Old Age and the Quality of Life

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Quality of life is an expression which is difficult to convert into meaningful operational terms. While there may be a degree of consensus regarding some of the particular elements which comprise this entity, it is doubtful that there is unanimity with respect to the quantity of each element required. Economic means, a measure of self-respect, and good health would probably be included in any list of items deemed necessary for a satisfactory quality of life, but there remains some confusion as to which are the independent and which the dependent variables among these elements. Each is not found in uniform quantities at the various junctures along the age continuum. My proposition is that, with the advent of old age in the United States, most elements considered essential for a suitable quality of life decrease substantially.

Profile of the Aged

The elderly in this country represent about 10 percent of the total population, or roughly 20 million persons. Kalish suggests that the typical older person is a widowed white woman; she probably has about 9 years of formal education, is not presently employed in any fashion, lives in the central city, receives most of her income from social security, has at least one chronic health

THE ELDERLY NEED TO KNOW ABOUT AVAILABLE SERVICES AND HOW TO USE THEM—HUD photo

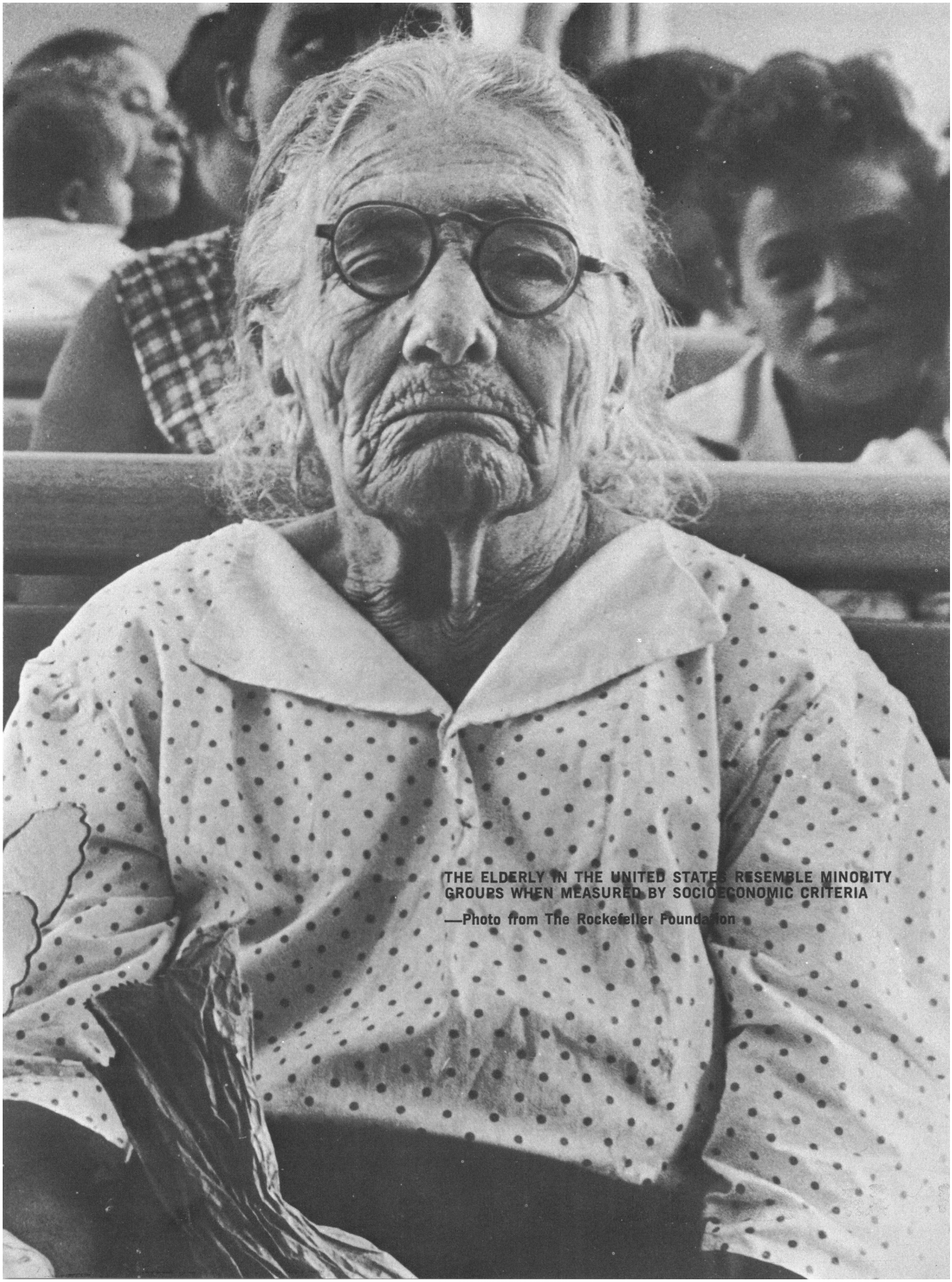
condition that does not limit her mobility, and will live into her eighties (*1*).

The aged resemble minority groups when measured by socioeconomic criteria. Having used U.S. census data and other sources of data to construct similarity indexes, Palmore and Whittington contend that gaps between the aged and the nonaged in the crucial areas of income, employment, and education are steadily and substantially increasing (*2*). Viewed in the context of a report issued in March 1972 by the U.S. Commission on Population Growth, which estimated that there will be 40 million elderly Americans 50 years from now (*3*), these disparities assume even greater significance.

The expressed concerns of the elderly usually revolve around the pivotal issues of income and health. A documentary on the aged televised in the Philadelphia area provided an opportunity for old people to telephone the station and state their concerns while the program was still in progress. The station received 334 calls. The major categories according to content were income maintenance and health and health entitlements (*4*).

Another study, which dealt with the hopes that the aged have for their future, showed that good health far outweighed any other consideration (*5*).

Health care is expensive for the old person on a small income. A report of the Senate's Special Committee on Aging indicated that per capita health expenditures in fiscal year 1971 were $861 for persons 65 and older, but only



THE ELDERLY IN THE UNITED STATES RESEMBLE MINORITY GROUPS WHEN MEASURED BY SOCIOECONOMIC CRITERIA

—Photo from The Rockefeller Foundation

$250 for those under 65. Medicare in fiscal year 1971 covered only 42 percent of the total health payments of the elderly. Health care costs keep going up for all Americans, but for the older person the problem is compounded. He has only about half the income of those under age 65 but, even with Medicare, he pays more than twice as much for health services. He is twice as likely as a young person to have one or more chronic diseases, and much of the care he needs is of the most expensive kind. And while costs go up, services available under Medicare and Medicaid go down—a process which was accelerated considerably in 1971 (*6, 7*).

Perception of the Elderly by Others

Inadequate financial resources account for only one set of problems which beset the elderly. Growing old in America is something which many people view with extreme displeasure. This phenomenon is accompanied by the great emphasis on youthfulness. The nation as a whole spends a good deal more on cosmetics which preserve or contribute to a youthful appearance than it does on its elderly citizens. In a review of 264 jokes about aging, more than half reflected a negative view; those dealing with physical disability or appearance, age concealment, old maids, and mental abilities were most negative (*8*).

When people meet for the first time, physical appearance provides a cue upon which inferences can be made about personal characteristics. Old age is difficult to hide. A slowness in gross motor ability and skin imperfections distinguish the old from others. Many older persons increase their visibility through reliance on crutches, canes, and hearing aids.

Children learn that there are differences between handicapped and nonhandicapped peers and attach varying degrees of social stigma to various handicaps (*9*). It is likely that these negative attitudes are carried into adulthood, since the U.S. culture places a high value on physical beauty and the ability to perform vigorous activities. Assessed in such a framework of values, old age is viewed with repugnance because of its association with a variety of handicaps.

Shifts in Taboo Subjects

Anything pertaining to sex was a taboo subject during earlier periods in American history. Today, sex is a topic for more open discussion and display. The reverse is true for the subject of death. Several decades ago most people experienced the death of an infant or an older relative in the home. Now, many young adults have no idea what it is like to experience the death of someone intimate. An analysis of euphemisms used in this country to describe death suggests that whenever it emerges as a topic of everyday parlance, it is dealt with rather gingerly. The necrology section

of many professional journals exemplifies this by referring to a colleague as one who passed on instead of one who died. "Died" denotes an undesirable finality whereas "passed on" can be interpreted as wishful thinking about some new state of being into which the deceased has moved.

Death has replaced sex as a forbidden topic in modern day culture. Yet, there is an exception with respect to sex in connection with the elderly. The thought that old people participate in as well as enjoy sexual activity often brings nervous smiles to the faces of younger people. Many professionals would probably find it disquieting and possibly even distasteful to deal with elderly clients who have sexual problems.

The idea that old people might remarry or cohabit outside the conventional bonds of marriage seems ludicrous to some people. Proposals to allow elderly men and women to live in communal arrangements or to permit single persons of the opposite sex to share rooms in nursing homes would probably be reacted to with disgust by many.

Social policy serves to enforce such negative attitudes by not allowing old persons to marry or live together without suffering the consequences of losing a portion of their social security benefits. Sexual maladjustment is acceptable in the young, but not the old. One must ask how these attitudes on death and sex affect the health of the elderly and the care which they receive.

Attitudes of Health Professionals

Health professionals probably differ little from the rest of the population in their fears and concerns about growing old. A recent study of medical interns showed that the acutely ill patient was most highly esteemed because he allowed the physician an opportunity to exercise his curative powers. The low rankings of three categories of patients with long-term illnesses may reflect the frustration and anxiety that often result when highly trained and cure-oriented young physicians encounter patients whose pathologies are difficult to manage and treat successfully (*10*). This issue is critical since the old are often among the majority of those labeled as long-term patients.

Another survey of medical students had results which prognosticate little encouragement for the future of geriatrics. Attitudes of first-year medical students toward the aged were compared to those of fourth-year students. The two groups had about the same attitudes insofar as they perceived older people as more emotionally disturbed than young people, as dull, apathetic, socially unpleasant and withdrawn, disagreeable, dissatisfied, and disruptive of social and family welfare. Not only should these observations lead to questions on the value of current teaching in medical sociology, but one must also ask if the usual values in medical practice apply to the aged (*11*). The relation between the negative attitudes just cited

and the care given by other health professionals was the subject of a recent paper (*12*).

Schools and training centers have devoted little attention to programs aimed at preparing health professionals for work with the elderly. For example, the 1969–70 catalogues of medical schools in the United States were reviewed for their content of geriatrics and gerontology. At 51 of the 99 schools existing in January 1970, there was no mention of the subject of aging in the school history, the curriculum deliberations, outlines of courses, staff structure, research, or other content (*13*).

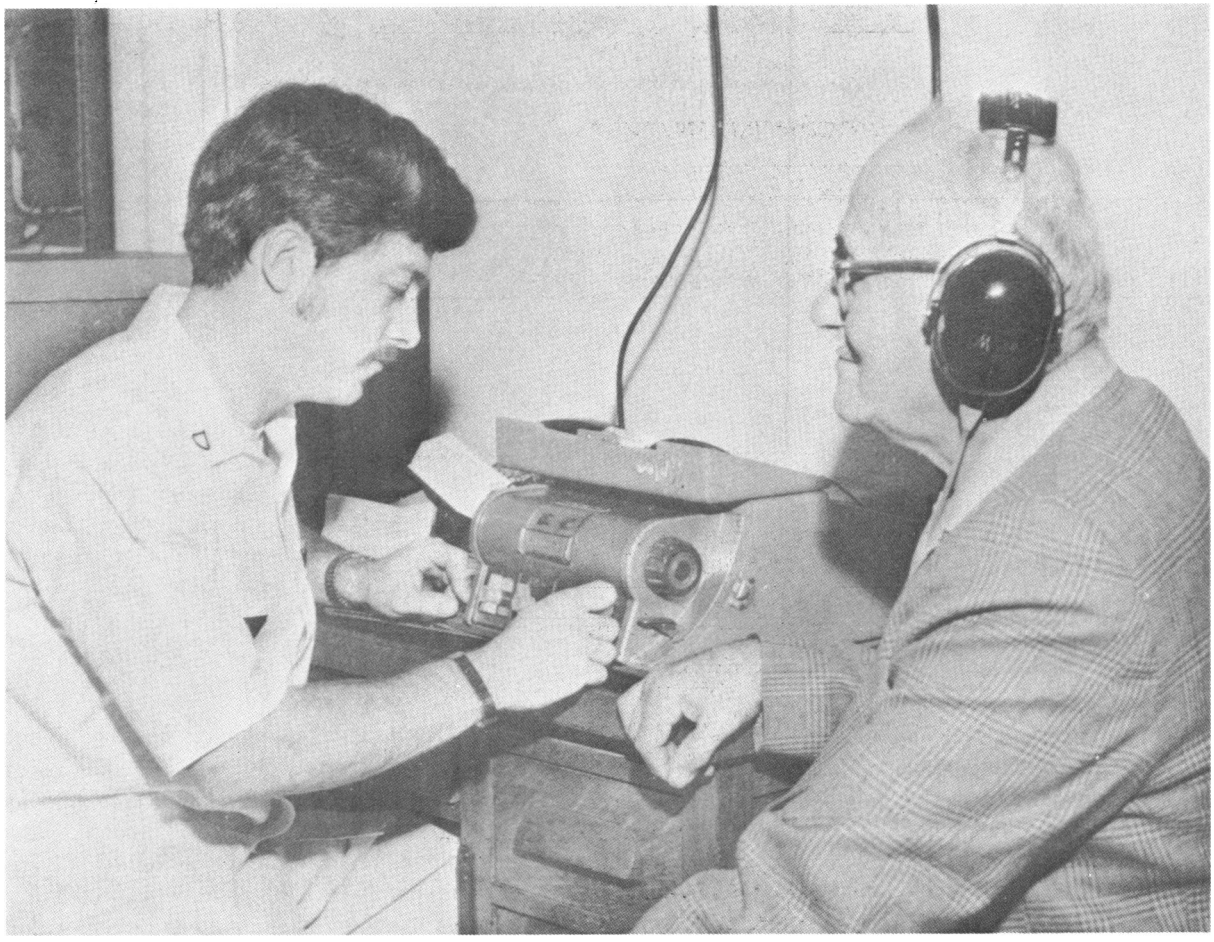
It would be profitable to conduct a similar study of schools of public health to ascertain the extent to which graduates have an understanding of and a sensitivity toward an age group which consumes a substantial portion of the nation's health resources. It appears that those in public health must share an indictment of negligence as reflected in the lack of doctoral dissertations related to problems of aging, according to the results of a study (*14*).

During the period 1934–69, the number of dissertations on aging numbered 667 or 0.25 percent of the total number listed for all scholarly fields. Of the dissertations in the biological, medical, psychological, and social sciences, the 667 on aging were only 0.5 percent of the total in those relevant fields. The health sciences were credited with 29 dissertations during the 35 years. In the discipline of psychology it is likely that more dissertations on child development are produced in a single year than have been produced on aging for that entire period.

Preventive Health Measures

A certain amount of fatalism is often associated with growing old. Those who anticipate decrements in hearing and acuity of vision or experiencing a general deterioration of health are not surprised if these losses occur. Nor is it likely that they will act promptly to correct these problems. This is lamentable since many elderly persons could become more functional if treated. Recently, hundreds of older people took advantage of a free multiphasic health screening program which was offered as part of a cooperative effort between a county health department and a California National Guard unit. The professional and paraprofessional personnel of the 143d Evacuation Hospital donated their services and the use of their equipment to screen elderly persons from the San Antonio Health District in southeast Los Angeles.

For many who attended, this was the first complete physical examination in 25 or 30 years because, they said, they cannot afford an annual routine physical examination, and they do not believe that government insurance provides funds for preventive health checkups. The medical problems uncovered shocked even the profes-



MEMBERS OF THE 143d EVACUATION HOSPITAL DONATED THEIR SERVICES TO SCREEN ELDERLY PERSONS IN THE SAN ANTONIO HEALTH DISTRICT OF LOS ANGELES —Photo from California's Health

sionals, making them more aware of the need for immediate action to provide preventive health services for the often overlooked elderly (*15*).

One aspect of preventive health intervention worthy of increased attention is the strength of the association between illness and the occurrence of critical life incidents such as the loss of a spouse through death or divorce and the subsequent effect this event has on surviving family members. Chester noted that marriage breakdown is attended by a considerable volume of stress for women which manifests itself in medical or quasi-medical terms and that symptoms tend to be concentrated on the periods when separation is imminent or immediate (*16*).

The transition in status resulting from the death of a marriage partner may be even more traumatic in its consequences. The departure of grownup children from the home often increases the bonds of interdependency between older parents. The loss of a spouse may create great social and psychological upheaval for the remaining partner. Krant and Sheldon suggest that this loss may be expressed in physical and mental illness (*17*).

More studies are needed in order to carefully document the relationship between critical life events such as mandatory retirement and death of a spouse and the onset of physical or mental illness. If the association proves to be a strong one, additional efforts will have to be expended in the development of programs designed to modulate the harmful effects of these life incidents. Silverman's report of a widow-to-widow program in which one widow helps another widow to make the necessary adjustments during the

transition to this new state is an example of the type of intervention which may be fruitful in reducing illness (*18*).

Health Problems of the Aged

Other health problems facing old people are more directly related to the observation that the human body is analogous to a machine that wears out and breaks down. Dental health is a case in point. Gordon mentions that tooth loss with its resultant loss of masticatory function can reduce digestive efficiency. The predigestive reduction of food particles is necessary to the proper digestion of food. General health can be more easily maintained with a healthy oral condition. The advantages of oral health in the prevention, early detection, and cure of malignancies and other oral pathoses are beyond measure (*19*).

Unfortunately, too many elderly persons see no utility in having extensive dental work done late in life, and they are thus denied the pleasures of eating particular foods which are nutritious as well as satisfying. Missing teeth may also detract from the quality of speech.

Speech problems pose another handicap which characterizes the elderly, although this problem is amenable to proper intervention. Cooper maintains that geriatric patients are seldom referred for vocal rehabilitation. Those who complain of vocal fatigue or tired voice turn to the use of lozenges as a remedy, but the relief provided in these cases is only temporary. Tired voice can be corrected by vocal rehabilitation within 3 to 6 months, yet physicians seldom refer patients for such treatment (*20*).

Many older persons are confined to a relatively inactive existence because of foot ailments. This loss of mobility also serves to reduce a person's sense of independence. Hsu states that in elderly patients, in contrast to young ones, disabling foot lesions can easily have disastrous results, especially when infection intervenes. The early application of simple therapeutic measures can provide striking relief and stop the rapid downhill course (*21*).

Advancement into the late age brackets is also associated with an increase in accidents. Rodstein proposes that accidents among the aged may be the first manifestation of acute disease or the result of chronic illness. This proposal assumes significance if one considers that, after the onset of acute illness, the decreased sensitivity to pain in the elderly and their lessened febrile response to infection may lead them to continued ambulation, increasing the risk of an accident (*22*).

Many of the aged are subsisting on nutritionally inadequate diets. A recent publication of the Public Health Service mentions indirect factors also pointing to nutritional deficiency among the elderly. As a rule, they have a reduced water intake. They develop a preference for sugars. The decreased appeal of food may be related to a

loss of taste buds and reduced sense of smell. Loss of teeth may also be a factor. Absorption may be impaired by the reduction in the quantity of digestive enzymes and gastric acidity (*23*).

The likelihood that older persons do not eat properly is greater for those who live alone. Even when the dollar can be stretched far enough to purchase wholesome foods, many of the aged lack transportation to the store or they are physically unable to get there. Eating meals at regular intervals is often replaced by a daily regimen of frequent snacks.

Certain social problems which receive national attention also affect the elderly rather severely. Bock writes that people 65 and older continue to commit more than their proportionate share of suicides. Although only 10 percent of the population, they contribute about 25 percent of the reported suicides (*24*).

Drug addiction receives widespread coverage by the news media, but mainly in relation to young people. It has been assumed in the past that the disappearance of persons over the age of 45 from narcotic registers and police records was due either to their having died or abandoned the habit. Yet a study of opiate use among older inhabitants of a major American city shows that the problem is greater than expected, but it differs in pattern from abuse by younger age groups and does not appear amenable to any presently conceived treatment modality (*25*).

Anyone who had ever had to take medicine is aware of the confusion that may arise. The uncertainty can increase if one has to take two medicaments with differing doses and schedules. It is not uncommon to be muddled over whether one should arbitrarily double the next dose because of omitting to take medicine at an originally recommended time. Such problems would seem to be more prevalent among the elderly than in other age groups. Usually, having one or more chronic illnesses necessitates taking various kinds of pills. Inadequate vision and loss of memory could easily lead to improper dosage.

Schwartz and co-workers found that a significant factor in error-making appears to be whether or not the patient lives alone. Potentially serious errors in dosage were made by 42 percent of patients living alone in contrast to 18 percent of those who lived with one or more people. Although some groups of patients were less error prone than others, errors occurred among all categories of patients in the study sample with sufficient frequency to require that the entire elderly, chronically ill population of the clinic be considered at least potentially at risk (*26*).

Over-the-counter sales represent a large volume of the drug business in this country. Worthless products offer the buyer relief from pain, insomnia, that run-down feeling, and other ailments. Medical and other types of mail frauds which bilk aged persons out of millions of dollars

are common. The Arthritis Foundation estimates that more than $300 million are spent annually on useless and misrepresented drugs and treatment by the victims of this one disease alone. By their nature, medical frauds probably affect the elderly more than any other segment of our populace (*27*).

Suggested New Approaches

Several problems which affect the elderly have been highlighted in this paper. Obviously, not all of them can be remedied solely through the efforts of health professionals. Deficiencies in housing and income maintenance, for example, must be approached from a much wider perspective. Denial of old age and the glorification of youth are prevalent in American society, thereby making it most unlikely that health workers will do much to change the situation until they first change their own appraisal of these matters.

Many of the problems, however, can be encountered using an educational approach. Just as recent attempts have been made to make social services more responsive to the needs of minority groups, similar efforts must be made on behalf of the aged. While it is unlikely that old people will be recruited into schools and professional health training programs to be prepared for careers working among their brethren, as has been the case with various ethnic or racial groups, those now at these training centers should be brought to realize that important differences may exist between them and those whom they will serve.

Senior citizen centers have been built around the country. Their existence provides soothing assurance to those who might feel troubled about the neglect of the elderly by other members of society. However, Tissue discovered that the wide array of activities at such a center has a central theme which, by and large, represents a continuation of middle-aged, middle-class recreational styles. Not only do the activities of the center seem ill suited for the working class, but the whole concept of a nonlocal, broad-based, regional social facility appears inappropriate for persons accustomed to local rather than cosmopolitan social patterns (*28*).

Indeed, Londoner's analysis challenges the notion that older adults need only recreational and leisure programs. The challenge of old age is the challenge of learning new ways of living. Educational programs must be developed to help older adults acquire new competencies, enabling them to meet the new demands that emerge with the narrowing of their physical and social environments (*29*).

Middle-class, well-educated, young and middle-age professionals should recognize that their perceptions and values may be quite different from those of the elderly. If staffs of programs fail to take these differences into account, it is un-

OLDER ADULTS NEED MORE THAN LEISURE AND RECREATIONAL PROGRAMS. THE CHALLENGE OF OLD AGE IS THE CHALLENGE OF LEARNING NEW WAYS OF LIVING. —HUD photo

likely that their goals will be fully achieved. The notion that old bodies are beyond repair needs to be dispelled at both the level of the provider of health care and at the level of the elderly themselves. Health departments must be more imaginative in seeing to it that their services reach those most in need of them. The example mentioned previously, teaming up with the National Guard, is an inventive way in which a health department can conduct multiphasic screening.

Since many old people are not healthy enough to go to clinics or cannot do so because of an inadequate public transit system, health departments should ponder the feasibility of sending mobile units around the city with staff to conduct dental, hearing, vision, and foot examinations as well as to perform simple corrective procedures.

It is somewhat ironic that older homeowners pay a large share of their limited incomes for property taxes, a great part of which has traditionally gone toward the support of local school systems. Regrettably, many older couples spend most of a lifetime meeting mortgage payments in order to own their homes but are later compelled to relinquish them because their retirement income is not sufficient to pay taxes. School resources, which they have paid for all their adult lives, could be used to aid the elderly. School buses, which are unused many hours a day, could transport them to health facilities for care and bring them to school cafeterias for at least one nutritious meal a day.

At schools and other municipal sites, instruction on health insurance benefits, home care programs, and other health related matters could be offered to the elderly. To bring about such programs of instruction, public health workers need to forsake their traditional avoidance of the political arena and communicate with politicians. Voters who are shown how tax dollars can thus aid the elderly could be rallied to apply additional pressure. Elected officials are usually receptive to ideas which add to the public image that they are satisfactorily performing their obligations.

School health educators and local health officials could investigate the possibility of capitalizing upon the tremendous energy and social concerns of today's youth. Young people who have access to cars could drive old people to treatment facilities. Invoking the compassion of youth might also lead them to offer rides to old people as some measure of relief from their drab existence of being confined to a small dwelling.

Youngsters without cars could help by shopping for old persons who are not ambulatory, and they could also deliver prescriptions.

Paradoxically, the young are enchanted with the artifacts of previous generations, but not with the people who represent these generations. It is intriguing to observe the young paying generous sums of money to buy outdated clothing and flocking to old movies, but avoiding the very people who patented these nostalgic life styles. Old persons could provide first-hand accounts of their impressions of what it was like to emigrate to a new land and live through two World Wars and the great depression, yet seldom are they asked to do so. The schools could play a dynamic role in establishing linkages between generations as well as endeavor to prepare the young for their inevitable passage to old age. School health instruction may also act as a focal point for dealing with negative stereotypes which apply to the old and the infirm of all ages.

The elderly themselves need to be educated about the necessity of taking adequate preventive action to preserve their health. Suchman found that one problem in educating the public to behave rationally in the face of symptoms relates to the individual person's natural tendency to under-emphasize symptoms which are neither severe nor incapacitating. Since many chronic diseases do not have serious and incapacitating initial symptoms, it is difficult to induce the public to seek early medical care (*30*). Another study of related interest showed that the most common perception of health among a group of the aged was in terms of activity. Health was important only as it became poor health and interfered with daily activity and maintenance of independence. This perception makes for difficulty in motivating people to seek medical care for the many ailments that are not severely handicapping and makes even more difficult attempts to make preventive services meaningful (*31*).

Merely reaching the old person can pose a difficulty because many of them live such isolated lives. Despite the great achievements often credited to the use of mass media, Booth and Babchuk discovered that mass media appeared to be wholly inconsequential in selecting health services. When the counsel of others was sought for the selection of health services and personnel, the middle-aged and elderly usually consulted only one other person. Only under emergency conditions was the advisor likely to be a physician or someone associated with the field of medicine. The most isolated in our society, the aged and the poor, have the greatest need for nurturance and information in connection with health care decisions, but are the least likely to have the advantages of such counsel (*32*).

One way of making certain that preventive health messages reach the elderly is by issuing them face to face in a medical care setting like the hospital. Health educators could do this directly or in conjunction with hospital staff. It might well be a function of health educators and would, of course, depend on the willingness of other health personnel to engage in such tasks. Social workers in a health care setting might fit appropriately into such a cooperative venture. Another alternative would be to have old persons brought together in some arrangement similar to the suggestion made previously of using school facilities. Advancement to old age is invariably accompanied by an increase in hospitalization. Health education efforts could be expended along several avenues in such a setting.

Patients with dental and voice problems could be informed of the possibility that their conditions are treatable. Those who might feel self-conscious or embarrassed about applying for this sort of treatment may need strong support. The same feeling would pertain to the perceived reduction in personal attractiveness which results from the use of prosthetic devices. Inquiries could be made about knowledge of foot hygiene and instruction subsequently given, since failure to take proper care of the feet might lead to premature immobilization.

Older patients, especially those who live alone, could be asked to describe their eating habits, the types of food they eat, and over-the-counter pharmaceuticals they purchase. They could be assisted in formulating a diet appropriate to their income and warned against spending precious money on products backed by false advertising.

The older person could be instructed concerning susceptibility to accidents and advised of actions they can take to reduce the probability that these misfortunes will occur. Something as insignificant as securely fastening a loose rug to the floor can reduce the hazard of a serious fall, to cite one example.

The proliferation of services and the various qualifications for receiving them can be confusing to persons of all ages. The elderly need to know

what services are available and, more importantly, how to use them properly. They need information about Medicare, Medicaid, and other public entitlements such as homemaker and visiting nursing services. Health educators can demonstrate their resourcefulness in getting this important information across to the aged in a clear and concise manner.

Conclusion

This paper has posited that good health is integral to any definition of the quality of life. The elderly can experience a higher quality of life if they are financially solvent, are shown more respect by other age groups, and are in better health. The quality of life of old people woud be enhanced immeasurably if their needs received increased attention by those in the health professions.

REFERENCES

(1) Kalish, R. A.: Of social values and the dying: A defense of disengagement. Fam Coordinator 21: 81–94, January 1972.

(2) Palmore, E., and Whittington, F.: Trends in the relative status of the aged. Social Forces 50: 84–91, September 1971.

(3) Population and the American future. The report of the Commission on Population Growth and the American Future. U.S. Government Printing Office, Washington, D.C., March 1972.

(4) Brody, E. M., and Brody, S. J.: A ninety-minute inquiry: The expressed needs of the elderly. Gerontologist 10: 99–106, summer 1970.

(5) Gubrium, J. F.: Self-conceptions of mental health among the aged. Mental Hyg 55: 398–403, July 1971.

(6) U.S. Senate: Developments in aging: 1971 and January–March 1972. A report of the Special Committee on Aging. Report No. 92-784. U.S. Government Printing Office, Washington, D.C., May 5, 1972, pp. 23, 24.

(7) Hey, R. P.: The challenge of age. Christian Science Monitor 63: 12, Nov. 15, 1971.

(8) Palmore, E.: Attitudes toward aging as shown by humor. Gerontologist 11: 181–186, pt. I, autumn 1971.

(9) Richardson, S. A.: Handicap, appearance, and stigma. Soc Sci Med 5: 621–628, December 1971.

(10) Reynolds, R. E., and Bice, T. W.: Attitudes of medical interns toward patients and health professionals. J Health Soc Behav 12: 307–311, December 1971.

(11) Leake, C. D.: Editorials. Geriatrics 24: 57–60, July 1969.

(12) Elwood, T. W.: The relationship of health education to gerontology. Int J Health Educ 15: 177–193, July–September 1972.

(13) Freeman, J. T.: A survey of geriatric education: catalogues of United States medical schools. J Am Geriatr Soc 19: 746–762, September 1971.

(14) Moore, J. L., and Birren, J. E.: Doctoral training in gerontology: an analysis of dissertations on problems of aging in institutions of higher learning in the United States, 1934–1969. J Gerontol 26: 249–257, April 1971.

(15) Pacino, F. G.: For low income citizens—the first health exam in 25 years. Calif Health 29: 12, 13, May 1972.

(16) Chester, R.: Health and marriage breakdown: experience of a sample of divorced women. Br J Prev Soc Med 25: 231–235, November 1971.

(17) Krant, M. J., and Sheldon, A.: The dying patient —medicine's responsibility. J Thanatology 1: 1–24, January–February 1971.

(18) Silverman, P. R.: Widowhood and preventive intervention. Fam Coordinator 21: 95–102, January 1972.

(19) Gordon, R. H.: Meeting dental health needs of the aged. Am J Public Health 62: 385–388, March 1972.

(20) Cooper, M.: Voice problems of the geriatric patient. Geriatrics 25: 107–110, June 1970.

(21) Hsu, J. D.: Foot problems in the elderly patient. J Am Geriatr Soc 19: 880–886, October 1971.

(22) Geriscope. Geriatrics 24: 34–38, September 1969.

(23) Working with older people: the practitioner and the elderly. PHS Publication No. 1459. U.S. Government Printing Office, Washington, D.C., March 1969, vol. 1, p. 20.

(24) Bock, E. W.: Aging and suicide: the significance of marital, kinship, and alternative relations. Fam Coordinator 21: 71–79, January 1972.

(25) Capel, W. C., Goldsmith, B. M., Waddell, K. J., and Stewart, G. T.: The aging narcotic addict: an increasing problem for the next decades. J Gerontol 27: 102–106, January 1972.

(26) Schwartz, D., Wang, M., Zeitz, L., and Goss, M. E. W.: Medication errors made by elderly, chronically ill patients. Am J Public Health 52: 2018–2029, December 1962.

(27) Spectrum. Geriatrics 24: 56, 61, June 1969.

(28) Tissue, T.: Social class and the senior citizen center. Gerontologist 11: 196–200, pt. I, autumn 1971.

(29) Londoner, C. A.: Survival needs of the aged: implications for program planning. Aging Hum Develop 2: 113–117, May 1971.

(30) Suchman, E. A.: Stages of illness and medical care. J Health Hum Behav 6: 114–128, fall 1965.

(31) DiCicco, L., and Apple, D.: Health needs and opinions of older adults. Public Health Rep 73: 479–487, June 1958.

(32) Booth, A., and Babchuk, N.: Seeking health care from new resources. J Health Soc Behav 13: 90–99, March 1972.