*Special Article*

# Goal-Oriented Medical Care

**James W. Mold, MD; Gregory H. Blake, MD; Lorne A. Becker, MD**

ABSTRACT

*The problem-oriented model upon which much of modern medical care is based has resulted in tremendous advancements in the diagnosis and treatment of many illnesses. Unfortunately, it is less well suited to the management of a number of modern health care problems, including chronic incurable illnesses, health promotion and disease prevention, and normal life events such as pregnancy, well-child care, and death and dying. It is not particularly conducive to an interdisciplinary team approach and tends to shift control of health away from the patient and toward the physician. Since when using this approach the enemies are disease and death, defeat is inevitable.*

*Proposed here is a goal-oriented approach that is well suited to a greater variety of health care issues, is more compatible with a team approach, and places a greater emphasis on physician-patient collaboration. Each individual is encouraged to achieve the highest possible level of health as defined by that individual. Characterized by a greater emphasis on individual strengths and resources, this approach represents a more positive approach to health care. The enemy, not disease or death but inhumanity, can almost always be averted.*

(Fam Med 1991; 23:46-51)

During most of this century, modern medical care has been oriented toward the identification and correction of health related problems. A variety of well-established strategies have risen from this model, including the problem-oriented medical record, the International Classification of Diseases (ICD-9) used for insurance reimbursement, the Diagnostic and Statistical Manual (DSM-IIIR) of psychiatric diseases, and Diagnosis-Related Groups (DRGs). Essential to the problem-oriented medical model are the following principles:

1. There exists an ideal "health" state which each person should strive to achieve and maintain. Any significant deviation from this state represents a problem (disease, disorder, syndrome, etc.).
2. Each problem can be shown to have one or more potentially identifiable causes, the correction or removal of which will result in resolution of the problem and restoration of health.
3. Physicians, by virtue of their scientific understanding of the human organism and its afflictions, are generally the best judges of their patients' fit with or deviation from the healthy state and are in the best position to determine the causes and appropriate treatment of identified problems.
4. Patients are generally expected to concur with their physicians' assessments and comply with their advice.
5. A physician's success is measured primarily by the degree to which the patients' problems have been accurately and efficiently identified and labeled and appropriate medical techniques and technologies have been expertly applied in an effort to eradicate those problems.

This conceptual model is ideally suited to the understanding and management of acute and curable illnesses. It has also been extremely important for clinical research. However, acute and curable illnesses represent a smaller and smaller proportion of current medical practice, and research methods may not always be applicable to patient care.

A problem-oriented approach is not as useful in the following situations: 1) when the "problem" is normal physiology (eg, pregnancy, health promotion); 2) when the process of reaching or assigning a diagnosis may cause more harm than benefit to the patient (early diagnosis of incurable cancer); 3) when the doctor and patient disagree about whether there is in fact a problem that should be solved; 4) when the doctor and patient disagree about the utilities of different solutions (eg, "tight control" of diabetes mellitus); 5) when restoration of the ideal health state is impossible (eg, chronic or terminal illnesses); 6) when the solution is more in the hands of the patient than the doctor (eg, obesity); and 7) when the solution creates new problems equal to or greater than the original problem (eg, treatment of asymptomatic arrhythmias) or when increasingly aggressive attempts to resolve a problem, fueled by physician and patient anxiety, lead to a clinical cascade of adverse consequences.[1]

There is a need for an approach that is more applicable to the care of patients with chronic incurable illnesses, that

From the Department of Family Medicine, University of Oklahoma Health Sciences Center, Oklahoma City (Dr. Mold), the Family Practice Residency Program, University of Mississippi, Jackson (Dr. Blake), and the Department of Family and Community Medicine, Toronto Hospital, University of Toronto, Canada (Dr. Becker).

Address correspondence to Dr. Mold, Department of Family Medicine, University of Oklahoma Health Sciences Center, PO Box 26901, 800 NE 15th Street, Room 503, Oklahoma City, OK 73190.

more comfortably includes the principles of health promotion and disease prevention, that is better suited to interdisciplinary teamwork, and that allows for increased involvement of patients in their own health care. There is increasing sentiment that the time has come to examine fundamental beliefs about medical care and to propose alternative approaches which might be more useful to clinicians dealing with current health care issues.[2] This article proposes an alternative conceptual model that could open a door to new methods for dealing with a variety of modern health care concerns.

The assumption that problem solving is both necessary and sufficient for the restoration and maintenance of health allows physicians and their patients to proceed to act without ever establishing the real goals of therapy. As physicians have become more and more adept at identifying problems, armed with a greater array of powerful weapons with which to abolish them, there is an increasing need to establish the purpose of these activities (so as to not win battles while losing wars). In addition, there is the assumption that health represents the absence of disease with no positive attributes of its own. This is clearly a pessimistic perspective. With advancing age it becomes increasingly difficult to maintain health according to this definition. As stated most eloquently by Dubos:

> What is health? Theoretically, health is the complete absence of organic and mental disease. But for most of us, health is the ability to function. To be healthy does not mean that you are free of all disease; it means that you can function, do what you want to do and become what you want to become.[3]

We propose that problem solving is only one of many strategies useful for the achievement of health-related goals. Because of this, we believe that the process of establishing goals and determining strategies for achieving them, not the identification and resolution of problems, should direct health care. We will refer to this approach as goal-oriented medical care. The purpose of this paper is to introduce and explain some of the advantages and implications of a goal-oriented approach to health care without attempting to describe its practical implementation. However, some of the significant obstacles to implementation will be briefly mentioned.

### The Basics of a Goal-Oriented Model

The basic assumptions of a goal-oriented approach to health care, as contrasted with the problem-oriented approach, would include the following:

1. Health must ultimately be defined by each individual and therefore will be different for different individuals and at different points in time. (An individual's definition of health might therefore differ from that of the physician).
2. An individual's health goals can best be determined through the combined efforts of that individual and his or her health care provider(s) using the special information each brings to the relationship.
3. The construction of health-related goals requires an assessment of individual strengths and resources, interests and needs, and personal values in addition to the traditional (and still very important) determination of problems.
4. Final decisions regarding prioritizing an individual's health-related goals and the amount of effort to be expended achieving them are and ultimately should be made by each individual, even if the physician is in disagreement with these decisions. Clarification of goals allows all involved parties to decide whether the relationship is likely to be beneficial and whether they want to participate in it.
5. Success for both the individual and the health care provider(s) is best measured by the degree to which the individual's health-related goals are achieved. It therefore depends on the construction of goals and strategies that are both acceptable and realistic.

A basic tenet of the goal-oriented approach is that the missions of health care (at the level of the individual physician-patient relationship) are to improve the quality and/or increase the quantity of life of individuals. Health-related goals must then relate directly to the achievement of one or both of these missions. The more clearly the goals are defined, the less likelihood there will be for misunderstanding, and the easier it will be for patient and physician to determine potentially useful strategies. Goals, particularly long-term goals, should be quantified whenever possible (based on available experimental and epidemiologic data as well as the individual judgments of physician and patient) and measureable so that progress toward achievement can be monitored. For example, an appropriate long-term goal statement might be: "Reduce my risk of heart attack by X% and thereby increase my quality-adjusted life expectancy by Y years, as determined by the QRS health-risk appraisal instrument."

The diagnosis or resolution of a problem would often (but not always) be important as an objective or strategy but would rarely if ever represent a goal. Thus, the reduction of serum cholesterol by Z% could be an objective related to the above goal, and dietary modification, smoking cessation, and medications could be potential strategies for accomplishing it. This distinction is more than a semantic one. If the most realistic estimates of life prolongation for an individual patient through reduction of identified risk factors for heart disease were only one month, and if this were included in the goal statement, the patient might decide that other goals had higher priority. On the other hand, if normalization of an elevated serum cholesterol was under-

Table 1

Possible Goals Related to Acute Illness

1. Learn what to do to increase the rate of recovery from this illness.
2. Suppress symptoms now, even if the duration of the illness is a bit longer.
3. Learn as much as possible about the potential complications of this illness.
4. Learn how to prevent occurrence of similar illnesses in the future.
5. Learn what to do if similar problems occur in the future.
6. Learn how to prevent others from getting my illness.
7. Return to work as soon as possible.
8. Obtain a note to remain out of work.

Table 2

Comparison of Principles of Problem-Oriented and Goal-Oriented Approaches to Health Care

| | *Problem-Oriented* | *Goal-Oriented* |
|---|---|---|
| Definition of Health | Absence of disease as defined by the health care system | Maximum desirable and achievable quality and/or quantity of life as defined by each individual |
| Purposes of Health Care | Eradication of disease, prevention of death | Assistance in achieving maximum individual health potential |
| Primary Methods | Diagnostic process, application of specific corrective measures, patient education | Definition of health goals, determination and implementation of strategies, encouragement, advocacy, empowerment |
| Enemies | Disease, death | Inhumanity |
| Measures of Success | Accuracy of diagnosis, appropriateness of treatment, eradication of disease, prevention of death | Achievement of individual goals |
| Evaluator of Success | Physician | Patient |
| Data Required | Medical history, physical exam, lab and X-ray results | Medical history, physical exam, lab and X-ray results; assessment of values, strengths, and resources; interests and needs; expectations |
| Conceptual Framework | Disease oriented, objectivistic, generalized, negative (correcting defects), applied science | Person oriented, constructivistic individualized, positive (achieving goals), adult education, rehabilitative |

stood to be the goal, the same individual might feel compelled to achieve it in an attempt to regain health by correcting an identified problem.

Using a different kind of example, if one of the primary goals of treatment of an elderly patient with pneumonia is the restoration of a certain level of function (quality of life), the avoidance of secondary disabilities becomes an appropriate objective, and important strategies would include early mobilization, fall prevention, and nutritional support. When cure of the pneumonia is the primary goal which directs therapy, then the administration of antibiotics in addition to standard nursing care might appear to be necessary and sufficient strategies.

Health goals can be long term or short term, complex or simple. The occurrence of a minor acute deterioration of health would still be a common impetus for patients to seek health care. Table 1 lists some possible goals relevant to an acute illness. The following is an example of a patient with a relatively simple short-term goal relating to a chronic problem.

> A 38-year-old man (Mr. R.) was seen for chronic right shoulder pain. Examination revealed that he probably had a chronic rotator cuff injury. Since he had already tried oral medications, injections, and various physical modalities without much benefit and was not interested in an operation, there seemed to be little that could be done. Further diagnostic tests and/or referral to an orthopedist were discussed. However, when asked what he would like to be able to do that he could not as a result of the shoulder problem, he said that he really was not bothered much by the pain except when bow hunting. His goal was to be able to go bow hunting again. In discussing strategies to reach this goal, Mr. R. volunteered that with a doctor's note, he could hunt with a crossbow and that this might not cause a problem for his shoulder. The note was written, and his goal was achieved.

It should be pointed out that in many cases the proposed goal-oriented approach and the traditional problem-oriented approach would be perfectly congruent. In young and healthy individuals, near perfect health is often achievable, and the eradication of acute problems as they occur may be the best strategy. Even in these cases, however, viewing health in the broader sense as the goal and eradication of the acute disease as but one strategy could stimulate consideration of other strategies, such as education regarding ways to avoid similar problems in the future or reframing the illness event as an opportunity for personal growth and development.

### Physician-Patient Interaction

The acknowledgement that patients ultimately decide the state of their own health, their prioritized goals regarding health, and the strategies they are willing to implement to achieve them does not imply that physicians should withdraw from participation in these decisions. On the contrary, physicians must, because of the expertise and objectivity they bring to the physician-patient relationship, be involved

through active listening, patient education, recommendation and negotiation, and then encouragement and advocacy. In fact, we agree compeltely with Ingelfinger:

> A physician who merely spreads an array of vendibles in front of the patient and then says, "Go ahead and choose, it's your life," is guilty of shirking his duty, if not of malpractice. The physician, to be sure, should list the alternatives and describe their pros and cons, but then, instead of asking the patient to make the choice, the physician should recommend a specific course of action.[4]

Interaction oriented to goals, which are in theory equally understandable to both patient and physician since they relate to quantity or quality of life, would allow the patient to feel more capable of participating in the decision-making process. The process would, however, be less a search for truth than a joint effort to construct a useful reality. That is, it would be constructivist rather than objectivistic.[5] A comparison of the characteristics of goal-oriented and problem-oriented approaches is shown in Table 2.

**Assessment of Results**

A problem orientation depends on a carefully constructed problem list that uses both subjective and objective data. The construction of goals would also necessitate an accurate determination of problems, but in addition would require an equally comprehensive assessment of strengths and resources, needs and interests, expectations, and values. The lack of practical methods for assessment within these areas argues most persuasively that physicians are not already using a goal-oriented approach.

Decision analysts have developed techniques for assessing individual utilities in specific situations, but these methods would require considerable modification before they would be useful for more general values assessment. Social and behavioral scientists have tested a variey of methods for evaluating family and social support. However, none has so far gained wide clinical use. Psychologists and other behavioral scientists often spend weeks or months assessing needs and expectations. Developing the methods to effectively and efficiently collect these kinds of information and to incorporate them into the decision-making process would be a challenging but not impossible task.

Adult educators have moved toward goal-directed approaches to adult learning, recognizing that achievement of personal goals is often a more powerful motivator for learning than is the remediation of teacher-identified deficiencies. Individual self-directed, goal-oriented educational strategies enhance individual potentials rather than ensuring minimal competencies.[6] They build on the strengths and interests of the learner at each point in time, while still providing direction to the process. Inasmuch as learning is a prerequisite for behavioral change, the principles of adult education should be entirely appropriate and applicable to medical treatment where changes in health behavior are so often required.

Geriatricians have learned that an approach which emphasizes attainment of functional goals is in many cases more optimistic and rewarding than the traditional disease-oriented approach. Eradication of all identified health problems is often not possible. Maximization of function and independence is of greatest importance to quality of life. The increasing uniqueness of individuals as they age, as well as the greater frequency of chronic illness, disabilities, and interactive biologic, psychologic, and social problems, suggest an individualized, team-oriented approach to geriatric health care. In fact, geriatrics may be the field of medicine with the most urgent need for a new conceptual approach.[7,8]

Operating within a problem-oriented framework, pregnancy has come to be viewed as an abnormal state or, if not, as a set of problems waiting to happen. The physician's job is primarily to detect and treat problems, not to help everyone involved get the greatest possible benefit from the positive experience of pregnancy and childbirth. This task has in recent years been adopted by nurses, midwives, patient educators, and lay instructors who sometimes find themselves in direct conflict with physicians. Within a goal-oriented model, normal physiology does not preclude the need for heatlh care since health-related goals are not necessarily tied to the solution of problems.

As testing methodologies become increasingly sophisticated, the definition of normalcy (a prerequisite for the problem-oriented paradigm) will undoubtedly become even more problematic. Individual genetic patterns, for example, will undoubtedly be discovered to be adaptive in some ways and maladaptive in others. A classic example is the protective effect of sickled red blood cells against the malaria parasite. It is not unreasonable to think that because of advances in genetic mapping, it will become possible to construct extensive problem lists for infants shortly after or even before birth.

In addition, people not infrequently report that the occurence of a serious illness or other catastrophic event was overall a very positive occurrence in their lives, leading them to discover what was truly important and giving them a renewed sense of purpose. If personal strength and adaptability are goals, pain and adversity may be both positive and necessary ingredients for its achievement.

Hypercholesterolemia may be an example of this sort of complexity. While there is good evidence now that lowering serum cholesterol levels can reduce the risk of development of coronary artery disease morbidity and mortality, treatment can be unpleasant and expensive, and there is at least some evidence that it may result in increased deaths from noncardiovascular causes such as accidents, homicides, suicides, and certain types of cancer.[9-11] Nevertheless, upper levels of normal have now been established, and many hundreds of thousands of people have been informed that they have a serious medical problem requiring treatment. The role of the physician should be to help each individual assess the available information regarding cholesterol and determine whether cholesterol reduction is a strategy that should be applied to the achievement of the patient's health goals, taking into account individual values, beliefs, and tolerance for that individual's risks as well as biomedical factors.

The problem-oriented approach to disease prevention tends to be fairly rigid. Specific unhealthy life style factors are targeted for change whenever they are detected, as are the results of screening laboratory tests which fall beyond an arbitrary threshold value. Practitioners involved in developing new approaches to health promotion and disease prevention have already begun to embrace the principles of a goal-oriented approach and have demonstrated greater degrees of behavior change in patients with defined goals. Alexy, for example, found significantly greater success with weight reduction, reduction of alcohol intake, use of seat belts, and

increased exercise levels by patients with specified goals in comparison with patients given information and advice only.[12]

### Applications in Chronically Ill Patients

The diagnostic process can sometimes cause more harm than benefit. Reuben has pointed out that making a diagnosis is sometimes counterproductive even when using a problem-oriented approach.[13] Haynes demonstrated that diagnosing hypertension in factory workers can result in increased absenteeism from work, decreased marital satisfaction, and decreased income during the subsequent year.[14] Mental health professionals have observed and reported that labeling a person schizophrenic sometimes results in depersonalization and worsening of symptoms.

The care of patients with chronic illnesses is one of the greatest challenges of modern medicine. A problem-oriented approach suggests that when a cure is not possible, every effort should be made to control the abnormal manifestations of the condition. It is generally assumed that patients are in agreement with this goal. However, as pointed out by Marteau et al, in the case of the parents of children with diabetes, large discrepancies may exist between physicians' goals and those of their patients (or in this case, those of the patients' parents).[15] Work by Hefferin suggests that when patients participate in the goal-setting process, they are more likely to achieve positive changes in health status.[16]

> One of the authors (L.B.) was the primary physicians of a 55-year-old woman (Mrs. S.) with Type II diabetes mellitus. Mrs. S. consistently reported home blood glucose values in the normal or near normal range, while fasting office measurements were consistently in the mid-200s. All attempts by Dr. B. to bring her serum glucose into the normal range were unsuccessful. During a hospitalization for another problem, Mrs. S. told the admitting resident that Dr. B. "preferred to keep her blood sugar a little on the high side." She had obviously decided at what level she wanted to keep her blood sugar, knew that her doctor's goals were different, and had developed a way of dealing with the medical system to avoid confrontation and yet accomplish her goal.

Dying patients often feel abandoned by their physicians once it is clear that all available medical treatments have failed. However, it could be argued that some of the most important health-related goals of an individual's life pertain to the circumstances associated with the dying process. Physicians ought to be in a unique position to offer guidance, support, and palliation to their patients as they struggle to achieve these often difficult goals.[17-19]

While most medical interventions require the active participation of the patient (exceptions being very ill or comatose adults or small children), physicians usually feel a measure of control over the process. However, some problems depend so heavily on the individual's ability and willingness to solve them that intervention by the physician may be completely ineffectual or even counterproductive. For example, while obesity represents a serious health problem for many people, a physician can do little to cure it without a major comitment on the part of the overweight person. In fact, by pointing out the problem repeatedly to a person who is, for whatever reasons, unable to lose weight, the physician may adversely affect that person's self-esteem, thus reducing his or her overall health. In some cases the physician's admonitions to lose weight may actually lead an obese individual, also in search of control, to gain additional weight. This principle has been demonstrated most clearly in spousal relationships[20,21] but probably applies equally well to the physician-patient relationship. In such cases, a goal-oriented approach might be more productive.

The concept of compliance is less applicable to a goal-oriented health care model. Instead, this model would assume that individuals would be more or less successful at carrying out proposed strategies and that modifications might or might not be required of either the goals or the strategies based on that information. The physician's role would change from instructor and enforcer to collaborator and advocate, and the flavor of the interaction would shift from correction of deficiencies to encouragement of success.

### Physician and Patient Roles

Sometimes the strategies employed by physicians seem to be directed more toward anxiety reduction (physician anxiety, patient anxiety, or anxiety in a larger system, eg, the hospital staff) than toward any overall health benefit for the patient. Aggressive attempts by physicians to gain control over anxiety-provoking situations sometimes result in more anxiety and less control. This decision-making pattern often results in clinical cascades in which one event leads to another and that to another, leaving the participants increasingly powerless to arrest the process.[1] One of the most consistent features of clinical cascades is that the participants either fail to clarify or lose track of their original goal(s) and as a result end up missing the mark quite badly. The most effective way to prevent cascades is to set appropriate and realistic goals and to keep them in mind at all times when decisions are being made.

Within the scientific problem-oriented paradigm, physicians, as the most highly trained applied scientists, are clearly the most influential members of the health care team. Using a goal-oriented approach, not only would the goals of treatment be clearer to all, an essential requirement for teamwork, but professionals other than physicians could be expected to take larger roles in the care of patients. In fact, it is becoming clear that the knowledge and skills of physicians are inadequate to deal with the health concerns of an increasing number of people. As a result, an interdisciplinary team approach has become essential in rehabilitation, geriatrics, home health care, and long-term care, to name only a few examples. Successful teamwork requires clarification of goals and objectives, coordination of strategies, and mutual respect.[22,23] Interestingly, nurses and many allied health care professionals already espouse a goal-oriented approach.

A goal-oriented approach to health care would probably be as difficult initially for patients as for their health care providers. The process of realistic goal setting is not currently being taught or even encouraged by most educational institutions. Grading and correction of deficiencies are the predominant motivational strategies in primary, secondary, university, and most professional schools. Most people find it much easier to identify and criticize faults than to reward achievements. Although adults are by nature goal oriented, the ability to set realistic goals using complex information would require considerable training and practice for both patients and physicians.

At an institutional level at least some of the systems and

procedures that were put into place to facilitate the problem-oriented model would be inappropriate and would represent obstacles to the implementation of a goal-oriented approach. DRGs, for example, would be less applicable to the new paradigm. A more appropriate cost-containment system, if one were deemed necessary, might be based on the goals for the hospitalization and the anticipated/average/appropriate costs of the strategies propsed to achieve them. In a recent article, Steffen pointed out the advantages of a goal-oriented approach for measurement of quality of medical care:

> For the physician and the patient, quality of medical care can be defined as that care that has the capacity to achieve the goals of both the physician and the patient.[24]

A goal-oriented approach would probably result in a much closer physician-patient relationship. In dealing with information concerning personal strengths, needs, and expectations, physicians would be forced to respect patients as individual human beings. The discussion of personal values and beliefs would require a level of intimacy that can be more easily avoided in an applied science model. In fact, we contend that the problem-oriented approach is one way that physicians (healers) have been able to successfully distance themselves from patients (the sick ones). This defense against emotional attachment with its attendant risk of increased anguish would probably have to be dealt with in other ways (perhaps physician support groups) if a goal-oriented approach were to be adopted. The process of goal setting would also bring into brighter focus situations in which the differences between physician and patient are great enough that the relationship should be dissolved.

## Conclusion

An extremely important issue at a sociopolitical level is the need for societal health care goals that may at times conflict with the goals of individuals. It is our belief that a process of goal setting should be followed at each level, but that individual physicians working with individual patients should not be concerned with societal goals except to the extent that their decisions are limited by ethics or law. For example, physicians and their patients should base decisions regarding the use of expensive technology on the applicability of that technology to the achievement of the goals which they have set, not on the perceived cost to society. The sociopolitical system, on the other hand, must look at its available resources and compose guidelines for their equitable distribution, which may then limit the options available to individual physicians and their patients.

The goal-oriented health care model which we have attempted to describe incorporates a broad and flexible definition of health, individual goals and strategies, greater involvement of patients in their own health care, a stronger physician-patient relationship, and potentially increased interdisciplinary teamwork within the health care system. It is as applicable to chronic illness and disability, terminal illness, preventive medicine, and health education as to acute disease. While it might appear to increase the burdens of already overburdened physicians, in fact it might very well do the opposite.

The process of goal setting should make it possible to more clearly define the appropriate roles of physician, patient, and other members of the health care team. Physicians would then be able to concentrate on those activities for which they have been trained, such as the diagnosis and pharmacologic treatment of disease, while counting on other members of the team to contribute in other equally important ways.

It is our contention that primary care physicians should be major participants in the goal-setting process. This will, as stated previously, require that they receive specific training not currently offered in most medical schools and residency programs.

Acknowledgements

The authors wish to thank Howard F. Stein, PhD, Jeffrey Steinbauer, MD, and Christian Ramsey, Jr., MD, for their insightful comments regarding content, Laine McCarthy for reviewing the manuscript for readability, and Debbie Isham for its preparation.

References

1. Mold JW, Stein HF. The cascade effect in the clinical care of patients. N Engl J Med 1986; 314:512-4.
2. McWhinney IR. Changing models: the impact of Kuhn's theory on medicine. Fam Pract 1983; 1:3-8.
3. Dubos R. Personal interview. Modern Maturity 1981 Aug-Sept:35.
4. Ingelfinger FJ. Arrogance. N Engl J Med 1980; 303:1507-11.
5. Berger PL, Luckman T. The social construction of reality: a treatise in the sociology of knowledge. New York: Doubleday, 1966.
6. Knowles MS. Self-directed learning: a guide for learners and teachers. New York: Cambridge Books, 1975.
7. Williams ME, Hadler NM. The illness as the focus of geriatric medicine. N Engl J Med 1983; 308:1357-60.
8. Becker PM, Cohen HJ. The functional approach to the care of the elderly: a conceptual framework. J Am Geriatri Soc 1984; 32:923-9.
9. Lipid Research Clinics Program. The Lipid Research Clinics coronary primary prevention trial results: I. Reduction in incidence of coronary heart disease. JAMA 1984; 251:351-64.
10. Frick MH, Elo O, Haapa K, et al. Helsinki Heart Study: primary prevention trial with gemfibrozil in middle-aged men with dyslipidemia. N Engl J Med 1987; 317:1237-45.
11. Isles CG, et al. Plasma cholesterol, coronary heart disease, and cancer in the Renfrew and Paisley survey. Br Med J 1989; 298:920-4.
12. Alexy B. Goal setting and health risk reduction. Nurs Res 1985; 34:283-8.
13. Reuben DB. Learning diagnostic restraint. N Engl J Med 1984; 310:591-3.
14. Haynes RB, Sackett DL, Taylor DW, Gibson ES, Johnson AL. Increased absenteeism from work after detection and labeling of hypertensive patients. N Engl J Med 1978; 299:741-4.
15. Marteau TM, Johnston M, Baum JD, Block S. Goals of treatment in diabetes: a comparison of doctors and parents of children with diabetes. J Behav Med 1987; 10:33-48.
16. Hefferin EA. Health goal setting: patient-nurse collaboration at the Veteran's Administration facilities. Milit Med 1979; 144:814-22.
17. Wanzer SH, et al. The physician's responsibility toward hopelessly ill patients: a second look. N Engl J Med 1989; 320:844-9.
18. Kohn M, Menon G. Life prolongation: views of elderly outpatients and health care professionals. J Am Geriatr Soc 1988; 36:840-4.
19. Benfield DG. Two philosophies of caring. Ohio State Med J 1979; 75:508-11.
20. Pearce JW, LeBow MD, Orchard J. Role of spouse involvement in the behavioral treatment of overweight women. J Consult Clin Psychol 1981; 49:236-44.
21. Hoebel FC. Family-interactional therapy in the management of cardiac-related high-risk behaviors. J Fam Pract 1976; 3:613-8.
22. Rothberg JS. The rehabilitation team: future direction. Arch Phys Med Rehabil 1981; 62:407-10.
23. Wise H, Rubin I, Bechard R. Making health teams work. Am J Dis Child 1974; 127:537-42.
24. Steffen GE. Quality medical care: a definition. JAMA 1988; 260:56-61.