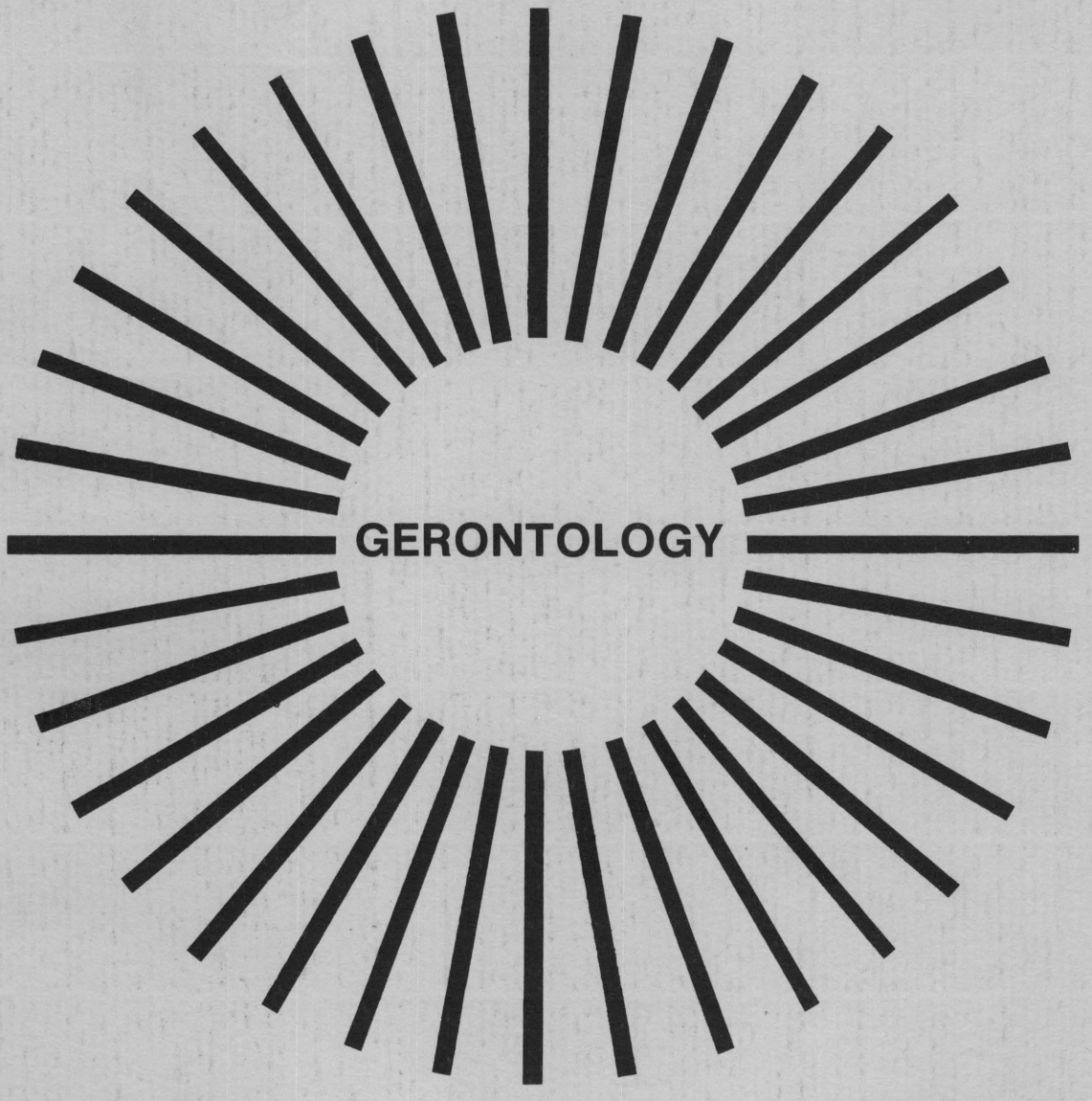

PROCEEDINGS
SEMINAR ON AGING

May 2-4, 1978

Sponsored by

Extension Division
and
Center On Gerontology
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

PROCEEDINGS

ISSUES AND CONCERNS IN GERONTOLOGY

Edited by
Ethel L. Grubbs
Extension Specialist, Family Resources
Virginia Polytechnic Institute and State University

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Blacksburg, Virginia

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. W. R. Van Dresser, Dean, Extension Division, Cooperative Extension Service, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

ISSUES AND CONCERNS IN GERONTOLOGY

Participants in this seminar on aging represented a variety of agencies, institutions, and organizations. The seminar was designed to provide these participants (professionals and paraprofessionals) an opportunity to broaden their understanding of gerontology and some of the issues and concerns in gerontology as well as to exchange ideas, and gain insight and techniques useful in working with older people.

A Continuing Education Unit (CEU) Certificate was awarded to participants attending the complete seminar.

The planning committee for this seminar, the university committee for the establishment of the VPI & SU Center of Gerontology, made use of the evaluation remarks of the 1977 seminar in developing the 1978 Seminar on Aging. This committee included the following VPI & SU faculty members:

Dr. S. J. Ritchey, Chairman of planning committee and committee for Center of Gerontology, College of Home Economics

Dr. George Hughston, Management, Housing, and Family Development, College of Home Economics

Dr. Martita Lopez, Psychology, College of Arts and Sciences

Dr. Larry Mullins, Sociology, College of Arts and Sciences

Miss Ethel L. Grubbs, Family Resources, Extension, Coordinator

It is anticipated that this proceedings will be a useful reference by the seminar participants and others as they are involved with older people.

Ethel L. Grubbs
Extension Specialist, Family Resources
Coordinator

July, 1978

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WELCOME

Dr. William E. Lavery
President
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Ladies and gentlemen, indeed it is a pleasure to have this distinct opportunity to welcome you to this Seminar on Aging. As Dr. Ritchey was telling that story I was trying to think to myself, what can I come up with if it's the wrong type of story. And all that I can respond to is one that my staff has heard me tell many times about the village idiot. And at times in this community, in this particular community, they do refer to the University president as that. But this story is about a village idiot, who in another community, who was wandering down the street and one day he ventured into the Blacksmith's shop. The blacksmith was in there hammering out a horseshoe. As it got quite hot he threw it into the sand to cool and sure enough the village idiot reached down and picked it up, threw it down right quick and the blacksmith said to him, "what's the matter, is that hot?" and the village idiot replied, "heck no, it just don't take me long to look at a horseshoe."

I won't take long bringing you greetings on behalf of the university but most particularly to extend you and add to Dr. Ritchey's welcome, a very warm welcome back to your land-grant university.

We are pleased to have you on campus. You are indeed a distinguished group of people, professionals and paraprofessionals and so many of you in so many areas of work that are so important in this area of aging, gerontology. At this university we are very much commited, and I want each and everyone of you to know and understand that commitment. I think that you understand that commitment. I think that you understand the Extension Division's commitment. The Center on Gerontology is ano-

ther indication of this university's strong commitment to this most important area. As I have looked over the program, your topics are certainly timely and I can't over emphasize the importance. I might just mention that as a land-grant university, as a State institution, in this Commonwealth, this university, of course, has a three-fold mission, and indeed that does make us somewhat unique, because in a fact we are almost forced to put equal emphasis on these three missions. First of all, of course, is the mission of instruction here on campus, instructional programs for our students who are here during the regular academic session. Incidently, this year there is close to 20,000 students. We are very proud of our student body. I was just talking with Mrs. Maddox about how we are optimistic about the future as we look at these young people. The spirit of enthusiasm, optimism, concern for fellow man, concern for economic, social, cultural, political concerns and systems in the world makes us very proud and very optimistic about the future as we look at our young people today. So we have that all important responsibility of the instructional program for our young people. Combined with that is a very important mission, that of research in both basic and applied research. As an institution of this nature, it's our responsibility to stay on the cutting edge of all those areas for which we are responsible. The third area, of course, is that of Extension or Continuing Education. We are so pleased to be able to sponsor a program such as this, as part of our Extension and continuing education mission of this university. This facility that we are in now, the Continuing Education Center, is a very important part of that third mission, that mission of Extension or continuing education. So we take great pride in being able to provide the kinds of extension and continuing education programs that make this type of university unique. Yet, we feel very strongly that commitment

and that responsibility. I hope that you will get to know this university. While you're here on the campus I hope you have an opportunity to get around and observe the facilities that are here, the resources that are here at your disposal. This university is here to serve the citizens of the Commonwealth and those individuals who are also in that same service. Let us know if there is anything that we can do to make your stay more enjoyable and more productive. Do enjoy your program here. You have a very exciting program in front of you now, not only this evening, but for the next two days. We wish you well. I'll look forward to meeting with you on occasion during the next two days. Thank you very much.

OUR FUTURE SELVES
KEY ISSUES AND CONCERNS IN GERONTOLOGY

George L. Maddox, Ph.D.
Center for the Study of Aging and Human Development
Duke University
Durham, North Carolina

In 1976 the United States proudly announced its age and celebrated the 200th anniversary of a successful revolution. Less obvious and less noted were three other revolutions: 1) a demographic revolution characterized by a dramatic change in the age structure of our population; 2) a related challenge to the existing social arrangements for meeting personal and social needs; and 3) an emerging revolution in individual and public imagery of what late life is and can be.

A Demographic Revolution

The demographic facts are clear.

. The proportion of older people (i.e., conventionally, those 65 and over) have doubled in this century and will increase from the current 10 percent to perhaps 17 percent early in the next century.

. One third of the 23 million older population is "very old" (i.e., over age 75).

. If we add to the conventionally old and very old populations, the "young old" (i.e., those between the age of 55 and 64), the older population of the nation essentially doubles--46 million persons and 20 percent of the total.

The news media have received the message and are dramatizing "the graying of America" regularly.

A Revolutionary Challenge to Social Institutions

An older population is at increased risk for illness, impairment, poverty, and social isolation. While most older persons are not accu-

rately characterized in such negative terms, the fact is that demand for social services increases with age. The health costs of persons 65 and over are, for example, three times higher than the heatlh costs of adult generally. The important points to keep in mind are that 1) the requirements for health and social services change with age; 2) the age composition of our population is shifting dramatically toward the upper range of age; and 3) a challenge to existing social arrangements for meeting our national wants and needs inevitably follows. For instance, the news media also understand challenges like the following which are current as the morning newspaper:

Income maintenance--The architects of Social Security built a politically and economically viable system which has served us well. They never intended for social security to provide for all the economic needs of the retired, widowed and disabled. Nor could they have anticipated the full implications of the demographic revolution, the high rate of survival of the "very old," an economy characterized by inflation and unemployment, and the popularity of <u>early</u> retirement. The evidence is now clear. Adequate secured income in late life is going to cost us a great deal more than we anticipated in the years ahead.

Health care--Modern high technology medicine concentrated in medical center hospitals has performed miracles. As one might expect, miracles have a very high price tag. At the same time, preventive care primary care, and community based care have languished. Long term institutional care has earned a reputation for high cost and variable quality. Professional schools, particularly medical schools, have done little to teach students about, much less to motivate them toward, geriatric care. The continuing neglect of gerontological and geriatric training in professional schools is remarkable in light of the inevitable

change in the pattern of demand for health care implied by the demographic revolution.

Transportation--The love affair between Americans and their private automobiles continues in spite of escalating cost and the growing awareness of decreasing resources for energy. This love affair has permitted and encouraged suburbanization and the related separation of individuals from their places of work and the sources of services. We centralize services and assume that persons, however remote, will get to them. Anyway, getting there is an individual, not a public, responsibility. So much for public transportation. And never mind whether some individuals do not have or cannot use private transportation--the poor, the impaired, the elderly, for example. It is not surprising that when older people are asked to specify special areas of want or need, they place transportation high on the list. Our nation is already acutely aware that getting people in rural areas and services together is a difficult and unsolved problem. We are only a few years away from the realization that "the suburban problem" will be added to "the rural problem." There are many impaired older persons without private transportation in our suburbs but health and social services are not there.

Education--For years we have proudly given "terminal degrees" to adolescents and young adults. Institutions of higher education have looked with suspicion, occasionally contempt, at adult and continuing education. Learning as a lifetime affair? Incredible. How convenient it has been to assume that older persons neither want nor are capable of continued learning. How convenient it has been to assume that a professional diploma frees one from the need of continuing education. This nation is beginning to have second thoughts about giving anyone a terminal degree and none too soon.

In sum, the news media are beginning to get the message and to spread it and the demographic revolution has social consequences. Doing business as usual is going to be harder and harder to defend.

An Emerging Revolution of Imagery and Expectations

The less obvious but potentially most important revolution to be considered is a revolution in our thinking about late life, what is it and what it might be. Science has contributed to this revolution in important ways. At the Duke Center, for example, our longitudinal studies have documented about 30,000 years in the lives of middle aged and older individuals with relatively normal, satisfying and satisfactory lives in one or another community. Our research has pioneered a new realistic image of what it means to grow older. This image stresses:

Variety--People do not become more alike as they age. Older people, like any other age category, have different style, different values, different needs, and different wants. It is demeaning and inaccurate to talk about the elderly as though when we have seen one, we have seen them all.

Continuity--Late life presents challenges but not many surprises. Middle aged individuals who do not cope with challenges well, do not like their work, are threatened by illness or death, and do not like their children tend to turn out to be older people who do not cope well, do not like retirement, are threatened by illness or death, and have unsatisfying relationships with children. The fact is that most older people manage the crisis of life transitions very well. Such crisis include retirement, death of spouse, illness, and the departure of children from the home.

Unused potential--Most individuals do not live up to their physical, intellectual or moral potential on a day to day basis. In heroic moments, most of us manage to demonstrate reserves of energy and resourcefulness we hoped and perhaps suspected we had. Research at Duke, for

instance, has demonstrated that, in the absence of serious illness, intellectual capacity measured in adulthood is maintained well into late life. Any physical capacity can be improved by appropriate training at any age. The comedian Flip Wilson tells it as it is: What you see is what you get! That is unfortunate if what you see is limited potential and fortunate if you see late life as it really is--a time characterized by unused potential.

Environmental Opportunity--Everyone knows that children and young people have to have opportunities to grow and to exercise their potential. Does everyone know that this is true of older people? Apparently not, but it is equally true. What we see in the behavior of older people is probably as much - or more - a commentary on those of us who are responsible for environmental opportunities than a commentary on older people. Disengaged, uninvolved older people are found in communities which provide limited opportunities for older people in which to be engaged and involved. Is anyone surprised by that?

The revolution in consciousness of older people about themselves parallels the revolution in scientific thought about late life. More and more individuals are arriving at old age with a reasonable secure income, adequate health, adequate education, a record of political participation and the expectation of remaining socially active, and of being taken seriously. The fact is that older people on average, are more politically active than individuals in their twenties, a fact which suggests that the wants and perceived needs of older people will have learned an important lesson about political effectiveness in a society which operates on the principle of "interest group liberalism" . . . Organize. While this country has not yet developed a "politics of age," the potential for political confrontation over age-related issues is considerable.

The new consciousness of age and the new and realistically positive view of late life reflected in science and in the behavior of older people

reflects a general public and political awareness of late life. All of us are beginning to receive the important message suggested by the cartoon character Pogo years ago: "We have met the enemy and he is us."

Older people are not problems. They have problems. Some of those problems are created by us in the attitudes we have as professionals and as citizens who make political decisions about how the goods, services, and opportunities of communities will be distributed. Moreover, the problems of older people are our problems just a few years from now unless institutional change is achieved. Their problems of income, health care, transportation, and learning are now our problems.

That's why in the lives of those who are currently old, we see our future selves.

Realistic Optimism about the Future of Aging

The genius of this nation, in my estimation, lies in the wedding of a fundamental sense of fairness, a commitment to pragmatic solutions to problems, and a deep faith that we can make rather than simply endure history. There are many signs that there is a realistic basis for optimism about the future of aging in this country.

Government is responding at many levels and in some useful ways. The nation has based three White House Conferenees on Aging. There is a National Institute on Aging, a Center for the Study of the Mental Health of the Elderly, an Older Americans Act, a Federal Council on Aging, a Counselor to the President on Aging, Medicare and Medicade, legislative committees, and an elaborate "aging network." These developments are not the solution to problems relating to aging. But they are positive signs of substantial and relevant public response.

Professional organizations are beginning to respond in relevant ways. The Institute of Medicine and the National Academy of Sciences

will shortly issue a report recommending guidelines for medical education in geriatric care. Professional societies are regularly including gerontological and geriatric topics on their programs and offering continuing education opportunities. The Gerontological Society has an active membership of 5,000 and is growing. Regional and state gerontological societies are proliferating. A professional is increasingly less likely, when faced with an older client with a problem to say, "what do you expect at your age?" And if the uninformed professional asks such a question, the probability of a challenge is increasingly likely. Therapeutic optimism is increasingly the rule and such optimism underlies a new and realistic basis for interventions in the interest of maintaining appropriate independence in late life.

Economists have made the options for maintaining an adequate income post-retirement clear. The issue now is not lack of public information but an issue of national intention and will regarding the distribution of well-being throughout the life cycle.

Learning as a lifetime activity is being discovered. The Duke Institute for Learning in Retirement is a new and exciting adventure in learning as exchange in a continuing education program by those who have passion for learning as well as for creative older individuals.

A Question of Values

What is the national intent and will regarding late life? What is the future we want for ourselves? During the national celebration of our aging nation in 1976, I imagined some future archeologist rummaging in the junk heaps the way current archeologists rummage in the junk heaps of Greece, Rome, and Jerusalem for clues about the lifestyle of peoples and nations. I imagined that a future archeologist trying to understand

us might be intrigued by the labels on the bottles we are leaving behind for clues about our values:

NO DEPOSIT - NO RETURN

DISPOSE OF PROPERLY

RETURN FOR REFILL

These labels reflect real differences in attitudes and options involving people as well as things. Do we really intend that people in our affluent society to have the juice sucked out and thrown away? Do we intend simply to dispose of them properly? Or do we intend to make it possible to return and return for refill?

I know what I want for my future self? What about you?

HOW WE HAVE DEHUMANIZED AGING: MAKING OLD AGE A SOCIAL PROBLEM

Greg Arling, Ph.D.
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Virginia Commonwealth University
Richmond, Virginia

Irontically, the modern forms of agism are based less upon hostility than upon sympathy for the old. Our good intentions become misdirected because they are not supported by a basic understanding of the aging process, and we are unwilling to come to terms with the real cause of the problems faced by older people. We have made old age a social problem rather than facing the fact that our society has created many of the problems that we attribute to old age.

No social condition is inherently a social problem. Conditions become social problems through a process of social definition where we identify a set of conditions experienced by a group of individuals, and we apply value judgements making those conditions problematic. The creation of social problems is an ideological process. To avoid making fundamental changes in our social institutions, we locate the source of problems and their solutions in particular groups or indiviudals. The problems are compartmentalized. We thereby deny that they affect us all, and we absolve ourselves of the responsibility for creating them.

With this faulty reasoning, we reduce the old to the status of a problem group, essentially different from the rest of us, and beseiged by that awful condition of old age. Making old age into a social problem allows the young and middle aged to dissociate themselves from such conditions as poverty, disease, and isolation. After all, these conditions have plagued the old throughout history and therefore they must be a natural part of the aging process. We need special programs for the old to combat these aberrations, but we need not make any major changes in our society, because the

problems are supposedly unique to the old and to the extent they can be solved, this must be done in an individualized manner. This convoluted logic is a form of agism possessed by the best educated and the most "enlightened" of us who are sympathetic to the elderly, but who can conveniently avoid responsibility for their problems.

Creating a social problem of old age is most easily accomplished in a society such as our own which worships the innocence and vigor of childhood and youth, and accords its power, privilege and responsibility to the middle-aged. Most of the attributes of old age are socially devalued, so they can very easily be transformed into a constellation of conditions defined as problematic.

Problem creation follows several steps. The first step is to identify objectionable conditions. This is not difficult because we can locate older people who are living in poverty, who have significantly limited mobility or reduced capacity for self-care becuase of major disease, or who are lonely or socially isolated. These conditions exist among the elderly, and especially in the case of chronic diseases, are more common among older people than younger age goups.

However, the presence of problematic conditions is not enough, because to make aging into a social problem, the conditions experienced by some older people must be generalized to the entire older population. Poverty, disease, and isolation must be made synonymous with aging itself. Aging must be identified as the cause of these conditions.

In our society we readily accept the stereotype that significant personal loss is a natural consequence of aging. For example, I frequently ask introductory gerontology students what proportion of people age sixty-five and older live in institutions such as nursing homes or mental health facilities. Despite the fact that only one twentieth of our older popula-

tion resides in these places at any one point in time, students consistently estimate 20% to 25% of the older population, and some guess as high as 50%. I would imagine similar results would be obtained if we asked that question of the general population.

A next essential step in problem creation is to study the older population and identify how they differ from the rest of us. We single out relatively inconsequential physical features, like graying hair, wrinkled skin, diminished physical stature, and so on. But more importantly, we accentuate differences in personality and life-style. We selectively perceive behavior patterns and attribute them to underlying personality defects or unconventional life-styles. For example, opposition to school bond referenda on the part of the older voter is viewed as a symptom of conservatism, rigidity or a self-centered personality, and not as a rational political judgement based upon the fear of increasing property taxes or the realization that the public schools almost exclusively serve younger populations. The high-rise apartment complex for the elderly or the retirement community are viewed as typical of the propensity for self-segregation on the part of older people, while the middle class suburban community of 2.8 children per family, the double car garage and the four bedroom house are perceived as the normal pattern of living--the way we all might live if we had the opportunity.

The final step in creating the social problem is to attribute problematic conditions such as poverty, disease and isolation to the differerences in personality and life style, and the physical changes experienced with aging. Furthermore, the problems confronting older people must be identified as exceptional. There is nothing fundamentally wrong with our society of our social institutions; the difficulty lies with a particular group--older people--who have experienced an irreversible and

natural set of personal losses as a result of getting old.

The exceptionalist view allows us to hide our basic societal problems, those that require a major effort to solve, so that we might project our shortcomings as a nation onto groups and individuals. For example, we all recognize that transportation is a problem for older people. Why? Because older people have a loss of dexterity, they are slow to react, their eyesight and hearing decline, and consequently, many are incapable of driving automobiles. This may be true for some older people, but by relegating the problem to old age, the more fundamental issue of adequate public transportation can be avoided. We can ignore a connection between the transportation problems of older people and the steady erosion of public mass transit, the escalating prices of automobiles and auto insurance, and the congestion and parking difficulties in our cities. By compartmentalizing the problem in the deficiencies of the old, we adopt partial (and largely inadequate) solutions such as special purpose vans and other vehicles which serve only a fraction of the older population. Convenient and inexpensive public transportation such as public buses and trains, or the planning of new housing developments so as to maximize access to services, have not been widely considered as viable options. An overly narrow formulation of the problem leads to a correspondingly narrow solution.

The conception of old age as a social problem is pervasive among health, mental health, and social service practitioners who work with older people. Our professional schools have done little to incorporate gerontological knowledge into their curricula. Consequently, practitioners are generally unable to disentangle the normal process of aging from conditions that arise out of disease or social situations. Their clinical training or field experience is usually restricted to older people who

are physically incapacitated, mentally impaired, or suffer from poverty or isolation. The acute care hospital, the long term care facility, and the mental health institution are the most common places for clinical training. When exposed to the elderly in the community, the practitioner usually encounters older people who are highly dependent upon the welfare system. Coming in contact with older people in these situations will ordinarily reinforce the practitioner's conception of aging as social pathology. Having limited contact with healthy, active, and self-sufficient older people and lacking knowledge of aging as a biological, psychological or social process, the practitioner often becomes disillusioned with the prospect of the older people responding to treatment, and their ability to recover and to lead productive lives.

There is a great deal still to learn about aging. However, we do know from scientific evidence that "normal" aging (in the absence of major disease and with proper social opportunities) does not significantly reduce one's ability to function--either physically, psychologically, or socially. Intellectual abilities decline very little, social skills remain relatively constant, and capabilities for creativity and adaptation in new environments remain essentially the same throughout old age, even to very advanced years. Very few of the problems experienced by older people can be attributed to the natural processes of aging. They are rather the result of disease or social situations which at least theoretically are amendable to intervention and positive change.

The practitioner who is insensitive to older people and who lacks a basic understanding of aging would do better by neglecting the older person than by intervening through ignorance. Even good intentions can result in detrimental consequences. The most pernicious example of this is the way that some practitioners unconsciously teach older people to be

helpless. They project their stereotypes of incompetence onto their clients. Their expectations of poor performance become self-fulfilling when the older client comes to accept the negative stereotypes that have been applied to him. This is particularly common in an institutional setting where a high value placed upon organizational routine may leave older people little opportunity for controlling their own lives. Simple activities such as dressing oneself, setting meal times, and maintaining personal possessions may be discouraged if they conflict with institutional goals.

The conception of aging as a social problem also has its ramifications in the realm of social policy. By locating problems in the individual, we emphasize the goal of changing individuals rather than changing social contexts. We pay scant attention to how we might modify social situations to meet individual needs.

By regarding old age as an aberration, and the problems of aging as exceptional and exclusive to the old, we run the risk of putting the old in conflict with the young. We will have to reorient our thinking about old age as a social problem. If we do not, the exceptionalist view will come to predominate, and every policy issue affecting older people will be regarded as a matter of "them versus us". The backlash against the rise in social security tax has been in part a reflection of the exceptionalist view. An increase in social security benefits is regarded by many as a necessary loss for the employed population who must bear increased taxation. The economic interests of the old are unjustifiably counterposed to interests of the young. The steady aging of the population over the next fifty years will raise similar issues as public services (especially health care) for the old increase in response to demographic changes.

If we are to avoid intergenerational conflict we need only appreciate some simple facts. Growing old is a normal part of the life-cyle.

We have artificially created many of the problems associated with aging and we can undo what harm we have done. With luck we will all grow old some day. Let's transform old age into a period of life we can look forward to and not one to fear and avoid.

SIGNIFICANCE OF EXERCISE IN CORONARY ARTERY DISEASE**

Dr. William G. Herbert
Dr. William A. Webster

Dr. Webster: Coronary Artery Disease is one of the many diseases faced in later years. Problems the elderly face are problems we all face. The United States leads the world in the number of cardio-vascular disease. As we get older and in our most productive years, coronary artery disease takes hold!

Risk factors in coronary heart disease are:

1. heredity
2. abnormal electro-cardiogram, hyper-tension
3. smoking
4. obesity
5. elevated cholesterol and triglycerides

Anyone who smokes one pack of cigarettes a day has 3 to 6 times greater risk of developing heart disease than someone who does not smoke. Anyone with cholesterol value above 275 has also 3 to 6 times greater risk than persons without elevated cholesterol. By combining these two risks one has 6 to 12 times the risk of developing heart disease.

How is exercise a benefit to preventing health disease in the middle age and elderly person - and what items are of significance in an exercise program?

frequency - 3 to 5 times per week

duration - 20 - 40 minutes minimal

intensity - based on the target heart rate of the individual

continuous - on and on whether in bed or up and about

Exercises must be continuous and rhythmic such as walking, jogging, and arm cranking.

The primary purpose of such an exercise program is to develop cardiovascular fitness (exercise to strengthen heart muscles). Individuals above age 60 who enroll in an exercise program will see positive benefits. A well designed exercise program helps in the following ways: risk factors are modified; heart muscle becomes stronger and more efficient; quantity of life is improved; and quality of life is improved and one says, "I feel better."

Dr. Herbert: Older people suffer to a greater extent from coronary artery disease, not because it is a disease of older people only but it remains silent during earlier years and emerges in the 30's, 40's, or 50's.

Our coronary artery disease program is primarily concerned with an exercise program but involves others, a coronary care nurse, a pharacist, physician, vocational counselor, and nutritionist. Stages of the VPI&SU coronary artery disease program include:

1. education for patients in hospital, low intensity exercise
2. at home - low intensity exercise and walking
3. cardiac rehabilitation - high risk for heart disease, active coronary program
4. cardiac intervention program: open to persons with risk factors but no active coronary disease.

What is a Stress Test? It is an application of graduated work levels on a tread mill which individuals take prior to entering the program as well as at intervals during the program. Pulmonary function is also noted in the stress test as lung function is important in exercise.

There are three phases in each of our programs: warm up phase, increased muscular endurance phase to stimulate heart activity, and the cool down phase. Individuals have enjoyment of participation, exercise and association with others as they are engaged in the program. With the exercise training program individuals are able to accomplish reduction of load

on the heart muscle. Benefits of such a program with older adults as we are involved with: increase one's capacity to do many things and a socialization process takes place.

We find that combinations of intervention with proper diet, exercise, and reduction of overweight are effective in trying to manage high blood cholesterol.

**(This information was taken from a cassette recording of the two slide presentations which included many graphs and charts which could not be appropriately identified as this summary was prepared.)

THE NATIONAL INSTITUTE ON AGING

Michael P. Dieter, Ph.D.
Health Scientist Administrator
Extramural and Collaborative
Research Program
National Institute on Aging
National Institutes of Health
Bethesda, Maryland

By a mandate of Congress in 1974 the National Institute on Aging was established to conduct and support biomedical, social and behavioral research, and training related to the aging processes, diseases, and other special problems and needs of the elderly.

The National Institute on Aging currently occupies two locations--in Building 31 on the NIH Campus at Bethesda, Maryland, and in the Gerontology Research Center at Baltimore, Maryland. The Bethesda location houses the Office of the Director, and the Executive, Administrative, Personnel, Grants Management, Program Planning, and Program Analysis Offices.

The Extramural and Collaborative Research Program and the Epidemiology, Demography and Biometry Program are conducted at Bethesda, while the Intramural Research Program is conducted at Baltimore.

The scope of research inherent in the term "aging processes" complicates the usual divisions of research labor. It has been necessary to address the question of normal aging processes while simultaneously attempting to dissect out the variable of diseases in the elderly. In effect, this has entailed the practices of both preventive and remedial biomedicine. The unique situation has necessarily resulted in the establishment of a large number of priority areas for research to encompass the field of gerontology.

The Extramural and Collaborative Research Programs, in conjunction with the Grants Management and Program Analysis Offices, solicits, advises, directs, coordinates, and supports the outside community in their aging research by mechanisms of grants, projects, and contracts. The Epidemiology, Demography, and Biometry Program provides the NIA with quantitative data derived from population-based research that permits an evaluation of health and disease in the elderly on a national and international scale. The Intramural Research Program conducts both basic and applied research, and in particular is responsible for the Baltimore Longitudinal Study and the conduct of clinical trials with patients at the Gerontology Research Center.

The Extramural and Collaborative Research Program is in the process of identifying four program areas that consist of 1) Basic Aging Program, 2) Molecular and Biochemical Aging Program, 3) Biophysiology and Pathobiology Aging Program and, 4) Behavorial and Social Science Aging Program. Specific contacts for these programs include Dr. Murphy and Dr. Das for (1), Dr. Smith for (2), Dr. Gibson and Dr. Dieter for (3) and Dr. Pickett, Dr. Spieth and Mrs. Bagley for (4). These program areas will address the priorities for aging research as outlined in the summary report of the National Advisory Council on Aging.

Now, I would like to briefly outline the way that grant proposals are processed after submission to the National Institutes of Health. Proposals may, of course, be submitted independently, but investigators oftentimes request consultation from NIH staff to obtain assistance in their preparation. Applications are mailed directly to the Division of Research Grants (DRG), Westwood Building, Bethesda, Maryland 20014, rather than to individual institutes. Specific deadlines for acceptance at DRG are March 1, July 1, and November 1 of each calendar year.

These are now rigidly enforced because of the large numbers of applications being handled. Investigators must send the cover sheet of the proposal to the institute staff prior to DRG submission if they wish assignment of grant to a specific institute. Otherwise, DRG makes institute assignment.

Peer reviews are carried out in a dual fashion by initial review groups (IRG or study sections) and Advisory Councils of individual institutes. Grants are assigned to study sections by DRG according to content. The study section prepares a summary statement (pink sheet), and indicates approval with a priority score, or disapproval. Summary statements are then reviewed by the Advisory Councils of individual institutes. They may either concur with study section, disagree, or defer to obtain further information. Finally, proposals are considered for funding by the institute staff. The final decisions are dependent upon recommendations and actions on relative merit of all proposals presented to the institutes, recommendations by Advisory Council of institutes, and available institute funds. These points are explained in greater detail with pertinent names and addresses in the Federation Proceedings.

There are a number of communications between institute staff and the scientific community designed to encourage areas of research. These may take the form of presentations at national or local meetings, sponsored conferences, or individual seminars. Another important outlet is the request for applications (RFA). Currently, the NIA has RFA's out on Special Initative Awards (R21), Special Research Awards (R23), National Research Service Awards (T32 or F32), Modified Research Career Development Awards (K04), Research in Cellular Aging, Research in Pharmacology, Research in Nutrition, and Research in Diabetes and Related

Problems. These serve to notify the research community of particular research programs and areas the NIA would like to see addressed, and are published in the NIH Guide for Grants and Contracts.

NIA currently maintains contracts to supply cellular and animal resources for investigators with NIA funded grants and projects. Cell lines are available from the NIA-supported "cell bank", located at the Institute for Medical Research, Camden, New Jersey. These consist mainly of human fibroblasts. Aged animals that are currently available include Fischer 344 and Sprague-Dawley rats, and four genetically different mouse strains. These resources are being expanded as time and funds permit.

Extramural research in the biological sciences supported by NIA include genetics, cellular aging, theoretical gerontology, dermatology, immunology, pharmacology, intermediary metabolism, nutrition, endocrinology, neurobiology, pathobiology, animal models, exercise physiology, and thermoregulation. The extramural program also supports studies in the behavioral and social sciences, including those related to the family, to work and retirement, and to social and cultural factors in aging. This program also sponsors research in demography and aging, on the full range of cognition and memory processes in aging, and on adaptive processes in aging.

The longitudinal studies are conducted by the intramural program at the Gerontology Research Center in Baltimore. The establishment of nomograms for declining glucose tolerance with age and impaired creatinine clearance with age represent examples of some of the research accomplishments. Basic laboratory studies in cellular and comparative physiology and molecular aging complement and expand the clinical studies in behavior and physiology.

ADEQUATE HOUSING FOR OLDER PEOPLE **

Dr. H. Lawrence Rice, Ed. D.
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I. General Observations

A. There are no typically elderly people. There is no single answer to the housing needs of older people. Some people are spry and active. They play golf, tennis, or swim. Some want to live in mixed age groups. Some are annoyed by children and want quiet surroundings.

B. Evidently, however, the elderly seek a different life style. They want to see life going on but at their option they want safe and serene surroundings. The key may be freedom of choice.

C. Types of Facilities

1. Hospitals for the aged, mostly in Europe
2. Extended Care Institutions
3. Nursing Homes with extended Care and Intermediate Care
4. Nursing Homes with full coverage excepting surgery
5. Home for Adults for minor infirmaries
6. Residential facilities with some organized services and care
7. Housing for the independent elderly (Age-integrated, age-segregated)
8. Retirement communities

D. Ownership

a. Not-For-Profit (Church sponsored or group sponsored, independently sponsored)
b. Proprietary

E. Why do the elderly wish to move from their homes?

1. Fear and crime
2. Poor conditions of current dwelling
3. Medical conditions
4. Loneliness and isolation
5. Accessibility of services
6. Accessibility of family
7. Forced to move by changing neighborhood
8. Family relationship problems
9. Current dwelling is too costly

II. Programming - Creating a Plan to be Followed

A. Elderly needs and life-style

1. Birth
2. Infancy
3. Childhood
4. Adolescence
5. Courting
6. Parenthood
7. Middle Age
8. Independent Old Age
9. Partially Dependent Old Age
10. Dependent Old Age

There is no set age for any of these, especially from Middle Age on.

B. We should begin with some understanding of what it means to grow older in our society.

1. Aging is universal and normal beginning at birth.
2. To all aging means adaptation to changes in the structure and functions of the human body
3. Changes in the social environment vary
4. The elderly may be the nation's most distressed minority, due to
   a. Loss of income
   b. Loss of children and peers
5. Changing functional roles: worker to non-worker
   a. Our society, unfortunately, refuses to honor the intrinsic value of old age
   b. Psychologically, this has created, for many, a passive, dependent manner
   c. There are negative attitudes toward aging on T.V., radio and news media.

C. Housing for the aging should:

1. Be invested with emotions of family living, independence of spirit, and action,
2. Encompass friendship patterns and dimensions of community life
3. Be an environment in which one can take pride and find the resources needed to mold a meaningful way of life
4. Recognize the diversity of this age group and the variety of ages, capabilities, needs and desires that occur in people over time and with different life styles.

D. Housing is not only a physical understanding, it is a social process.

E. Significant factors in programming for building for elderly.

1. Elderly people are less mobile than younger people. The dwelling unit should be a home, not transient housing.
2. The elderly desire choice in living situations.
3. The elderly desire a sense of autonomy and need an environment which extends and enhances the time span of independent living
4. They require nearly as much floor space as younger people
5. They require activity
6. They do not willingly accept inconvenience and the undesirable
7. We must be careful that loans DO NOT run forty years for elderly housing.

III. Development Size

A. Numbers of persons per building

B. Developmental Density

1. Open space
2. Parking

C. Dwelling unit size

D. High rise versus low rise or one-story construction

E. Amenities

1. Central Food Service
2. Social Service and Referral Services
3. Housekeeping Assistance
4. Laundry
5. Common places for group activities
6. Storage
7. Crafts, study groups, music, beauty shop and barber shop, stores
8. Air-Conditioning
9. Carpeting
10. Carports
11. Refrigerator - Stove

IV. Site selection should provide opportunity for older people to be a part of the community, have autonomy and a sense of independence, have time to participate in community affairs, not be limited by the terrain of the land, not to have to be concerned about physical and psychological security.

Some planning should be given to: zoning, transportation, airports, isolation, pollution, types of neighborhood, stability, and site size.

V. The Aged in Relation to Site Development

A. Age-Loss Continuance

Age	30	40	50	60	70	80	90
Separation of children			x				
Death of peers				x			
Loss of spouse				x			
Motor Output Deterioration					x		
Sensory Loss				x			
Health Problems					x		
Mobility						x	

B. The Age-Loss Continuum has the effect of making the elderly person less certain about the fulfillment of needs. There is an uncertainty of day-to-day living and they cannot "bounce back" as quickly from loss.

C. Design of housing for the elderly must make sense, offer potential for explanation, and permit role choice.

VI. What is Ahead?

A. New ideas must be forthcoming and must be tried in anticipation of changes which will affect the aging population in the years to come.

B. The number of women among the elderly will increase.

C. The cost of operation will increase.

D. The cost of building will be nearly out of reach as well as out of sight.

E. The Middle-Aged must be prepared for retirement

F. Development of housing must be more closely connected with availability of services.

**Dr. Helen L. Wells, Extension Specialist, Housing, Virginia Polytechnic Institute and State University, Blacksburg, Virginia assisted Dr. Rice, in his absence, for the repeat of this workshop.

CONSUMER CONCERNS OF OLDER PEOPLE

E. Hope Frank
Consumer Affairs Specialist
Food and Drug Administration
Richmond, Virginia

and

Thomas P. Reinders, Pharm. D.
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Medical College of Virginia/VCU
Richmond, Virginia

Communicating Drug Information

E. Hope Frank

I. Drugs

A. Introduction

1. Problem areas
2. Objectives
3. FDA responsibilities
4. Legislative background with references

B. Over the Counter Drug Review

1. Overview
2. Special comments on antacids, laxatives, ear products, sedatives, tranquilizers, sleep aids, and painkillers

C. Drug labeling

1. Over the counter
2. Prescription: patient package inserts

D. Generic drugs

E. Drug advertising

F. Household hints

1. Purchasing: Brand vs Generic
2. In-house use and storage
3. Poison prevention

G. Complaints

1. How to report
2. Resources

II. Drugs and Foods

A. Introduction

1. Problem areas
2. Objectives
3. Scope of drug interaction awareness
4. Significance of Drug-Food interactions

B. Mechanisms of Action

1. Alternations in Absorption
   a) Drug effects on Nutrients
   b) Food effects on Drugs

2. Alterations in Metabolism
   a) Drug effects on Nutrients
   b) Food effects on Drugs

3. Food effects on Drug excretion
4. Inhibition or potentiation of pharmacologic response by active substances in food

C. Drug effects on taste and appetite

D. Diet vs Drug: Considerations for special patients

1. Adult onset Diabetes, Mellitus, Insulin Indpendent
2. Constipation
3. Obesity
4. Vitamin Deficiency

E. Drug administration and food ingestion

F. Drug conseling and monitoring of therapy

The Safe and Appropriate Use of Medications

Dr. Thomas Reinders

I. Medication Non-Compliance Awareness

A. Magnitude of problem

B. Why?

II. Improving Medication Compliance

A. Drug Information content for the patient-consumer

1. Name:
   What is the trade and generic name for this medication?
2. Use/Action:
   Why is this medication prescribed?
3. Dosage:
   When should this medication be taken?
4. Preparation:
   What speical preparation is required before taking this medication?
5. Administration:
   How should this medication be taken?
6. Precautions:
   What special instructions should I follow while taking this medication?
7. Side Effects:
   What side effects can this medication cause?
   What should I do about them, if they occur?
8. Self-Monitoring:
   How do I know if the medication is helping?
9. Storage:
   Where should I keep this medication?
10. Interactions:
    Are there any medications or foods I should avoid while taking this medication?
11. Refills:
    What should I do to obtain more of this medication?
12. Missed Doses:
    What should I do if I forget to take a dose?

B. Development of Medication Teaching Programs

III. Guidelines for Medication Use

Your prescription is a very special product, actually it is a medical treatment in product form, made available to your doctor and pharmacist for your health care. The best use of medicines depends on yourself, your physician and your pharmacist. How you participate in this three way effort is most important. The following are suggested guidelines and safeguards for the safe and effective use of your medications:

A. Follow your physicians precise instructions.

There's always a reason, sometimes several, for the physician's orders. It may be important to take a drug only after eating; in other cases, only before eating. The medicine may not work

properly in your system unless you take it as directed.

B. Take the Whole Prescription

Don't stop taking a prescription drug after you begin to feel better unless your physician approves. This is most important. Often anything less than the full course of treatment may prevent the medicine from completely correcting the condition. For example, not taking the prescribed amount of an antibotic allows either the "bug" or your body to become resistant to it. Not enough of the required medicine may be worse than none at all.

C. Discard Unused Medications

Destroy unused portion of medicines remaining from a prescription. If your doctor says you can stop taking a drug before it has all been used, destroy the remaining portion by flushing it down the toilet. Many children have been poisoned by swallowing leftover medications carelessly put aside by adutls.

D. Obey a Physician's Refill Instructions

There are some prescriptions that are not refillable at all. Some can be refilled at the direction of your doctor. The pharmacist must follow his instructions and will tell you if there is a restriction on refilling or how it can be renewed.

E. Never Share Your Medication

Do not share your medication with someone else, and do not take medicine prescribed for another person. Your prescription fits you as precisely as good eyeglasses or bridgework.

It was written for you on the basis of age, weight, sex and physical condition. Never allow someone else to take your medicine, even if his symptons seem to be the same as yours. "Prescribing" for another person can have damaging results. For the same reasons, do not let anyone else "prescribe" for you.

F. Protect Your Medications

Never leave medicines where children can see or reach them. If a child can see a box or bottle, he'll often figure out a way to reach it. A safe, useful medicine for you can be poison to a child. Keep all medicines hidden and out of reach, in a locked cabinet if at all possible. Also, never take medicine in front of small children, they may want to follow your example.

G. Childproof Containers

To prevent childhood poisonings, Federal law now requires childproof lids on all medicines. While these lids are childproof, they also are sometimes adultproof. If you're not sure how to open a container or prefer a non-childproof container, ask your pharmacist for assistance.

H. If You Don't Have A Prescription Refilled

Be sure to tell your physician if you don't have a prescription refilled, or if you don't use the medicine after you obtain it. Otherwise, he might think you are not responding to that particular product. Not taking a medicine ordered could be dangerous because it might allow a condition to get worse while the physician assumes it is being cured or helped. You're also wasting your money if you pay for

a physician's advice and then don't follow it.

I. If You Go to More Than One Physician, Pharmacist, or Dentist

Be sure each one knows all the drugs you are taking. When several medicications are used at the same time as others, an interaction may produce unwanted effects. Also, tell each of the above persons you consult about any bad reaction you have ever had to a drug.

J. Side Effects of Medications

Drugs may cause undesirable or unexpected effects, commonly known as "side effects". This is always the chance an unwanted effect may occur in some people. These effects can be be mild, such as a headache, upset stomach, rash, or drowsiness. They can also be severe, such as bleeding, hearing loss, or a change in eyesight. If you are taking a medication and unexpected or undesirable effects occur, call your physician or pharmacist. Often, your physician can prescribe another medicine that has less chance of side effects for you, but still can help your condition.

K. Non-Prescription (Over-The-Counter) Drugs

These medications are available without your physician's prescription. They can be very effective in the treatment of minor illnesses. Any drug sold without a prescription does not mean it should be taken carelessly. You should always tell your physician or pharmacist of all non-prescription drugs, so they can advise you about their proper and safe use, preventing drug interactions or unwanted side effects. Read the label of all non-prescription drugs carefully, before taking the medication.

L. Choice of Pharmacist

You should carefully choose the pharmacy you will use in advance of illness, just as you choose a physician in advance. There are real advantages in having a personal pharmacist as well as a personal physician. It can be helpful if the pharmacist maintains patient medication records for you and your family. The pharmacist who knows your "pharmaceutical history" is in a better position to assist your physician when called upon.

Resource Contacts Concerning Drugs in Virginia

Food and Drug Administration

FDA
New Federal Office Building
Room 11-004
P. O. Box 10048
Richmond, Virginia 23240

Consumer Affairs (804) 782-2748
Investigators (804) 782-2564

FDA
701 W. Broad Street
Room 309
Falls Church, Virginia 22046

Consumer Affairs (703) 557-3100
Investigators (703) 557-0389

FDA
Bank of Virginia Building
Room 302
870 N. Military Highway
Norfolk, Virginia 23502

Investigators (804) 441-6550

FDA
Richard Poff Federal Building
Room 106
201 Franklin Road, S. W.
Roanoke, Virginia 24077

Investigators (703) 982-6380

Other

Virginia Pharmaceutical Association
3119 W. Clay Street
Richmond, Virginia 23230

(804) 355-7941

Virginia State Board of Medicine
505 Washington Street
Room 200
Portsmouth, Virginia 23704

(804) 393-6001

Virginia State Board of Pharmacy
3600 W. Broad Street
Seaboard Building, Suite 479
Richmond, Virginia 23230

(804) 786-2031

Publications Individuals May Find Useful Concerning Drugs

From: U.S. Department of Health, Education and Welfare
Public Health Service
Federal Drug Administration
5600 Fisher's Lane
Rockville, Maryland 20852

"We Want You To Know About Prescription Drugs" HEW Publication no. (FDA) 74-3011

"We Want You To Know About Medicines Without Prescriptions" HEW Publication No. (FDA) 74-3010

From: U.S. Department of Health, Education and Welfare
Public Health Service, FDA
Office of Public Affairs
Rockville, Maryland 20852

1. "Cancer Quackery: Past and Present" HEW Publication No. (FDA) 77-3039
2. "Health Frauds and Quackery" HEW Publication No. (FDA) 78-1037
3. "Laxatives: What Does Regular Mean" Department of HEW, Publication No. (FDA) 76-3003
4. "Myths of Vitamins" HEW Publication No. (FDA) 77-2047
5. "Now Hear This" HEW Publication No. (FDA) 78-3064
6. "Painkillers: Their Uses and Dangers" HEW Publication No. 78-3060
7. "Selecting Your Own Medicines", HEW Publication No. (FDA) 76-3025
8. "The Common Cold: Relief But No Cure" HEW Publication No. (FDA) 77-3029

COUNSELING OLDER PEOPLE

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Blacksburg, Virginia

and

Dr. James E. Keller
Professor
Management, Housing, Family Development
Virginia Polytechnic Institute and State University
Blacksburg, Virginia

Important demographic changes reveal significant differences within the elderly population. Growing proportions of older persons in the population indicate ever increasing need for extended programs that assist the aged in remaining independent. Sex differences, social class differences and educational differences illustrate need for greater understanding of specific programs designed to meet cohort group needs rather than massive products geared toward service to the mythical "average" old person. Difficulties in meeting cohort needs exist within most federal, state, and local programs. It is an established fact that elderly people find it necessary to deal with many of the same problems that beset other age groups, requiring somewhat similar applied strategies and counseling techniques. Yet, it is also evident that the most effective strategies are those which allow the elderly freedom and independence in determining the consequences of their behavior.

A new strategy for "counseling" the elderly may center around responsibility and consequences for behavior patterns. This seldom used strategy involves the promotion of independence through not doing for the older person what they can do for themselves. A major assumption of this counseling approach is that of encouragment through allowing the elderly to assume

more responsibility for their own lives. Traditional barriers to the use of this technique include age norms, age constraints, and other pressures that exist not only within the family, but also exist throughout society. Methods for encouraging independence among the elderly include: respect and the allocation of responsibility for behavior.

DEVELOPING PROGRAMS WITH SENIOR CITIZENS

Mr. Karl Bren
Chairman, Montgomery County School Board
Blacksburg, Virginia

Developing programs with Senior Citizens that genuinely meet their desires and needs takes much planning and thought as does any worthwhile endeavor. While Senior Citizens are less vocal and demanding than other groups, their various needs are as great as those of any other group in our society. In finding and developing Senior Citizen Programs, the following guidelines have been helpful to me in developing successful Senior Citizen programs over the past five years.

1) Involve Senior Citizens in the planning, development and execution of the programs.

Diversity among older men and women are as great as in other age groups of society. The regional differences are also considerable among older citizens across the country. Therefore, there should be senior citizen contribution at every stage of a program. Involvement can be accomplished through senior citizen staff partcipation, ad-hoc or standing committees of Senior Citizens, or other formal and informal methods. The important point is, however, to involve older people.

There must be involvement of older people at all stages of the program: planning, execution and evaluation. Older people must be a part of any program in which they are involved. If the program is essentially entertainment, the older persons should be more than just spectators. Get them involved in some way.

2) The special needs of Senior Citizens must be taken into account.

While stereotyping of Senior Citizens must be avoided, there are various physical and other limitations which should be taken into account when planning programs with them. Some examples are:

a) Seniors should not be required to stand for long periods of time or walk long distances. Long stairs should also be avoided. Any stairs should have handrails.

b) Rest rooms should be available and near meeting room.

c) Activities should be held in areas which are well lighted, particularly at night, and provide maximum protection from robbery or attack.

d) If meals are to be provided, they should be easy to manage and some thought given to dietary needs.

e) Transportation for the Senior Citizen must be available and dependable.

3) Programs for Senior Citizens must be "happy" events.

Programs for Senior Citizens will be much more successful and meet the special emotional and psychological needs of Senior Citizens if they are "happy" events. Senior Citizen events and programs are most frequently opportunities for older persons to escape from boredom, loneliness and isolation.

Some time was devoted to sharing types of programs in which seminar participants were or had been involved with older people.

LIFE FULFILLMENT IN THE LATER YEARS

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Introduction

In dealing with "life-fulfillment of the elderly" one is faced with two rather complex issues. A) On the one hand one must deal with the practical definition of "life fulfillment," i.e., what is this vague notion of fulfillment, and is it something which can be dealt with only with respect to the elderly? B) On the other hand if life-fulfillment is something that is definable and empirically measureable, then it must be possible to implement policies and programs on a local, state, or national level which can facilitate the realization of one's ambitions, goals, and potentials. This discussion will deal with the two interrelated concerns.

Definition of Life-Fulfillment

Concerning the conceptualization of life-fulfillment, issue A), it is obvious that the elderly are not the only segment of the population which is seeking a "full life." Other population segments also have aspirations, definitions of what is a good, full, life, and concerns about their future. For example, the different social classes in American society have differential life-chances and life-styles which make the consideration of life-fulfillment variable. That is, a full life to an urban ghetto dweller may include having enough money to buy food and not being ill, whereas, a full life for a middle-aged upper middle class suburbanite may be owning a home and two automobiles, and having all their children in college.

Though the elderly are not the only segment of American society for whom life-fulfillment or related concerns are an issue, they are certainly a group who have "special" concerns which other segments do not have. For example, the elderly face the prospects of retirement, the loss of a spouse, potentially reduced income, physiological changes, and even the relatively imminent prospect of their own deaths. Furthermore, the elderly as a segment are stereotyped as having certain characteristics which in reality are erroneous. (cf. Butler and Lewis, 1977).

A) The elderly are presumed to be tranquil, i.e., old age is presumed to be a time of peace and tranquility when the elderly can relax and enjoy their lives. In fact, old age is a time of great stress in which the problems that exist are not only more devastating but also less amenable to corrective action, e.g., death of a spouse or close friend, debilitating illness, or retirement. In fact if one analyzes the forty-three most "stressful" life situations one finds at least half are especially pertinent to old age. (cf. Holmes and Rahe, 1967).

Just a few life events which could be associated with growing older (in rank order of stressfulness) would be: a) the death of one's spouse (1); b) death of a close family member (5); c) personal injury or illness (6); d) retirement (10); e) change in health of a family member (11); and f) change in financial state (16).

B) The elderly are also presumed to be unproductive. It is generally erroneously assumed that at some mythical advanced age people become significantly different from those who are younger. It is further assumed that the older one gets the more unproductive he is, the greater one is removed from the concerns of social life, and the more segregated one is from younger groups.

In fact, however, in the absence of such things as disease and poverty the elderly are quite physically active, and concerned about personal and community relationships. Old age is a time when a person should have the choice of remaining in the mainstream of life or relaxing a bit. However, in our society, the elderly in many instances are forced out of an active social life and meaningful societal existence. In regard to life-fulfillment it seems essential that the elderly should be provided the opportunities to work, learn, or be active in community affairs. They should not be forced into retirement, poverty, or housing and social segregation. In other words, society should not help the elderly feel unproductive.

C) Still another erroneous myth concerning the elderly is the notion that they have a resistance to change. That is, it is felt that older people are closed-minded, set in their ways, and impossible to change. While older people do tend to be more cautious, perhaps this is due to the social problems of living rather than "old age" itself. Older persons might prefer to remain with those things that are "tried and true" rather than "break new ground" which may ultimately cost them more money, receipt of lesser value, or more hardships. Only when the elderly are provided with feelings of welcome in society, only with a sense of productivity and security will we be able to see how resistant-to-change the elderly really are.

D) A fourth common misconception is that the elderly are brain-damaged or senile. This misconception suggests the attitude of "It is useless to be concerned about the elderly, they are too senile to be of use anyway--it's hopeless." In fact all persons, old and young, suffer from the conditions commonly associated with brain damage--anxiety, grief, depression, confusion, and forgetfulness. In many instances

these types of behavior are not organic at all but are caused by external factors such as the loss of a loved one, lack of income, fear of crime, and other stresses inherent in being old in our society.

E) The last myth to be considered here is what can be termed the institutionalization myth. It is thought by many in our society that older people cannot take care of themselves, and must be put in institutions such as nursing homes, hospitals, or mental institutions. Of course, it is well known by those who are familiar with the statistics on institutionalization that approximately 95% of the elderly live at home with only 4-5% living in institutions. (Of course, the percentage breakdowns are different with more advanced age. The old-old are considerably more likely to be institutionalized than the young-old). In general, the elderly live at home within close proximity of their children or relatives, and are also close to their friends, church, and other supportive services.

Therefore, if one were to use the notions counter to these myths life-fulfillment could be thought of in regard to the elderly as having essentially two components: A) the positive resolution of the stresses of old age, B) active involvement in new and productive personal and community endeavors.

A Conceptual Framework for the Analysis of Life-Fulfillment

Of course it is quite easy to say what life-fulfillment should be in an abstract sense. It is another more difficult matter to arrive at ways to facilitate "life-fulfillment." Most people, especially young people, do not think about old age. It is usually an avoided consideration with the implicit statement being "some day . . ." Only now are we finding an increased concern for the elderly and more

emphasis on programs designed especially for them. It is imperative, however, that more concern be shown and more programs be implemented if the elderly are going to become further integrated into mainstream society, and if their lives are such as to facilitate greater feelings of a good, full, whole life, i.e., a sense of whole life-fulfillment.

Practically if we, as professionals and if our society---especially the governmental components of our society at every level, i.e., local, district, state, and federal levels, are to facilitate among the elderly a greater sense of whole life-fulfillment, then distinct issues have to be addressed, and specific programs developed and implemented. As a means of organizing the discussion of what kinds of programs should be developed in order to provide a "better life" for the elderly, and thereby a greater sense of fulfillment, let us take a "problems" orientation.

The problems that the elderly face could be described in terms of five general areas of concern: economic, physical, social, psychological, and philosophical. Each of these areas represents an entire constellation of conflicts and stresses with which many elderly must cope. Idealistically, it is suggested that any comprehensive program for the elderly could only be truly successful if it effectively deals with all five problem areas. Unfortunately, most programs focus (or at least seem to focus) on only one or a few of these problem areas at any one time. Few programs are equipped to evaluate and serve the full range of needs relating to these problem areas. Following, in Table 1, is a statement of the problem areas and typical stresses related to them. (cf. Weiner, Brok, Snadowsky, 1978).

Table 1

Problem Area	Stress (Typical Examples)
A. Economic	Adjustment to income loss, and a new life style at retirement
B. Physical	Adjustment to experienced body changes, potential health deterioration, less physical mobility, and decreased sensory capacities
C. Social	Adjustment to the loss of social status, inadequate replacement of social roles, the re-evaluation of leisure activities
D. Psychological	Adjustment to the realization of no longer being young and the related feelings about self
E. Philosophical	Existential and/or religious issues become newly central. Questions such as "Who am I?," "Has my life been worthwhile?," "Is there an afterlife?" become critical to fitting one's self into an understandable, meaningful existence.

Obviously, persons at every age deal with each of these issues. For the elderly, however, these areas of concern are particularly salient. That is, younger persons ususally are faced with resolving at any one time stresses related to only one or two of the five problem areas. Further, when stresses are experienced by young persons, they are typically not as acute as are the stresses experienced by the elderly. In contrast, the elderly are often faced with the possibility of having to simultaneously cope with stresses related to each of the problem areas. (cf. Gottesman, Quarterman, and Cohn, 1973)

Given the obvious difficulties that exist in developing "comprehensive" programs that crosscut these areas let us briefly focus on those areas which have or potentially have the greatest impact on life-fulfillment.

Problem Areas and Their Importance to Life-Fulfillment

The consideration of life fulfillment is ultimately a concern with such philosophical questions, i.e., existential questions, as "who am I?" and "has my life been, and is it now, worthwhile?" As such, life-fulfillment is influenced by problems the elderly face within each of the four other problem areas. The question posed is: "what are the major problems that the elderly face and how can these problems be solved?" The consensus answer is that utlimately the elderly's problems are economically based. They simply do not have the money to provide adequately for their own needs. (Needs are, for some, simply the bare necessities of life--adequate food, shelter, and clothing.) The difficulty, however, is that though it was agreed that many of the problems experienced by the elderly are economically derived, it is not agreed how this can be ameliorated--continuation of current welfare and supplemental income programs, a redistribution of wealth, or a discontinuation of many programs now provided for the elderly and subsequent direct cash payments to the elderly.

Secondary concerns for the consideration of life-fulfillment are those related to the three remaining problem areas--physical, social, and psychological problems. Certainly these problems are no less devastating. They are simply areas which themselves could be influenced by economic changes. For example, the elderly's physical health can only be improved by the provision of more and better health services. More activity programs can be provided only with more personnel and equipment. Fear of crime can be assuaged only by effective protection programs.

These secondary areas, though, are not only related to economic considerations, but are problems in their own right. For instance,

there is little one can do to offset bodily deterioration, and organic changes. Similiarly, the loss of one's spouse is an occurrence which must be coped with quasi-independently of other concerns. Also, one's self-concept is related partly to the other factors and partly to one's individual psycholgoical make-up.

Ultimately, the elderly, as any other population segment, must effectively resolve the problems inherent in each of the areas if life is to be "full." Immediately, the best approach appears to be, as Maggie Kuhn advocates, political activism. We must organize, actively advocate change, and be critical of programs as they now exist and as they are formulated and reformulated. In short, we must not wait for change, we must create change. Only then can our lives, young or old, be as full as we desire them to be.

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MAINTAINING INDEPENDENCE IN LATER YEARS

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It is very discouraging to see someone who wants to be self-sufficient but can't, but it is downright disgusting to see someone who can be self-sufficient but won't. Many times it is the patient's fault. In fact, the patients may have lost their drive, their motivation, but many times it may be our fault in either not taking time to show patients how or failing to make them understand what they can do.

The desire for maintenance of independence in our older handicapped citizens must begin when the handicap has its onset. The type of patient we will consider today may be a heart, stroke, amputee, arthritic, or renal but not considered to be "totally disabled."

Webster's New International Unabridged Dictionary defines rehabilitation as follows: to invest or clothe again with some right, authority or dignity (to restore to a former capacity, to reinstate, to qualify again, to restore, as a delinquent to a former right, rank or privilege lost or forfeited). I like to think the definition of rehabilitation is "to restore to a former capacity if possible, or if not, to the highest degree obtainable in the patient considering all disabling factors." Thus, a right hemiplegic, not restorable, we teach to become left-handed and to write and use left instead of right-sided activities.

Let's start with our patient in the hospital immediately after his insult. Depending on the severity of the condition, we should immediately call in our social workers to start planning for home care and discharge from the hospital. Most older people do not care for hospital life but are anxious to get back to their loved ones and familiar surroundings.

This often presents a problem which we must overcome--possible rejection of the patient by his loved ones due to the anticipated care required in bringing him or her home from the hospital. Another problem may be that the patient may live alone or not have anyone able to provide necessary assistance. These are some of the problems which must be investigated by either a social worker or possibly the public health worker.

The patient should then be referred to physical therapy. The condition can be evaluated with regards to rehabilitation potential. We check ROM and strength, plan program to increase the ADL. If an amputee, we check for flexion contractures, plan program to prevent contractures and to assure proper stump shrinkage. We usually use a temporary prosthesis as soon as possible to begin stump shrinkage and gait training early. The old method was to amputate, let the patient heal enough to go home, and send home for some months. Then, if the patient wanted a prosthesis, he came back to the medical doctor when prescribed. By this time, the stump was still swollen and also possible flexion contracture had set in due to the lack of care and too much sitting. We now get them up as soon as we can and the patients become more self-sufficient sooner.

While still in the hospital, we must teach the patient self-sufficiency as much as possible. We must bring the family in and teach them what we're teaching the patient. If we don't do this, some patients will tell the family they cannot perform (at home) even though they did so in the clinic---even though they did it under positive pressure from the therapist. We can't let the patient do a <u>snow</u> job on the family.

It is very important that we keep hospitalization time to a minimum. I mean allow enough time to do the job, but get the patient out as soon as possible, otherwise he develops a dependency on the hospital which is

very difficult to break.

The need for special clothing will frequently arise and to my knowledge, there are no companies today who manufacture special clothing for disabled patients per se. This is most likely because each indiviudal patient must have clothing consistent with his or her own needs. Of course, it would be practically impossible to incorporate all the modern styles into stock clothing for disabled people. Since the styles change so frequently, the clothing would soon become obsolete. Below is a list of items which can be used in clothing to make independence more apparent:

Velcro closures on the inner seams of pants and sleeves, for braces, prostheses and splints

Specially built shoes

Zipper hook (an extension of the arm)

Long shoe horns, etc.

We must consider modifications of the home as a means of maintaining independence. Needless to say, if we are starting to build a home, the main entrance of the preferably one-floor home plan should be ground level so that the individual does not have to negotiate steps. In older pre-existing homes where steps are present, we must build ramps or install elevators from the ground level to the main and other floors.

If a patient uses a wheelchair, all doors must be wide enough for the patient to wheel through without hitting his hands. We should avoid tufted carpets which make wheeling a chair more difficult. And while we are on the subject of floors, we must definitely avoid high-waxed, slick floors, and non-skid proofed porches subject to the weather which may cause a patient to fall.

Special consideration must be given to the kitchen. Place the cabinets and appliances at a level where the patient can utilize them. In the bathroom, we must have handrails at the commode and bathtub and possibly a slanted mirror over the lowered wash basin so that the wheelchair patient can see to shave and/or make up. We may consider elevated commodes for the patient who cannot lower himself to the normal height of the commode. We can also obtain portable whirlpools for a standard tub.

Unless a patient is practically confined to bed, hospital beds in general are not specifically indicated since they are for the convenience of the nurse more than for the patient.

Special door chimes, buzzers, flashing lights, and intercommunication stations assist the patient in answering the door without actually going there unless it is absoultely necessary.

With regards to special personal equipment that the patient may need, the following items are available: walker, quad crane, lofstran crutches, wheelchair (standard, modified or electric prescribed especially for the patient), prostheses, finger steps, hydrocollator packs, pulley with rope, orthotic devices, splints, magnifying glasses, scissors (magnetic to pick up items), eyeglasses, hearing aids, teeth, and cardiac pacemakers. (These items were on exhibit). There are a wide assortment of special plates, rims, swivel spoons, cutting knives and forks available to aid the patient in eating.

We should also consider the following list of items for diversional activity and communication: radios (AM and FM), CB radios, telephone, large dials for telephone for the visually handicapped, telephone amplification for the auditory handicapped, television, TV remote control (electronic or wire).

Finally, I might add that hobbies play a great part in the maintenance of independence in our later years in that they keep our minds open and our hands dexterous and our interest high. I believe that everyone should have more than one hobby. We frequently tire of one thing so with additional hobbies we can switch from day to day or week to week to a different one and keep our interest moving.

I have purposely not mentioned surgical procedures which may help to maintain our independence, however, a list of some of these procedures would include total hip replacement, total knee replacement, finger joint replacement, and many other surgical modifications.

The names and addresses of some companies who make many of the devices exhibited are listed. Catalogs are available. You will find many things in them we have not had the time nor the place to display today.

Cleo Living Aids
3957 Mayfield Road
Cleveland, Ohio 44121

Fred Sammons, Inc.
Box 32
Brookfield, Illinois 60513

J. A. Preston Corporation
71 Fifth Avenue
New York, New York 10003

G. E. Miller, Inc.
484 South Broadway
Yonkers, New York 10705

This has been a fine conference. I have enjoyed your attendance, enthusiasm, and questions. I hope that today's section on Maintaining Independence will prove profitable to you in the future.

MENTAL HEALTH IN LATER YEARS

Dr. Martita Lopez
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and

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Mental Health Problems in Old Age

Dr. Lopez

The kinds of psychological processes that take place during old age are not simply extensions of what happended in middle age. There are specific tasks to be completed during old age which represent successful adaptation to this phase of life.

Adaptation to loss is one of these major tasks. Virtually, all elderly people have to deal with loss - of a spouse, or other social relationships, loss of work roles, loss of income, declines in physical health, and more. The older individual needs to deal with these losses in two ways: (a) some of the losses can be replaced with new relationships (new friends, new marriage), new roles (new careers, volunteer work), or (b) retraining of lost capacities (physical therapy, speech therapy after a stroke).

Another important task during old age is an identity review, or a life review. We know that most older persons look back at their lives and evaluate what they've done, weighing accomplishments and failures, and generally trying to pick out a final identity before death. The task here is to find an identity which integrates the diverse elements of an individual's life and allows him or her to come to a reasonably positive view of his or her life's worth. If a person fails at this, psychopathology will usually become evident.

A third major task facing older persons is to remain active in order to retain function. When I say "remain active," I mean in physical activity, in social interaction, in intellectual stimulation and of self-care capacity. Unless the individual makes a specific effort to remain active in various areas, there will be decline in functions. Studies of successfully aging individuals find that these people do remain active across the areas I mentioned. If this is not done, we find unnecessary physical limitations, social isolation, loss of energy, confusion, and disorientation. We know that what often is called "senility" is the result of inactivity.

I've just mentioned some of the adaptive ways older people can cope with the stresses of aging.

There are a number of maladaptive ways people can cope with these stresses. Among the elderly we usually find the use of one or more of the following defense mechanisms. Defense mechanism is the term commonly used to describe pscyhological processes of adaptation. One of these is anxiety, which is not used in any constructive way. The person simply feels a sense of dread, and worries about practically everything. Another is depression-withwrawal, where the individual shrinks into a shell of isolation and loses contact as a way to escape. We also find a lot of projection, which refers to the person's seeing in other people his own fears and desires. Somatization is frequently found among the elderly, here psychological stress is expressed through real physical complaints. Another common defense mechanism among older people is denial. In denial, the person simply denies that anything negative or threatening has occured. Even when presented with concrete evidence, the event will be denied.

Before I talk about the mental disorders most common in later life,

let's look at some statistics. Several studies have found that when the percentage of people experiencing even a mild emotional disturbance is looked at, they find figures from 50-60% for all age groups, including elderly. Other studies have examined the percentage of older persons with at least moderate psychopathology. Here they generally report figures around 15%. Figures for the general population run from 10-12%.

Experimenters have also looked at the different factors which are associated with psychopathology among the elderly. Advanced age is clearly associated with more mental disorders - here I mean beyond age 75, and especially past 80. Poor physical health also leads to greater incidence of psychopathology. Being married is associated with lower probability of mental difficulties. This gives men an advantage, since most elderly men are married, while most elderly women are not.

I'd like to talk about the most common psychological disorders found among elderly people. These can be divided into two major types: (1) those which occur despite intact brain functioning; and (2) those which occur because of impaired brain functioning. Both are quite common and can be found together or separately within an individual. Often it is difficult to tell the two apart. It's very hard to be sure what is behind a particular sympton, but often the same treatments will help alleviate both types of disorders. Due to lack of time, I'm going to concentrate on the first group, or those which occur despite intact brain functioning. These are called Functional Psychiatric Disorders. The most common disorder of this type is (1) <u>depression</u>. Depressions vary widely in duration and in degree in this age group. Many older people experience short periods of sadness, loss of energy, and lack of interest. These generally are responses to loss. The number of elderly who have severe depressive reactions is much lower.

Most of you probably know the major psychological signs of depression. These include painful sadness, pervasive pessimism, lowered self-esteem, and thoughts about how terrible the present is and the future will be. There's often a lot of difficulty in making decisions. We also frequently find vivid dreams where the person is lost and lonely, crying out for help with no one answering.

With older people who are depressed, the psychological symptons are often not mentioned. Instead, these people report loss of appetite, significant weight loss, severe fatigue, especially early in the morning, some sleeplessness, and constipation. Sometimes a lot of tension and anxiety is associated with these other symptoms. Also quite commonly we find older people who appear depressed, but deny it. They may have all the physical signs of depression, but will say they feel fine - except for a severe recurring backache, headache, or neckache. Instead of expressing their depression psychologically, these people develop a painful physical condition to which they can shift their worry and feelings of discouragement.

Suicidal ideas often go along with severe depression. When an older person talks about wishes to commit suicide, it should be taken very seriously. Statistics show that the suicide rate among the elderly is more than three times the rate found in the younger population. Also, virtually all older people who attempt suicide are successful. This is not the case with the younger people, where it is estimated there are seven attempts for every actual suicide. Therefore, when an older person attempts suicide, he or she should be hospitalized, because another attempt will probably be made soon.

(2) The second most common psychiatric disorder among older persons is the paranoid reaction. Paranoia means believing that other people have

motivations which actually do not exist. Paranoid persons are suspicious of persons and events around them and they often construct unrealistic explanations of what's going on around them. Paranoia is not as serious in elderly persons as it is in younger adults, because among the elderly there is often a real basis for being suspicious. We find much more paranoia among persons with some sort of sensory loss or intellectual loss. For example, a woman whose sense of taste has changed may accuse people of poisoning her. Or a person who misplaces his glasses may accuse others of stealing them. The worst thing about paranoia is that it tends to isolate the paranoia person from those around him or her, especially those who are providing care.

Paranoia is quite sensitive to treatment. The best things to do are to correct sensory deficits, provide a stable, friendly environment, and give small doses of the "major tranquilizers."

(3) Another fairly common disorder we find among the elderly is the manic reaction. This is essentially the opposite of the depressive reaction. The person feels elated, optimistic, and speaks rapidly. He or she may be hyperactive. We have an effective treatment for manic reactions, lithium carbonate. Like depressive reactions, manic episodes are time-limited.

(4) The next most frequent disorder is hypochondriasis. This is characterized by excessive concern with one's bodily functioning, or the belief that one has a disease when in fact none exists. Hypochondriasis is generally seen as a way for the person to show he is in difficulty without acknowledging any psychological problem. The person is saying he or she is in need of care, but can't admit any emotional disturbance.

(5) Adjustment reactions of late life are related to a change in

the person's life which is reacted to with a variety of physical and mental disturbances. Anxiety is almost always a major part of this reaction.

(6) Alcoholism is common in older age, mostly among people who abused alcohol while they were younger. Some elderly, however, try to use alcohol as a medication to treat their anxiety or depression.

(7) Sleep disturbances are very common. However, older people often don't realize that sleep patterns change in old age. There are normally more frequent awakenings, less deep sleep, and more daytime napping. The amount of sleep time required generally decreases. For all age groups, anxiety usually leads to difficulty in falling asleep, while depressives tend to awaken early and not be able to get back to sleep.

Rehabilitation and Placement Programs (RAPP)

Mr. Williams

Institutionalization and Depersonalization

Institutions, providing a permanent or indefinite residence and involving a major change from community living patterns, are characterized as offering:

a. minimal privacy
b. restricted mobility
c. segregation from general society
d. limited social experiences
e. separate existence from staff
f. orderly routine
g. noncreative occupations
h. limited self-determination
i. deprivation of intimate family relationships

This leads to depersonalization, characterized by:

a. apathy
b. atrophy through disuse
c. resignation and depression
d. withdrawal into fantasy
e. deterioration of personal habits
f. minimal verbalization
g. lack of initiative
h. no interest in the future
i. lack of development (personal, intellectual, talent, etc.)

(Lieberman, M.A., "Institutionalization of the Aged: Effects on Behavior," Journal of Gerontology, 330-340, 24, 1969)

Facilitative Models

I. Therapeutic Community, which is comprised of Staff, Program, Physical Environment, and Persons With Problems:

a. A therapeutic community begins with Staff who learn to become involved with people with problems through a new role of teacher-trainer, from custodian.

b. The overall Program is designed to meet specific treatment goals, to be responsive to not only a person's physical needs of shelter, food, and supervised medical care, but psychological and social needs as well: love, security, recognition, mastery and exploration.

c. The Physical Environment is made attractive and noninstitutional and allows opportunities for privacy and self-sufficiency through the provision of materials and equipment needed to help persons care for themselves.

d. Persons With Problems in living are taught new ways to function, new skills to care for themselves, and appropriate ways to relate to others.

(Coons, D., Lippitt, M., Grossman, E., Sahara, R., and Brown, C., Developing A Therapeutic Community training manual. Institute of Gerontology, The University of Michigan-Wayne State University, Michigan, 1972)

II. Reality Therapy, in which:

a. The basic human need is for a sense of identity.

b. Identity is achieved through the development of the capacity to love and to be loved and to feel worthwhile to oneself and others (love and worthwhileness).

c. The therapeutic goal of staff is to become involved with persons who are meeting their needs for identity in inappropriate or irresponsible ways and who are unhappy about this.

d. Much time in the helping relationship is taken to teach irresponsible persons to function in real, right and responsible ways, thus helping to change negative, failure-oriented identities to success-oriented ones.

(Glasser, W., Reality Therapy, Harper and Row, New York, 1965)

III. Social Competnecy, in which rehabilitation is the development of personal competencies in three areas: interpersonal (interaction skills); intrapersonal (feelings, desires, motivation); and instrumental (everyday living tasks).

a. The social norm (what present day society thinks) is the context in which competencies are judged.

b. The goal of the treatment organization is to develop competencies through: staff-client interaction (support, permissiveness, non-support of deviant expectations, conditional manipulation of rewards), maintenance of a structured teaching-learning environment.

c. Specificity and individuality are achieved in the environment and in the staff-client interaction through an individual plan which considers:

1. incompetent (inappropriate behaviors)
2. competent behaviors
3. behavioral goals
4. a description of behaviors leading to the goals
5. activities required to teach the behaviors
6. specific staff behaviors in the activities
7. evaluation to see whether or not the goals have been met.

(Spivak, M., Moadon Sholom - a Rehabilitation Center for the Development of Social Control, Jerusalem, Israel)

IV. Structural Learning Therapy (SLT), which focuses on the teaching of personal and interpersonal coping and mastery skills, for example, initiating, carrying out and ending a conversation, listening, initia-

ting and responding to a complaint, negotiation and asking for help.

Four components of SLT:

a. Modeling, to depict good examples of specific skill behaviors shown to be helpful in dealing with common problems of daily living.

b. Role playing, to provide opportunities, encouragement and training to behaviorally rehearse or practice the effective modeled behaviors.

c. Social Reinforcement, to provide corrective feedback and approval or praise as the role playing of the behaviors become more and more similar to the model's behavior.

d. Transfer training, to insure transfer of the newly-learned behaviors from the training setting to the person's real-life setting.

(Goldstein, A.P., Gershaw, N.J., and Sprafkin, R.P., Trainers Manual for Structured Learning Therapy, Pergamon Press, New York, 1974)

NUTRITIONAL NEEDS IN LATER YEARS

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Physiological Aspects of Aging

Dr. Taper

Aging can be defined as the progressive loss of physiological capacity in an organism. Up until the middle 1950's, the only available data about functional changes with age were a result of comparisons made between healthy young college adults and ill, generally institutionalized elderly individuals. Such uncontrolled studies showed that older persons possessed only marginal percentages of the physiological capactities of younger adults. A more accurate evaluation of changes in physiology with age has developed from longitudinal studies. Several such studies, with subjects ranging in age from 20 to 96 years, have led to the recognition of several generalized concepts about age-associated physiological changes (Shock, 1962; Birren et al., 1971; Palmore, 1970, 1974).

Gerontologists agree that there is a steady decline with time (about one percent per year in adult life) in the functional capacities of most organ systems. (Figure 1)

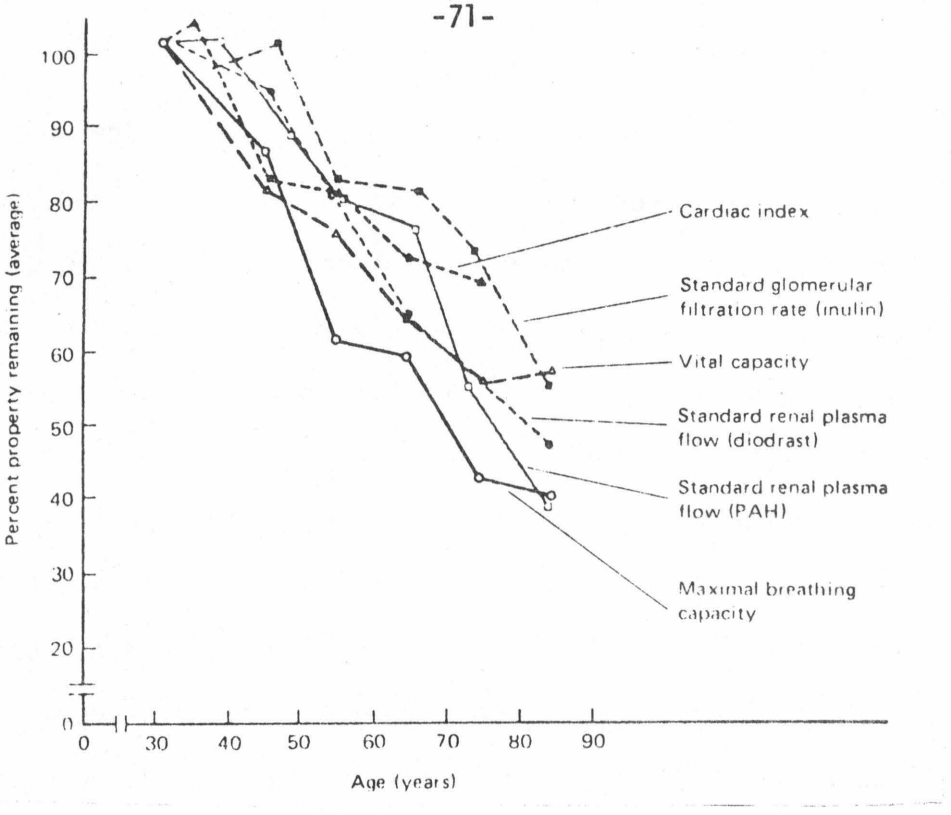

Figure 1. Efficiency of human physiological mechanisms as a function of age. Level at 3 years is assigned a value of 100% (Modified from Shock, 1962).

A reduction in the function of most organ systems occurs gradually with increasing age beginning as early as 30 to 35 years. Although there is no one specific age when all functions begin to decline, the percent reduction in the function of selected organ systems, between the ages of 30 and 90 years, is as follows: conduction of nerve impulses, 15%; cardiac output, 30%; pulmonary function, 60%; and blood flow through the kidneys, 65%. Other changes associated with the aging process include a gradual tissue breakdown, a gradual retardation of cell division, and, therefore, a decrease in the capacity for cell growth and tissue repair.

Stereotypes about the elderly are fairly widespread. Some of the more obvious age related changes have contributed to a negative image of the elderly. Sight begins to diminish early in the human and reaches a minimum level around age 50. Auditory function also declines with

age, beginning in adolescence and reaching a plateau at age 50. Muscular strength, which reaches a peak between the ages of 20 and 30, declines continually after that. Older persons become more vulnerable to disease. Cardiovascular disease, cancer, and cerebral accidents, the nation's three major chronic diseases, have their greatest impact in severity and number among older persons. Another critical age-related change is the diminishing ability to respond to stress.

The gross physiological changes associated with age have their origin in changes at the molecular and cellular levels. Not all cells age in the same way. Some body cells retain the ability to reproduce throughout life. Even in these tissues (skin, lining of the gut, liver), the capacity for regeneration slows down. The slowed rate of division and repair in such tissues may lead to ineffective protein synthesis and aberrant reactions or responses within certain tissues. Loss of appropriate responses in older individuals can become excessive and eventually damaging to adequate function and good health.

Recent studies indicate that there is more malnutrition among the elderly than was previously thought. Some preliminary data suggests that there may be some critical deficiencies in mineral, protein, and vitamin intake which may be related to the development of certain disease conditions (Bender, 1971; Caster, 1971). Potassium, calcium, iron, and vitamin B_{12} deficiencies are among those most frequently noted and relate to bone, thyroid, and heart muscle function. Nutritional and metabolic dysfunctions such as obesity, gallbladder disease, and anemia frequently become apparent in the middle years and carry over into old age. It becomes important to correct these problems not only to alleviate discomfort associated with them specifically, but also because of their relationship to other disorders such as diabetes, cardiovascular disease, and

hypertension.

Our knowledge of the physiological and biochemical mechanisms of aging is not exact. The fundamental causes of the aging process are very poorly understood. There is a growing realization of the need to investigate the mechanisms that are associated with aging and to consider age in evaluating physiological performance and nutritional status. A number of physiological changes occur with aging which need to be understood before an adequate nutritional program for the elderly can be rationally developed. From a nutritional standpoint, the most important of these changes relate to the renal, neuromuscular, and gastrointestinal systems. As the functional capacities of these systems decline with age, a number of processes basic to the digestion, absorption, and utilization of nutrients might be expected to be impaired.

One of the major changes occuring as part of the aging process is a general reduction in basal metabolic rate. As illustrated in the following figure, basal metabolism reaches a peak at about one year of age. From this age, basal energy requirements decline rapidly until puberty, followed by a continuous, less rapid decrease throughout life.

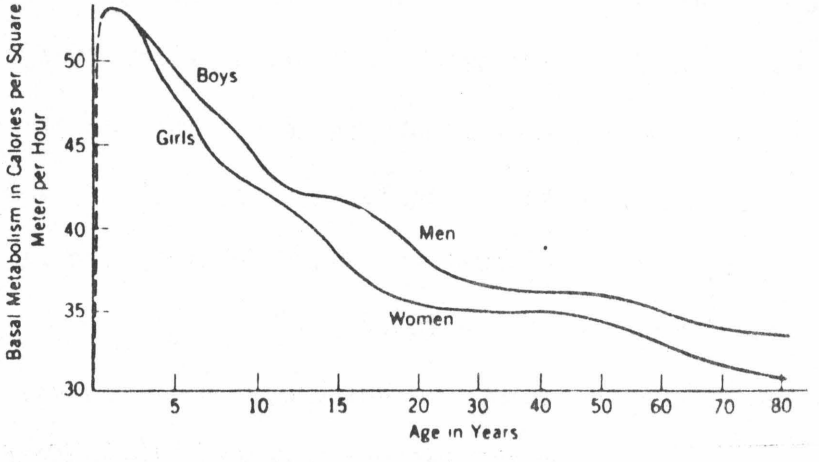

Figure 2. Effect of age on basal metabolism (From H.H. Mitchell, Comparative Nutrition of Man and Domestic Animals, Vol. I, Academic Press, New York, 1962).

Physical activity also generally decreases with age. Table I summarizes changing energy needs for physical activity as age increases.

Table I

Energy Expenditures Reported by Males of Different Ages

Age (Years)	Energy (Kcals/day)
20-34	1175
35-44	1166
45-54	982
55-64	950
65-74	928
75-99	640

Therefore, as age increases, total energy needs decrease. If caloric intake is not similarly restricted, weight increase is certain to occur. Obesity is one hazard of older age to be avoided. It has been suggested that the energy requirement should be decreased by five percent for each decade between the ages of 40 and 59 years, by 10 percent from 60 to 69 years, and by another 10 percent shown above age 70. The current caloric intake recommneded for those over 50 are 2400 calories for males and 1800 for females. This decrease in caloric intake means that the quality of the diet must be higher for the older individual than for the younger if essentially the same nutrient intake is to be achieved at the lower caloric intake. There is a need to be highly selective if the same amount of nutrients is to be packed into a smaller calorie quota. The reduction in calories should be made in nonprotective foods.

A number of changes common to aging may interfere with food intake in the elderly. One of the major factors affecting the nutrition of the aged is the loss of teeth and the absence of good fitting dentures. Dental problems can limit the choice of foods to those which are easily chewed. A de-

crease in the secretion of saliva in the mouth to soften food may cause older persons to avoid certain foods which are hard to swallow. A reduction in the perceptual acuity of taste and smell may interfere with appetite, food selection, and food consumption. A decrease in the number of taste buds by 8 percent in each papilla on the tongue partially accounts for the decreased sensitivity to taste stimuli with aging. Such sensory losses may render food unattractive, monotonous, and unappetizing.

Although Shock (1970) suggests that the absorption of nutrients is not significantly impaired with age, a variety of phenomena associated with aging, may interfere with the absorption process. These include atrophy of the salivary glands with an accompanying loss of enzymes, a decrease in the production and delivery of digestive enzymes of the stomach, pancreas, and small intestine, and a diminished production and delivery of bile from the liver and biliary system. In addition, excessive spontaneous muscle contraction of the stomach combined with decreased motility of the intestines are common in the aged and may also interfere with absorption.

Interference with storage and utilization of nutrients commonly occurs with aging due to several changes. With aging there is a loss of cells involved in the storage and utilization of nutrients as well as of the structural units which produce the enzymes required for these processes. The activity of salivary amylase decreases after age 60 in the human. The proteolytic activity of several enzymes also decreases. In addition, pancreatic amylase and lipase activity decrease slightly with age. With increasing age, the basal digestive secretion is slightly reduced in volume and weaker in hydrochloric acid concentration. Pepsin activity is decreased by one-third. A reduction in the digestive secretions and speed of movement in the stomach and small intestine may lead to slower digestion of foods, to abdominal distention, and often to poor

tolerance of certain foods.

There is little evidence of an increased loss of essential nutrients by excretory pathways other than the possible passage through the bowel of undigested food because of interference with digestion and absorption.

The physiological changes discussed here suggest the need for careful evaluation of nutritional requirements for the elderly especially in relation to certain specific nutrients. The decrease in muscle mass with age suggests that protein and amino acid requirements may change. Changes in intracellular glucose metabolism and indiviudal differences in ability to digest certain carbohydrates need to be considered in developing nutritionally adequate diets for the elderly. Changes in the absorption and digestion of fat could affect utilization of and requirements for fat-soluble vitamins. There is also some evidence that less efficient absorption, utilization or increased excretion associated with the use of certain therapeutic drugs may increase the need for certain of the water soluble vitamins. Decreased calcium absorption coupled with bone resorption suggests a need for the re-evaluation of calcium and phosphorus requirements. The decreased secretion of hydrochloric acid coupled with general gastric atrophy suggests an increase in iron and perhaps vitamin B_{12} requirements.

More signs of nutritional inadequacy may be found in older than in younger individuals. There is little evidence presently available to correlate age-associated nutrition deficiency states with physiological functions. Careful research aimed at determining requirements of most nutrients specifically for the elderly is just beginning. At present, current U.S. dietary allowances do not include separate recommendations for a single nutrient for the elderly. In general, it has been assumed that ideal nutrition for the elderly individual differs insignificantly

from that of younger individuals. However, it is possible that the physiological factors outlined above affect nutrient requirements as they interfere with intake, absorption, utilization, and storage of individual nutrients. A diet adequate by prevailing nutritional standards may not be appropriately utilized by older individuals. Optimum nutrition for those over 65 may differ in many respects from that of the 19 to 22 year old. A need for careful evaluation of nutritional requirements for the elderly is indicated in light of age-associated physiological changes.

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Nutritional and/or Food Needs of the Elderly

Dr. Wentworth

Before looking at the specific nutritional need of the elderly in the United States today, let us examine some of the problems or illness prevalent among our older citizens which have dietary or specific life style implications.

Dr. William E. Connor, Co-chairman of a panel on health and nutrition, listed six diseases to which dietary practices can be linked (1).

Coronary heart disease -- an excessive amount of cholesterol, saturated fat, and calories in the diet. High blood pressure -- dietary salt and excessive calories contributing to obesity. Diabetes mellitus -- excessive calories with associated obesity. Obesity -- excessive calories and lack of physical exercise. Dental caries -- high intake of sugar, and Liver disease -- excessive usage of alcohol. In addition, a large number of cancers (especially in women) are linked to dietary practices. Other environmental factors such as stress, cigarette smoking, and inactivity have also been correlated with coronary heart disease.

One good bit of news regarding statistics in the United States shows a greater decline since 1950 in the death rate in cardiovascular disease than in the death rate from noncardiovascular diseases (Table 1).

Table I

Death Rate From Selected Diseases

YEAR	NONCARDIO-VASCULAR DISEASES	CARDIO-VASCULAR DISEASES	CORONARY HEART DISEASE	STROKE	OTHER CARDIO-VASCULAR DISEASES
1970	364.3	350.0	228.1	66.3	55.6
1971	355.5	344.4	225.1	65.2	54.1
1972	358.1	343.7	223.9	65.0	54.8
1973	356.3	336.6	218.9	63.7	54.0
1974	346.1	320.1	207.7	59.9	52.5
1975	339.9	302.4	198.1	54.7	49.6
% CHANGE	- 6.7	-13.6	-13.2	-17.5	-10.8

Reference (2)

The American Heart Association began a campaign in 1964 recommending that dietary intake of saturated fat and cholesterol be limited, and this may reflect a response. However, the increased interest in exercise and the role it plays in improving circulation and keeping the arteries and blood vessels open cannot be disputed. From the National Center for Health Statistics also comes the information that there was a lower death rate during the first half of 1976 from ischemic heart disease than in 1975. (3) Changes in life style with a decrease in smoking and participation in physical fitness programs have no doubt made an impact, but food consumption patterns have also changed. Since 1964 there has been a decrease in per capita intake in animal fats, butter, liquid whole milk, evaporated whole milk, cream and eggs, and an increase in intake of vegetable fats and oils. These trends may be significant in their effect on health. Studies on the consumption of all types of dairy products need to be considered before drawing any conclusions.

How do the food and nutrient needs of the elderly differ from those of younger indiviudals? Truthfully, there has been a lack of meaningful research to fully answer this question. We can give some guidelines or some food patterns which we know are being used by some healthy seniors, but after 60 or 70 years of meeting varying stressful experiences, no person has the same nutrient requirements. This becomes even more evident if individuals suffer from some chronic illness and are required to take medicine. There are many interactions between some of the nutrients in our diet and the drugs used to help control the illness. This is a relatively new field of study, but already several books are available on research findings. We know that as a group, the elderly take a larger number of drugs (diuretics, barbituates, some tranquilizers and anti-convulsants) to control chronic conditions and use min-

eral oil as a laxative which washes out the fat soluble vitamins. As a group their nutrient needs should be carefully evaluated periodically.

We, of course, know that there are over 50 nutrients required or essential for man to be able to maintain his optimum function. With the varying physiological and functional changes which come with aging there also comes changes in food needs to meet requirements. These food needs vary with individuals and what meets the reqirement of one person may not meet all of the needs of another individual to make possible optimal physiological function and to maintain the physique.

There exists controversy in the research data, now available, on the requirements for many nutrients, and the effect of aging on these requirements. The increased amount of research activities in this area hold great promise for clarifying the relationship between nutrition and aging.

Some research reports indicate that the elderly require less dietary protein since there is a decrease in muscle mass and a slowing down of protein turnover (or a loss of less protein). But other reports indicate that the protein requirements are greater (based on Nitrogen balance studies) in the older person than in the younger. This may be true for some if there has been stress or much illness, but to draw conclusions for the general aging population is not feasible.

The main concept of the role of food appears to be the same in all age groups, for it is used to maintain health (homeostasis), to prevent structural loss, to improve the handling of stress, be it physical or mental and to promote both mental and physical vigor. Ruth Weg, in her recently released book Nutrition and the Later Years, (4) listed six different ways that people perceive food. For therapy - to overcome identified deficiencies such as a mineral or vitamin, as a preventive measure - in utero the diet is eaten to benefit the fetus - or

vitamin C is used to keep from catching a cold, as a source of metabolites and for energy, for maintenance of tissue structure and function, as a specific tool - as to retard aging (i.e., yogurt, apricot extract, antioxidant vitamins C and E). To date no magic has been found in these nutrients or foods. Vitamin E has not been found to prevent the aging process in humans. Some people use food as a symbol -to show affection and concern for others (positive use), while others use food as a substitute for living and life satisfaction (negative use) and finally food is used as a cure-all - such as mama's chicken soup, or herb tea. Others use food as a vehicle to climb the social or professional ladder, but food to the elderly means much more than just nutrition and the converse is true for nutrition is much more than food for many factors influence acquiring it. Is it available nearby, can the isolated elderly obtain it, or has the last community grocery that delivers closed its doors to the big chain? Does the economic situation allow adequate funds following retirement and recurring bouts with illness? Is there adequate knowledge in how to use food? What attitudes have the socio-cultural background generated and what is the mental and physical health of the person as related to the ability to select and eat a balanced diet? Being mobile and having access to transportation influences the kind and price of the food purchased by the elderly.

In recent years access to health care has improved the health condition of many older Americans. Having a set of workable dentures which allows for chewing has been shown to benefit the nutritional well-being of the elderly. Becoming involved in feeding programs for the elderly, Title VII nutrition programs, meals-on-wheels, and outreach programs from hospitals and nursing homes have reversed senility in many of the elderly who were malnourished.

Recent nutrition surveys have indicated that a large number of older people do not have adequate intake of calcium, iron, magnesium, vitamin A, vitamin C, thiamin, niacin, vitamin B_6, and folic acid. Fewer have inadequate protein intake, but where this exists an inadequate number of calories are usually eaten and the protein is being used as a source of energy and not to replace protein breakdown in the body. (4) (5) (6). Older low-income blacks in America have also been identified as having more inadequate diets than the low-income white population surveyed. (7). Vitamin A was the one exception to this finding. In the two national nutritional surveys nutrient deficiencies were found among all income and educational levels demonstrating widespread improper eating habits.

With this problem of hunger being identified in the U.S. during the early 1960's the Senate formed a Select Committee on Nutrition and Human Needs to determine the causes and plot a course of action to alleviate hunger. Many senior citizens were identified as being among those with hunger and problems of malnutrition, therefore Congress appropriated funds through an amendment to the Older Americans Act in 1972 which created the Title VII Nutrition Program for the Elderly.

During the late 60's and early 1970's the rising costs of medical care were again reason enough to focus attention on food and diet in relationship to chronic diseases and especially to those causing death. Following the lengthy investigation by the Senate and after hundreds of layman, social and biological scientists testified, they, in cooperation with several expert panels, developed the Dietary Goals for the United States (8), which were published and distributed in February 1977. These goals were quite controversial and additional hearings were held with the update of these bringing about a revision of the goals. The hearings and the revised dietary goals have just been published and dis-

tributed. Many physicians, biochemists and nutritionists feel that there is inadequate research to justify the entire population to adopt all of the stated goals. On the other hand some physicians, biochemists, and nutritionists feel that the evidence is strong enough to indicate dietary changes. What are these recommendations?

U.S. Dietary Goals

1. To avoid overweight, consume only as much energy (calories) as is expended; if overweight, decrease energy intake and increase energy expenditure.
2. Increase the consumption of complex carbohydrates and "naturally occurring" sugars from about 28 percent of energy intake to about 48 percent of energy intake.
3. Reduce the consumption of refined and processed sugars by about 45 percent to account for about 10 percent of total energy intake.
4. Reduce overall fat consumption from appoximately 40 percent to about 30 percent of energy intake.
5. Reduce saturated fat consumption to account for about 10 percent of total energy intake, and balance that with poly-unsaturated and mono-unsaturated fats, which should account for about 10 percent of energy intake each.
6. Reduce cholesterol consumption to about 300 mg a day.
7. Limit the intake of sodium by reducing the intake of salt to about 5 grams a day.

The Goals Suggest the Following Changes in Food Selection and Preparation:

1. Increase consumption of fruits and vegetables and whole grains.
2. Decrease consumption of refined and other processed sugars and foods high in such sugars.
3. Decrease consumption of foods high in total fat, and partially replace saturated fats, whether obtained from animal or vegetable sources, with poly-unsaturated fats.
4. Decrease consumption of animal fat, and choose meats, poultry and fish which will reduce saturated fat intake.
5. Except for young children, substitute low-fat and non-fat milk for whole milk, and low-fat dairy products for high fat dairy products.
6. Decrease consumption of butterfat, eggs and other high cholesterol sources. Some consideration should be given to easing the cholesterol goal for pre-menopausal women, young children and the elderly in order to obtain the nutritional benefits of eggs in the diet.
7. Decrease consumption of salt and foods high in salt content. (9)

It must be emphasized that not all Americans should change their pattern of eating but that some of these recommendations must be individualized. If individuals are having gastrointestinal problems they may need to proceed slowly in increasing their complex carbohydrates. Some of the elderly may already be on a low fat diet and must now take care to obtain the essential fatty acid, linoleic acid.

For most of our population it is probably wise to limit the salt and sugar in the diet and this can be done relatively easily. For the elderly,

gradually decrease the salt and sugar content of recipes. Replace sugar with fruits and fruit juices in cake and cookie receipes. Use plain gelatin for salads and add fruit juices to flavor. Reduce the salt in vegetable and meat dishes and replace with a small quantity of herbs, spices, and/or lemon juice. You can create a variety of delicious new dishes in this way.

One way to reduce the fat in the diet is to buy leaner cuts of meat, observe the current cooking practice for cut of meat and then slice it in very thin pieces for serving. Decrease or eliminate the use of cream sauces and gravies. Lean meat drippings can be used to flavor foods in their place.

Peterkin (10) at USDA has estimated the kinds of changes necessary in food consumption for the elderly (general population) to meet the Dietary Goals for the United States. The foods are separated by those needing to be reduced and those needing to be increased for both male and female. (See Table 2).

Table 2

Changes Recommended in Food Consumption

Reduce intake	Male 55 years and over %	Female 55 years and over %
Egg	-57	- 8
Meat, Poultry, Fish	-12	-13
Fats, Oils	- 8	- 3
Sugar, Sweets	-52	-55

Increase intake	Male 55 years and over %	Female 55 years and over %
Dry Beans and peas	13	3
Dark green and yellow vegetables	18	17
Citrus and tomatoes	17	17
Potatoes	25	23
Cereals, pasta	76	69
Bread	50	44

In closing we need to remember that in planning diets for the elderly, their needs depend upon the activity, health, age, and sex of the individual and the amount of stress experienced. Cultural food patterns must be followed with changes being made slowly or little at a time. Our efforts must be to provide good nutrition coupled with adequate exercise to be able for the body to properly function and utilize the nutrients. With this accomplished, the aging process will be slowed.

Today, Mrs. Janet Faith from the Extension Service has agreed to demonstrate the RECALL program. This program is a computer dietary analysis program which will provide the nutrient analysis of some of the nutrients in your diet. We will give you an opportunity to write down the foods you have eaten during the last 24-hour period and the computer will analyze your diet for this day. Please remember that this may be characteristic of your usual eating pattern, but you will be able to see the source of some of the nutrients provided by specific foods you have eaten this day.

The Extension Bulletin Foods for Older Folks, being distributed by Dr. Taper, is a useful guide to help you select an adequate diet. After reading it, if you have questions, you might want to call your local Extension Agent.

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RECREATIONAL NEEDS OF OLDER ADULTS

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Defining Recreation

Over one hundred years ago an average working week included about seventy-two hours, the average farmer worked from sunrise to sunset six days a week, and the average worker continued in his old age to work until he died or became too feeble to work. Work was valued because it produced economic goods and also because it was thought to be morally valuable in itself. In the closing years of the nineteenth century, the sacred character of work came under question. The industrial revolution was beginning to give man a view of economic abundance and a concept of leisure. Thus leisure was becoming an element of value and a code of ethics for leisure was in the making. Studies made in Europe and the USA clearly indicate that there is a growing proportion of people who choose added free time when given a choice of reducing the work week and drawing the same money as presently versus increasing the income with the present work week. Recent wage and working agreements of unions in the USA have provided higher pensions and earlier retirement age rather than increased wages.

Reflections on the meaning and enjoyment values of leisure behaviors across the life-span must begin with an understanding of perspectives with which leisure and recreation are viewed. Common working definitions of recreation for this presentation include: relaxation, time, activity and meaning dimensions. Each of these will be discussed.

This presentation is concerned with relaxation as an aid in total fitness of the individual's health. It makes a clear distinction that normal or temporary fatigue is wholesome, while abnormal or chronic fatigue is one of the roots of discomfort and dysfunction. It is particularly timely to stress that quietness in body and peace of mind are sources of individual strength, when so many things are being asked of the individual to perform. Often the 'off switch' for the body and mind gets over looked as work schedules stress the 'on switch' for individuals. Too few professional educators and leaders of business and industry are sufficiently concerned about stability and serenity as a means of offsetting psychophysical breakdowns and promoting increased stamina and vitality. Selye and others indicate that it is necessary to face squarely the relationship of over-indulgence, over-worry, fatigue and tensions and their relationship to anxiety and stress. Normal fatigue is good. Chronic failure is pathological or abnormal.

Practical illustration of this definition of recreation is the Jacobson technique of relaxation. Relaxation gives no feeling of numbness. It is a simple negative or absence of feeling. It includes an instruction sheet for the subject for each body part that is in the following format:

Position:	On back with eyelids closed, legs not crossed
Length of period:	Thirty minutes, if you are restless
Tension:	Raise right arm and clench fist. Note the activity in the entire arm.
Relaxation:	Let the arm fall limply, fingers partly uncurled. Do not shift the arm when it falls. Do not hold it stiffly quiet. Rest is continued for several minutes.

A common definition of recreation has been derived from the discretionary time concept of leisure which describes leisure activity within a clock-time reference. This perspective focuses on work until age 65 or retirement age, when all time becomes discretionary time. A practical illustration of this definition of recreation is a Time Budget. The activity focuses on one's usage of time. This activity will take a four day period (2 weekdays and a weekend). The time budget begins with a discussion of people's habits during free time and how they schedule their time in an average day. Then the leader requests that individuals create a diary chart with basic headings listed for TIME, ACTIVITY, FEELINGS, and WHY DID. Using these chart headings, each indiviudal is asked to keep a complete record of what they do from the time they rise in the morning to retiring in the evening for the four days specified. Blocks of time, activity types, reasons for activity, and feelings about the activity are analyzed at a later session.

Defining recreation as an activity defines the participation content and patterns of the individual. Recent expressions in American life-styles that are particularly evident in the elderly are that individuals are seeking self-realization through recreational activities. The indicators of change all point to expanding dimensions of leisure services through park and recreation departments, education, service through social agencies, industry, institutions and tourism. This recent proliferation of leisure opportunities makes it increasingly difficult for individuals to mesh interests with available activities. A Leisure Counseling or a vocational counseling model has been developed in Milwaukee that responds to three human needs: (1) to open doors for people in the mainstream who are seeking to raise the level of their developmental potential, (2) to ease the re-entry of sheltered persons

who may be taking a step away from institutional care into the mainstream; and (3) to provide appropriate activity for the special populations who may be isolated within the mainstream. The Mirenda Leisure Interest Finder is an assessment tool used to help adults determine interest levels in a wide variety of leisure-time pursuits. The individual response to statements using a five-point rating scale then can be used to chart one's profile sheet giving immediate graphic representations of interest in categories (Games-active-inactive, Sports-competitive, noncompetitive, Nature-natural, sportsman, Collection, Homemaking, Homecraft, Art-Music, appreciative-expressive, Educational-Cultural-appreciative-expressive, Volunteer-personal service and administrative, Organizational-persuasive-gregarious). The rating scale is as follows: like very much to dislike very much. The interest finder can be computerized to effectively and economically serve as a leisure counseling or a vocational counseling tool of a large population of indiviudals.

Research of Romney (1945 and Gray 1977) indicate that recreation is more a matter of emotions than motion. The perceptual aspects of feelings and emotions are the key aspects in recreation activity meanings. Defining recreation as a personal sensation of well-being experienced in the process of anticipating, recalling, or engaging in an activity suggests that recreation is the result of an activity and not an activity at all. An operational illustration of this definition of individual meanings is the activity: Twenty Things You Love to Do. The objective is to identify pleasurable recreation activities and then study dimensions of meaning and value associated with each. An important question to consider in a search of lesiure values and meanings is, 'Am I really getting what I want out of life?' Instructions for the activity begin with a listing of fifteen plus things individuals love to

do. These can include big or little things. When all are finished, have each share their list with others in the group. After sharing and adding to the lists, have the individuals code their lists in the following way:

1. Put the letter 'A' by activities done alone.
2. Put the letter 'P' by activities done in group.
3 Put the letter 'A' & 'P' if both.
4. Put a dollar sign ($) if the activity costs more than $2.00 each time it is done.
5. Put 'N5' by activities you did not do five years ago.
6. Put 'PL' by activities that need planning.
7. Put day, month, and year as an indication by the last time you did the activity.

Introducing Some Factors Determining Leisure Activities

Stanley Cath has written about the 'basic anchorages' that we all need in our lives. He states that these anchorages are crucial to each of us:

1. an intact body and body image,
2. an acceptable home,
3. a socio-economic anchorage, and
4. meaningful identity and purpose to life.

Unfortunately, the older adult is very susceptible to changes in each of the above: health and sensory losses, hardening of connective tissue in the skin, loss of sight, hearing, limbs and body parts. The need to move from the family home to a nursing home or institution and the limits in retirement income create problems for the aging adult. Insurance actuaries indicate that only 5% of those injured will be financially solvent at the age of their policy maturing (65). Retirement brings with it no social responsibilities or expectations in terms of work ethic standards and presents a very real change to establish an identity in terms of an emerging leisure ethic or personal use of the discretionary time available. In terms of recreational use of time, it is probably a combination of past experience with present opportunities which mainly determine the

free-time patterns of later maturity. The stereotype of the aged as a chronically ill, disabled person residing in a residential care facility is just not true. About eighty percent of the older adults are functionally independent and not much different except in years lived from any of the rest of us. Shanas' functional behavior measure of six questions may be the most practical assessment of how a person functions. These questions include:

1. Can you go out of doors?
2. Can you walk up and down stairs?
3. Can you get about the house?
4. Can you wash and bath yourself?
5. Can you dress yourself and put on your shoes?
6. Can you cut your own toenails?

By grading these questions, you get a good idea of the functional ability of any aged individual.

Getting Started With a Recreation Program

Recreation Delivery systems can be divided into two approaches--the shotgun approach and the rifle approach. The shotgun approach to programming in recreation involves the provision of a wide range of activities which cater to a broad distribution of individual interests. Consumers select among the activities in a manner that pleases themselves. Little attempt is made to create a program for individual needs, in fact the opposite is probably true. Programs of all types and varieties are provided with the professional trust that someone will be interested in them. The maxim in this approach seems to be 'if it feels good, do it.'

On the other hand, the rifle approach involves the process of developing a program that meets the unique social and personal needs of a unique individual. In the spirit of P.L. 94-142, individual recreation activity programs are created for as many individual elderly as

need them.

On the practical side, the shotgun approach is based on organizing program content into: Special Events, Clubs, Classes, Leagues and Tournaments, as well as barrier-free facilities. The rifle approach focuses on individual programming and an analysis of activities in terms of physical, social, cognitive and emotional skills that the activity requires. In addition to these skills, the activity can be further analyzed in terms of its purpose, procedures for action, rules, number of participants, roles of participants, results or values, in interaction patterns, physical setting, as well as required equipment for the activity.

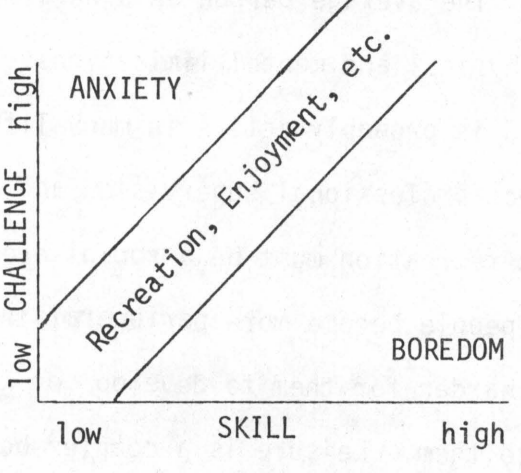
The packaging of programs is important in terms of meeting the individual and collective needs of older adults, but the image that programs project poses a particular hazard to male participation. Some of the recreation program traps that create the non-male image include: 1) predominate female membership, orientation, and decor. Demographically speaking, there are more females available after age 65 in society, but ratios of one male to five females is not necessary. 2) Program content literature for older adults suggests that the elderly tend to reflect a desire to do many activities they enjoyed when younger. Based on this premise, program content that does not relate to men's past experiences has little hope of contributing to men's continued involvement. Contact me about Senior Olympics 1979 as an example of a program that reaches males. 3) Men value the capacity to make decisions and be self-directing. They resist a loss in self-management and efforts by staff to be paternal to them. The number of persons who carry responsibilities for self-government and committee leadership within your program might well be the best index of how well your program is doing.

4) Traditional orientations dictating that all center programs must be held at a particular facility need to be re-evaluated. Men will participate if they are not dependent on a specific facility for all organized activities. There is nothing professionally wrong with holding small group activities in other convenient locations other than the center. 5) Center programs that are closed corporations and seek participants that are 'just like us' are limiting involvement from men. A man will not attend if he feels insecure, threatened by the group, or rejected because of being different or speaking a different language. A lack of adequate transportation is a very serious obstacle to participation in recreation programs for all the elderly. The transportation problem is a community problem. It can be resolved only through community, volunteer, and private groups working together for a common community solution. 6) How a program is offered is as crucial as its' content. The climate created by the staff person in meeting the needs of older adults (male or female) is critical to the response that will be given by the senior citizens. 7) There is a need to be planning for a lot of different kinds of older people. Age becomes important somewhere along the line, but when? A boxer, basketball player or swimmer are old participants in their twenties or thirties. The average person in a nursing home is over 80 and has probable physical and mental limitations. Yet the average senior adult at age 65 is probably active in many life activities and does not require direct professional supervision and control. 8) Many programmers feel that recreation must be a social event. Yet, research indicates that older people become more peripheral in society and it becomes increasingly harder for them to develop or keep social ties that are meaningful to them. Leisure is a complex behavior and must be

understood in stages of interaction. At first participants are onlookers but deeply interested and commited onlookers. They will not participate but they must be dragged away. The second stage is that of parallel play, one person will begin an activity and the person next to him will do the same activity. Soon all are doing the activity by themselves. The mature stage is that of cooperative or group play where they assign tasks and roles to participants to enjoy the activity. Too often, recreation is viewed in the mature stage rather than as a developmental process of three stages.

Motivating Senior Adults

Research by Gray (1977) focused on what older adults actually enjoy and established the elements actually necessary in an activity for it to be enjoyable. Very few of the elderly participated in activities because of material rewards or fame. Most found intrinsic pleasures of the activity enough. Furthermore, their enjoyment did not depend on recognition or recompense. Older adults reported that they often become bored or anxious either because they lack the skills for a certain activity or because their level of skill is much higher than that demanded by the activity. When the challenge of the activity matches the skill of the participant, enjoyment is the result.



The idea of any recreational activity is to provide enjoyment, but if the skill required for an activity is too great, the participant may become worried or anxious. If the challenge is too low, boredom may set in. Trying to develop the proper balance between skills and challenges is the key to motivating older adults to participating in enjoyable activities.

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PRE-RETIREMENT EDUCATION: ARE YOU PLANNING ON LIVING FOR THE REST OF YOUR LIFE?

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Introduction

Retirement - a long awaited and well deserved time when a man can take his leisure, do as he pleases, escape the grind and routine of daily work. It is only in recent times that workers have been able to enjoy the luxury of retirement. But retirement may be a mixed blessing. The identity, structured time, routine, status and social life related to one's employment, not to mention the income, are a large part of many people's lives. The social scientists tell us that a person's occupation is the most significant force by which a person gains status and maintains a life style. What happens when we "lose our job" by retirement? Do we see our personal worth as dependent on our work role? Retirement income is often less than half of former earnings. Over 15% of all persons over 65 live in poverty with the figure much higher (1/3) for all those who live alone. As Sylvia Porter noted in an issue of "Your Money's Worth" the retirement dream for some is an economic nightmare.

Nevertheless, more and more people are opting for early retirement. The recent increase in the mandatory retirement age from 65 to 70 only makes the issue of retirement and when to retire more important. The more personal choice one has, the greater the need for some individual planning and the assistance which can be provided in Pre-Retirement Education Programs (PRE).

Objectives

Certainly the primary goal of PRE is to assist people to make a successful and happy transition from full-time employed to the status called retired. Whether or not this rational planning and preparation can have significant long term impact on social and economic adjustment has not been proven, but the alternative of an abrupt shift with bleak consequences is enough to encourage us to try it. To be sure, PRE is a topic of growing interest and attention --- one possible preventive service to hopefully reduce the number of other aging services some of our elderly will require. It stresses individuality and independence and puts some of the responsibility for the growing national concern about the retired population in the minds of each individual person. In that respect, it can be a good public awareness tool about aging in general.

Some of the probable main objectives of PRE are the following:

It can provide information -- particularly the essential intricate information about retirement benefits plans, Social Security payments, tax facts, etc. These are things that people both want and need to know and they are usually a "safe" introduction into an otherwise scary topic.

It can change attitudes and feelings. Whether or not they admit it, most people face real retirement with some degree of apprehension. Such a drastic change in status, daily routine, contacts, sources of identity and income can understandably produce the stress that Sylvia Porter says ranks a high 9th in a list of 40 top stress situations. Retirement is often not by the person's choice. One may associate it with the entry into old age and whatever unattractive connotations that presents.

It should stimulate personal planning. The PRE session may accomplish some of the two above, but should also motivate the people involved to individualize the information and plan on their own. PRE is an opportunity especially for people in groups to face that which they may have been avoiding, and in groups, to share the experience with the support of others.

It provides an employee benefit and good public relations for the company. Provision of PRE by the enlightened employer demonstrates an interest in the continuing welfare of the person. Providing some of the possible tools for several secure happy years after retirement seems more progressive than the traditional gold watch and dinner. One Phillip Morris employee expressed that he felt their PRE program was the most significant company attempt to assist employees he had experienced in his entire employment. It softens the blow of forced retirement and may also force the employer to upgrade retirement benefits to an acceptable level.

A possible outgrowth of PRE programs may be organizations of retired workers or even continued part-time work opportunities--perhaps even with the same company. Two very interesting examples have been successfully operating for several years in the United Kingdom and in Scotland. The Sons of Rest Workshop, a division of the engineering equipment company, Rubery Owen, began a special division over 20 years ago to provide part-time work for its' retired employees--all 65+. The subsidiary called Sons of Leisure has grown to include 15 separate product lines and a $1.2 million profit.

A similar experiment, also quite successful, in the Netherlands is called "Sterk door Werk" - Strength Through Work.

Pre-Retirement Education - At What Age?

There are questions about who can benefit most from retirement planning. How far ahead can a person plan? Can any real planning take place if a person is too near retirement? Should retirement planning programs be limited to certain age groups?

Some type of retirement planning can begin at any age. Undoubtedly a person's lifelong personality traits and particularly his ability to adjust to change will affect how he adjusts to retirement. Although theoretically it can begin at any age, realistically retirement planning is most likely to begin for the individual when the financial priorities of buying a home, educating children and other major commitments are under control.

Options for the Consumer

For the individual who wants to plan his retirement there are numerous resource materials and methods available. Books such as The Complete Retirement Planning Book by Peter Dickenson and retirement magazines such as "Retirement Living", "Dynamic Maturity" and the AARP "Better Retirement Guide" series are readily available. Newspapers may offer a series of articles such as Sylvia Porter's column of a recent series by Betty Booker in the Richmond Times Dispatch. Radio and T.V. stations also have series. And there are self-assessment and planning guides such as "Ready or Not" and the pamphlet "Are You Planning on Living the Rest of Your Life?" We might call these indirect methods.

Another more personalized method is individual counseling on a one-to-one basis.

Perhaps the best way to maintain a person's interest, and overcome the natural tendency to avoid the subject, is some type of group session. Pre-retirement planning programs are being offered by more and more employers, labor unions, educational, and community service agencies. These group sessions may be one time events or a series of sessions utilizing films, pre-packaged materials, speakers and resource persons, handouts and self-help guides. Individual and group counseling and education might be called direct methods of providing PRE.

Organizing A Program

If your agency or organization encounters individuals who want help in planning their own retirement by all means encourage them and suggest or provide some of the resource materials. Perhaps you will even be able to refer them to a family service or mental health agency were skilled counselors are available. Don't overlook groups like the Cooperative Extension Service of VPI&SU which not only has personnel trained in many areas of key interest to pre-retirees (budget, leisure time, home maintenance) but, also in some places, conducts special pre-retirement education programs for the community.

More and more employers, unions, civic groups, schools, consultants and social service agencies are becoming aware of retirement planning and providing special sessions. You may be involved in planning such a program. I am now referring to group sessions, often in a series, and where leaders and resource people are involved.

Some of the questions are: How many sessions? How long is each session? What age are the participants? What topics will be included? What are the objectives of your program--will it primarily provide information, will it change attitudes, or some combination of

these goals? Will you use a pre-packaged PRE program or design your own materials? What are the best times and dates? Who and what local resources can you use?

Logistics

I would encourage you to identify a specific, somewhat homogeneous and established group to receive the PRE program such as a union, an employer, an employee organization, or fraternal organization. General subscription programs, open to the public, are much more difficult to achieve.

Many "How to do it" guides for PRE consist mostly of a list of subjects or topics and some tips on how to run a good meeting, which any well-organized person should know anyway. It is obvious that you should select a pleasant comfortable meeting place--well lighted and ventilated and accessible to handicapped persons. The use of the Board Room or the best conference room in the company would lend status and significance to the sessions. Have a seating arrangement which will facilitate discussion. Serve refreshments. Insist that spouses (or a friend or other relative) be invited.

A series of sessions from 6 to 10, spread over a few weeks or months, which lasts 1½ to 4 hours seem to be optimum. The size of the group should be 20-25 people for adequate individual participation.

A word about recruitment or invitation: If you have an open subscription on a first come, first serve basis, then advertise in the Madison Avenue style. Use brochures, posters, newspaper, radio, T.V., company newsletter, bulletin boards, etc. If, however, you have a "captive" potential audience, send them a very carefully worded letter of invitation. The concern here is that no employee misinterpret

this to mean that the company is trying to get rid of him. Obviously, you will need a leader and organizing this type of program will take a lot of time. The leader or coordinator should have not only good organizational abilities but also some counseling and group interaction skills.

Content

The content of the PRE program will vary depending on the composition of the group and, ideally, their greatest interests. There are some basic topics which almost inevitably will be included:

Income
Health
Leisure time
Living arrangements

These topics can be greatly expanded and made more specific. The possibilities for what to include are boundless. The City of Baltimore "How to Organize a Pre-Retirement Planning Program" contains an exhaustive breakdown for eight topics. The issue then is not to identify a long list of topics but to select from that list the most appropriate and helpful for your pre-retirement sessions.

So if PRE cannot do everything, what, at minimum, can we expect every session to do?

1. Stimulate interest and person's desire to plan on his or her own;

2. Provide important and necessary factual information;

3. Offer additional sources of information, resource materials and referrals for additional information, counseling and services.

PRE should be a positive encouraging experience--fun and intriguing. Dispel the myths about aging and the dim view of the retirement ahead.

Design

Employ variety. Use a combination of methods -- films, speakers, planning guides, and individual counseling.

You will have to decide initially if one of the pre-packaged programs is for you. Examples are "AIM", "Ready or Not", and "1/3 of Your Life." Their advantages are that they are professionally done, require little preparation on your part, and offer consistency to the program. They may serve as a good introduction to a speaker, group discussion, etc. Their disadvantages are that they can be repetitive, out of date, irrelevant, and expensive.

Whether or not you choose the help of existing audio-visuals and aids, you will still have to do much work. Once the major topics are selected you will have to design each session hopefully to maximize on the three main parts above. A very good technique seems to be use of a local resource speaker -- someone knowledgeable and articulate. Of course, this requires defining the topic and/or providing an outline, reminding, and giving thanks afterward. The speaker can usually answer questions and facilitate group participation which is another important element to keep in mind.

A simple format is to open the session with a brief introduction--facts, statistics, raise questions, and present options. A consciousness raising game or exercise might be a good opener. Then have a speaker with questions, answers and follow-up or a discussion leader, and perhaps several small groups. Then close with a summary, give handouts, if appropriate, and information on further sources of information and assistance.

In addition to speakers, stimulating films, etc., use techniques which involve the pre-retiree and help him to think about his own retirement. Experimental exercises include games such as Retirement Game, time circles, value shield, worksheets on interests, and discussion questions. Many suggestions may be available from a value clarification trainer or someone skilled in life planning and personal growth facilitation. Suggest assignments such as making a budget for retirement, making a will, visiting a retirement community, or touring a new condominium or apartment village, living on a reduced income for a month.

Use retired persons as speakers, group leaders, on a panel--persons with particularly interesting retirement, one retired from the participants company or group. RSVP may have a Speaker's Bureau. Give participants some evidence of success in retirement. Have a second careers day (for the session on employment options) with several "retired" who have assumed new roles in part-time and other work.

Additional Information

There is a growing body of written and other resource material to assist you in presenting your pre-retirement planning program. The Resources Bibliography prepared by the Virginia Office on Aging contains those which we previewed or learned about in the winter of 1978. Undoubtedly there are more.

Retirement is a happy time for most people. The proper forethought and action can make it even more productive and fulfilling for the 23 million older persons in America.

SEMINAR ON AGING PROGRAM

Donaldson Brown Center for Continuing Education

Theme: Issues and Concerns in Gerontology

May 2

3:00 p.m.	Registration	Lobby
6:30 p.m.	Seminar Banquet	Commonwealth Dining Room - Area D
	Presiding:	*Dr. S. J. Ritchey*
	Invocation:	*Dr. Ruth D. Harris*
	Welcome:	*Dr. W. E. Lavery*
	Keynote Address:	"Our Future Selves - Key Issues and Concerns in Gerontology" *Dr. George L. Maddox*
	Entertainment:	*The 49'ers Club*, Senior Citizen Group

May 3

8:00 a.m.	Registration	Lobby
8:30 a.m.	General Session	Front Auditorium
	Presiding:	*Ethel L. Grubbs*
	Address:	"How We Have Dehumanized Aging: Making Old Age A Social Problem" *Dr. Greg Arling*
9:45 a.m.	Refreshment Break	Lobby
10:15 a.m.	*I WORKSHOPS*	(1st Time and Concurrent)

"*Adequate Housing For Older People*" Conference Room F
Dr. H. L. Rice

"*Consumer Concerns of Older People*" Conference Room D-E
E. Hope Frank
Thomas R. Reinders

"*Developing Programs With Older People*" Conference Room A
Karl Bren

"*Maintaining Independence in Later Years*" Conference Room C
Dr. John L. Harris, Jr.

"*Recreational Needs As One Grows Older*" Conference Room B
Dr. Howard Gray

12:15 p.m. Lunch on your own

1:30 p.m. *I WORKSHOPS* (Repeat and Concurrent)

3:30 p.m. Refreshment Break Lobby

4:00 p.m. General Session Front Auditorium

Presiding: *Dr. George Hughston*

Address: "Significance of Exercise in Coronary Artery Disease"
Dr. William Herbert
Dr. William Webster

5:00 p.m. Dinner on your own

7:00 p.m. *II WORKSHOPS* (1st Time and Concurrent)

"Counseling Older People" Conference Room D-E

Dr. George A. Hughston
Dr. James F. Keller

"Life Fulfillment in Later Years" Conference Room A

Dr. Larry Mullins

"Mental Health in Later Years" Conference Room F

Dr. Martita Lopez
Mr. Greg Williams

"Nutritional Needs in Later Years" Conference Room B

Dr. Janette Taper
Dr. Jane Wentworth

"Pre-Retirement Education" Conference Room C

Miss Betty Stagg

May 4

8:30 a.m. *II WORKSHOPS* (Repeat and Concurrent)

10:30 a.m. Refreshment Break Lobby

10:45 a.m. General Session Front Auditorium

Presiding: *Ethel L. Grubbs*

Address: "The National Institute on Aging"
Dr. Michael P. Dieter

Presentation of CEU Certificates
Mr. Walter L. Saunders, Jr.

12:15 p.m. Adjourn

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