Social Psychology and Health

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Until the early part of the twentieth century, biomedical researchers attended nearly exclusively to organic pathogens and assumed that: (1) disease is a deviation from normal biological functions; (2) diseases are generic and invariant over time and space; (3) medicine is a scientifically neutral profession uninfluenced by wider social, cultural, and political forces; and (4) each disease has a specific biological cause (Mischler 1981). This last assumption, known as the “doctrine of specific etiology,” implied that a disease is best controlled by treating the culpable biological agent. The elimination of polio via vaccination during the 1950s dramatically epitomized the successful application of this model.

Despite such successes, some contemporary critics argued that disease is often a normal biological response to abnormal environmental demands rather than a biological deviation, and that health varies over time as a function of changing environmental demands (Dubos 1959). Such notions construed health as a state of adaptation between the individual and his/her environment. These ideas have deep historical roots. They inspired the public health movement of the midnineteenth century to emphasize the importance of a benign physical environment for health. In the early twentieth century, as public health advances led to a shift in the major causes of death from acute infectious diseases to chronic diseases, these ideas were broadened to emphasize the importance of not only the physical environment (e.g., clean air, water, food, and sanitation) but also the psychosocial environment (e.g., smoking, lack of exercise, and stress).

The importance of psychosocial influences on health is now a major concern of biomedical science and also a major focus of social psychological research. This convergence has led to a new perspective on health which assumes that: (1) illness has multiple determinants, both biomedical and psychosocial; (2) what is seen as a disease is not invariant over time but changes based on sociocultural and biological definitions; and (3) the medical profession is a social institution that shapes its members’ views based on broad sociocultural considerations that go beyond scientific concerns.

It is impossible to encompass in a single chapter the full range of research that has evolved from this perspective; our review is necessarily selective. In the first half of the chapter, we discuss research on the psychosocial determinants of illness, and in the second half we discuss research on the psychosocial determinants of illness definition and response. In each section we present an historical overview, discuss recent developments, and propose future directions.

PSYCHOSOCIAL DETERMINANTS OF ILLNESS

Although the organism-environment adaptation perspective operates at both microscopic and macroscopic levels, the two sometimes have been estranged by disciplinary boundaries. The more microscopic perspective, characteristic of physiologists, has focused on microstimuli and microresponses (related to microphysical parameters such as heat, cold, or chemical stress) whereas the macroscopic perspective, characteristic of epidemiologists, has focused on macrostimuli and macroresponses (related to macrophysical parameters such as social policy or macroenvironmental factors).
physiologists and psychological social psychologists, has focused on how proximal environmental stimuli and contexts (e.g., stress and social support) affect individuals’ behavior, mood, and physiology. The more macroscopic approach, characteristic of many sociologists, demographers, epidemiologists, and sociological social psychologists, has focused on the broader distribution of health and illness in populations by such characteristics as age, race, gender, and geographic location. This macroscopic approach also considers historical and contextual influences on health, providing insights not apparent from an individual perspective. The decline in smoking in the United States is a good illustration. The long-term effects of smoking intervention programs at the individual level have been modest. Yet smoking has declined markedly and steadily in the United States over the past quarter century due to broader contextual changes—restriction of smoking in public places, increases in costs, and a changing set of societal norms, attitudes, and values regarding smoking induced by political and mass media institutions working through intermediate levels of social organization. An important direction for future development would integrate the more microscopic and macroscopic traditions in an effort to illuminate how stress and adaptation are structured by broad social forces and how microsocial phenomena affect psychophysiological processes to produce observed patterns of health and illness.

**Emergence of the Stress and Adaptation Perspective**

During the middle of the twentieth century, physiologists Walter Cannon (1932) and Hans Selye (1956) described a syndrome of physiological responses (including adrenocortical secretions and related neuroendocrine activation, increased gastric secretions, and higher heart rate and blood pressure) to a wide range of environmental stressors or challenges, including infectious agents, heat, cold, physical pressure and restraint, and social psychological threat. Selye called this syndrome the “general adaptation syndrome” (GAS).

According to Selye, GAS originally evolved as an adaptive response to physical stressors but has become maladaptive in modern society, where many stressors are chronic and inescapable. In the face of these modern stresses, GAS can lead to what Selye called “diseases of adaptation,” such as hypertension, heart disease, ulcers, and arthritis.

Although Selye’s model provides a useful framework for understanding how psychosocial stressors promote physical illness, it does not explain how the subjective sense of stress itself is generated. Subsequently, social psychologists developed the framework known as the stress and adaptation model. This framework suggests that characteristics of situations and individuals combine to create perceptions of stress or threat, which ideally elicit responses that reduce stress and protect health. Failure to do so results in ill health via mechanisms such as those originally explored by Cannon and Selye or those identified by more contemporary biopsychosocial researchers. Whether situations are experienced as stressful and how persons respond to them is now seen as a function of both preexisting personal dispositions and other aspects of the situation, sometimes referred to as moderating, buffering, or vulnerability factors (see House 1981; Lazarus and Folkman 1984; McGrath 1970; for variations on this framework).

Since the mid-1970s, the stress and adaptation framework has stimulated major developments in the study of the perception of and response to potentially stressful situations in social psychology and related areas of medical sociology and health psychology. The evidence linking stress and other psychosocial factors to health is growing steadily and, although as of yet not definitive, is made quite plausible by the convergences of both laboratory studies of animals and humans and nonexperimental research on broader human populations, recently augmented by intervention studies.

The initial breakthroughs in research on psychosocial determinants of illness occurred as the psychosocial stress and adaptation perspective was just emerging. Initiated by physicians rather than social scientists, such work has been superseded by more psychosocially sophisticated and empirically
accurate formulations. However, these initial research programs played a critical role in establishing that psychosocial factors are important in the etiology of morbidity and mortality and have stimulated important continuing developments in psychosocial research.

**Psychosomatic Medicine**

Heavily influenced by the biomedical model, one approach to studying psychosocial factors in health has been to focus on a specific disease and identity putatively distinctive psychosocial characteristics of individuals with the disease. The earliest systematic efforts of this type were made under the rubric of “psychosomatic medicine,” which initially involved the extension of psychoanalytic theory and methods to problems of physical illness. Franz Alexander (1950), an early leader in this field, expounded a psychosocial doctrine of specific etiology:

*There is much evidence that just as certain pathological microorganisms have a specific affinity for certain organs, so also certain emotional conflicts possess specificities and accordingly tend to afflict certain internal organs (p. 47).*

Subsequent work related personality attributes to specific illnesses. Suppressed aggression, for example, was hypothesized to cause cardiovascular disease, while dependency conflicts were implicated in an ulcer-prone personality. This tradition has continued in efforts to identify personality traits and syndromes causally associated with diseases as diverse as cancer (Levy and Heiden 1990), arthritis (Anderson 1985), diabetes (Ohwovoriole and Omololu 1986), and heart disease (Friedman and Booth-Kewley 1987).

Such research has suffered, however, from multiple methodological problems. Studies are mostly cross-sectional or retrospective, rather than prospective in design. Samples are often unrepresentative and analyses often fail to control adequately for exogenous third variables, which may spuriously produce associations between disease and personality. Thus it is difficult to interpret the associations reported in this literature in a way that rigorously evaluates the influence of personality on disease (Anderson 1985; Ohwovoriole and Omololu 1986).

The psychosomatic research has also been flawed theoretically. Generally, a given personality variable has been studied in relation to only a single disease, thus making it impossible to know whether that variable may have similar associations with other diseases. A doctrine of specific etiology has often been assumed rather than empirically demonstrated. Recent careful reviews of the literature on personality and multiple disease outcomes, in fact, demonstrate that most “personality” variables that show associations with one disease show similar associations with other diseases. For example, meta-analyses by Howard Friedman and Stephanie Booth-Kewley (1987) found that anxiety and depression are associated with coronary heart disease (CHD), asthma, arthritis, ulcers, and headaches, while a complex of variables indicating anger/hostility/aggression is associated with CHD, asthma, and arthritis, though probably not ulcers and headaches. Thus, they argue that a generally “disease-prone personality” syndrome or set of traits is more likely to exist than distinctive “arthritis-prone,” “ulcer-prone,” and so on personalities. We return to more contemporary research on personality below.

**Type A or Coronary-Prone Behavior Pattern**

Research initiated by Meyer Friedman and Ray Rosenman (1974) on what they termed the “coronary-prone behavior pattern” or “coronary-prone personality” played an even more central role in the emergence of psychosocial theory and research on the etiology and epidemiology of physical health and illness. At the same time, this research illustrates the problems posed by the doctrine of specific etiology. Friedman and Rosenman were practicing cardiologists who believed they saw characteristic patterns of behavior in many of their patients. They termed this the “Type A” or coronary-prone behavior pattern, which they conceived as the result of an interaction between personality
dispositions and challenging situations leading to high degrees of competitiveness, job involvement, time urgency, and hostility. Type A, assessed first via clinical interviews and later via questionnaire methods, predicted both the onset and course of coronary heart disease in several major prospective studies, leading the Review Panel on Coronary-Prone Behavior and Heart Disease of the National Heart, Lung and Blood Institute (1981) to certify the type A personality as a risk factor for coronary heart disease, in the same general class as smoking, cholesterol, and blood pressure.

Further research, however, has confused the initial understanding of type A personality and its relation to CHD. In recent studies of high-risk populations, type A has failed to predict CHD, perhaps because the controlling type A style predisposes one to adapt health-promoting behaviors widely publicized in the 1980s. Other research suggests that the effects of type A may be due to correlates (e.g., mistrust) or components (hostility and anger) (Matthews 1985). Finally, more recent research suggests that as with other putatively disease-specific personality variables or behavior patterns, type A personality is associated with a range of health problems and diseases other than CHD. As research and theory turn increasingly from seeking the psychosocial causes of CHD to understanding how psychosocial characteristics of persons and situations affect the full domains of health and illness, the type A construct may become obsolete, leaving as a legacy the certainty that psychosocial variables, including a number of key personality and situational correlates and components of type A, are significant risk factors for a range of physical and psychological disorders.

**Life Events and Change**

Drawing somewhat loosely on the ideas of Selye and Cannon and a variety of research indicating that major life changes could be stressful and pathogenic, Holmes and Rahe (1967) hypothesized that change, whether for better or worse, requires adaptation, and that high levels of adaptive effort could produce both physical and psychological disorder. They constructed a Social Readjustment Rating Scale, which asked individuals to indicate whether they had experienced each of forty-three life changes in the preceding year and assigned to each the average rating of the amount of adjustment involved in a model by a panel of individuals of varied social backgrounds. The summed total of adjustment units for an individual has been repeatedly found to predict the onset of a wide range of physical and psychological disorders (cf. Cockerham 1986, 76–80; Mirowsky and Ross 1989).

Further research has suggested flaws in both theory and measures propounded by Holmes and Rahe (1967). Most important, subsequent research shows that it is only more serious negative events, not change per se, that adversely affect health. Further, the life change weights of Holmes and Rahe provide little more predictive power than a simple unweighted sum of the number of serious negative events. The most serious of which (e.g., widowhood, divorce, unemployment) also have been found to have separate effects on morbidity and mortality, including cancer (Sklar and Anisman 1981), heart disease (Wells 1985), and autoimmune diseases such as rheumatoid arthritis (Solomon 1981). Although research in this area is just beginning, the available evidence suggests that life events may be more important in predicting the course of illness (e.g., speed of recovery, recurrence) than initial onset (Kessler and Wortman 1988).

**A New Focus on Chronic Stress**

For a time, the study of life changes and events was almost synonymous with the study of stress and health. During the 1980s, however, renewed attention was focused on chronic stress and deprivation as determinants of illness (Mirowsky and Ross 1989; Pearlin 1989). These new studies suggest that it is the more enduring stressful sequelae of such events that explain their effects on health. For example, the adverse effects of unemployment on health are partly mediated by resultant financial stresses (Kessler, Turner, and House 1987), while the relationship between widowhood and health is
partly due to the effects of social isolation (Umberson, Wortman, and Kessler 1992).

This renewed attention to chronic stress draws on two long-standing epidemiologic research traditions as well as on laboratory and field experiments. The first is a tradition of research on work and health that has suggested that high levels of physical and psychological demands (e.g., workload, conflict, responsibility) can adversely affect health. Early work in this tradition compared aggregate morbidity and mortality profiles of different occupations that are comparable on all known risk factors other than job stress, yielding striking evidence that indirectly implicated job stress as a powerful determinant of ill health (Kasl 1978). A more recent approach has been to use multivariate analysis to study the effects of job conditions on worker health at the individual level of analysis. The most persuasive studies of this sort have used longitudinal data to determine the effects of job conditions on changes in health over time. Several such investigations have documented significant effects of job pressures and conflicts on mortality, coronary artery disease, peptic ulcers, diabetes, and psychological distress (e.g., House and Cottington 1986; Karasek and Theorell 1990).

A second basis of the renewed interest in chronic stress is the persistence in the United States and most other developed countries of socioeconomic, racial, ethnic, and gender differences in physical and mental health, despite substantial progress in public health and the equalization of access to medical care (Cockerham 1986; Marmot, Kogeivnas, and Elston 1987). Although gaps undoubtedly remain in access to quality and preventive care, and although biological factors play some role in these aggregate differences, a growing body of research suggests that differences in exposure to chronic stress as well as other psychosocial risk factors may be central as well. For example, chronic financial stress plays a significant role in explaining socioeconomic differences in health, and socioeconomic factors are central to racial differences in health (House et al. 1992).

A major methodological problem in this research is that measures of chronic stress, which are typically based on self-reports, may be affected by acute and chronic life conditions and thereby confounded with current levels of health. Resolution of this methodological problem will require prospective studies that measure perceived levels of chronic stress at several points in time and use these reports to predict subsequent morbidity and mortality, controlling for health level at the time of the measurement of stress. In one effort of this type, House et al. (1986) found that men who reported high levels of chronic occupational stress at two points in time separated by more than two years were three times more likely to die over the succeeding decade than men who reported lower levels of job stress at either or both times, after adjustment for age, education, a variety of health indicators (e.g., blood pressure and cholesterol), and health risk (e.g., smoking) at the initial point of measurement. Similar research is needed on the effects of financial, marital, parental, and other chronic stresses.

Until such research is done, experimental studies on animals and humans will continue to provide the most powerful evidence concerning the effects of chronic stress on ill health. Several laboratory experiments and quasi-experimental studies have exposed humans to mild stress (e.g., demanding levels of workload, responsibility, or conflict with others) and have shown effects on a wide range of physiologic outcomes, including cardiovascular functioning (Manuck et al. 1989), neuroendocrine functioning (Krantz and Manuck 1984), and cellular immune response (Cohen, Tyrell, and Smith 1991). Although the stressors used are, for obvious ethical reasons, too mild to cause serious or prolonged health impairments, their effects recall the more marked manifestations of naturally occurring life crises. Animal experiments confirm data on human subjects regarding the pernicious physiological effect of stress, with recent studies documenting that long-term exposure of mice and monkeys to threatening social situations leads to impaired immune response to a variety of infections (Cohen et al. 1992).

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stresses are more likely than others to develop upper respiratory infection when randomly exposed to a nasal spray containing viral material rather than a neutral solution. Although these studies documented effects of stress on resistance to infection through various aspects of immune function, it is unclear whether these effects are clinically significant. Further, as noted by Cohen and Williamson (1991) in a comprehensive review of this literature, the few studies that directly document that stress is associated with infectious illness fail to control for the confounding effects of differential exposure or health behaviors. A series of recent studies by Cohen et al. (1991) resolved many of these methodological problems by exposing a sample of healthy volunteers via nasal drops to either a low dose of one of five respiratory viruses or to a neutral saline solution and then quarantining the subjects for a full week after exposure to monitor and control their subsequent environmental experiences and behaviors during the period of potential infectivity. Results showed clearly that measures of negative life events, perceived stress, and negative affect assessed prior to the challenge significantly increased risk of developing a cold, controlling for a wide range of potential confounding variables (including prechallenge antibodies). Interestingly, the pathways of these effects differed across the three stress measures, with perceived stress and affectivity increasing risk of infection (i.e., the development of antibodies) and exposure to life events increasing risk of clinical symptoms once infected.

Vulnerability Factors

A consistent finding across all the areas of investigation reviewed above is that the majority of people who are exposed to all but the most extreme stressful life experiences do not develop serious health problems. Current research on stress and health tries to explain this finding and, more generally, the variation in stress reactivity. The factors that have been examined include biogenic constitution, various aspects of personality, intellectual capabilities such as cognitive flexibility and effective problem-solving skills, interpersonal skills such as social competence and communication ability, and social resources, including financial assets and coping styles. Because full consideration of this diverse array of studies is beyond the scope of this chapter, we focus on two classes of variables that have generated intense interest over the past decade: social relationships and support and dispositional/personality variables, especially what has variously been termed “control,” “efficacy,” or “mastery.”

Social Relationships and Support. Current interest in the effects of social relationships and support on health was triggered by several influential papers published in the mid-1970s that reviewed diverse studies demonstrating that such things as marital status, geographic stability, and social integration are associated with both mental and physical health (Caplan 1974; Cassel 1976; Cobb 1976). A theme present in all these associations seemed to be access to social ties and supports. Here, as in the case of stress, the available evidence has come from experimental studies of animals and humans, as well as from nonexperimental studies of human populations.

The presence of a familiar member of the same species buffered the impact of experimentally induced stress on ulcers, hypertension, and neurosis in rats, mice, and goats, respectively (Cassel 1976). The presence of familiar others also reduced physiological arousal (e.g., secretion of free fatty acids) in humans in potentially stressful laboratory situations (Back and Bodgonoff 1967). Such effects may even operate across species, with affectionate petting by humans reducing the cardiovascular sequelae of stressful situations among dogs, cats, horses, and rabbits (Lynch 1979, 163-80) and even the arteriosclerotic impact of a high-fat diet on rabbits (Nerem, Levesque, and Cornhill 1980).

Nonexperimental studies of human populations have devised scales to measure social integration and support and demonstrated that these measures are associated with health. The most influential of these studies examined the effects of social relationships on subsequent mortality in pro-
spective surveys of the general population. The first study of this sort showed that marriage, contact with family and friends, church membership, and affiliation with other social groups were all associated with reduced mortality risk over a nine-year follow-up period in a large sample of respondents living in Alameda County, California (Berkman and Syme 1979). Subsequent reports by Blazer (1982) and House, Robbins, and Metzner (1982) showed similar patterns in other longitudinal community surveys in the United States, since replicated in a number of European studies (see House, Landis, and Umberson 1988 for a review). All of these reports were based on secondary analyses and none contained a comprehensive set of social support measures. Therefore, though they provide strong evidence that social relationships increase longevity, they do not allow an estimate of the full extent of this influence or an understanding of the precise components of relationships, supportive or otherwise, that are involved.

Similar longitudinal studies have examined the association between support and onset of physical illness. The most rigorous of these have focused on coronary artery disease and are reviewed by Berkman (1985). Despite broad consistency in finding some indicator of social relationships or support associated with decreased morbidity risk, there are inconsistencies. For example, social ties are associated with disease incidence but not prevalence in some studies, while in others the only significant predictors are associated with prevalence. The effects are limited to lower-class women in one major study and appear only among men in another. The aspects of social relationships that seem to promote health vary across studies as well. Inconsistent findings of this sort further obscure the mechanisms involved in the effects of support.

While research on social relationships and physical health has focused primarily on direct effects, research on social relationships and mental health has been more concerned with stress-buffering effects. In an influential research program, for example, Brown and Harris (1978) showed that the impact of stressful life events on depression was substantially reduced among respondents who had an intimate confiding relationship with a friend or relative. While nearly 40 percent of the stressed women studied without a confidant became depressed, only 4 percent of those with a confidant did so. This paradigm has subsequently been replicated in many studies, and the general pattern of results clearly shows that access to a confidant and perceived availability of crisis support are associated with a reduced impact of stressful life events on depression and anxiety (Cohen and Wills 1985; Kessler and McLeod 1985).

Another line of investigation has used measures of social relationships and support to predict adjustment to specific life crises, such as widowhood (e.g., Umberson, Wortman, and Kessler 1997), and unemployment (e.g., Kessler, Turner, and House 1987). Almost all of these studies have been concerned with mental health outcomes, and must have found that measures of social relationships obtained shortly before or after a crisis are significant predictors of subsequent emotional adjustment. Moreover, these focused studies begin to suggest that specific kinds of supportive ties may be most helpful for particular problems. For example, Hirsch (1979) showed that low-density networks facilitating contact with new people are particularly useful when the coping task is to obtain new information or adopt a new role. Interventions aimed at providing coping skills and support have been shown to reduce adverse health consequences of unemployment (Price, van Ryn, and Vinokur 1992) and widowhood (Raphael 1977).

Studies of specific life events or crises also provide an opportunity to examine social support processes in relation to other determinants of adjustment, such as appraisals and coping strategies, and in this way clarify the mechanisms through which support may protect against illness. Life crisis studies conducted to date have not fully realized this potential but have provided two very provocative and consistent results. One of these involves miscarried support efforts, and the other involves the distinction between perceived support and received support.

The first examinations of social support and adjustment efforts can sequences, such as divorce, support (Coyne, 1977). Supportive action, however, can lead to less threatening, the relationship is mediated. One possible explanation is that supporting promotes actual receipt of social support. Several ways in which this might be mediated is an anxiety might lead to less than the psychological effects. Alternatively, "safety net" efforts (Rod. and Clark 1990) provide an opportunity to examine social support processes in relation to other determinants of adjustment, such as appraisals and coping strategies, and in this way clarify the mechanisms through which support may protect against illness. Life crisis studies conducted to date have not fully realized this potential but have provided two very provocative and consistent results. One of these involves miscarried support efforts, and the other involves the distinction between perceived support and received support.
The first of the two results is based on focused examinations of exactly what supporters do and what support recipients think about these efforts. Such studies show that while support can promote adjustment to stress, well-intentioned support efforts can also have unintended negative consequences, such as making recipients feel incompetent (Coyne, Wortman, and Lehman 1988). Supportive actions can also create social costs that at times can lead to greater emotional distress than if support had not been obtained at all (Lieberman 1986). Evidence of this sort has led to a heightened interest in detailed descriptive work on the dynamics of actual support transactions, both as an aid in developing theory and as a practical guide to developing support interventions (Sandler et al. 1988).

This evidence on the mixed effects of actual support transactions has led to another important finding: while the perception that support is available is associated with good emotional adjustment to stress, there is little evidence that this association is mediated by the actual receipt of support. One possible interpretation of this finding is that the perception of support availability itself actively promotes adjustment to stress over and above any actual receipt of support. This could occur in any of several ways. The perception of support availability might lead to an appraisal of stressful situations as less threatening, thereby decreasing their psychological effects (Wethington and Kessler 1986). Alternatively, it could provide a psychological “safety net” that helps motivate self-reliant coping efforts (Rook 1990). The putative effects of perceived support on health may actually be due to some unmeasured common cause; for example, socially competent people may be more able to attract support and to manage stressful situations (Heller and Swindle 1983). Ongoing research is attempting to evaluate each of these possibilities (Cohen,Sherrod, and Clark 1986; Sarason, Pierce, and Sarason 1990).

**Personality.** Although the early search for personality traits uniquely associated with particular illnesses proved fruitless, more sophisticated current research has focused on personality dispositions that can affect a broad range of health problems, either directly or as vulnerability factors. This new approach to the investigation of personality effects on health has gained momentum only in the 1980s and is therefore less well-developed than research on social relationships and support. In particular, there are few good prospective data on personality and health nor have the causal pathways linking personality to health been investigated in great detail. Only a few studies of personality and health have gone beyond main effects analyses to examine whether there are interactions between personality and stress in predicting ill health.

Most studies that have examined stress-buffering effects of personality are either studies of mental illness or laboratory studies of stress and infectious disease. The former have documented the stress-buffering effects of self-esteem, perceived control, and hardiness and the stress-exacerbating effects of neuroticism and interpersonal dependency (Pearlin et al. 1981; Cohen and Edwards 1989). The latter have shown that introversion, social skills, and negative affectivity all modify the effects of mild stress on infection (Cohen and Williamson 1991).

One of the most intriguing areas of investigation in this literature concerns a personality disposition variously termed self-efficacy, mastery, or control. Sutton and Kahn (1984) reviewed a variety of laboratory and field studies on this concept and found consistent evidence suggesting that individuals who have a greater chance to predict, understand, and control events in their lives experience less stress and fewer adverse effects of stress on their physical and mental health. In a related research program, Karasek and Theorell (1990) have shown that lack of control over one’s work environment is a risk factor for cardiovascular disease and psychological distress, both directly and through a tendency to exacerbate the deleterious effects of other occupational stresses. Pearlin and colleagues (1981) have shown that a sense of mastery promotes mental health and buffers the impact
of acute and chronic stress on mental health. A major program of research by Rodin (1986) and others has demonstrated that increased control over one's social environment can promote better physical and mental health, and even longer life, perhaps especially for older persons. Langer and Rodin (1976) designed an inexpensive set of structural interventions in nursing homes to create opportunities for mastery experiences. Markedly positive effects on psychological well-being, physical health, and even the longevity of nursing home residents were documented.

Finally, research on cancer and personality suggests that feelings of helplessness and hopelessness, as well as repression or denial of emotions, may both predispose people to the onset of cancer and exacerbate its course (Levy and Heiden 1990). Here animal studies yield especially dramatic results. Animals induced to become helpless through behavioral restraint and repeated exposure to stress (e.g., electric shocks) have lower rates of tumor rejection, earlier appearance of tumors, and faster tumor growth than control animals exposed to implanted tumors (e.g., Shavit et al. 1984; Visintainer, Volpicelli, and Seligman 1982). Although there are obviously no analogous experimental human studies, several prospective studies have consistently supported the hypothesis. A study of Veterans Administration patients found clear evidence of greater repression of negative affectivity on the MMPI among men who subsequently developed cancer (Dattore, Shontz, and Coyne 1980), and a prospective community study in Yugoslavia over ten years reported similar results (Grossarth-Matick 1980). A prospective study by Greer, et al. (1985), subsequently replicated, found that helplessness/hopelessness is also associated with poor prognosis in cancer patients after controlling for objective predictors.

These epidemiologic studies provide scant information on the mechanisms involved in the effect of personality on onset and course of cancer. According to the most widely endorsed hypothesis, a sense of efficacy and control affects the immune system, which, in turn, affects host resistance to malignant transformation of cells. This hypothesis is consistent with both the broader literature on personality and immunity (Jemmott and Locke 1984) and an observed association between personality and immune competence among cancer patients (Levy et al. 1985). However, it is impossible to preclude the possibility that the association is due to an effect of illness severity on personality. Further research is needed to determine whether baseline measures of personality among cancer patients predict changes in immune function.

Another area for future research involves investigation of the structural determinants of health-related personality dispositions (Kohn et al. 1983). In one of the few studies to examine this issue, Harburg, et al. (1973) found that suppressed hostility was significantly increased in high-stress residential neighborhoods versus low-stress areas. More research of a similar sort is needed to identify the structural causes of personality and to specify the mediating effects of personality on the relationships of these structural variables to ill health. In addition, research is needed to determine whether the effects of personality on health vary depending on structural contexts. In one of the rare studies to investigate this issue, James et al. (1987) found that an active predisposition to master stress was associated with increased risk of high blood pressure among low socioeconomic status African Americans but not among either whites or higher socioeconomic status African Americans, presumably reflecting the fact that social circumstances make it unlikely that active mastery will effectively reduce stress in the face of the environmental barriers that face lower socioeconomic status African Americans. More research is needed to investigate other interactions between personality dispositions and environmental conditions.

**Psychosocial Determinants of Illness: Overview**

The past several decades of research and theorizing have clearly established the role of psychosocial factors in the etiology of illness. The major focus and contribution of this work has been to establish a theoretical rationale and empirical evidence for a number of health risk factors: (1) chronic stress and high blood pressure, (2) chronic stress and increased risk of death, (3) chronic stress and increased risk of cancer, (4) chronic stress and increased risk of heart disease, and (5) high levels of personal reactivity to stress (psychological reactivity). Some evidence suggests that these factors interact with biological and social factors to influence illness risk. For example, psychosocial stress may affect the immune system, and the immune system may affect susceptibility to illness.

Sociocultural factors have also been shown to influence health risk factors. For example, socioeconomic status has been found to be associated with smoking, a major contributor to cancer risk. Other sociocultural factors, such as gender and race, have also been found to be associated with health risk factors. For example, women are more likely to smoke than men, and African Americans are more likely to smoke than white Americans.

These findings suggest that sociocultural factors may play a role in the etiology of illness. Further research is needed to further explore the role of sociocultural factors in the etiology of illness. The study of sociocultural factors in the etiology of illness has the potential to provide important insights into the underlying mechanisms of illness and to inform the development of effective interventions to reduce illness risk.
number of psychosocial factors as consequential health risk factors: (1) major negative life events; (2) chronic stress; (3) lack of social relationships and supports; (4) lack of sense of control, efficacy, or mastery over one’s work and life; and (5) high levels of hostility and/or mistrust in interpersonal relations. This research also shows that psychological distress (e.g., anxiety and depression) is both a consequence of these risk factors and itself a risk factor for physical morbidity and mortality.

Research and theoretical development are still needed. First, there is need for more prospective and longitudinal research to increase our certainty about causal relationships. Second, there is a continuing need for research to specify what aspects of the broad psychosocial risk factors are most consequential for health, and through what psychophysiological mechanisms these effects are produced. For example, we have learned that it is only major negative life events which are most deleterious for health, but we are only beginning to understand precisely what it is about those events that is deleterious and through what pathways they affect chronic and infectious disease. We know that lack of social relationships is a risk factor for mortality, arguably of a magnitude comparable to cigarette smoking, but we are only beginning to understand what it is about social relationships that is protective of health and through what mechanisms it produces such effects.

Sociological social psychologists have recently emphasized the need for theory and research to focus more on the interrelations among these various psychosocial risk factors and how they are shaped by a broader social structural context in which people are stratified along lines of race/ethnicity, gender, and socioeconomic status (Aneshensel 1992; Pearlin 1989; Williams 1990). Current research suggests that many of the persistently large differences in health by gender, race/ethnicity, and socioeconomic status can be explained by the association of these variables with the psychosocial risk factors just considered and the health-related behaviors to which we now turn (House et al. 1992; Verbrugge 1989). In quite a different vein, research on the interplay between psychosocial and genetic factors in the etiology of health and illness is being reported just now. We return to these themes at the end of the chapter.

THE SOCIAL PSYCHOLOGY OF HEALTH BEHAVIOR AND ILLNESS BEHAVIOR

The study of health behavior and illness behavior encompasses how people perceive, define, and act toward symptoms, how they utilize medical care, how they act to promote health and produce risks, and how they adhere to medical regimens. Interest in health behavior and illness behavior grew out of a set of practical problems in medicine and public health concerning the fact that many people delay seeking medical attention, even in the face of serious and life-threatening symptoms (Leventhal, Meyer, and Nerenz 1980; Rodin 1985), while others seek medical help for complaints with no discernable organic basis (Mechanic 1992b). Furthermore, many patients refuse to do what is seemingly in their rational self-interest, continuing to smoke, drink, and overeat despite the warnings of physicians and health educators (Sackett and Haynes 1976). Finally, large numbers of patients, perhaps as many as 50 percent, fail to comply with medical advice even when this noncompliance endangers their lives (Conrad 1985; Haynes, Taylor, and Sackett 1979; Tebby et al. 1986). These behavior patterns result in increased morbidity and mortality (Sackett and Haynes 1976), contribute to escalating medical costs (Fuchs 1974), and frustrate those who provide care (Mechanic 1992b).

These observations could not be explained using the traditional biomedical model and led health researchers to distinguish analytically between two orders of phenomena: disease—an organic and biological process; and illness—a psychological, social, and cultural process that includes symptom recognition, decision making, and utilization. It was argued that illness could not be reduced to disease (e.g., Barondess 1979; L. Eisenberg and Kleinman 1981). While early work expanded the medical model to include psychosocial factors in patient behavior, the research questions remained...
largely medical: understanding why patients procrastinate, take risks, or fail to follow medical advice to modify these medically inappropriate behaviors (Schneider and Conrad 1983). In this framework, medical judgments about appropriate actions were the "gold standard" against which actual patient behaviors were judged and found wanting. From a social psychological standpoint, this medical orientation excluded many important empirical issues from consideration (Mechanic 1978; Zola 1972).

Increasingly aware of these limitations, a number of social psychologists carried out patient-centered analyses of health behavior and illness behavior that moved in three broad directions: (1) away from abstract models of rational choices about health care and toward understanding the logic of lay theories and representations of illness problems; (2) away from an exclusive focus on the decision to seek medical care and toward an emphasis on patterns of health and illness behavior that do not involve physicians; and (3) away from a focus on individual characteristics as determinants of health and illness behavior toward understanding how the social environment, including the healthcare system, shapes these behaviors. Several social psychological perspectives contributed to this work. After briefly reviewing these perspectives, we examine how they are reflected in empirical research on health behavior, illness behavior, and adherence to medical regimens.

Theoretical Perspectives

Culture, Social Structure, and Patient Behavior. Social psychologists with a cultural or social structural orientation have found that social groups differ in their responses to symptoms and patterns of care seeking and have attributed these differences to cultural orientations or structural constraints. Researchers have examined ethnic differences in the response to pain and symptoms as well as ethnic, socioeconomic, and gender differences in utilization patterns. Early research in this area often used purely correlational, cross-sectional designs that postulated reasons (often cultural) for group differences, rather than demonstrating them empirically (Cockerham 1986; Mechanic 1978). More recent work has moved toward explanatory approaches, emphasizing that the structure of social and healthcare institutions, as well as the culture of care seekers, shape health and illness behavior.

Integrative Models. Several eclectic approaches depict illness behavior as resulting from an interplay of biological, sociocultural, and psychological factors. The best-known example of this approach is Mechanic's theory of help seeking. Basing his model on a large body of theory and research, Mechanic identifies ten cognitive, social, and psychological factors that influence the decision to seek help: (1) the visibility and salience of symptoms; (2) the extent to which symptoms are perceived as serious; (3) the extent to which they disrupt social activities; (4) the frequency and persistence of symptoms; (5) the tolerance level of those who experience symptoms; (6) available information, knowledge, and cultural assumptions; (7) basic needs that lead to denial; (8) other needs that compete with illness responses; (9) competing interpretations that can be assigned to symptoms; and (10) the available resources, physical proximity of care, and costs of taking action (Mechanic 1978). The strength of this approach is its effort to develop a comprehensive, biopsychosocial approach to care seeking. However, as Mechanic himself acknowledges, the model is physician-centered, focusing on the decision to seek conventional medical care (Schneider and Conrad 1983), though it could be broadened to include other sources of care.

Cognitive Models of Decision Making. Social psychologists have examined the cognitive processes at work in decisions to take preventive action, to seek help, and to follow medical advice. Until recently, most psychologists employed one of a number of rational choice models that assume that people make health behavior choices on the basis of cost-benefit ratios. Perhaps the best-known rational choice theory is the health belief model. According to this model, people decide to take preventive action or follow medical advice on the basis of their subjective beliefs about the severity of the illness and action (e.g. 1958; Rosenthal and Rosnow 1985; Tversky and Kahneman 1974). This is a sufficient tradition, to considerations on in simplifying rational standards (1985; Tversky and Kahneman 1974). More recently, researchers have examined the role of emotion in decision making (e.g. Zeckhauser and Slovic 1987). For example, patients may have hope; they have experience of the decisions, perceived coping adherence topressive avoidance (panic). Other researchers have considered the role of cognitive dissonance in decision making (e.g. Fischhoff and Lichtenstein 1986; Slovic and Fischhoff 1987). These approaches emphasize the importance of considering the subjective beliefs of patients in designing interventions.
of the illness, their susceptibility or risk of becoming ill, and the costs, benefits, and barriers to taking action (e.g., Becker and Maiman 1975; Hochbaum 1958; Rosenstock and Kirscht 1979).

This model has been criticized for giving insufficient attention to the role of cultural values, tradition, and emotion in decision making, failing to consider cognitive and organizational limitations on information processing that lead people to simplify the decision-making process, and equating rational choices with those that conform to the standards of Western medicine (Garro 1985; Good 1985; Tversky and Kahneman 1974). In short, critics argue that this model, like other rational choice theories, provides a prescriptive, idealized view of how decisions should be made rather than an adequate description of how decisions actually are made.

More recent approaches consider the role of emotion in health decisions. Janis and Mann (1977), for example, propose that optimal decision making occurs when people engage in "vigilant information processing," which can occur only when they are aware of the risks attached to each choice, have hope of finding an alternative, and believe they have enough time to deliberate. However, because of the anxiety-provoking nature of health decisions, people often resort to one of several defective coping strategies, including unconflicted adherence to their present course of action, defensive avoidance (procrastination), or hypervigilance (panic).

Other health psychologists have focused on the role of cognitive schemas in making sense of symptoms and deciding what to do about them. People who experience bodily changes make sense of them by means of common-sense illness representations stored in memory and include attributions about the identity, causes, consequences, time course, and potential for cure (Leventhal, Zimmerman, and Gutmann 1984). Cognitive models of symptom processing depict the patient as an active processor of information and emphasize the patient’s perspective. However, this approach maintains a medical orientation by emphasizing flaws in information processing, stressing the need to modify common-sense representations to bring them into line with medical ones, and neglecting environmental and structural factors.

**Phenomenological Analyses of Decision Making.** Phenomenological approaches, developed in anthropology and social psychology, provide the most patient-centered perspectives on health behavior and illness behavior. These perspectives consider patterns of care outside the professional sector and attempt to discover the logic of patient decisions rather than analyzing them in terms of models the researcher formulates a priori. These models include everyday ideas about the etiology, anticipated course, and consequences of a particular illness. Explanatory model research has gone beyond cognitive approaches to explore how models of doctors and patients collide in medical encounters, how explanatory models relate to broader cultural themes, and how they assume different forms in different cultural contexts (Kleinman 1980).

Other cognitive anthropologists have developed formal models of decision making in which the researcher elicits from patients their actual considerations in making medical decisions, develops a formal model of the criteria used in health decisions, and tests the model’s validity by comparing it to the actual decisions of community members (Garro 1985). Sociologists have developed a phenomenological approach to the experience of illness that examines how patients notice something is wrong, develop lay theories and explanations, decide to seek help, manage relationships with significant others and health professionals, and cope with the stigma attached to their illness. Researchers emphasize the importance of studying nonhospitalized patients and examining self-medication practices that do not involve professionals (Schneider and Conrad 1983).

**Empirical Applications**

**Health Behavior.** Health behavior refers to the actions of well people that have consequences for their future health, such as smoking, diet, exercise, and substance abuse (Mechanic 1990). A number of programs have been developed to change health
behaviors. Most are based on psychological models of behavior change and, with a few notable exceptions, have generally not succeeded in effecting lasting changes in health behavior (Mechanic 1990, 1992a). In fact, a review of the long-term outcomes of many programs shows that as many as three of every four people who successfully change risk behaviors are unable to sustain these changes for as long as one year (Brownell et al. 1986).

Critics have attributed these failures to the inaccurate assumptions of some psychological models of health behaviors and have proposed new ideas about ways to modify interventions. Findings concerning the importance of cognitive representations, for example, have led to the suggestion that future interventions identify and alter participants’ representations of risk, provide them with self-regulation skills, and encourage them to perceive that they can effect change (Leventhal, Zimmerman, and Gutmann 1984). Other health psychologists have called for programs that enhance perceptions of control. This recommendation is based on research showing that participants in weight reduction programs are more likely to succeed when they attribute change to their own efforts (Rodin 1985). Conversely, participants are less likely to relapse permanently when they attribute lapses to situational causes (Marlatt and Gordon 1985).

Some sociological social psychologists have also suggested that traditional interventions fail because they treat health behavior as an individual rather than a social phenomenon (Mechanic 1990; Syme and Alcalay 1982). In particular, health behaviors may have other meanings that interfere with behavior change (Mechanic 1990). Smoking, for example, can be a mark of status and a symbol of defiance in adolescent culture (Jessor, Donovan, and Costa 1990; Osgood et al. 1988; Rodin 1985). Successful interventions to modify health behaviors need to consider such symbolic meanings. This can be done by providing the individual with resources to resist interpersonal pressures to engage in risk behaviors. Alternately, one may attempt to change the cultural meanings of health behaviors. One of the most successful examples of this approach is the antismoking movement in the United States, a movement that changed the symbolic value of smoking in the middle class (Mechanic 1990; Syme and Alcalay 1982) and resulted in a substantial long-term reduction in smoking (Warner 1977).

The importance of facilitating social and structural conditions is not limited to symbolic meanings. It is also important to consider the functions of health behaviors in the lives of the people whose behaviors we seek to change. Alcohol and tobacco, for example, appear to be used as coping resources by many people. This raises the question of whether interventions to change the structural conditions that lead to chronic stress make more sense than interventions aimed at removing the coping resources used by people to manage chronic stress. Furthermore, if interventions do attempt to remove these coping resources there is a need to provide alternate resources. See House and Cottington (1986) and Williams (1990) for a discussion. A similar question can be raised about the logic of attempting to change individual health behavior when powerful economic interests continue to promote risk taking (McKinlay 1990; Syme and Alcalay 1982). It is noteworthy in this regard that state licensing boards permit more retail outlets for the sale of alcohol in poor and African American neighborhoods than in more affluent areas (Rabow and Watts 1982). Furthermore, more than 70 percent of billboards in the United States that advertise tobacco and alcohol are targeted to African Americans (Hacker, Collins, and Jacobson 1987). It is difficult to avoid the conclusion, based on these results, that there are systematic structural forces at work that impede individual efforts to reduce the problems of substance use among disadvantaged sectors of American society. Based on this conclusion, there is a growing belief that structural change is needed to guarantee the success of widespread health behavior change (McKinlay 1990).
Illness Behavior. Illness behavior refers to the ways people define and respond to bodily sensations and experiences that might be seen as signs or symptoms of illness, both before seeking treatment and in response to the recommendations of healers (Mechanic 1986). Important social psychological issues in the study of illness behavior include determinants of initial symptom recognition, factors that influence how symptoms are interpreted once recognized, and social and individual variables that influence willingness to adopt the sick role. Variations in these ways of responding can have dramatic effects on the social impairment associated with illness.

Research on illness behavior shows that there are substantial individual differences in predispositions to monitor bodily sensations and that cultural and social experiences play an important part in creating these dispositions (Hansell and Mechanic 1986). For example, early research discovered that ethnic groups differ dramatically in their responses to symptoms and perceptions of pain (Sternbach and Tursky 1965; Zborowski 1952; Zola 1966). An especially intriguing result is that women generally seem more sensitive than men to bodily symptoms and are therefore more likely to recognize and seek help for health problems (Kessler 1986). This sex difference is more pronounced at the lower end of symptom severity, suggesting that women are more likely than men to monitor subtle bodily complaints. An interesting illustration comes from the work of Davis (1981), who used radiographic examination data on osteoarthritis to study self-reported knee pain and recent doctor visits for knee pain. These data documented that women with objective evidence of osteoarthritis were nearly twice as likely as comparable men to report recent doctor visits for this problem.

Research on symptom sensitivity has explored the ways cognitive schemas are used to make sense of bodily sensations and define them in illness terms. Research also has shown that most people arrive at a definition of their bodily changes as due to illness only after concerted efforts to normalize, neutralize, or minimize the significance of their symptoms, a practice that may account for common delays in seeking help (e.g., Davis 1971; Mechanic 1972; Schneider and Conrad 1983). These interpretations often involve the use of social networks. Parents, spouses, friends, and even physicians often collaborate in the normalization process (Davis 1971; Schneider and Conrad 1983).

The literature on illness representations documents many dramatic cases that illustrate this process. For example, people who are alone when they first experience a mild heart attack commonly delay calling an ambulance due to uncertainty about what has happened to them. Instead, before calling an ambulance they will call a friend or relative, describe the symptoms, and ask whether the other person thinks it was really a heart attack. This delay is associated with a dramatically increased risk of long-term cardiac damage (Alonzo 1986).

Illness behavior research also has examined how groups differ in utilization patterns. Beginning with Koos's (1954) early work on socioeconomic differences in help seeking, research has documented that the poor use health services less frequently than those more favorably situated in the social structure. Although expanded public insurance coverage has dramatically decreased socioeconomic differences in overall utilization, continuing differences in utilization patterns suggest a two-class system of health care. While higher socioeconomic groups use private physicians, the poor use a public healthcare system of outpatient clinics and hospital emergency rooms (Cockerham 1986). Early cultural explanations attributed these differences to a greater tendency of poor patients to normalize or neutralize symptoms (Koos 1954) or, alternatively, to a present-oriented culture of poverty that led poor patients to eschew prevention and delay seeking help until emergencies arose (e.g., Kosa, Antonovsky, and Zola 1969). However, more recent "systems" or "culture of medicine" explanations suggest that the highly alienating, impersonal, bureaucratic atmosphere and low quality of care in the public healthcare system leads poor patients to view medical care as a measure of the last resort (e.g., Dutton 1978; Reissman 1981).
Current research has moved away from an exclusive focus on the decision to seek medical care and toward a focus on care that extends beyond conventional medicine (e.g., Garro 1985). While early studies viewed the use of alternative practitioners as a deviant pattern of utilization confined to lower socioeconomic classes or ethnic enclaves using parochial referral networks, it has become clear based on more recent studies that many patients with chronic medical problems are turning to alternative practitioners, such as chiropractors and acupuncturists, who offer hope of symptomatic relief and more personal attention (D. Eisenberg et al. 1993; Kotarba 1983).

Although most research on illness behavior continues to study patient responses from the viewpoint of the medical establishment, a growing number of studies are questioning professional definitions of illness and giving more attention to the patient viewpoint (e.g., Roth and Conrad 1987). Whereas earlier studies invasively contrasted lay explanations with professional ones, several contemporary researchers portray both lay and medical decisions as socially constructed. These analyses suggest that professional diagnosis and treatment decisions are influenced by the cultural assumptions of providers, the perceived characteristics of patients, and the social setting in which decisions are made (Todd 1989).

Another current trend in illness behavior research is to focus on patient self-care. This research has shown that many people diagnose and treat their own symptoms (Zola 1983). Furthermore, patients who are receiving medical treatment for chronic conditions commonly search for patterns in their symptoms, make note of antecedents to flare-ups, develop and test hypotheses, and sometimes even devise strategies thought to control symptom expression (e.g., Schneider and Conrad 1983).

**Treatment Adherence.** Patient failure to follow medical advice is a widespread phenomenon that reduces the effectiveness of therapy (Rodin and Salovey 1989) and may significantly increase morbidity and mortality (Sackett and Haynes 1976). Buckalew and Sallis (1986) estimated that roughly one-third of the 750 million new prescriptions written each year in the United States and the United Kingdom are not taken at all and another one-third are taken incorrectly. Nonadherence for medication and lifestyle changes recommended to treat chronic conditions is estimated at roughly 50 percent (Haynes, Taylor, and Sackett 1979). Surprisingly, these high rates exist even for those patients with life-threatening and seriously disabling conditions. For example, Tebbi et al. (1986) found that only 50 percent of adolescent cancer patients took their prescription medications as directed, while Conrad (1985) found that only 50 percent of epileptics took their medications correctly.

Determinants of adherence include a wide variety of individual and environmental factors (DiMatteo and DiNicola 1982). As in the case of illness behavior, social and symbolic meanings of medications figure importantly in adherence. Patients view medications alternatively as a indicator of the degree of their disorder, a ticket to normality that can increase self-reliance, a symbol of dependence, or a reminder of deviance and stigma. Nonadherence is powerfully affected by these meanings. Some epileptic patients stop taking their medication against medical advice when they view drugs as a symbol of their dependence and wish to reassert their independence or when they view drugs as a reminder of differentness and want to escape the stigmatizing connotations (Schneider and Conrad 1983).

Illness representations also have been shown to play a prominent role in adherence. Research consistently shows that there are major discrepancies between the illness representations of patients and of healthcare providers and that these differences play an important part in adherence. Leventhal et al. (1984), for example, proposed that many patients with chronic, asymptomatic illnesses fail to follow physician advice because they use an “acute disease schema” to interpret their medical problems. That is, they believe their disease to be caused by external agents that are short-term, symptomatic, and treatable by medications that remove the symptoms and cure the disease. When their experiences in treatment clash with these perceptions, the patient with the Guillain-Barré syndrome may believe that external pressure by doctors and family members is causing their acute blood pressure increase and may significantly increase morbidity and mortality (Sackett and Haynes 1976). Buckalew and Sallis (1986) estimated that roughly one-third of the 750 million new prescriptions written each year in the United States and the United Kingdom are not taken at all and another one-third are taken incorrectly. Nonadherence for medication and lifestyle changes recommended to treat chronic conditions is estimated at roughly 50 percent (Haynes, Taylor, and Sackett 1979). Surprisingly, these high rates exist even for those patients with life-threatening and seriously disabling conditions. For example, Tebbi et al. (1986) found that only 50 percent of adolescent cancer patients took their prescription medications as directed, while Conrad (1985) found that only 50 percent of epileptics took their medications correctly.

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ceptions, they often terminate treatment. Consistent with this perspective, Meyer, Leventhal, and Jutmann (1985) found that 90 percent of hypertensive patients believed they could "feel" their blood pressure being elevated by such symptoms as headaches and face flushing. This perception led some of the patients to adjust their medications in response to these feelings, even when the adjustments defied physician instructions. It also led some to stop taking medications when feelings of high blood pressure persisted. The persistence of an acute disease schema may also explain why patients with asymptomatic, chronic illnesses often drop out of treatment. Based on findings such as these, there is much current interest in studying the distribution of illness representations (Bishop 1987) and investigating ways to modify these commonsense representations to promote adherence (Cleary 1986).

The literature on doctor-patient interactions shows clearly that it is critical for the doctor to elicit information about patient expectations and illness representations, to confront discrepancies between these cognitions, and to explain treatment recommendations in a way congruent with the patient's theories of illness. Doctors who communicate in these ways have consistently higher rates of adherence (Whitcher-Alagna 1983). Furthermore, experimental interventions based on this perspective show that adherence can be improved by physicians changing their style of interacting with patients. Inui, Yourtee, and Williamson (1976) documented that changes in physician communication style with hypertensive patients resulting from a single two-hour training session led to a 30 percent increase in effective blood pressure control among patients experimentally assigned to the trained physicians. Similar results have been reported for a number of other cognitively-based adherence interventions (Meichenbaum and Turk 1987).

Research on doctor-patient interaction also shows that other characteristics of physician communication style—quantity of information, quality of information, and willingness to let patients ask questions—importantly affect adherence (Davis 1969; Freemon et al. 1971; Roter and Hall 1989; Svarsted 1976). Many studies demonstrate that physicians frequently fall short on all of these dimensions. There is currently a good deal of interest in the structural determinants of these aspects of physician communication behavior aimed at understanding why many doctors interact in ways that produce the very nonadherence they find so troublesome. Some researchers argue that the logic of differential diagnosis, coupled with the demands associated with rapidly processing information in bureaucratic organizations, drastically limits what doctors can accomplish in the medical interview (Cicourel 1981). Others have suggested that as health care comes to be delivered increasingly in a colleague-dependent context of referral, physicians become oriented to the wishes of colleagues rather than the wishes of their patients. Subsequently, effective doctor-patient communication is impaired (Freidson 1970). A related observation is that providers' cultural assumptions can make them less inclined to encourage active patient participation. For example, Anspach (1993) observes that many providers have a "commonsense social psychology" that underestimates patients' competence to participate in medical decisions and overestimates the likelihood of deleterious psychological consequences that can result from participating in medical decisions. Providers' cultural assumptions also include social schemata that lead professionals to underestimate the ability of lower-class Hispanic patients to participate in certain medical decisions (Anspach 1993). In short, physicians curtail patient participation, thereby discouraging adherence, less because of conscious choice than because of organizational restraints and misguided cultural assumptions.

The Social Psychology of Health Behavior and Illness Behavior: Overview

A growing body of research shows that psychosocial factors are crucial to understanding and modifying health and illness behavior. Researchers differ as to whether they examine psychosocial processes in an effort to change patient behavior in ways that will improve health outcomes or take a
patient-centered approach that examines a broader set of issues concerning lay representations of health problems and other meanings of health and illness behaviors. Researchers also focus variably on processes involved in the creation of health and illness behaviors or on the impact of macrosocial contexts on these behaviors. Unlike most other areas of social psychological research, there are many opportunities here for developing and implementing large-scale interventions that can be useful both in applying social psychological knowledge and advancing the knowledge base. A challenge for the future is to integrate research on the structural determinants of health and illness behaviors with research on the mechanisms linking meaning structures to behavioral responses and to devise methods of intervening at a more structural level than we have at present.

RETROSPECT AND PROSPECT

Theory and research on social psychology and health have developed remarkably over the past few decades, contributing to a major reorientation in the way the scientific community and society think about the nature, causes, and course of illness. The social environment and its social psychological consequences have become recognized as central to understanding and improving health.

Much of this work has focused on individual-level variables. Much remains to be clarified and learned at this level of analysis. Greater emphasis on macrosocial factors is already apparent in new lines of research on the macrosocial determinants of health and illness behaviors (Aneshensel 1992; Mirowsky and Ross 1989; Pearlin 1989; Williams 1990). Such new work is beginning to document systematic structural patterns of a broad array of psychosocial determinants of health and health-related behaviors and provides important avenues for intervention (House et al. 1992). No problem is more central to our well-being than health, and in no area does social psychology have greater opportunities for advancement over the coming years.

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This chapter presents...