

Culture and Pain

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Questions about individual differences are often fascinating, but they are even more so for pain, because pain is a nearly universal experience (congenital insensitivity to pain does exist, but it is exceedingly rare). Still, to say that pain is universal does not suggest that it is to be understood in only physiological or biochemical terms. The human pain experience is composed of sensory, emotional, and cognitive components. In both the expression and management of pain, biological, psychological, and social factors interact in complex ways.

There is an expression to the effect that, "Man endures pain as an undeserved punishment. Women accept it as a natural heritage." While the question of gender differences is best left for another place (Rollman, 1995), related views have been expressed about how different cultural groups have seemed to react to painful events.

Wolff (1985) summarized the prevailing stereotypes:

Scandinavians are tough and stoic with a high tolerance to pain; the British are more sensitive but, in view of their ingrained 'stiff, upper lip,' do not complain when in pain; Italians and other Mediterranean people are emotional and overreact to pain; and Jews both overreact to pain and are preoccupied with pain and suffering as well as physical health. (p. 23)

The influence of culture on the expression of pain is almost certainly one which begins at birth and extends throughout one's lifetime. The interpretation of pain and the reactions to it are dependent, in large part, upon an individual's past experience—the behavior of his or her family, playmates, and others. Attitudes and anxieties established during the early years are certain to have a permanent impact on pain behavior. This perspective suggests that cultural differences in pain behavior, where they exist, are likely to arise from social rather than genetic differences.

Interest in the link between pain and culture is widespread and, as it mixes science and philosophy, likely to remain controversial. Religious perspectives add further considerations in analyses about the role of pain in our lives,

In some cultures, pain and the endurance of pain are looked upon as desirable disciplines and worthwhile experiences. Thus, because of the pain and suffering endured by Christ, certain Christians, in an attempt to identify themselves with the "Savior" or "God," or in an attempt to establish an ideal of Christian practice as they view it, embrace pain when it spontaneously occurs with disease (to "bear one's Cross"), or induce it by self-chastisement, i.e., "stigmata in religious zealots" (Hardy, Wolff, & Goodell, 1952, p. 302).

PAIN IN THE LABORATORY

Pain is often studied in two settings: the laboratory and the clinic. The laboratory, where carefully controlled noxious stimuli, such as pressure, temperature, electrical current, or chemicals, can be presented and a host of behavioral reactions can be measured, provides the opportunity to examine stimulus-response relationships with precision. The individual, however, knows that the painful stimuli are controllable and that the pain will not endure beyond the testing session. Clinical pain is more difficult to assess, partly because the stimulus is endogenous and therefore unmeasurable and partly because the affective and cognitive reactions to a pain of uncertain etiology and outcome are inevitably more complex.

The statements made about cultural differences observed in clinical settings are often broad. Sternbach and Tursky (1965) summarized attitudes and expressions observed by Zborowski (1952) and themselves: "Old Americans have a phlegmatic, matter-of-fact, doctor-helping orientation; Jews express a concern for the implication of pain, and they distrust palliatives; Italians express a desire for pain relief, and the Irish inhibit expression of suffering and concern for the implications of the pain" (p. 241).

Sternbach and Tursky (1965) attempted to see whether these differences would be obtained within the laboratory setting. They presented electrical shocks to American-born women who belonged to four different ethnic groups: Yankee (Protestants of British descent whose parents and grandparents were born in the United States), Irish, Italian, and Jewish (the last three born of parents who emigrated to the United States from Europe). In addition, the women were given standardized hour-long interviews regarding their attitudes toward pain. In the laboratory, the groups did not differ in absolute threshold (the level of current required to detect the sensation on the skin), but there were sizable differences in pain tolerance (the level at which participants indicated that the pain had reached the maximum level they wished to experience). The Yankee and Jewish subjects withstood significantly higher values than the Italians, with the Irish at an intermediate level.

Clearly, while interesting, these data ask as many questions as they answer. For one, religion, ethnicity, and national origin are mixed. For another, 15 Massachusetts housewives hardly serve as an adequate sample for making generalizations about either the attitudes or the pain responses of an ethnic or cultural group.

Tursky and Sternbach (1967) addressed some of the limitations of studies such as this, stressing, in particular, the great intragroup variability and the inability to make predictions about an individual's pattern based solely on her ethnic membership. They also began to consider the implications of such findings for biological or psychosocial differences in response to pain. Their selection procedure and some psychophysiological data (differences in skin resistance and skin potential) led them to talk about "ethnic specificity" and "inborn differences," but they saw this as a "tenuous relationship" and felt that the association of attitudinal and autonomic responses "argues for early childhood conditioning in the home rather than a genetic determination" (p. 73).

Others, who used techniques similar to Sternbach and Tursky (1965), were also not restricted by small sample sizes from making broad generalizations about the effects of race or ethnic group. Chapman and Jones (1944) compared 18 African Americans and 18 Americans of North European ancestry on tolerance to radiant heat on the forehead. The lower pain reaction threshold of the African American subjects (who may have differed from the White subjects in myriad ways) led to statements such as "Negroes were able to tolerate much less pain than North Europeans" (Wolff & Langley, 1968, p. 495). The data from 30 Italian subjects also showed lower tolerance values than the North Europeans and led to the observation that "the Negroes did not complain while the subjects of Mediterranean ancestry complained loudly at pain reaction threshold" (Wolff & Langley, 1968, p. 495).

These findings, incidentally, were not supported in a clinical study. Winsberg and Greenlick (1967) evaluated the pain responses of 207 White mothers and 158 African American mothers of similar lower and lower-middle social class admitted to the obstetrical unit of a general hospital in Detroit. While the study is hampered by the fact that typically the physician or nurse rather than the patient reported the degree of pain and how the patients reacted (from "very excitedly" to "very calmly"), the authors found no racial differences in the estimated degree of pain or the nature of the pain response.

Wolff and Langley (1968) observed that "the research investigator is more concerned with the physical nature and somatic basis of pain than with psychosocial and cultural components. The physician, on the other hand . . . realizes that there are ethnic and cultural differences in patients' responses to pain" (p. 495). The cognitive revolution which affected experimental and clinical psychology has changed that state of affairs, although cultural influences on the pain response have received much less attention than other psychosocial variables.

Zatzick and Dimsdale (1990) remarked:

Differences in pain behaviors have always struck the keen observer, and over the centuries various observers have commented on cultural factors that appear to steer an individual toward pathos or stoicism in response to pain. Many of these observations have been hearsay or mere stereotyping. (p. 544)

The desire to replace anecdotal information with hard data provided the impetus for many experimenters to conduct studies investigating racial, religious, or ethnic factors related to pain, since the laboratory provides a setting in which the relationship between culture and pain can be quantified.

There are, however, problems with many of these studies. As noted earlier, small sample sizes severely limit the generalizability of studies conducted to date. So, too, do samples gathered from a restricted geographical region (say, only from Montreal), investigations of persons from one culture living in another (Italians living in Boston), mixtures of immigrants and later generations, and failure to distinguish between race or religion and culture. Wolff (1985), for example, noted that Blacks residing in New York who have come from West Africa may react more vigorously to experimental pain than those born in the United States, with West Indian Blacks falling in between. While African Americans are often, erroneously, treated as a single group, studies of Caucasians have sampled a variety of ethnic groups and have demonstrated some striking differences (Zatzick & Dimsdale, 1990; however, these have sometimes been ignored or overlooked as Caucasians were lumped together for analysis). Wolff (1985) also observed that "while there are undoubtedly differences in pain reaction between various ethno-cultural groups, it is not at all clear if these are due to ethnic or to other cultural and/or psychosocial factors. On the whole, the demonstrated differences are probably more due to learning than they are innate" (p. 27).

PAIN IN THE CLINIC

While the laboratory provides precision, the clinic, as an arena for the study of ethno-cultural differences in pain, provides relevancy. There are numerous reasons for studying pain in the real world. For one, clinical pain, with its associated anxiety and despair, adds a heightened level of affect and cognitive involvement to the sensory component of discomfort. For another, the lessons learned from examining how culture shapes the pain response has important implications for the assessment and treatment of painful conditions. Zborowski's (1969) book, *People in Pain*, provided an influential perspective on the role of culture, but its conclusions (Old Americans are stoic, Italians loudly demand pain relief, Jews seek relief but worry about the future implications of their disorder) all came from staff reports at a single Veterans Administration hospital in New York.

Numerous studies have undertaken to examine cultural determinants of pain reactions, examining, in most instances, different cultural groups in the United States and, less often, patients in different countries. Such an epidemiological perspective can add a vital dose of reality to a difficult task. Even here, though, there are some vexing problems. For example, there is no clear agreement as to what constitutes disease or illness (Zola, 1966). There are disorders considered important in some societies that have no counterpart in Western culture. In contrast, disorders like chronic fatigue syndrome, which are widely diagnosed in Western medicine, are not recognized in many other cultures (or, perhaps, are attributed to very different causes; Abbey & Garfinkel, 1992; Ware & Kleinman, 1992).

Moreover, there are many instances of persons who are found to have a painful disorder only when they are surveyed or examined as part of an epidemiological investigation. That is, their symptoms or complaints are no different than those who have been formally diagnosed with an illness, but they never considered them to be severe or important enough to consult a physician.

Zola (1966) suggested that "illness, defined as the presence of clinically serious symptoms, is the statistical norm" (p. 615) and that "signs ordinarily defined as indicating problems in one population may be ignored in others" (p. 617). Back pain, for example, while not considered "good," may be seen by many individuals as "part of expected everyday existence" and, thus, not considered by them as symptomatic of any disorder.

In documenting the influence of culture on symptoms, Zola sampled patients seen in various outpatient clinics at the Massachusetts General Hospital, taking a special interest in the complaints which people of different ethnic background bring to the physician. In particular, he focused on 63 Italians and 81 Irish new-admissions of comparable age, education, and social class. Further analyses were performed on 37 diagnostically matched pairs of the same sex, primary diagnosis, chronicity, and physician-rated seriousness.

Starting with the question, "Where does it hurt?," the study found that the Irish were markedly more inclined to locate their problem in the eye, ear, nose, or throat. The Irish were, however, much more likely to say that the problem was not painful ("It was more a throbbing than a pain. It feels more like sand in my eye," p. 623). Moreover, the Irish described a specific problem; the Italians tended to report a diffuse difficulty. The Italians presented more symptoms, had complaints in more bodily locations, and indicated that they had more kinds of dysfunctions and more diffuse qualities of their condition.

From these findings, Zola speculated that "Italian and Irish ways of communicating illness may reflect major values and preferred ways of handling problems within the culture itself" (p. 626). Rather than being pain- or illness-specific, Zola felt that the number of symptoms and the spread of complaints may be understood in terms of a more generalized expressiveness. So, for the Italians, the complaints may relate to "their expansiveness so often [seen] in sociological, historical, and fictional writing;" a "well seasoned, dramatic emphasis to their lives" (p. 627). Taking a more Freudian tack, Zola suggested that overstatement of symptoms may reflect a defense mechanism of dramatization, a tendency to "cope with anxiety by repeatedly overexpressing it and thereby dissipating it" (p. 627).

The Irish view of life, Zola suggested (1966, p. 627), is more bleak ("long periods of routine followed by episodes of wild adventure"). It was as if "life was black and long-suffering and the less said the better." Consequently, a patient when asked about her reactions to the pain of her illness, stated, "I ignore it like I do most things," and Zola attributed a defense mechanism of denial to explain the Irish illness behavior.

Clearly, the psychodynamic perspective is debatable and dated and other theoretical positions have been proposed to explain related sorts of findings. Fabrega and Tyma (1976), for instance, provided a psycholinguistic basis for cultural differences in pain expression, noting that:

In English, the process of metaphorization allows the speaker to qualify his experience in a vivid and direct manner ("I have a burning pain") and his overt behavior often reflects this qualification. The native Thai is not provided with this flexible device of metaphorization in describing his pain. It is possible that special qualities of Thai pain which are not rendered verbally are communicated nonverbally. (p. 329)

In Japanese, in contrast, the characterization of pain “is made along several axes, including intense vs. not intense, deep vs. shallow, horizontally-extended vs. horizontally-confined, and temporally-extended vs. temporally-bounded. Pain descriptions often implicate more than one quality” (p. 334). Fabrega and Tyma contrasted sentences roughly translated as “There is a pain deep inside my leg” and “There is a deep pain in my leg,” which appear similar in English but have very different connotations to a native speaker of Japanese. “Whereas English pain quality is described through metaphor, Japanese qualities are described more ‘naturally’ through direct symbolizations of the experience. Elaboration of experiential properties through sound symbolism suggests an emphasis on the fleeting and formless aspects of pain” (p. 336). They concluded with several fascinating questions:

1. Is there a limited set of semantic categories that people and languages draw on to describe pain?
2. Do the pain behaviors of a people bear a relation to the models of pain which the culture imposes on people or to the grammatical rules and conventions which the language system imposes?
3. Which facets of a pain experience are communicated verbally and which ones non-verbally, and how do groups differ in the way they use these channels? Are there cultural invariants in any of these channels?

Mechanic (1972) presented an interesting social-learning perspective on the issue of bodily complaints: “From very young ages, children more or less learn to respond to various symptoms and feelings in terms of reactions of others to their behavior and social expectations in general” (p. 1135). He suggested that the different patterns of response to pain identified by Zborowski (1952) arose from different processes regarding symptom reporting and the search for medical assistance, as well as the willingness to accept psychological interpretations of their complaints. Unresolved then, and still now, is the question of whether the cultural differences noted in the literature are “a result of the fact that children with particular prior experiences and upbringing come to have more symptoms, interpret the same symptoms differently, express their concerns and seek help with greater willingness, or use a different vocabulary for expressing distress?” (p. 1136)

Pilowsky’s (1975) Illness Behavior Questionnaire (IBQ) provides a means to quantify differences in some of these factors. The questionnaire has scores for each of seven factors, including general illness behavior, disease conviction and symptom preoccupation, ability to express personal feelings to others, and how illness affects the patient’s relationship with family or friends. Although Pilowsky (1975) spoke of the relationship of illness behavior to cross-cultural differences in pain expression, a broad examination of IBQ scores across cultures has yet to be carried out.

Davitz, Sameshima, and Davitz (1976) put the emphasis on the attitudes of caregivers toward pain and suffering rather than those of the patient. They asked nearly 100 nurses in each of the United States, Japan, Taiwan, Thailand, Korea, and Puerto Rico to read descriptions of patients and to judge the amount of physical pain and psychological distress that the patients were experiencing. When faced with the same translations of case descriptions, Japanese and Korean nurses gave moderate ratings of physical pain (3.7 to 3.8 on a 7-point scale) while those from mainland United States and from Puerto Rico assigned low ratings (about 3.0). Likewise, Korean and

Japanese nurses attributed higher degrees of psychological distress to their patients, although, interestingly, so did the Puerto Rican nurses.

Davitz et al. (1976, p. 1297) interpreted these findings in light of "a common American stereotype about the stoicism of Orientals." They found that American nurses believe Asian patients feel far less pain than those from other ethnic backgrounds, whereas Asian nurses believe their patients are especially sensitive to physical pain. The authors suggested that Japanese culture emphasizes control of expressive behavior in spite of the experience of strong feelings, while Americans show greater congruence between internal experience and behavior. If so, they proposed, "American nurses might well reconsider their own beliefs about Oriental patients and make sure that their cultural stereotypes do not interfere with awareness of the pain their Oriental patients may be experiencing."

A somewhat related analysis of nursing assessments, in a very different cultural context, came from Calvillo and Flaskerud (1991). Observing, "cross-cultural studies have demonstrated that white Americans of Northern European origin react to pain stoically and as calmly as possible. This response to pain has become the cultural model or norm in the United States. It is the behavior expected and valued by health caregivers" (p. 16), the authors examined Mexican American pain expression. They began by noting that pain behaviors have to be viewed within a cultural context:

Many Mexican American patients, especially women, moan when uncomfortable. Consequently, they are often identified by the nursing staff as complainers who cannot tolerate pain. In the Mexican culture, crying out with pain is an acceptable expression and not synonymous with an inability to tolerate pain. Crying out with pain does not necessarily indicate that the pain experience is severe or that . . . the patient expects the nurse to intervene." (p. 20)

Calvill and Flaskerud went on to suggest that in the Mexican culture, crying and moaning may help the patient to relieve the pain rather than function as a request for intervention. Health practitioners, operating from the dominant-culture model of response to pain, may, improperly, interpret crying and moaning as an indication that the patients are dramatic, emotional complainers with an inability to manage pain. Accordingly, there is an important need to understand culturally determined attitudes and pain reactions.

Recently, Neill (1993) went back to the main population groupings used in Zborowski's (1969) classic study, looking only at Yankee, Irish, Italian, Jewish, and African American patients who had recently suffered an acute myocardial infarction. Numbers were small, ranging from 7 to 35 per group in a total sample of 89 subjects. Pain was rated on a modified version of the McGill Pain Questionnaire, in which subjects select which, if any, adjectives in 20 categories applied to the pain they suffered during their heart attacks. There were no significant differences. This is not surprising, given the small sample, but perhaps reflects, as well, the changes in American society over the past half-century.

Similar trends toward diminished differences among cultural groups in their attitudes about health and medical care were seen more than 20 years ago by Greenblum (1974). While there had been some reports that suggested that American Jews describe more symptoms and make greater use of medical facilities than others, Greenblum analyzed the data from later studies and concluded that "such distinc-

tiveness is diminishing and may disappear as the relationship of American Jews to other ethnic groups and to the general society changes" (p. 127). He felt that immigrant groups, as they move higher on socioeconomic indices and become less insulated from general society, adopt the dominant medical perspective, and whatever differences existed in medical behavior diminish or disappear.

A number of factors contribute to this pattern of acculturation. Comparison processes are important, as shown in the well-known study by Lambert, Libman, and Poser (1960) in which Jewish and Protestant women at McGill University were tested for pain tolerance. There were no significant differences between them; however, when they were told that their own religious group was less able to withstand pain than other groups, only the Jewish subjects, who came from a cultural minority group, showed a significant elevation in tolerance on subsequent tests of pain responsiveness.

CHRONIC PAIN

Laboratory experiments and many of the studies on clinical pain focus on pain that is relatively brief in duration. The psychological reactions to chronic pain—pain lasting longer than a few months—are very different. Many other aspects of the patient's life are affected: ability to work or enjoy recreational activities, financial status, relationships with family members and friends, self-esteem, degree of depression, and capacity to plan for the future. Often, the pain, while strong and ever-present, becomes a secondary problem to severe psychological distress. Moreover, analgesic drugs, which often function well in attenuating acute or recurrent pain, are typically ineffectual in reducing chronic pain.

Most of the studies that have examined clinical pain reactions in different cultural groups have looked at acute pain—childbirth, postoperative pain, dental pain, and the like. Some recent studies, however, have begun to contrast pain complaints and reactions among individuals from different cultures who suffer from chronic pain.

One problem, of course, is to find diagnostic instruments, whether aimed at eliciting information about pain or illness behavior, that are available for use in different cultures. This is not a trivial problem. Although there are measuring tools such as visual analogue scales, in which patients are asked to mark their degree of pain on a 10- or 15-cm line, perhaps with "no pain" written at the left and "pain as strong as I can imagine" on the right, there has been little research done to examine whether these instructions are interpreted equally across cultures (Aun, Lam, & Collett, 1986) and whether patients understand the distinction between their level of discomfort (a sensory response) and how they feel (which is strongly dependent on affective and cognitive components).

Other pain scales are generally verbal in nature, such as the McGill Pain Questionnaire (MPQ) which asks subjects to indicate which of a large number of adjectives describe their pain. The MPQ has been translated into a number of foreign languages (Arabic, Chinese, Flemish, Finnish, French, German, Italian, Japanese, Norwegian, Polish, Slovak, and Spanish; Melzack & Katz, 1992; Naughton & Wiklund, 1993), but generally it has been used to assess pain within a single cultural setting rather than across several.

Brena, Sanders, and Motoyama (1990) undertook a study of medical, psychological, social, and general behavioral functioning of low-back-pain patients and normal controls in the United States and Japan. The numbers were small (about 10 in each of the four groups), but there were some interesting results, particularly with regard to scores on the Sickness Impact Profile (SIP). This questionnaire contains statements about impairment in 12 categories (such as mobility, social interaction, emotional behavior, sleep, and recreational activities) that can yield scores on three major subscales (Physical, Psychosocial, Other) and an overall score.

While the Japanese and American back-pain patients had similar scores on the Physical subscale, there were differences on the others, with the American patients indicating greater levels of impairment on Psychosocial factors and on work, recreation, sleep, and home management.

The authors considered a number of factors that may account for their results. One possibility is that the questions themselves are interpreted differently across cultures (although the fact that the control groups had similar scores mitigates against this). Brena et al. (1990) suggested that more likely explanations included greater acceptance of a pain problem and enhanced coping skills in a society that values stoicism. Another possibility is that a stoic, ethnically homogeneous society may be less accepting of pain-related impairments. Alternatively, greater family unity, social stability, and "traditional reciprocal loyalty between employers and employees" in Japan may reduce the anxiety associated with a chronic problem and motivate Japanese employees to maintain their vocational and psychosocial function despite physical challenges (p. 123).

This raises a fascinating question for the growing field of medical anthropology (Helman, 1994), addressed by Bates, Rankin-Hill, Sanchez-Ayendez, and Mendez-Bryan (1995), "How do cultural beliefs, values, attitudes, and standards of patients and health care providers influence patients' abilities to cope with their chronic conditions?" (p. 142). Bates et al. looked at numerous aspects of adaptation among chronic pain patients seen at outpatient medical centers in New England and Puerto Rico (100 patients at each), including pain intensity, behavioral responses, attitudinal and emotional responses, and overall adaptation.

Patients in both settings suffered from a variety of chronic disorders such as arthritis, back pain, and nerve damage. Both questionnaire data and in-depth interviews led the investigators to conclude that Yankee Anglo American patients are inexpressive about pain, reluctant to seek psychological explanations for pain (or to accept psychological counseling), likely to endorse a "biomedical world view of the body as a machine-like entity separate from the mind" (p. 150) and have a tendency to hide pain from family and friends by "going off" to be alone.

In contrast, many Puerto Ricans made valiant efforts to continue to work or to keep house (and to suffer extreme distress when that is not possible), to maintain family relationships, and often to express pain openly by wincing, groaning, and describing their pain in emotional terms. Clearly, though, there were sizable degrees of variation within each cultural group.

Analysis of the questionnaire data from low-back-pain patients indicated markedly higher scores for the Puerto Rican patients on the MPQ, on measures of expressiveness, depression, worry, tension, and unhappiness, and perceived disability. Despite this, there were no differences in interference with work, social, or family activities.

The intragroup variation provided some data that deserve consideration for understanding cross-cultural differences. Those who sought pain relief through their own efforts showed less pain than those who relied upon the actions of medical personnel. Those with higher levels of education and income reported less pain. Among Puerto Ricans, those who had greater social support from family and friends were more likely to remain at work. Patients receiving workers' compensation reported greater work stoppage and less confidence in their ability to overcome the pain problem.

These findings indicate that an examination of cross-cultural differences in pain is not simply a matter of looking at pain ratings in a variety of countries or cultural settings. The differences in pain behavior, where they exist, are unlikely to be due to genetics and are not caused by the drinking water. To understand ethnocultural differences, it is necessary to examine the cultures themselves—child-rearing practices, family structure, social support, health care, rate of unemployment, political environment, disability compensation, and opportunities for rehabilitation.

CHILDREN AND PAIN

Given the psychosocial perspective on cultural differences in pain, it would be interesting to look for evidence concerning pain experiences in children. This is an issue made all the more difficult because of the problems in assessing pain in a pediatric population. Recent years have seen numerous advances in developing physiological measures, behavioral observations, and self-reports, including analysis of facial expressions, scales involving faces and colors, and examination of drawings.

Little attention has been paid to the need to validate these scales in different cultural settings. Villarruel and Denyes (1991) found that the demonstration of adequate psychometric properties was still not sufficient for nurses to adopt such scales; they wanted measures which demonstrated cultural relevance or sensitivity.

Consequently, Villarruel and Denyes undertook to develop alternative versions of the "Oucher" scale for Hispanic and African American children. The Oucher comprises a series of six photographs of a 4-year-old White boy showing facial expressions indicating various levels of pain. A pediatric patient is asked to point to the picture which best reflects his or her own level of hurt.

Using photographs of Hispanic and African American children, taken when they were or were not experiencing pain, the authors established an ordering of six photographs that other children could agree represented a progression of pain expression. It remains to be established whether this particular measure will reveal any cross-cultural differences in children's pain levels; whether scales tailored to ethnic origin or race, while culturally sensitive, aid in either pain assessment or in strengthening communication between health practitioners and children of different cultural groups; and whether more neutral measures (such as "happy face" drawings) can achieve both validity and universality in pain assessment.

Abu-Saad (1984) conducted semistructured interviews with Arab American, Asian American, and Latin American school children (24 in each group, aged 9–12 years) to ask about what caused pain for them, what words they used to describe pain ("like a hurt" was the most common descriptor in each group), how they felt when they are in pain, and how they coped with pain. Given that all lived in the same urban envi-

ronment, the finding that the similarities among the subjects are considerably greater than the differences is not surprising. Nonetheless, studies such as this, if conducted among children residing in different cultural settings and varying in age, may help to identify factors that underlie apparent differences among adults in pain behaviors. They will also advance our understanding of the speed of cultural diffusion or adaptation. Pfefferbaum, Adams, and Aceves (1990) studied pain and anxiety in 37 Hispanic and 35 Anglo children with cancer at a hospital in Texas. The children were very similar in their behavioral responses. It was the parents who differed, with the Hispanic parents reporting significantly higher levels of anxiety than the Anglo ones.

PAIN AND WOMEN

A number of recent studies have focused on cultural aspects of special pain problems related to women. Shye and Jaffe (1991) found sociocultural factors influenced premenstrual symptoms among a sample of 545 Israeli teenagers. Girls of Asian/African ethnic origin reported significantly higher prevalence of backache, bloating, fatigue, breast tenderness, and depression than those of Israeli or Western origin. Likewise, the incidence of dysmenorrhea (painful menstruation) was appreciably higher among the girls of Asian/African cultural origin. Interestingly, the authors looked for other correlates of these pain reports and found that they showed a negative relationship with the mother's educational level. Girls whose mothers had less than 8 years of education had more premenstrual symptoms and more reported pain than those whose mothers had medium or high educational levels. However, when maternal educational level was controlled for, girls whose mothers had immigrated from the Near East or North Africa still had higher reported levels of reported symptoms. Shye and Jaffe felt that the mothers had come from societies which dictated a "traditional, family-oriented role for women" and that their daughters, although born in Israel, "would normally have assimilated many elements of their mothers' orientations" (p. 222).

Beyene (1986) examined cultural differences in the perception and experience of the other end of the fertility cycle, menopause. In an attempt to identify physiological and sociocultural factors related to menopause symptoms (hot flashes are typically associated with this biological transition, while fatigue, irritability, depression, and general emotional problems are much more variable), Beyene sought information from ethnographic sources about the natural history of menopause in "cultures which are significantly unlike those of Western industrialized societies" (p. 49).

The analysis of the literature suggested that "menopause is conditioned by the cultural content which shapes the pattern of a woman's roles" (p. 48). For example, in societies where postmenopausal women are released from some of the taboos and social sanctions associated with female roles (allowing them to go unveiled or able to participate in talking or drinking with men), women experience few of the symptoms which Western women associate with menopause.

Beyene obtained data from rural Mayan Indians in Yucatan, Mexico, and from rural Greek women on the island of Evia, spending 12 months at each site talking to women and to healers and other medical personnel. She was able to conduct life history interviews with about 100 older women in each village, one third of whom were each premenopausal, menopausal, and postmenopausal (more than a year since

the cessation of menstruation). Evidence indicated that Mayan women showed almost no symptoms associated with menopause other than irregularity and then cessation of menses. They did not report hot flashes or emotional disturbances.

The rural Greek women, unlike the Mayan women, felt free from taboos and restrictions, but they "associated menopause with growing old, not having energy, and a general downhill life course" (p. 63). For them, more than 70% had hot flashes, and large numbers had headaches, dizziness, and insomnia.

The findings are noteworthy, because they challenge the generally held assumption that hot flashes are inevitable symptoms arising from declining estrogen levels. Before concluding, however, that physiological symptoms are strongly dependent upon social and cultural factors, Beyene (1986) cautioned that it is necessary to conduct further studies to elaborate the role of differences in nutrition, fertility patterns (Mayan women marry early, have repeated pregnancies, and prolonged lactation), and genetics.

A number of studies have been focused on cultural factors associated with childbirth pain. Morse (1989) found that female and male Fijians of native ancestry associate much more pain with childbirth than do Fijians of East Indian ancestry. Weisenberg and Caspi (1989), noting that comparison with others helps to determine what reactions are appropriate to pain and that "the family of origin teaches the person appropriate behaviors" (p. 14), examined the influence of cultural group on the reaction to childbirth pain. They studied 83 Israeli women who came from two groups, one with mothers born in Europe, the United States, or another English-speaking country, and the second whose mothers came from Asia, North Africa, or the Middle East.

Weisenberg and Caspi felt that women of Middle Eastern background, given to greater expression of feelings and emotions, would score higher on Eysenck's extroversion scale and would show greater expressions of pain. However, since an earlier study (Barak & Weisenberg, 1988) found that Middle Eastern women showed a tendency to endorse items more in the direction of denying, wanting to be rid of, and not willing to cope with pain, they predicted a greater use of denial or emotion-reducing strategies rather than active coping.

Women undergoing delivery completed a visual analogue scale to rate their pain at three points during labor. In addition, observers rated various types of behavior, including crying, cursing, twisting in bed, hair pulling, and loss of control. Several days later, the women completed the Eysenck Personality Inventory and a coping scale. The mean pain ratings were high for both groups, but higher for the Middle Eastern women. Those Middle Eastern women with greater levels of education indicated significantly less pain than those with 12 years or less of schooling; there was no effect of education for the Western women.

Likewise, women of Middle Eastern origin showed more observable pain behavior during labor, a measure which was also moderated by educational level. Extroversion and coping scores did not differ between the groups or predict pain behavior. The authors concluded that "educational influences can change the original contribution of family of origin on the reaction to pain" (p. 117). So, too, did participation in a prepared childbirth course. Consequently, factors such as degree of education, training in coping skills, and economic level may be more important than cultural group, at least when women in the same society are considered.

Sometimes, cultural studies have focused in interesting ways on attitudes toward pain as a moderator variable rather than as an outcome measure (Stein, Fox, & Murata, 1991). Studies in the United States have shown that women are reluctant to be screened for breast cancer with mammography, with African Americans and Hispanic women particularly underutilizing the technique. A number of factors may contribute to their behavior, such as economic and educational disadvantages, level of knowledge about cancer, and access to medical insurance, but many women avoid mammograms even when they are readily available at no cost. Stein et al. (1991) identified five possible barriers to the use of mammography: embarrassment, fear of radiation, fear of pain, anxiety about effectiveness, and concern about cost.

They interviewed 1,000 women about their attitudes and concerns. Four of the barriers, embarrassment, radiation, pain, and cost, were significant negative predictors of having a mammogram. African American and Hispanic women were particularly worried about pain during the procedure, giving higher predictions than the White women about the level of pain and giving markedly higher scores on a scale measuring whether pain keeps them from having a mammogram. The authors, understandably, called for "more effort to recognize differences in tolerance for pain and to inform Black and Hispanic women that mammograms usually are not reported to be especially painful and that they take only a few minutes to be performed" (p. 110). Presumably, these recommendations would be echoed by Weller and Hener (1993), who found that Israeli women born in North Africa and Asia reported significantly higher levels of state anxiety than those born in Western countries when awaiting such medical procedures as ultrasound, mammography, or a cervical examination.

The use of good sense is not limited to treating women or to using these medical procedures. Weisenberg, Kriendler, Schachat, and Werboff (1975), after finding that Hispanic dental patients showed higher levels of anxiety than African American or White patients, suggested that tailored anxiety-reduction procedures, implemented by a Spanish-speaking dentist, would help to eliminate their concern. In relation to this, Moore, Miller, Weinstein, & Dworkin (1986) concluded that "pain as a purely physical sensation can no longer serve as the pivotal pain research construct" (p. 332) after showing that dental patients and dentists from various cultural groups differed both in the characteristics of the pain experience that they ranked as important and in the drugs, procedures, and psychological techniques they adopted as useful coping remedies.

EPIDEMIOLOGICAL STUDIES

Many of the studies reported in this chapter are based on measurements, whether psychophysical, clinical, or psychological, obtained from relatively small samples. There have been a number of reports of the incidence of pain across cultural groups for large populations. Ziegler (1990) reviewed the literature concerning the prevalence of headache in various cultures. His report contains numerous interesting anecdotal observations. Although the incidence of headache complaints is relatively high in Western societies, one study from Zimbabwe claimed "headache, a common problem elsewhere, will rarely be complained of" (p. 783). Another said, "Migraine is very uncommon and only one or two cases are seen each year" (p. 783). However, a

third study done in Zimbabwe found that it is not the number of people suffering from headaches that is low but the number who have sought help for their problem from either physicians or traditional healers. Epidemiological studies need to be carried out in the community rather than in doctors' offices. Moreover, in Africa, as elsewhere, the incidence of headache complaints differs in rural and urban settings, suggesting that the nature of the population sampled, the characteristics of the interview and questionnaire forms, and local values ("the admission of recurrent pain without obvious cause might carry some social stigma in certain groups" (p. 784) contribute to the incidence of pain complaints and make it difficult to obtain truly accurate cross-cultural information.

CANCER PAIN

International studies of cancer pain have received increasing emphasis in recent years, since the World Health Organization established a cancer pain relief program to improve the care, particularly pain relief, of terminally ill patients. Cleeland, Lad-inshi, Serlin, and Thuy (1988) noted that an important issue is the selection of an instrument to measure pain relief that is:

short enough to be completed by seriously ill cancer patients, samples the severity of the patient's pain and the impact that the pain has upon major dimensions of the patient's life, and is constructed in a manner that allows for comparisons of pain severity and impact across different languages and cultures." (pp. 23-24)

Cleeland et al. (1988) undertook, in the United States and Vietnam, an evaluation of the Brief Pain Inventory (ratings of the past week's pain, using 0-10 scales to indicate "worst," "least," "average," and current pain levels, plus similar ratings of how the pain interferes with activity, walking, mood, sleep, work, and relations with others). In the two countries, there were differences in the analgesic available to treat the patients: 71% of the American sample received codeine, morphine, and related potent compounds, while none of the sample from Hanoi received an analgesic stronger than aspirin (and 64% received none). Not surprisingly, the Vietnamese sample reported high levels of pain. The Vietnamese, however, showed no difference from the Americans in the measures of how pain interfered with their quality of life, a remarkable finding that deserves further attention.

Related data from another Eastern culture were presented by Kodiath and Kodiath (1995). Half a million new cancer cases per year are reported in India, most of which are inadequately treated. The authors observed, for several hours per day, small numbers of cancer-pain patients in the United States and India and interviewed family, friends, and physicians. They concluded that the "patients from the United States felt that they received significant pain relief at all stages. The greatest challenge for them was coping with the reality of a terminal illness, and pain was a minor component of that phenomenon" (p. 193). The Indian patients, often diagnosed only when the pain had become excruciating and faced with a limited number of therapeutic alternatives, suffered badly. They "often mentioned 'wanting to die' because the experience of pain was almost unbearable" (p. 194), but "their emphasis is not on how long but how well one lives" (p. 196) and, in the authors' view, "South Asian pa-

tients with cancer emphasize the spiritual aspects of quality of life as being more important than physical functioning" (p. 194).

As part of the developing specialty of "psychooncology," attitudes of physicians and family members in different countries have been compared. In many countries, both groups are reluctant to tell the patient that he or she has cancer, leading Die Trill and Holland (1993) to conclude that there are constraints imposed by cultural norms on the way information about the disease is conveyed. The authors focused on the dilemma faced by patients who are immigrants: "They may bury the past, sometimes under the pressure to accommodate to the new situation" (p. 26). For those who immigrated late in life, "it is not uncommon for younger family members who are usually better adjusted to the new culture to feel burdened with the patient's medical and psychological needs. This attitude may also foster intergenerational conflicts in the context of illness" (p. 26).

Garro (1990) reviewed a number of culturally based dimensions of the response to cancer pain. Many factors play critical influences. As noted earlier, language is one. English has a number of pain terms, some languages have more than a dozen, others have only one. More important, perhaps, are cultural reactions to the patient suffering from cancer. The North American "message of hope" is contrasted with the Japanese tendency to withhold the diagnosis of cancer from the patient ("if the patients know the diagnosis they would give up hope and soon die," p. 42). Pain evaluation and management cannot be separated from its cultural context. Garro concluded that "if caretakers focus exclusively on bodily pain, and ignore the cultural and personal meanings of illness, the inadvertent result of attempts to relieve suffering may be to increase it" (p. 42).

RECONCEPTUALIZATION OF THE ISSUES

To ask whether culture affects pain perception is to ask too simple a question. The complexities of dealing with both culture and pain do not allow such a direct framing of the relationship between the two.

Too often, researchers have made broad generalizations based upon samples of convenience, testing small numbers of persons from some local immigrant community (who have learned the researcher's language, although it is uncertain that they fully understand the often complex experimental instructions or questionnaires), and declaring that persons of culture X are more stoical than those of culture Y. This approach violates rules of sampling. Recruitment issues have received scant attention. We need to look at the factors which inhibit the inclusion of persons from various cultural or language groups in medical and psychological studies.

Moreover, persons of culture X are not all alike. They have many more differences between them than they have similarities. The definition of ethnocultural status requires more attention, particularly in our mobile society. Consider an Ethiopian Jew living in Israel: African, Black, Jewish, and Israeli. Her pain reactions are influenced by many cultures but not circumscribed by any of them. Her daughter will also be Black, Jewish, and Israeli, sharing some cultural characteristics with her, but shaped by other ones as well.

Many problems exist at the pain measurement side of the relationship. Not enough attention has been paid to the differences among laboratory-induced pain, acute pain,

recurrent pain, and chronic pain. There are few assessment tools that have been validated across cultural settings. Too much emphasis has been placed on the sensory component of pain, which is not particularly reactive to culture, rather than the more interesting and important affective and cognitive components. We are largely ignorant of the interactive effects of ethnocultural membership of the experimenter and the subject in pain studies; certainly, the great majority of studies on racial or ethnic minorities have been conducted by White investigators.

Too many studies have sought racially or ethnically-based genetic differences in pain expression. There have been some exciting animal studies demonstrating selective breeding of mice with high and low levels of analgesia induced by stress and differential response to morphine (e.g., Mogil et al., 1996), but these findings have implications for understanding individual differences within an ethnocultural group rather than between groups.

Some recent studies of pain responsiveness have been motivated by directives from granting agencies to select diverse populations differing in such characteristics as race. The U.S. National Institutes of Health sought to support research initiatives on health promotion and disease prevention involving African American, Asian American, Native American, Pacific Islander, and Hispanic children. While it is essential to ensure that there are no adverse reactions to drugs among persons of certain ethnic or racial background and to understand the psychosocial factors related to health across ethnocultural (as well as geographic) boundaries, differences in pain behaviors among groups are much more likely due to such factors as education, economic status, and access to medical and social support than to racial or ethnic composition. Moreover, it is folly to lump all persons of Asian extraction together into a single category; there are many cultural, linguistic, and religious differences among persons of Chinese, Vietnamese, Malaysian, and Japanese backgrounds.

A biopsychosocial perspective recognizes that a large number of factors influence individual and group differences in behavior. While biological influences must account for some of the differences between individuals, there is no indication of genetic differences in pain responsiveness across racial or cultural groups.

Such differences that do exist are almost certainly based upon psychological and social characteristics. Further research, using psycholinguistic, social learning, and cognitive perspectives will help to shed light on understanding differences in what people consider to be painful and how they respond.

Future investigations should consider a model such as the following for analyses of group differences in pain responsiveness. Individuals will differ with respect to:

1. Monitoring—the extent to which they pay attention to internal bodily events;
2. Symptom attribution—the extent to which they consider bodily events as indicative of a dysfunction rather than a normal biological process;
3. Coping mechanisms—the manner in which individuals deal with negative events, including their dependence on other individuals (such as health care providers) and agents (such as analgesics) rather than internal psychological processes;
4. Somatization—the extent to which negative psychological events and cognitions contribute to increased reports of physical discomfort.

The nature of the interactions between these processes and the factors which give rise to different patterns of response remain to be determined. Some researchers have

begun to examine ethnocultural differences in such psychological variables as locus of control (Bates & Rankin-Hill, 1994) and coping and adaptation (Bates et al., 1995). These lines of investigation are crucial; evidence indicates that some patterns of coping among pain patients, such as praying and hoping, which are certainly influenced by culture, are maladaptive.

Three issues remain. First, are there cultural differences in monitoring, symptom attribution, coping, somatization, and other personality variables? Second, if the answer is yes, how do they influence pain behaviors (and, for that matter, other behaviors; groups that differ in the expression of pain will almost certainly also differ in the expression of anger, joy, depression, and a whole range of human emotions)? Third, what are the psychosocial factors that give rise to these behavior patterns?

Many other questions follow. What is the meaning of cultural differences in emotionality (Lipton & Marbach, 1984)? How important is the link between somatizing behavior and membership in a culture that deemphasizes emotional displays (Ford, 1995)? What should we make of the finding that older and female medical patients may carry on ethnic traditions longer than younger and male ones (Koopman, Eisenthal, & Stoeckle, 1984)? What are the interactions between culture, gender, and age in pain behavior? Given that individual factors are of the greatest importance in accounting for pain, how do cultural factors contribute to the variability (Streltzer & Wade, 1981)? Since immigrant males are often only able to get work which is physically challenging and monotonous, should we be surprised that they are at greater risk for injury, difficult to rehabilitate, and more likely to depend upon compensation (Keel & Calanchini, 1989)? Does heavy physical work lead to a high criterion for reporting pain (as suggested, for example, in a study of Nepalese mountain-climbing porters conducted by Clark & Clark, 1980)?

Will trends toward urbanization and Westernization lead to conformity in pain behaviors across cultures? How quickly will the processes of assimilation and acculturation work to create a form of regression to the mean among immigrant populations? Why has there been so much emphasis on cultural differences in pain when it is likely that equally dramatic differences exist in displays of other behaviors, such as happiness, affection, or grief?

These are not just academic questions. Adequate assessment and management of pain are critical issues. Pain provides an enormous challenge for the patient, his or her family, the medical system, and society (Melzack & Wall, 1988). Moreover, the reduction of pain can influence not only the quality of life but also longevity. Recent animal data indicate that pain inhibits the activity of natural killer cells in the immune system that act against tumor growth (Liebeskind, 1991).

Assessment and management depend upon communication that is free from bias. Among the prime impediments to satisfactory treatment are the assumptions among many practitioners that some cultures are insensitive to pain or that the reports of individuals from other cultures are exaggerated and thus can be discounted. Such stereotypes have no place in medicine or psychology. Pain is experienced by individuals, not by groups. If an individual describes himself or herself as being in pain, there is an obligation to accept that report and to take action to ameliorate the resulting distress.

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CULTURAL CLINICAL PSYCHOLOGY

THEORY, RESEARCH, AND PRACTICE

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