Cross-cultural conceptions of pain and pain control

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Pain is a ubiquitous feature of the human experience. This paper presents an anthropology of pain. Anthropology is defined as the cross-cultural and comparative study of human behavior. Pain can be acute and episodic, and pain can be constant and uninterrupted. Acute pain, lasting for minutes or hours, is reported at some time by virtually all adults and by most juveniles and is indicated by the cries and facial expressions of toddlers and infants. This universality of pain as a part of the human condition has been established by the research of many biological, physical, and social scientists. Ethnographers, physicians, and public health experts describe pain complaints for a variety of modern, industrial societies and traditional, undeveloped societies. Pain is the most frequent complaint brought to the offices of physicians in North America, and it is a focus of attention in the literate medical traditions of China, India, and Islamic cultures. Hence, the study of pain and the cultural perceptions of pain are prominent foci of anthropologists. Given that the goal of medicine is to offer medical care to all people who seek it, the practice of modern medicine may be assisted by an exploration of the possibility of cultural differences in medical beliefs and practices in the multiethnic and racially diverse patient populations today.

Because pain is a ubiquitous feature of the human experience, it is one of the few universals of human existence. This article presents an anthropology of pain.

Anthropology is briefly defined as the cross-cultural and comparative study of human behavior. Culture—the hallmark of anthropology—is a concept defined as a set of societal rules and standards developed over time and shared by the members of a particular society. When cultural rules and standards are acted upon by the members of a society, their behavior falls within the range of that which is considered proper and acceptable within that society. Culture is an evolutionary process that changes over time—or, if you will, "with the times." What works and is fashionable is also perpetuated, and what does not work tends either to disappear altogether or is considered aberrant behavior. Thus, culture is the essence of a society. An early hypothesis suggested that the use of the concept of culture of a given society to explain the behavior of that society required recognition of its cultural concepts as a reference for measuring and interpreting real things and events of a given society (1). To anthropologists, then, the culture of any society and the cultural concepts developed and learned, over time, by its members constitute the sources of all the appropriate behavior of the people in that society.

The way of perceiving, expressing, and controlling pain is one of these learned behaviors that, when manifested, is culture-specific (2). Moreover, cross-cultural data gathered by anthropologists during their fieldwork—the anthropological term for research—show that, while few universals exist between and among discrete societies, from the small, undeveloped, primitive ones to the large, developed, industrialized ones, *pain is one of these universals*. Thus, while the stimulation of pain fibers to tell the brain that something is wrong is the same among all human beings, the perceptions and control of pain vary from society to society.

The word *pain* is derived from the Latin word *poena*, meaning a fine or a penalty. According to *Taber's Cyclopedic Medical Dictionary* (1983), pain is "a sensation in which a person experiences discomfort, distress, or suffering due to provocation of sensory nerves." Taber's further defines pain as "one of the cardinal symptoms of inflammation which may vary in intensity from mild discomfort to intolerable agony and, in most cases, pain stimuli are harmful to the body, tend to bring about reactions by which the body protects itself, and with adaptation to pain stimuli not readily occurring."

That pain, but not necessarily its diagnosis and treatment, is a part of the human condition has been established by the research of many scholarly biological, physical, and social scientists. The existence, etiology, and intensity of pain have been recorded by anthropologists in the Old and New Worlds. These analyses include results of archaeological and physical anthropological excavations of prehistoric and historic sites. Prehistoric sites have unearthed ethnographic (social) artifacts such as cave paintings, sculptures, tools, hearths and fires, medical instruments and potions, and human funery. Historic explorations have revealed literature, paintings, human funery, housing remains, medical containers, fabrics (some colored with natural dyes derived from plants in the environment), and other artifacts. Because examples of teeth and bones (especially the jawbone—the hardest bone in the human body) have survived over time, the use of modern dating technology (such as carbon dating) has revealed much data about early humans, including disease processes.

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Presented on December 7, 2001, at the pain management symposium, Baylor University Medical Center.

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Investigators of the culture of pain have also extrapolated the incidence of pain across the span of racial groups and ethnic groups, social classes, and ages in New World society. Findings reveal that its cultural elaboration involves greatly diverse categories, idioms, and experiences. By means of illustration, since 1000 BC, the Paracas of the Southern Coast of Peru have practiced trepanation (David Wilson, PhD, personal communication, 2001). The medical purpose of trepanation is to perforate the skull to relieve internal pressure. Its purpose among Peruvian Indians, however, is to release the evil spirits that have inhabited the skull of a possessed person. As such, it is considered skull deformation. Lesions are treated with poultices of cocoa leaves and covered later by copper plates. Survival is attributed to the regenerative potential of the skull.

Acute pain, lasting for minutes or hours, is reported at some time by virtually all adults and by most juveniles everywhere and is indicated by the cries and facial expressions of infants and toddlers (3). Chronic pain, which lasts for months, years, or a lifetime, is neither a ubiquitous nor a universal occurrence (2). It is not infrequent within most world populations, however (2).

Attention to pain and a focus on pain are parts of the literate medical traditions of countries such as China, Japan, India, and Islamic cultures (4–7). For example, Oknuki-Tierney (8) reports that pain among the Sakhalin Ainu of Japan is described culturally as "bear headaches" that sound like the heavy steps of bears; "deer headaches" that feel like the much lighter sounds of running deer; and "woodpecker headaches" that feel like a woodpecker pounding into the trunk of a tree. These headache pains are not intended to be on a sliding scale. Each one is of the same painful intensity.

Pain is, of course, a pervasive condition of large melting-pot societies, such as the USA. In the USA, pain is among the biggest causes of disablement and, hence, is responsible for a substantial apportionment of disability payments (2). The cultural gap between the modern US medical system and the large number of ethnic minorities it serves, although sometimes subtle, is not an infrequent problem. The cross-culturally derived academic and medical literature is rife with descriptions of ethnographers, physicians, and public health experts concerning reports of acute and chronic pain complaints of patients from a variety of societies. Thus, the so-called cultural clash, which is not limited to the medical system of the USA, often is set in motion.

Payer (9) and Galanti (10) pose examples of cultural clash and resulting conundrums when they ask the following: What happens when an Iranian doctor and a Filipino nurse treat a Mexican patient? What takes place when a Navajo patient calls a medicine man to the hospital? What is the result when an Anglo nurse and a Japanese doctor have difficulty understanding one another? Why do Asian patients rarely ask for pain medication while patients from regions on the Mediterranean coast prefer pain medication for the slightest discomfort? Why do Middle Eastern men not easily allow a male doctor to examine their mothers, sisters, wives, and daughters? Most Western medical personnel do not understand that coin rubbing is a form of medical treatment and not child abuse. Between and among different factions, the result may be confusion, conflict, and misunderstanding.

While individual scholars conduct studies and issue reports on the phenomena of pain and its control, it is simply impossible for clinicians to understand all of these differences and societal belief systems. What *is* possible for clinicians and is important and comforting to patients is to ask them about their belief systems. This strategy lets these patients from the various medical belief systems know that, while they are in fact in a modern health care facility and will receive modern medical treatment, their differences—if any—are accepted. A melding of the minds of medical personnel and patients results. By this means, much of the confusion resulting from the "cultural clash" of different belief systems can be avoided.

Albeit idiosyncratic behavior is the unique action of an individual, is not frequently repeated, and often is unpredictable (11), a person is rarely isolated from others. Thus, individual behavior mirrors, at least in part, the behavior of the group to which a person belongs. But, clearly, not all human behavior is idiosyncratic—that is, parted from societal norms (1). Therefore, albeit one's behavior can be individual, it is most often shared with a significant number of other members of one's cultural (or subcultural) group.

In the modern world, neuroscientists regard pain as a salient feature of the nervous system. In traditional societies, pain is generally perceived to be the result of a societal transgression. On the one hand, Melzack (12, 13), and in conjunction with Torgerson (14), draws on the condition of phantom limb pain to reinforce his theory of the "neurosignatures" that emerge from the brain-self's "neuromatrix." For these theorists, the neuromatrix comprises central nervous system constraints on experiences that occur even independent of peripheral sensory signals.

On the other hand, Haviland (15) discusses pain perceptions of people of the traditional world of Africa, such as the Nuer and the Dinka. Among these and other pastoral, Nilotic (region of the Nile River) tribal people of the Sudan, which borders on Ethiopia and from Kartoum southeast into Kenya and Tanganyika, pain is believed to result from societal transgressions. Moreover, I suggest that, because these Nilotic people are among the African immigrants to the USA and are often taxi drivers in major US cities, one may meet them, complete with their traditional medical beliefs, here in the clinical setting as well as in their taxicabs. Their medical beliefs can be perplexing, but most of them are aware that, in the USA, they will meet practitioners of modern medicine in modern facilities. *Simply understanding that differences prevail is the key*.

Pain is observed in small, cohesive, traditional societies. For example, in West African countries, such as Benin, during labor and midwifery delivery, the expectant and soon-to-be new mother expresses her pain by a barely audible "whee" (16). According to Sargent (16), the process of labor and delivery in Benin is strictly a "woman thing." Men are neither present at nor have a responsibility in this event. It can be inferred that the cultural behavior during this "woman thing" results from the laboring mothers' lack of need of extra attention from male members of the society.

Further, according to Chagnon (17), among the Yanomamo Indians, an Amazonian tribe living on the Orinoco River in Venezuela, the tribal members are referred to as the "fierce people" because their daily entertainment is composed of ax and/or club

fights. The fights are put on by the young men of the tribe. The Yanomamo boys attend sessions of painting and piercing the skin of their elders, which is undertaken in preparation for the fights, in order to learn this craft for their future roles as "fierce" people. The young women (whose manners are aberrant and unacceptable in both Western and most other non-Western societies) paint the skin of the men with war decorations and also act as "cheerleaders" for these fights (17). These warriors show, with pride, the bald, scarred crowns of their heads—honor badges earned from their courage during these fights. While death by blows of the clubs and axes does occur among the men, missionaries have given these fierce people shotguns. Chagnon (17) reports that, as a result of these guns, survival of these people is threatened, because tribesmen clearly articulate that if Yanomamo Indians receive guns, they will kill each other.

The Dugum Dani of Highland, New Guinea, is a culture of peaceful but intrawarring people (18, 19). It is a patriarchal society with spear fights as the center of entertainment. In this culture, the men play "war games" by positioning themselves side-by-side in 2 parallel lines of some 25 men, facing each other, with a distance of some 30 yards between the lines. Each man holds a long spear which, upon signal, is thrown at the man across from him. This is a nightly entertainment. During the day, the men weave and hunt for food in the natural environment. When they are small children, women of this tribe undergo primitive surgical removal of all distal joints of the interphalanges in order to "protect" them from being evil. They tend babies, wash clothes, build and tend campfires, and prepare food. The results of all of these traditions would certainly cause pain in most societies. For the Dugum Dani, however, these are natural occurrences and, therefore, pain is essentially controlled by attitude.

The body in pain takes authority over and against itself, becoming a "decayed mass of tissue" that is separated from itself (2). Then the self becomes defective and loses integration. People who are not victims of this terrible condition assume that the world is inhabited by people whose lives are not infiltrated by intractable physical pain. This assumption, according to Good, Brodwin, Good, and Kleinman (2), is inconceivable for the many people who suffer chronic pain. Their pain, which becomes unbearable, is the center of the whole world for each of them.

Pain is subjective, resisting the usual medical testing; no meters or chemical assays can measure it. It is often elusive in terms of its sites. It does not respond to searches for its locations with imaging techniques. In preparing this paper, this author became aware—in a dramatic fashion—that the offer of control of pain is the only therapy that purports to give victims of pernicious pain both a piece of and a peace with the lives that most of us take for granted.

Several decades ago, a weekly television show entitled *The Naked City* presented with the opening lines, "There are a million stories in the naked city. This is one of them." This was followed, as I recall, by a very good televised play about some dramatic happening in the setting of New York City—a city of people who, in this 21st century, have undergone a dramatic and inconceivable degree of pain that has impacted much of the world's population and has destroyed some of the world's notable artifacts. In paraphrasing the now prophetic words of that earlier television drama, there are countless people everywhere with chronic pain. This paper presents but a few of the many cases of this debilitating and disabling disease.

In summary, cross-cultural investigations of aspects of pain show that, while it a ubiquitous condition of human beings, the definitions, descriptions, and perceptions of pain and pain control are culturally specific. But the absolute bottom line is that pain and pain control are inner and subjective experiences of the person who is in pain.

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