

Health Psychology and Late Life

*The Differentiation of Health and Illness
for the Study of Health-Related Behaviors*

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Literature pertinent to understanding the health psychology and health behaviors of older adults is reviewed. It is proposed that judgments of health and illness status be viewed as separate domains of personal health psychology rather than as endpoints of a single continuum. A process is described in which individuals collect and evaluate information about their "healthiness" and "unhealthiness," that in turn influences health behavior decision making. Emphasis is placed on the process of health behavior, on the need to view health behaviors from a noncrisis perspective, and on the importance of recognizing that ambiguity and uncertainty can legitimately reflect one's situation.

Interest in the study of older adults' health-related behaviors and in the design of interventions to promote optimum health status in old age has grown steadily in recent years (U.S. Dept. of HEW, 1979; U.S. Dept. of HHS, 1980; Bernadette et al., 1981). However, the individual terms "health" and "behavior" are themselves general, so their combination produces a correspondingly large domain. Research or theoretical discussions relevant to health behavior may therefore be found and organized under several often related headings, among which are the following: self-care, healthy lifestyle habits, substance abuse and misuse, risk factor reduction, health beliefs, compliance, health knowledge, prevention and preventive health behavior, rehabilitation, lay referral, stress management, symptom perception, coping

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with chronic illness, folk medicine and healers, "common sense" or lay health psychology, delay in seeking care, health maintenance, health education, family caregiving and informal social supports, provider/patient interaction, behavior modification, health promotion and wellness, illness behavior, the sick role, and health service utilization. These areas can overlap, of course, and each term also denotes a spectrum of more specific activities, so that health-related behavior becomes a deceptively complex concept to study.

Despite the absence of a comprehensive body of knowledge about older adults in any one of the above areas, gerontologists have approached the study of health-related behaviors with recognition and appreciation of its social and psychological elements. Literature often encourages older adults, family members, and health care professionals with almost moralistic fervor to look beyond physical impairment in order to maximize existing functional capabilities and develop new skills wherever possible. Medical sociology, medical anthropology, and health psychology have become more evident content in gerontology and will find numerous opportunities to extend existing constructs. Moreover, the personal and interpersonal dynamics that accompany chronic illness will provide a basis for developing and testing new conceptual frameworks, especially those centered on long-term maintenance of personal health behavior.

This article reviews literature relevant to the health psychology of late life as it constitutes one component influencing older adults' health-related behaviors. The term health psychology is used here as discussed by Matarazzo (1982), referring to analysis and understanding of health-related behaviors at the level of the individual—a traditional province of psychology. Health psychology focuses attention on the personal, interpersonal, and contextual predictors of individual differences in behavior, and also on delineating the personal experience of health and illness (whether determined from the data of phenomenological or controlled experimental investigations). The role of personality variables and the process of learning to cope with health impairments are important emphases. Knowledge gained about individuals may then be applied to behavioral intervention programs, and to

decision making in broader areas of policy formation and resource allocation.

In particular, the article proposes that the health psychology of late life often involved the individual in making a fundamental decision about his or her state of healthiness and unhealthiness. Health status and illness status are therefore approached as two separate dimensions from the perspective of the individual, rather than using health and illness as the two endpoints of a single continuum—in a sense, as mirror images. Our understanding of the personal health behaviors listed above may be improved if such intrapersonal dynamics can be elaborated, properly assessed, and placed in appropriate conceptual frameworks.

Given the numerous topical headings noted above, it is difficult to specify the body of literature concerned with the health-related behaviors of older adults. Depending on how closely one's definition of health follows the now traditional and broad formulation offered originally by the World Health Organization, a greater or lesser volume of literature will be identified. The present article is intended to relate most directly to physical health status (objective and perceived) and to behaviors directed at restoring, maintaining, or improving physical health. Within this context several observations can be offered on the current study of late life health behavior that also suggest the need to develop concepts highlighting processes of personal health psychology.

Health-Related Behavior and Health Psychology in Later Adulthood

Model-building conceptual discussions and formal theoretical frameworks incorporating health behavior have been infrequent in gerontology. The Anderson-Newman model of need, predisposing, and enabling factors has been adopted by several investigators, perhaps because it is well-suited to secondary analyses of population survey data consisting of large numbers of sociodemographic predictors. The Health Belief Model (Becker, 1974; Becker et al., 1977) has seen selected empirical applications (Aho,

1979; Rundall and Wheeler, 1979; Cummings et al., 1979). In addition, I have collaborated in an attempt at model development that integrated a stage approach, future time perspective, and family support with basic health belief variables (Rakowski and Hickey, 1980). Other sources that might be cited include discussions of self-care (Butler et al., 1979-1980; DeFriese and Woomert, 1983), the social support of care-seeking (Rundall and Evashwick, 1982), and physician/patient communication (Haug, 1981). For the most part, however, psychological antecedents of health-related behaviors have not been formally proposed or empirically tested in theoretical frameworks.

Given the uniqueness that is often attributed to the aging process and to chronic illness, it is surprising that so little conceptual refinement has occurred for important behaviors such as symptom recognition, lay referral, compliance, self-care, and risk factor reduction. This situation may be due partly to the comparable absence of conceptual distinctions under the all-encompassing umbrella of health-related behaviors. The sheer listing of terms at the beginning of this article is ample testimony to the need for identifying similarities and differences among behaviors. It is necessary to recognize that preventive and health maintenance behaviors may differ along significant dimensions such as the following: the extent of their penetration into the individual's daily activity routine, the reorganization of the individual's daily routine required to incorporate a behavioral practice, short versus long duration of performance necessary to achieve desired results, the commitment of resources necessary to successfully incorporate a behavior, and degree of accessibility to assistance from family and friends. For example, whereas a standard medical visit may be rather short in time and open to active assistance by family members, practices such as dietary monitoring, oral care, and physical exercise are likely to be daily events with less opportunity for consistent family supervision. Compliance and self-care behaviors might be similarly differentiated. Moreover, despite our affinity for the word behavior, much of our literature implicitly accepts the fact that our eventual objective is to promote desired activities, habits, and attitudes—words denoting process that are less easily placed into neat

conceptual models (that also fit onto one page of a journal or book). Potential advances in theory development for late life health psychology will be limited unless target health behaviors are also the subject of refined attention.

In relation to empirical investigations, much research has looked at health service utilization, a relatively specific form of health behavior (Stoller, 1982; Wolinsky et al., 1984; Coulton and Frost, 1982; Wan, 1982; Evashwick et al., 1982, 1984; Branch et al., 1981; Celetano et al., 1982; Eve, 1982). Data are aggregated over a period of time (e.g., one year) for indices to estimate the volume of health service usage in the population, such as the per person number of doctor and dentist visits, age-group differentials in the interval since the previous doctor or dental visit, average number of days in the hospital, and drug prescription patterns. Reports to identify predictors of utilization have often been based on secondary analyses of data collected for other purposes, such as those associated with trend forecasting, need surveys, and issues of health economics. As a result, the pool of predictors of health service utilization has been largely sociodemographic in nature and has not included a wide variety of psychological or social variables. The Anderson-Newman model of predisposing, enabling, and need variables has been particularly well-suited to these analyses. A pattern of health service usage and a regular source of care seem to be related to greater use of services in later adulthood (Aho, 1979; Coulton and Frost, 1982; Rundall and Wheeler, 1979; Snider, 1980). The percentage of variance accounted for, however, has tended to be low, usually not exceeding 20%. Although health service utilization statistics represent only a small segment of the possible health behaviors that might be studied, from the standpoint of survey data and sheer descriptive statistics our information base is most comprehensive in this area. However, it is unlikely that models of health behavior can be developed based solely on health service utilization data.

Reports that have empirically investigated other health-related behaviors have tended to examine only a single behavior in any particular sample and, again, with a limited pool of psychologically-based predictors. Analytical literature relevant to areas such as compliance, symptom labelling, knowledge of services, self-

medication, and selection among alternative courses of action is growing, however gradually (e.g., Aho, 1979; Rundall and Wheeler, 1979; Nuttbrock and Krosberg, 1980; Brand and Smith, 1974; Haug, 1978, 1979; Smyer, 1980; Snider, 1980; Linn et al., 1982; German et al., 1978; Battistella, 1971; Litman, 1971). As a result we have virtually no information regarding associations among the various health behaviors themselves (e.g., symptom recognition, the decision to delay seeking care, preventive health behavior, compliance with treatment regimens) or among the domains of psychological predictors (e.g., locus of control, health judged relative to peers, expected future, self-concept).

The health-related perceptions of older adults have also given limited attention as an element of older adults' psychology of health. It is most common to see perceived health status or perceived need for health care services assessed by a single global item, often on a 4-point or 5-point scale. Subjective health ratings should be distinguished from objective medical indices; the two are by no means isomorphic (Tissue, 1972; Linn et al., 1980). Similarly, perceptions and judgments about health have a clear potential for differing among older adults, family members, and health professionals (Maddox and Douglass, 1973; LaRue et al., 1979; Linn et al., 1978; Linn and Linn, 1980; Rakowski and Hickey, 1983; Cicerelli, 1981). A future perspective should be recognized as an important complement to the present orientation of much health perception literature (Heyman and Jeffers, 1970; Kulys and Tobin, 1980; Rakowski, 1982; Rakowski and Hickey, 1981). Health-related perceptions do appear to play a meaningful role in behavior (Coulton and Frost, 1982; Mossey and Shapiro, 1982; Aho, 1979; Rundall and Wheeler, 1979); whether or not they are of primary importance relative to other classes of predictors has yet to be determined.

In addition, self-rated health is often used as a euphemism for perceived illness status. Essentially, health and illness appear to be used as the two mutually exclusive endpoints of a single continuum. In a sense, judgments of health and illness often seem to be treated as complementary, with the expectation that they psychologically add up to 1. Other aspects of perceived health, such as expectations of near and distant future health, perceived

control over health, the impact of health changes on daily activities, and anticipated changes in one's treatment plan, have tended not to be included in investigations. This situation is slowly changing as older adults' health and illness perceptions are considered in greater detail, both empirically and conceptually (e.g., Brody and Kleban, 1981, 1983; Linn and Linn, 1980; Linn et al., 1978, 1982, 1980; Mancini and Quinn, 1981; Rakowski, 1982; Rakowski and Hickey, 1981; Rakowski and Dengiz, 1984; Haug, 1981; Maddox and Douglass, 1973; Valle and Mendoza, 1978). Relative to areas available for study, however, we are still at the beginning steps.

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Overall, it is clear that health behaviors must be understood both as the endpoint of a prior decision process and as the most recent step in a series of activities and decisions extending into the future. Many essential questions remain to be answered, however, before significant progress can be made in promoting older adults' health status and understanding psychological determinants of their health-related behaviors. For example, why do some persons who have knowledge of service availability not make contact when need is clear even to themselves? Why do many individuals stop treatment compliance prematurely, as soon as the most evident symptoms and immediate functional restrictions are eliminated? What criteria do people use to identify and label themselves as healthy, ill, or at risk? In what ways do judgments of health status change as an illness condition worsens or as a treatment is successful? Why are some older adults active "joiners" of health education programs? Why are certain symptoms reported to health professionals and not others? How do some individuals living with permanent chronic impairments maintain optimism, activity, and life satisfaction? What decision processes and priorities produce delay in seeking care? How are competing courses of action evaluated when selecting a health behavior? Why do many older adults and family members limit their discussion of possible future illness problems and planning

for them? What intrapersonal dynamics produce individual differences in motivation to be an active participant in one's health care? How do people interpret the significance of acute exacerbations of an otherwise stable condition?

Questions such as these are central to understanding the process and dynamics of personal health psychology and health behavior. Possible answers go not only beyond data from existing empirical literature, but beyond the capability of any isolated predictor variable to explain. In addition, it is worth noting that often health behavior research is concerned with trying to predict and understand the nonoccurrence of an activity or missed opportunities (e.g., delay in seeking care, lack of interest in self-care, noncompliance with treatment). Indices such as length of delay, degree of noninterest, and number of missed treatments are certainly quantifiable, yet still indicate inactivity. The procedure of somehow trying to count events that do not occur begs the question of what processes operate to create inaction.

The remaining sections of this article will propose that within the health psychology of later life, a "psychology of health" and a "psychology of illness" each exist and should be recognized as separate domains. Decision-making tasks are identified that represent the often ambiguous situations in which these two perceptions may compete and must be resolved to select a particular health behavior. In this framework allowance is made for the possibility of holding apparently contradictory yet comparably strong perceptions of one's fundamental health/illness status.

The Context of Late Life Health Psychology

To a large extent, the health psychology of later adulthood is grounded in circumstances associated with chronic illness, and more generally with permanent (although often gradual) changes in an individual's functional health status. Long-term disease or physical illness, due either to a specific agent (e.g., virus, bacteria, infection) or to some altered physiological/anatomical status (e.g., hypertension, diabetes, emphysema) are major elements of chronic impairment. Also important, however, are the long-term sequelae and implications of acute but traumatic events such as

accidents, prosthetic surgery, heart attack, mini-strokes, and broken limbs. In addition, wear and tear and biological aging, not the result of any obvious disease state or injury, are also potential contributors to long-term changes in functional health status. Perhaps the common thread linking these elements of chronicity is the individual's recognition that one's health status is now at risk, whether or not noticeable restrictions of activity yet exist. Chronic illnesses and other impairments are often experienced most directly during periods of acute exacerbations rather than as continuing and burdensome conditions. It is in fact the risks, ambiguities, and uncertainties often accompanying chronic illness and other long-term changes that pose especially significant challenges and difficulties.

Importantly, much if not most health behavior is not crisis oriented. Terms such as enhancement, health promotion, self-care, health education, and even compliance tend not to convey the same personal or societal urgency as have traditional emphases of gerontology including widowhood, bereavement, relocation, institutionalization, and role loss. Crises certainly accompany some illness episodes. Health-related decisions and behaviors more often occur under less pressure, however, as part of the fabric of daily life. A crisis perspective does not appear to be appropriate for many (probably a majority) of health behavior decision situations. Our constructs of late life health psychology should therefore also accommodate such day to day and often subtle processes. Perhaps a sense of crisis or urgency best explains why substance abuse, family caregiving stress, and cost containment are areas related to health behavior that have received somewhat greater attention. Late life health psychology must not be dramatized simply for the sake of crisis impact to attract research support. It is possible, however, to distinguish importance from crisis through conceptual and empirical analyses that represent the complexity that obviously underlies and accompanies health-related behaviors.

Major Tasks and Decision Situations

Illnesses and other impairments to health vary along several important characteristics (e.g., suddenness or forewarning of

onset, visibility of impairment to others, activities of daily living that are impaired, effect on personal appearance, permanence of impairment, personal control over the course that impairment takes, and predictability with which the impairment gets in the way of desired activities). Literatures have developed to describe the personal psychosocial experiences associated with specific chronic conditions and acute life-threatening crises such as myocardial infarction (Cowie, 1976; Hackett and Cassem, 1975; Cook, 1979; Mullen, 1978; Doehrman, 1977; Wishnie et al., 1971; Bromberg and Donnerstag, 1977), arthritis (Fagerhaugh, 1975; Rogers et al., 1982), stroke (D'Affliti and Weitz, 1974; Schlessinger, 1965; Lawrence and Christie, 1979; Goodstein, 1983), hemodialysis (Lowenhaupt, 1977; Kress, 1975; Reichman and Levy, 1972; Abram, 1970), and chronic obstructive pulmonary disease (Dudley et al., 1980; Post and Collins, 1981-1982). Several other reports have examined chronic illnesses as a general category of health impairment and the personal experience of permanent chronic limitation (DiMatteo and Friedman, 1982; Strauss and Glaser, 1975; Strauss, 1973; Cohen and Lazarus, 1981; Pulton, 1979; Coelho et al., 1974; Moos and Tsu, 1977; Thornbury, 1982; Gusow and Tracy, 1976).

Despite differences that exist among the pathologies of illnesses themselves, there is striking similarity among the decisions and situations facing persons as they adjust to a present illness or to the recognition of their "at risk" status. Table 1 presents a summary of frequently identified tasks, abstracted from literature cited above. Each of the entries might be restated in one or more ways as fundamental questions that persons ask themselves during adjustment or relearning. Our ability to accurately predict which individuals will adjust successfully to long-term changes in health status is still limited. We do, however, have a significant amount of information on experiences and tasks that individuals are likely to encounter as a part of their process of adjustment.

Chronic illness and other permanent changes in functional status may affect virtually any and all facets of the individual's personal and social life. Areas such as self-concept, identity, family cohesion, independence, and sense of productivity are all

TABLE 1
 Summary of Tasks and Decision-Making Situations Often Experienced
 by Individuals with Long-Term Chronic Illness and Impairments to
 to Health Status

I. Acquiring and Organizing Information

- a) Test the limits of impairments that are imposed by one's illness, through trial-and-error experience
- b) Determine a probable and understandable cause for one's illness (e.g., diet, virus, personal negligence, "normal aging").
- c) Monitor stability, change, and identify characteristic patterns of one's condition.
- d) Evaluate the significance, for better or worse, of changes in health status.
- e) Monitor and evaluate the course of treatment.
- f) Obtain reliable information about the illness/impairment, and its seriousness.

II. Personal Tasks and Decision Situations

- g) Separate feelings and emotions toward the illness or impairment from feelings toward one's basic identity as a person.
 - h) Prioritize activities to retain, and those which can be given up if necessary; decide whether anything does need to be given up.
 - i) Achieve continuity between one's self-image and sense of competence before and after the illness episode.
 - j) Decide how much to tell family members and other persons, and how much assistance to accept; avoid over-dependence.
 - k) Maintain a view of the environment as a challenge instead of a threat.
 - l) Determine the amount of personal resources (time, energy, money, material) to be invested in recovering, or compensating for, impaired functions.
 - m) Prioritize among impairments which should be the object of personal coping efforts.
 - n) Anticipate one's illness trajectory, and likely trends in future health status.
 - o) Adjust to uncertainty and ambiguity in the course of health and/or treatment status.
 - p) Work through dependency relationships established with a machine or prosthetic device.
 - q) Maintain satisfactory sexual identity and activity.
 - r) Determine what symptom experiences to report to health professionals, and what questions to ask.
 - s) Maintain a sense of productivity and meaningful contribution to family, friends, career, and/or society.
 - t) Retain a perspective which emphasizes potentials for the future.
 - u) Decide how quickly to proceed in attempting to recover from or compensate for impairment (e.g., work, social interaction).
 - v) Manage the transition from a hospital or other institutional facility back to one's residence.
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(continued)

TABLE 1 (Continued)

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- w) Decide the degree of direct compliance to give to medically prescribed regimens and recommendations.
 - x) Decide whether or not a new treatment is necessary.
 - y) Determine if sufficient time exists to engage in an activity considered to be desirable or necessary.
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represented in the content of Table 1. The difficulty in predicting successful adjustment to chronic illness may be partly due to the fact that our "predictor" variables (e.g., family support, ego strength, self-concept) are themselves involved in processes of coping, learning, and readjustment to no less a degree than those we use as "dependent" or "outcome" measures. Tracing out the dynamics of health psychology, as reflected in Table 1, may be even more difficult in health behavior situations that are more subtle than the crisis orientation that has understandably dominated so far (e.g., maintenance of health-promoting habit patterns versus risk of suicide with hemodialysis; daily denture and periodontal care versus return to work after heart attack; dietary monitoring versus implications of severe burns).

Distinguishing Between Health and Illness

The tasks and decision situations represented in Table 1 often must be made on a recurring basis in differing situations as conditions progress for better or worse. No single factor (e.g., strong self-concept, optimism about future health) is likely to provide the individual with the key resource to determining an appropriate course of action. Moreover, the uncertainties, judgments, trial-and-error learning, and ambiguities inherent in Table 1 prohibit any clear guarantee that the best course of action has been chosen.

These tasks and the decision points that they represent involve the individual in a process of organizing information to formulate the answers to two basic questions. The first of these emphasizes the identification of physical and functional health status compe-

tencies that still remain. In effect, the person must ask, "how healthy am I?" or, "in what specific areas of life am I healthy?" The information collected to answer such questions forms the basis of the individual's personal psychology of healthiness. The second emphasizes the extent of physical and functional losses that have been experienced. In effect, the person asks, "how ill, limited, or impaired am I?" "In what specific areas of my life?" Information collected to answer these questions forms the basis of the individual's personal psychology of unhealthiness.

The individual may consider the answers obvious, so that there may be no problem resolving the balance of evidence in favor of a given course of action (e.g., whether it is necessary to limit salt in one's diet). Due to the nature of chronic impairment and disease, however, evidence for both is likely to exist. This basic ambiguity surrounding one's actual healthiness and unhealthiness, and resolving how each perspective should contribute to decision making at any particular time appears to be a generic experience of chronicity that arises repeatedly under various guises. Specifics will vary for different illnesses, but the essential need for resolution is a universal theme (Strauss and Glaser, 1975). Several of the tasks in Table 1 (a-f) produce the basic information upon which an individual determines the extent of, and specific evidence for his or her degree of healthiness and illness. Other entries (g-y) represent situations that involve the individual in reaching a balanced assessment of his or her health and illness status.

We are still in need of research specifically designed to identify the range of dimensions along which older adults form impressions and organize information to determine their health and illness status. It does appear, however, that certain considerations are salient for personal evaluation of health status. These include the following: ability to perform activities of daily living necessary for independent residence; degree of pain or physical discomfort; health/illness status judged relative to peers; expected trends in health status over the near and long-term future; degree of control felt over the course of health/illness; expected duration of any existing illness conditions; and the sense of immediacy or urgency for care that a given situation conveys to the individual.

Any one illness or long-term impairment is not likely to produce the broad range and depth of experience suggested by

Table 1. The multiple conditions that often affect older adults, however, are likely to make the various tasks evident more frequently and have greater immediate significance. The involvement of several body systems due to multiple impairments (e.g., COPD, arthritis, sensory decline) may not only produce a larger number of tasks, but raise questions about one's healthiness and unhealthiness across several different body systems, for different functional skills, and in situations occurring throughout one's daily life space. Even if a crisis or severe stress perspective is not appropriate to understand a health behavior decision situation, therefore, a recurring need exists for the individual to assess and evaluate situations relative to health/illness status.

The probability of an individual developing distinct judgments of health and illness is also based on the nature of most impairments. Health status is by nature a multidimensional construct as even physical health may be defined at a variety of levels (e.g., physiological, organ, tissue, organ system, functional skill, overall system integrity, reserve capacity). Adding subjective self-assessment creates further complexity. Moreover, an individual is likely to place different weight or importance on various aspects of health status. As a result, some highly valued skills, functions, or capabilities will be unimpaired, whereas others will be restricted. Evidence of continuing healthiness will coexist with evidence of illness. Neither one can be ignored, yet one or the other is likely to dominate at any given time. A continuing process of resolving the health/illness question should therefore be expected as a naturally occurring component of illness.

Recognizing that health and illness can be two separable concepts in personal psychology allows the circumstance in which both perceptions are comparably strong and cannot be resolved. Ambiguity and uncertainty must be studied as legitimate assessments and not viewed simply as noncommittal responses that reflect lack of information or lack of interest about one's health. Strauss and Glaser (1975) observed that the most basic task and objective of the chronically-limited individual is to "carry on" with as normal a routine as possible, even in the face of regularly

testing limits. Most of the entries (g-y) in Table 1 can be viewed as elements of that process. This objective of normalization is accomplished through coming to know what still can be done, what prior activities can no longer be conducted, and utilizing other resources (sometimes called "residual strengths") to compensate when necessary.

The content of Table 1 therefore also reflects the long-term process of resolving the health/illness issue. In this regard, finding the limits of one's competencies and tracing out the farthest-reaching impacts of an illness condition can only be accomplished through repeated attempts in varied circumstances. Learning is an integral component of health-related behaviors, so that a "track record" of success and failure is gradually built. It is possible that additional illness conditions will intervene and further complicate discovering where health and illness are most evident. As suggested by the literature, a stage-type theory seems most appropriate to represent the processes involved in achieving and maintaining a personally satisfactory resolution of health and illness status.

It is important to remember that desirable health behaviors are not a set of skills that persons possess as a mere accident of birth, genetics, or good luck. Learning, memory, practice, and sustained motivation are usually essential—all of which must be the objects of deliberate attention and effort. Discussions of prevention and health promotion carry especially significant implications as such concepts and behaviors are proactive in nature. In contrast, symptom-related behavior is basically reactive, so that accommodation to illness or declined vigor occurs at a pace and at times dictated by the progression of the condition. Our encouragements to be proactive and test one's skills and limits may produce greater attention to personal health status but, in doing so, may create more frequent encounters with questions and decision points such as those noted in Table 1. Because health perceptions are likely to change (or be reinforced) on the basis of feedback after actions are taken, researchers would be well-advised to monitor judgments of healthiness/unhealthiness at more than one point.

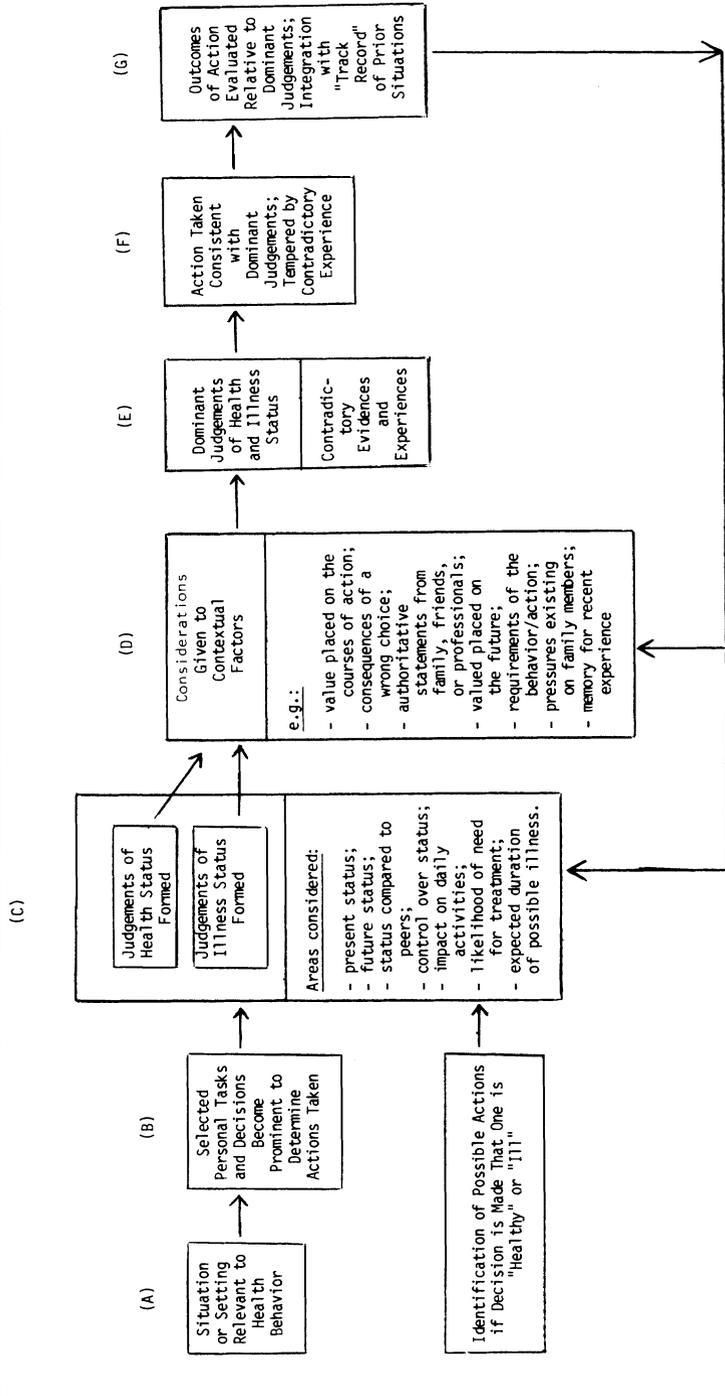
CONCEPTUAL REPRESENTATION

Figure 1 presents a diagrammatic summary of the concepts discussed above. Judgments of healthiness and unhealthiness are placed in a context of decision making and subsequent action. The figure highlights major steps and content that appear frequently in discussions of adjustments to illness with long-term impacts, and adjusting to an at-risk status.

Proceeding from the left of the diagram (A), the process is initiated by a situation that requires an assessment of personal health status. Options for action may be simple and straightforward (act, not act) or the individual may have several choices (self-care, consult relative, contact professional, do nothing). Depending on that situation or question, one or more specific tasks from Table 1 become a priority (B), around which the individual marshalls information and applies decision skills.

For example, the question of whether to ask for assistance or "moral support" from family members when making a follow-up clinic appointment may be the triggering situation. Decisions may then be necessary on the need to disclose health-related information to family members, on the extent to which the environment between one's home and the clinic does or does not present a threat if one goes alone, and on the speed with which to proceed toward independence after a prior illness episode. Also at this time, individuals begin to form judgments and identify potential courses of action consistent with a decision that either their healthiness or their unhealthiness should be emphasized.

In the next step of Figure 1 individuals develop separate judgments of health and illness status (C). Literature suggests that evidence may be gathered along several dimensions, including the following: effects experienced so far across several areas of daily life; degree of discomfort/pain; the perceived cause(s) or reason(s) for the impairment; expected future status over both a near and far time period; status compared to age peers; perceived pressures exerted on one's family, and reserve capacities of the family; expected likelihood of needing treatment; expected short versus long duration of existing conditions. Individuals may emphasize any one or more of these as the primary criteria.



NOTE: Figure 1 also incorporates the distinction between a personal psychology of healthiness and unhealthiness.
 Figure 1 Representation of the Decision Process Proposed to Underlie Personal Health Behavior

Entries a through f in Table 1 will be involved at this point. In addition, formation of these health and illness judgments may be made relatively less or more rapidly depending on considerations such as the quality of information available to the individual, the importance of the ultimate decision being made, the amount of time available to make a decision, and personal skills and styles of making judgments. Although conceptual frameworks by necessity have a logical/rational structure, their steps need not imply that a belabored, highly deliberated process always occurs.

Having collected various types and details of information, situational considerations (D) will affect the resolution of the health/illness contrast, so that a dominant perception results. These considerations can be of special significance when evidence for healthiness and unhealthiness is comparably strong. Factors that might help to tip the balance include several possibilities. The value placed on eventual health-related courses of action (or inaction) may be important. Knowing in advance what one "really" desires or needs to do out of a set of behavioral options (identified earlier in A) will influence whether the evidence for health or illness is given extra priority. The consequences of a wrong emphasis on health or illness may be considered by the individual—a factor often noted by victims of heart attack as underlying fear about resumption of prior activities. Despite feeling well, the unknown specter of "what if" may prompt these persons to follow a more conservative course of action. In contrast, the "what if" of hypertension compliance tends to be deemphasized by many individuals as the consequences of non-compliance are usually much more subtle and not immediate.

Relative value placed on either the future or the present may be influential by serving to diminish the importance of certain components of the health/illness judgments. For example, the rationales for long-term future health benefits may be more effective for individuals who see several years of interesting and pleasant life events still in front of them. Similarly, current and future pressures on family members may be especially salient considerations for older adults. Requirements of the various possible behavioral options may also differ, so that the demands

of following a specific option may be anticipated to exceed one's capabilities even though one might do well initially.

An authoritative statement from a health professional (or key family member) that stresses the evidence for health or illness may also be significant. The separation of a psychology of healthiness and illness may help one to better understand how individuals are influenced by others. Uncertainty and ambiguity can be more easily studied as legitimate phenomena in and of themselves. The same healthy/unhealthy distinction may also exist in the assessments of the individual that are held by professional and family members. If so, comparative judgments could be made among all three parties—individual, professional, and family member.

Based on the interaction of health judgments, illness judgments, and situational factors a dominant perception emerges (E) to guide decision making. At the same time, however, contradictory evidence about one's health/illness status and memory of similar previous experiences cannot be totally ignored. Important implications may exist for subsequent behavior, such as the perseverance than an individual is prepared to show when not immediately successful (e.g., learning to use a walker then gradually gaining mobility without it). The distinction noted earlier between a behavior and an activity becomes particularly meaningful at this point. Persistence at a desired health-promoting activity (e.g., diet maintenance, follow-up office visits, exercise, treatment compliance) also involves developing a track record that reflects success, or at least acceptable stages of progress. Although a behavior may be performed, its place in a broader pattern of activity, practice, or habit must also be understood. The presence of strong competing perceptions (e.g., that one is really just as ill as one is healthy) may introduce sufficient ambiguity or uncertainty as a background, so that even a seemingly adequate behavior, with reinforcement from professionals, is not built into a sustained activity.

The final elements of the diagram incorporate these possibilities. Behavioral response to the original situation (F) is evaluated by the individual (G). Results following from one's decision are compared to the expectation of what "should" have occurred given one's dominant (or ambiguous) judgment of being healthy

or unhealthy (i.e., being sufficiently competent or not). The experience is also interpreted relative to similar prior situations. Except in the early stage of an illness, it is likely that some type of track record will exist. At this point the behavioral response will influence performance of the activity pattern. The "feedback loop" to initial judgments of health and illness is, of course, virtually automatic as a prelude to the next health-behavior situation.

Figure 1 is not intended to represent a tedious or time-consuming process for the individual. The analysis and behaviors may be based on "impressions," "gut-level feelings," or "naive psychology" (Lau and Hartman, 1983; Leventhal and Hirschman, 1982). Similarly, even if the individual is deliberate the actual time spanned may be quite short. Relative to models that might be constructed (e.g., Fabrega, 1973), the present diagram has a modest set of elements. Elaboration is undoubtedly possible, most effectively in the form of mini-models appropriate to specific health behavior situations.

Methodological Implications

The discussion in this article does not favor any one research design or data collection technique. It does, however, suggest that our psychological and behavioral variables be operationalized in greater detail than has generally been the case. One clear implication is that judgments of healthiness and unhealthiness should be assessed separately. On a global level this might be done via a self-anchored Cantril-ladder procedure (e.g., Bortner and Hultsch, 1974) in which "state of healthiness" was rated on one 0 to 10 scale and "state of impairment" was rated on another. Alternatively, and more specifically, respondents might rank-order the most important aspects of their lives (all else being equal) and then indicate competence and/or impairment in each one. A composite profile might then be created and individual differences identified. Through such procedures our ability to understand the meaning of seemingly noncommittal health reports such as "average" or "not sure" would be significantly

enhanced. Our data-collection instruments and questions should allow for the existence of legitimate ambiguity and uncertainty—more than simply coding the midpoint of a 5-point or 7-point bipolar scale and assuming that uncertainty fits in a linear relation between strong perceptions of healthiness and unhealthiness.

In addition, studies of health behavior might attempt to determine which entries from among *g* through *y* in Table 1 are most involved in a particular decision process. This determination will allow more precise follow-up inquiry than is ever achieved by general questions about self-health judgments. A necessary set of studies with immediate relevance would involve straightforward qualitative reports of how individuals assess their health status, illness status, and resolve discrepancies. The level of detail that we structure into our investigations should have some grounding in the level of detail that older persons themselves apply to their health-behavior decision making.

Our investigations need to give more recognition to the process of health-behavior decisions. Certainly this will require a broader scope of questions and information than has usually been obtained. For example, the contextual factors in step D and the several areas in step C of Figure 1 have yet to be asked of a single sample of elderly. Prior history and a personal track record also should be included. It is unlikely that an aggregate variable that represents a construct such as overall health behavior can be identified, measured, or studied. Our research is more likely to evolve toward examining specific health behaviors or decision situations in the context of specific impairments or illnesses in specific socioenvironmental settings. Given an awareness of this trend toward greater specificity, an appropriate scope of predictor variables can be built into our research instruments.

Finally, in order to understand individuals' consistency (or change) in personal health behavior, more than one assessment of the healthy/unhealthy judgment will be necessary. Particular attention may be directed toward the dominant perception that results at E in Figure 1. Parameters of interest that might change include the positive or negative evaluation itself, the certainty of one's assessment, and even the specific contextual factors that affected the decision process. This type of attention will also help

our research to more thoroughly examine target behaviors in the overall activity or habit pattern in which they exist.

Concluding Comments

The preceding discussion has presented one means of approaching the study of the health psychology of later adulthood. It represents an intermediate step in the development of our knowledge, serving as a review of themes from several areas of literature and suggesting empirical investigations directly related to the proposed distinction. The differentiation of health and illness will not be a panacea for all questions pertaining to the health behaviors of older adults. However, it appears to accurately reflect a set of significant experiences, and has potential for broad applicability in areas such as coping with chronic health problems, family dynamics, individual counselling, professional/patient interaction, and the design of programs for health education and health promotion.

In order to appropriately investigate the concepts proposed in this article it will be necessary to adopt a more detailed perspective toward health status than has been evident so far. There are currently no standards that say how the health/illness dichotomy should be measured. It is likely, however, that we will need more than a single point of data collection to avoid the implicit assumption that any given judgments of health and illness are stable over long periods. Prescriptions for assessment strategies will probably be less important than will a basic dedication to describing and understanding the experiences of illness and health, whether through naturalistic observation, survey research, controlled laboratory experiments, or intensive case analyses.

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