like (or demand) to be included next time. Suggestions, or complaints, can be sent to Robert T. Trotter, II, Dept. Of Anthropology, Campus Box 5615, Northern Arizona University, Flagstaff, AZ 86011. Or RTT@NAUVAX.UCC.NAU.EDU.

2. The research by Trotter et al. reported in this article was supported by the Flagstaff Multicultural AIDS Prevention Project, funded by the National Institute on Drug Abuse Grant #U01-DA07295.

3. This is a three-year project funded by the National Science Foundation. The P.I. is Susan Weller, University of Texas Medical Branch, Galveston Texas. The other investigators are Robert T. Trotter, II, Northern Arizona University, Roberta Baer, University of South Florida, Lee Pachter, University of Connecticut Medical School, and Mark Glazer, University of Texas, Pan American. The purpose of the project is to create consensus theory and other cognitive models of both folk illness and medical conditions in four cultures, using a compatible set of procedures that will allow both intra- and intercultural analysis of these illness domains.

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