

# Today's Health Problems And Health Education

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**T**HE HEALTH PROBLEMS of greatest significance today are the chronic diseases and accidents—in the home, at work, and on the highway. Large-scale epidemics, their investigation, and their control no longer demand the major attention of public health workers.

The extent of chronic diseases, various disabling conditions, and the economic burden which they impose have been thoroughly documented by the Committee on Interstate and Foreign Commerce of the United States House of Representatives (1). Health education and health educators will be expected to contribute to the reduction of the negative impact of such major health problems as heart disease, cancer, dental disease, mental illness and other neurological disturbances, obesity, accidents, and the adjustments necessary to a productive old age.

The new and unique role of health education in helping to meet these problems can perhaps be clarified through a review of some of the differences between procedures that have been successful in solving the problems of the acute com-

municable diseases and those that are available for coping with today's problems.

## Disease Prevention

The tools for dealing with the health conditions of today are not as specific and precise as those that have been available for the contagious diseases. The medical and sanitary sciences have provided public health workers with specific measures for prevention of these diseases—vaccination, immunization, safe water and milk supplies, sanitary sewage disposal, and insect vector control. When properly utilized, these measures have protected people from the several communicable diseases. But even in situations in which individuals do not avail themselves of these protective measures and contract a given disease, there are antibiotics and other chemotherapy agents that are specific and effective. No such specifics exist for preventing the chronic diseases, the degenerative conditions of old age, or accidents.

Medical science has, however, made possible the prevention of the more serious consequences of many of the chronic diseases. Seegal and his co-workers (2) listed 16 chronic diseases which medicine can now control by early diagnosis and treatment and 35 chronic conditions which are subject to partial control. No specific preventive is available for accidents or obesity other

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than changes in behavioral patterns. For older persons, the only procedures known at present to prevent physical and mental deterioration are adequate attention to their physical and mental health needs and providing them with opportunities for activity and usefulness.

Closely related to the lack of specific and precise methods of dealing with the chronic diseases is the difference in the manner in which these diseases occur. The onset of the chronic conditions is much more insidious than was the onset of the acute conditions such as the contagious diseases, from which the patient became seriously ill in a very short time and either recovered quickly or died. Therefore, the motivation to act with reference to the slowly developing problems of chronic disease is not nearly so great as was the motivation to act in preventing the contagious diseases.

Because the onset of a chronic condition is gradual, education regarding the accompanying physical changes is difficult. Early detection of the disease means that the individual must either take routine examinations or tests when he feels perfectly well, or else he must become skilled in detecting in himself slight deviations in functioning and seek attention before the disease or condition has progressed too far.

### **Obstacles to Health Education**

For many reasons, the task of health education, which is normally difficult enough, is made much more difficult by the lack of specific procedures for preventing today's ills, as well as by the absence of completely effective curative measures. Because control procedures are vague, the actions which health educators try to teach individuals to take to prevent or to cure disease are less well defined than were the actions necessary to control the contagious diseases. The relationship between the desirable actions and the effective control of chronic disease is, by the same token, much less obvious to the public eye.

There are additional difficulties in stimulating appropriate individual action to prevent or control the chronic diseases. A single action, such as being vaccinated or immunized, protects a person for a period of time—often for a long period of time—whereas the actions

which must be taken to prevent further disability from a chronic disease often require a complete change in the pattern of one's daily living. Changing one's diet and changing the kinds and amounts of physical and mental activity permitted require radical readjustment in an individual's life.

Because it is not possible to define adequately the actions persons should take, because these actions do not seem to relate directly to prevention of a condition, and because these actions may require radical changes in life, it is extremely difficult to effect desirable changes in behavior.

Present day health problems differ from those with which public health traditionally has been concerned in the amount of individual understanding necessary to prevent and cure the diseases or to avoid accidents. Avoiding disability and death from these causes depends a great deal more on individual understanding and action than did the prevention of the infectious diseases.

Not every person needs to know about or take specific preventive action to be protected from a communicable disease. For example, if a community through the action of a few of its citizens and its government installs a safe water supply and sanitary sewage disposal, all members of the community will benefit. The immunization of even a few children in a community affords some protection to the others, for each immune child in a population reduces the chance of transmission of the disease. Godfrey (3) in his epidemiological study of diphtheria reported that "in only two instances known to the writer has a community that had attained 30 percent immunization of its under-five age group suffered even a moderate epidemic."

Such community protection is not possible with the chronic diseases or accidents. Each individual is responsible for taking whatever action is necessary if he is to benefit from the various measures which medical science has provided for preventing or controlling today's diseases. Furthermore, not only must the individual take the action, but he must do it at an early stage of the disease, at a time when the findings of medical science will still benefit him. So far as accidents are concerned, however, even

though he tries to avoid hazards and to take all prescribed precautions, he is not always safe unless other people also know what to do and then do it.

### **The Health Educator's Job**

The differences between the methods for prevention of acute and of chronic diseases greatly increase the scope and difficulty of the health educator's job. Each person must be reached with the educational message in a way that will insure his response, or else the efforts of health workers accomplish nothing. It is not enough to produce positive results with a few persons or even with the majority. Even approximating the achievement of such an all-inclusive goal will challenge every resource and all the imagination health educators can muster.

The problems of greatest community health significance today affect adults and older persons much more than did the contagious diseases. To be sure, many children suffer from rheumatic fever, diabetes, and some of the other chronic conditions, but the majority of the persons affected by chronic diseases are adults. As a rule, it is much easier to convince parents to take action for the health of their children than it is to convince them to do anything about their own health. Furthermore, the fact that health education for today's problems must be an attempt to effect change in the behavior of older adults adds to the complexity of the task ahead.

### **Integration of Services**

Coping with today's problems effectively requires much more integration of health and related services than was necessary in making the progress of the past half century, when control of the communicable diseases was primarily a medical problem and when the entire responsibility was often assigned to the public health department. In the more successful health programs, the cooperation of the private physician was enlisted and the educational resources of the community were employed, but public health authorities have usually retained sole responsibility for preventing the spread of disease.

On the other hand, controlling the chronic diseases and solving the problems they bring to

a family require the integrated efforts of many groups. All the medical resources of the community must be tapped—its health department, private physicians, and hospitals—as well as the facilities and services of many other social and welfare agencies if individuals with chronic disease are to be brought back to their maximum functioning capacity. Not only must there be competent medical diagnosis and treatment, but the social, economic, and emotional factors arising out of a long-time illness must be considered.

Home care, rehabilitation, retraining, and opportunity for employment of the handicapped are among the services needed. These are provided by a variety of agencies, all of which have shared responsibilities and must work together if they are to reduce the chronic disease problem. To accomplish the integration of these services in the control of the chronic diseases requires that workers in the various agencies become more efficient in collaborative thinking and in carrying out a cooperative program.

Integration of health and welfare services poses two distinct but equally difficult educational problems. The first of these concerns interagency planning and program operation. How can the working policies and practices of agencies that historically have functioned almost independently be modified to coordinate with other agencies for maximum service without duplication or conflict? Solving this problem means education of not only the executives and workers of the agencies, but also of members of their boards. Furthermore, the emphasis today on clear-cut lines of administration and responsibility, the difficulties involved in joint planning, and the disapproval of joint program operation by specialists in administration make this problem even more difficult. Nevertheless, all who are interested in attacking successfully today's problems must contribute toward finding more effective ways of integrating the necessary skills and services.

The second educational problem which this complex of agency services poses is the likelihood that conflicting advice will be given to the public from the several agencies, and the increased possibility that an individual may become dissatisfied with one or more of the groups

with which he must deal. Such experiences make the task of stimulating continued positive health action on the part of the individual extremely difficult. To the extent that the individual imparts his feelings of dissatisfaction to his associates, they will be resistant to taking the desirable action suggested by the health educator.

In this connection, educators have a special responsibility to sensitize the personnel of health and welfare agencies to the educational effects of the service experience of an individual, and particularly to the potent influence of an unpleasant or unsatisfactory experience.

### **Health Education Content Today**

The preceding discussion of educational difficulties in coping with today's health problems emphasizes the challenge with which health educators are faced. Let us look at a few implications of this challenge for educational content and method, and for the appropriate places to concentrate our effort.

If the challenge is to be met most of the educational efforts must be concentrated upon adults outside the classroom where the problems may arise. It will not suffice to give students in grade school or even in college a body of the latest scientific information and expect them to use the information when they reach the age when chronic diseases are most prevalent. Such an expectation overlooks an important research finding in psychology—we forget rapidly information which is not functional in our daily lives.

But even if people did remember everything they learned in grade school or college, would the latest scientific information of today serve as guides to the behavior of students when they become older? Certainly, everyone would hope not, for, with the dynamic nature of medical research today, there is every indication that many of the tools for dealing with the diseases of today will become much more precise. If the limited information now available were remembered and used by students in later life, it might serve as a deterrent to the real action the students should take. To illustrate this point, here is an exact quotation from one of the textbooks of about 40 years ago (4): "A

life out of doors all day long, summer and winter, has cured many cases [tuberculosis]. It is now considered the only cure for the disease." Certainly no one would want people to act in terms of that information today.

What then should be the educational focus? Rather than concentrating on imparting an organized series of health facts, should the major emphasis not be on developing among students skill in solving health problems when they occur? In every school or college, some health situation is constantly arising in which individuals or groups must take action for their health. All too often, instructors decide upon the action to be taken without giving students the opportunity to gather information regarding the problem, to evaluate it, to develop their own solution, and to put these solutions into operation.

If, however, students have the experience of making the decisions, they will learn how to assemble pertinent facts from a variety of sources—a far more important achievement than that of having acquired an extensive body of knowledge about health. They will also have an opportunity to develop the ability to discriminate between reliable and unreliable information. This latter skill is particularly important at this time, for with the rapid advance of scientific discovery, it is often not easy to distinguish research achievement from the exorbitant claims of quacks or the overzealous desire for publicity on the part of a pseudo-investigator.

One other aspect of the educational content of today's health problems which should be considered is that the action which must be taken to deal with present problems frequently conflicts with some of our traditional value systems. We have been a pioneering people, more concerned with advancing our economic welfare and that of the country than in the health and other hazards encountered in the pioneering effort. As a result, we tend to look with a certain amount of disdain upon the person who is concerned with avoiding danger, or who exercises reasonable caution in avoiding crippling injuries or disabling disease. Could it be that this value system accounts in part for lack of concern about the rules of health, dangerous conditions around the home, or for the tendency

to take unnecessary risks in order to get somewhere in under-record time? Now that we are no longer pioneers in the sense that we do not need to take undue physical risks in order to progress, should we not consider a change in implied approval, if not outright praise, which our culture places on those who disregard the rules for health and safety? If society frowned upon taking unreasonable and unnecessary chances, it might be a real stimulus to positive action for controlling the ravages of chronic diseases and accidents.

Aging presents another type of cultural problem. To provide financial security for individuals as they grow old, fairly rigid retirement systems have been developed. When these systems were being established, they were considered a real social advance in that an individual's support was assured as he reached old age. Coupled with these insurance systems there gradually disappeared the long-cherished cultural pattern of families looking after their older members and fitting them into the family structure.

Consequently, there has arisen a tendency to set older people aside as they retire. They are left without activity and usefulness—literally placed on the shelf. We are now coming to realize that much of what is popularly called senility is really confusion, moodiness, forgetfulness, depression, and irritability brought on by social isolation and lack of mental stimulation—with little or no organic deterioration.

A Norristown, Pa., physician (5) has been successfully treating patients with seeming senility through individual and group psychotherapy, creative crafts, and recreation, because he was convinced that mental decline can be postponed.

It would seem then that our educational task in retarding the physiological and mental deterioration of older persons is to help reorient our cultural patterns with respect to them before and after retirement and to provide these

senior members of our society with educational opportunities for developing some of their latent talents or realizing some of their avocational desires.

### Summary

Almost unbelievable progress in reducing death from the communicable diseases has been made in our lifetime. Health education has had some small part in helping to bring about this achievement.

Today, we are faced with a host of health problems which require individual action if people are to benefit from the findings of scientific investigators. Bringing about that action requires education. The task is made unusually difficult because of the insidious nature of the chronic diseases, the lack of specific remedies that are universally effective, the delayed effect of any action individuals may take, the age-group which must be influenced, the large number of agencies that are involved, and the need for modification of some of our cultural patterns and value systems. This is the challenge to the profession of health education.

### REFERENCES

- (1) U. S. Congress. House of Representatives. Committee on Interstate and Foreign Commerce: Health inquiry on the toll of our major diseases. Their prevention and control. Preliminary report No. 1338. 83d Congress, 2d sess. Washington, D. C., U. S. Government Printing Office, 1954.
- (2) Seegal, D., Cocher, H., Duane, R. B., Jr., and Wertheim, A. B.: Progress in the control of chronic illness. *Hygeia* 27: 48-50, 52 (1949).
- (3) Godfrey, E. S.: Study in the epidemiology of diphtheria in relation to the active immunization of certain age groups. *Am. J. Pub. Health* 22: 237-256 (1932).
- (4) Conn, H. W.: *Physiology and health*. Book 1. Boston, Silver, Burdett & Co., 1916, p. 189.
- (5) Linden, M. E.: *The miracle in building*. Currents, January 1954. Reprinted by Pennsylvania Citizens Association, Philadelphia, Pa.